



Our ref: CORP F2022/000388  
Receipt No: 16734575

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17 November 2022

The Hon Nicola Centofanti MLC  
Member of the Legislative Council  
Parliament House  
ADELAIDE SA 5000

Dear Ms Centofanti

### Determination under the *Freedom of Information Act 1991*

I refer to your application made under the *Freedom of Information Act 1991* which was received by the Department of Primary Industries and Regions (PIRSA) on 11 October 2022, seeking access to the following:

*"Copy of all documents (including but not limited to hard copy or electronic briefings, minutes, reports, emails, letters, meeting agendas, diary entries, placemats, event attendance records and any other correspondence) between Department of Primary Industries and Regions South Australia and the Minister for Primary Industries and Regional Development (including directly with staff within the office of the Minister for Primary Industries), relating to business cases developed or under development as part of the National Water Grid program."*

Timeframe: 21/03/2022 to 11/10/2022

Pursuant to Section 27 of the Freedom of Information Act, third party consultation was required to be undertaken and sufficient time was necessary to undertake this process. Accordingly, I apologise for the delay in responding to your application.

The following determination has been finalised.

I have located twenty-one documents that are captured within the scope of your request.

#### **Determination 1**

I have determined that access to the following documents is **granted in full**:

Doc No.	Description of document	No. of Pages
1	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 8/4/2022 re National Water Grid Fund – Revised Schedule to the Federation Funding Agreement Infrastructure	3

1a	Attachment to Document 1 - Federation Funding Agreement - Infrastructure	8
1b	Attachment to Document 1 – Schedule – National Water Grid Fund – Federation Funding Agreement Infrastructure	11
1c	Attachment to Document 1 - Media Release dated 16/2/2022 re Delivering a secure and sustainable water future for South Australia	3
1d	Attachment to Document 1 - Media Release dated 10/3/2022 re Business case for new recycled water supply at McLaren Vale	2
1e	Attachment to Document 1 – Draft letter to Deputy Prime Minister, Minister for Infrastructure, Transport and Regional Development	1
3	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 7/6/2022 re Barossa New Water Project – Status Update	4
3b	Attachment to Document 3 – Barossa New Water Dashboard document	2
5	Emails between M Smith (Office of the Minister for Primary Industries and Regional Development) and P Appleford (PIRSA) dated 27/9/2022 re Feasibility studies	2
8	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 8/8/2022 re Release of the Clare Valley Water Strategic Supply Availability Review Report (redacted version)	4
8a	Attachment to Document 8 – Clare Valley Water Strategic Supply Availability Review (redacted version) dated 23/12/2021	67

## **Determination 2**

I have determined that access to the following document is **granted in part**:

<b>Doc No.</b>	<b>Description of document</b>	<b>No. of Pages</b>
4	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development noted on 31/8/2022 re Meeting with Barossa Infrastructure Limited	5

The information removed from the above document is pursuant to Clause 1(1)(e) and Clause 7(1)(c) of Schedule 1 of the Freedom of Information Act.

Clause 1(1)(e) states:

### ***“1 – Cabinet documents***

*(1) A document is an exempt document –*

*(e) if it contains matter the disclosure of which would disclose information concerning any deliberation or decision of Cabinet;”*



The information removed pursuant to Clause 1(1)(e) would reveal detail of a matter for consideration in Cabinet.

Clause 7(1)(c) states:

***“7 – Documents affecting business affairs***

*(1) A document is an exempt document –*

*(c) if it contains matter –*

- (i) consisting of information (other than trade secrets or information referred to in paragraph (b)) concerning the business, professional, commercial or financial affairs of any agency or any other person; and*
- (ii) the disclosure of which –*
  - (A) could reasonably be expected to have an adverse effect on those affairs or to prejudice the future supply of such information to the Government or to an agency; and*
  - (B) would, on balance, be contrary to the public interest”*

The information removed consists of the business affairs of a third party in preparing a business case for the consideration of Government.

In addressing the public interest test requirement for the Clause 7 exemption, I have balanced the following factors:

*In favour of the public interest:*

- Meeting the objects of the Act favouring access to documents.
- Ensuring optimal use of public resources.
- High level of interest in the accountability of public office holders.
- The importance of transparency and openness and the interest that the public has in the decision-making processes of Government.

*Contrary to the public interest:*

- Protecting the commercial and business interests of third parties in preparing a business case for presentation to Government for consideration.
- The recent age of the information and the ongoing relevance of the matter was considered.
- If third parties cannot be assured of confidentiality by Government with respect to communications relating to their commercially sensitive information, this would have the potential to harm business relationships with Government and hamper future dealings with agencies for the betterment of South Australia.
- Disclosure of this information would be expected to prejudice the future supply of information to Government, as the level of trust in handling such information would be substantially diminished.

Having considered the various factors weighing for and against disclosure, I have determined that disclosure of this information would, on balance, be contrary to the public interest.

### **Determination 3**

I have determined that access to the following document is **granted in part**:

Doc No.	Description of document	No. of Pages
3a	Attachment to Document 3 – New Water Infrastructure to the Barossa Project – Barossa New Water Project - Probity Plan and Communications Protocols dated 23/5/2022	20

The information removed from the above document is pursuant to Clause 7(1)(c) of Schedule 1 of the Freedom of Information Act.

The information removed consists of the business affairs and intellectual property of a third party.

In addressing the public interest test requirement for the Clause 7 exemption, I have balanced the following factors:

*In favour of the public interest:*

- Meeting the objects of the Act favouring access to documents.
- Ensuring optimal use of public resources.
- High level of interest in the accountability of public office holders.
- The importance of transparency and openness and the interest that the public has in the decision-making processes of Government.

*Contrary to the public interest:*

- Protecting the commercial and business interests of third parties.
- The recent age of the information and the ongoing relevance of the matter was considered.
- If third parties cannot be assured of confidentiality by Government with respect to communications relating to their commercially sensitive information, this would have the potential to harm business relationships with Government and hamper future dealings with agencies for the betterment of South Australia.
- Disclosure of this information would be expected to prejudice the future supply of information to Government, as the level of trust in handling such information would be substantially diminished.

Having considered the various factors weighing for and against disclosure, I have determined that disclosure of this information would, on balance, be contrary to the public interest.



#### **Determination 4**

I have determined that access to the following documents is **refused**:

Doc No.	Description of document	No. of Pages
2a	Attachment to Document 2 – Cabinet document	30
9b	Attachment to Document 9 – Cabinet document	27

Access to the above documents is refused pursuant to Clause 1(1)(a) of Schedule 1 of the Freedom of Information Act which states:

***“1 – Cabinet documents***

*(1) A document is an exempt document –*

*(a) if it is a document that has been specifically prepared for submission to Cabinet (whether or not it has been so submitted);”*

The documents were prepared for tabling at a Budget Cabinet Committee meeting.

#### **Determination 5**

I have determined that access to the following documents is **refused**:

Doc No.	Description of document	No. of Pages
2	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 22/7/2022 re Cabinet matter	4
2b	Attachment to Document 2 – Cabinet matter	2
9	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 13/9/2022 re Cabinet matter	4
9a	Attachment to Document 9 – Cabinet matter	2

Access to the above documents is refused pursuant to Clause 1(1)(e) of Schedule 1 of the Freedom of Information Act which states:

***“1 – Cabinet documents***

*(2) A document is an exempt document –*

*(e) if it contains matter the disclosure of which would disclose information concerning any deliberation or decision of Cabinet;”*

Disclosure of these documents would reveal detail of matters considered in Cabinet.

## **Determination 6**

I have determined that access to the following documents is **refused**:

Doc No.	Description of document	No. of Pages
6	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 20/4/2022 enclosing attachments re proposal	23
7	Departmental Workflow Request dated 7/4/2022 encl email to Premier dated 4/4/2022	4

Access to the above documents is refused pursuant to Clause 7(1)(c) of Schedule 1 of the Freedom of Information Act.

The documents consist of and refer to business proposals from third parties where there is a clear understanding that they were forwarded based on being strictly confidential and not for distribution.

In addressing the public interest test requirement for the Clause 7(1)(c) exemption, I have balanced the following factors:

### *In favour of the public interest:*

- Meeting the objects of the Act favouring access to documents.
- Ensuring optimal use of public resources.
- High level of interest in the accountability of public office holders.
- The importance of transparency and openness and the interest that the public has in the decision-making processes of Government.
- High level of community and media interest in biosecurity risks to Australia.

### *Contrary to the public interest:*

- Protecting the commercial and business interests of third parties.
- The need to protect the disclosure of proposals submitted to the State Government prior to full consideration.
- The recent age of the documents and the ongoing relevance of the matters was considered.
- The release of this information would discourage the organisations concerned and other third parties from engaging with PIRSA to the detriment of the betterment of South Australia.
- Disclosure of this information would be expected to prejudice the future supply of information to Government, as the level of trust in handling such information would be substantially diminished.

Having considered the various factors weighing for and against disclosure, I have determined that disclosure of these documents would, on balance, be contrary to the public interest.



If you are dissatisfied with this determination, you are entitled to exercise your right of review and appeal as outlined in the attached documentation <https://archives.sa.gov.au/finding-information/information-held-sa-government/making-freedom-information-application#Review>, by completing the "FOI Application Form for Internal Review of a Determination" and returning the completed form to:

Freedom of Information Principal Officer  
Department of Primary Industries and Regions  
GPO Box 1671  
ADELAIDE SA 5001

or via email [PIRSA.FOI@sa.gov.au](mailto:PIRSA.FOI@sa.gov.au)

In accordance with the requirements of Premier and Cabinet Circular PC045, details of your application, and the documents to which you are given access, will be published in PIRSA's disclosure log. A copy of PC045 can be found at [http://dpc.sa.gov.au/data/assets/pdf\\_file/0019/20818/PC045-Disclosure-Log-Policy.pdf](http://dpc.sa.gov.au/data/assets/pdf_file/0019/20818/PC045-Disclosure-Log-Policy.pdf)

If you disagree with publication, please advise the undersigned in writing within fourteen calendar days from the date of this determination.

Should you require further information or clarification with respect to this matter, please contact Ms Lisa Farley, Senior Freedom of Information Advisor on 8429 0422 or email [PIRSA.FOI@sa.gov.au](mailto:PIRSA.FOI@sa.gov.au).

Yours sincerely



Michelle Griffiths

**Accredited Freedom of Information Officer**  
**DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONS**



Minute to  
**Minister for Primary Industries and Regional Development**  
**Minister for Forest Industries**

Ref: eA196901



For	Noting and Signature
Critical Date	14 April 2022
Subject	National Water Grid Fund – Revised Schedule to the Federation Funding Agreement Infrastructure

### Synopsis

The Deputy Prime Minister, the Hon Barnaby Joyce MP, has written requesting you co-sign the revised National Water Grid Fund Schedule to the *Federation Financing Agreement - Infrastructure*, for water infrastructure projects in South Australia. The Fund supports water infrastructure projects and investment decisions to deliver new and affordable water, enhance water security and help stimulate regional economic development through supporting existing primary industries and new and expanded agriculture. The agreement relates to previously agreed funding allocations and does not commit the state to any further funding commitments.

It is recommended that you co-sign the revised Schedule to formally secure Commonwealth funding to South Australia for recently approved water infrastructure projects.

### Recommendations

That you:

1. Sign the revised National Water Grid Fund Schedule to the *Federation Financing Agreement – Infrastructure* to formally secure the funds to South Australia for the recently approved water infrastructure projects.

SIGNED/NOT SIGNED

2. Approve and sign the attached letter of response to the Deputy Prime Minister, to accompany the co-signed Schedule.

APPROVED / NOT APPROVED

Hon Clare Scriven MLC  
**Minister for Primary Industries  
and Regional Development**  
**Minister for Forest Industries**

23 / 4 / 2022

### Ministerial Comments



## Background

- The National Water Grid Fund is an initiative from the Commonwealth Government's Agricultural Competitiveness White Paper. The initiative supports the establishment of water infrastructure to deliver new and affordable water, enhance water security and help stimulate regional economic development through supporting existing primary industries and new and expanded agriculture.
- The Fund is administered by the National Water Grid Authority (NWGA). Funding is provided to state and territory governments for feasibility studies, business cases, science projects, and construction of water infrastructure through a *Federation Financing Agreement (FFA) - Infrastructure*, which includes a bilateral schedule laying out the details of project milestones and payments.
- Commonwealth funding contributions are capped at 50% of the total capital/construction costs for delivery of a project, but the Commonwealth retains discretion to offer up to 100% of the costs of feasibility studies, business cases and science projects.
- As the Minister for Primary Industries and Regional Development, you are the South Australian signatory to the *FFA - Infrastructure* Schedule for projects funded in this way, with the Deputy Prime Minister responsible at the Commonwealth level.
- The Department of Primary Industries and Regions (PIRSA) is responsible for the overall leadership, administration and governance arrangements with the NWGA for the Fund in South Australia. This includes managing project funding agreements and the agricultural water infrastructure investment policy framework across government.
- PIRSA's role includes supporting business investment opportunities where project proponents are seeking Commonwealth funding or State Government support to facilitate water infrastructure projects to increase agricultural growth and production.
- In August 2020, the Council on Federal Financial Relations established the new Federation Funding Agreements (FFAs) framework to consolidate existing National Partnership Agreements and Project Schedules. An FFA is an overarching agreement that sets out the terms and conditions of the project funding Schedules attached to it.
- There are five overarching sectoral FFAs, including: *Affordable Housing, Community Services and Other; Education and Skills; Environment; Health; and Infrastructure*. Water infrastructure projects are under the *FFA – Infrastructure* (Attachment A).
- On 29 March 2022, the Deputy Prime Minister wrote requesting co-signature of the revised Schedule to the *FFA - Infrastructure* to formally secure the funds to South Australia for recently approved water infrastructure projects. The Deputy Prime Minister has already signed the Schedule (Attachment B).
- The revised Schedule includes 2 new business cases and 3 science projects:
  - Northern Water Supply Business Case (Media Attachment C)
  - McLaren Vale Irrigation Water Security Business Case (Media Attachment D)
  - Further sustainable expansion of irrigated agriculture along the Northern Adelaide Corridor
  - Optimising the agricultural uses of varying water qualities in the Barossa Region
  - Adaptation of the South-Eastern Drainage System under a changing climate.

## Discussion

- Since the Fund was established PIRSA has been consistently successful in identifying proposals and securing and leveraging funding totalling:
  - \$10.77m for five business cases (in progress);
  - \$3.7m for two preliminary business cases (completed);

- \$239.6m (state/commonwealth/private/council) for 23 water infrastructure projects (two completed; 21 in progress);
- \$2.9m for three science projects (in progress).
- PIRSA works with proponents and government agencies to facilitate delivery of the projects outlined above, to identify current and emerging project opportunities and to address constraints to agricultural productivity.
- Project details, scope, milestones and timing for payments outlined in the Schedule have been negotiated and agreed at officials' level between the NWGA and PIRSA (in consultation with agencies/proponents as needed).
- Briefings on individual projects can be provided to you separately.

#### **Financial implications**

- The agreement relates to previously agreed funding allocations and does not commit the state to any further funding commitments.
- Commonwealth officials advised the next available timing for funding applications for construction capital or business cases is likely to be mid-late July 2022, for the 2022-23 Commonwealth Budget Mid-Year Economic and Financial Outlook update.

#### **Attachments**

- A. *Federation Financing Agreement - Infrastructure*
- B. Revised National Water Grid Fund Schedule to the *Federation Financing Agreement - Infrastructure*, for signing
- C. Northern Water Supply Business Case (Media Release)
- D. McLaren Vale Irrigation Water Security Business Case (Media Release)
- E. Letter of response to the Deputy Prime Minister.



#### **CHIEF EXECUTIVE**

Department of Primary Industries and Regions

8/4/2022

<b>CONTACT</b>	Bengy Paolo
<b>POSITION</b>	Director, Major Programs
<b>DIVISION</b>	Rural Solutions
<b>MOBILE and LANDLINE</b>	0417 088 379
<b>PREPARED BY</b>	Bengy Paolo



# FEDERATION FUNDING AGREEMENT – INFRASTRUCTURE

An agreement between

- the **Commonwealth of Australia** and
- the **States and Territories**, being:
  - ◆ New South Wales
  - ◆ Victoria
  - ◆ Queensland
  - ◆ Western Australia
  - ◆ South Australia
  - ◆ Tasmania
  - ◆ the Australian Capital Territory
  - ◆ the Northern Territory

This Agreement will contribute to the delivery of specified initiatives in the Infrastructure sector. It consolidates current funding arrangements in the Infrastructure sector, with the exception of sector wide funding arrangements. It also provides a framework for facilitating future funding initiatives in the Infrastructure sector.

# Federation Funding Agreement – Infrastructure

## OVERVIEW

1. This Federation Funding Agreement (Agreement) is created subject to the provisions of the Intergovernmental Agreement on Federal Financial Relations (IGA FFR) and should be read in conjunction with that Agreement and its Schedules, which provide information in relation to performance reporting and payment arrangements under the IGA FFR.

## Purpose

2. This Agreement will contribute to the delivery of specified initiatives in the Infrastructure sector. It consolidates and rationalises National Partnership Agreements, Project Agreements and Schedules under the National Partnership for Streamlined Agreements in the Infrastructure sector, into Schedules under this agreement.
3. This agreement provides a framework for facilitating initiatives in the Infrastructure sector. Establishing this sector based agreement seeks to reduce the complexity in the funding arrangements to states while maintaining accountability and transparency.
4. This Agreement contributes to the reduction of the overall number of agreements between the Commonwealth and the States by consolidating National Partnership Agreements, and Project Agreements into Schedules attached to this agreement (FFA Schedules).

## Reporting Arrangements

5. Reporting requirements in existing National Partnership Agreements, and Project Agreements will not change due to their consolidation in this agreement.
6. Reporting ensures all parties are satisfied milestones and outcomes funding is provided for are met. For future funding agreements, reporting requirements will be proportionate to the scale of funding and risk. Reporting will be meaningful and assist public understanding of how the funding has delivered benefit to the community.
7. Reporting arrangements for the duration of this Agreement are set out in Part 4 – Performance Management and Reporting.

## Financial Arrangements

8. The Commonwealth and States' estimated financial contributions to the operation of this Agreement are set out in each FFA Schedule. Consolidation of agreements does not alter existing funding levels or funding profiles.



## PART 1 – FORMALITIES

### Parties to this Agreement

9. This Agreement is between the Commonwealth of Australia (the Commonwealth) and the States and Territories (the States). FFA Schedules to this Agreement are between the Commonwealth and signatory States.

### Term of the Agreement

10. This Agreement will commence as soon as the Commonwealth and one other Party sign it.
11. The arrangements under this Agreement will be ongoing unless otherwise agreed by all Parties. CFFR's review of funding agreements may lead to variations to this Agreement.
12. This Agreement consolidates all National Partnership Agreements and Project Agreements related to the Infrastructure sector. This Agreement also transfers the Infrastructure sector Schedules from the National Partnership for Streamlined Agreements, and applies the clauses in the body of this Agreement to those Schedules. The list of consolidated agreements is at Attachment A.
13. General arrangements that apply to all initiatives are set out in the body of this Agreement. Specific arrangements for individual initiatives are set out in individual FFA Schedules. There are no changes to existing arrangements under FFA Schedules. In the event of an inconsistency between the FFA Schedules and this Agreement, the FFA Schedules will prevail.
14. Future FFA Schedules to this Agreement commence as soon as the Commonwealth and the relevant Party/Parties sign them and expire on completion of the initiative, including final performance reporting and processing of final payments against milestones.

## PART 2 – OBJECTIVES AND OUTPUTS

### Objectives

15. This Agreement will:
  - a. contribute to the delivery of specified initiatives in the Infrastructure sector.
  - b. consolidate current funding arrangements for the Infrastructure sector into one agreement, with the exception of sector wide funding arrangements; and
  - c. provide a framework for facilitating future funding initiatives in the Infrastructure sector, that reduces complexity while maintaining accountability and transparency.

### Outputs

16. Outputs of individual initiatives to be delivered under the Agreement are set out in the individual FFA Schedules.
17. The objectives of this Agreement will be achieved by:
  - a. providing a framework for facilitating initiatives in the Infrastructure sector; and
  - b. reducing the number of agreements by consolidating National Partnership Agreements, Project Agreements and Schedules under the National Partnership for Streamlined Agreements in the Infrastructure sector, into Schedules under this agreement.

## PART 3 – ROLES AND RESPONSIBILITIES OF EACH PARTY

18. Under this Agreement, the Parties have specific roles and responsibilities, as outlined below. Any additional roles specific to individual initiatives will be outlined in the FFA Schedules. This Agreement will not alter any of the existing roles and responsibilities which are set out in existing FFA Schedules.

### Role of the Commonwealth

19. The Commonwealth agree to be responsible for:
- a. providing a financial contribution to the States to support the implementation of the initiatives as specified in the FFA Schedules;
  - b. monitoring and assessing the performance in the delivery of the initiatives under FFA Schedules to ensure that outputs are delivered and outcomes are achieved within the agreed timeframe;
  - c. where applicable to the initiatives outlined in the FFA Schedules<sup>1</sup>, in accordance with the *Building and Construction Industry (Improving Productivity) Act 2016*, ensuring that financial contributions to a building project or projects are only made where a builder or builders accredited under the Australian Government Building and Construction WHS Accreditation Scheme is contracted; and
  - d. where applicable to the initiatives outlined in the FFA Schedules<sup>1</sup>, ensuring that compliance with the Code for the Tendering and Performance of Building Work 2016 (Building Code 2016) is a condition of Australian Government funding.

### Role of the States and Territories

20. The States agree to be responsible for:
- a. all aspects of delivering on initiative outputs and outcomes set out in the FFA Schedules to which they are a party;
  - b. reporting on the delivery of outputs and outcomes to which they have agreed as set out in the FFA Schedules and in Part 4 – Performance Management and Reporting;
  - c. where applicable to the initiatives outlined in the FFA Schedules to which they are a party<sup>1</sup>, ensuring that financial contributions to a building project or projects are only made where a builder or builders accredited under the Australian Government Building and Construction WHS Accreditation Scheme is contracted; and
  - d. where applicable to the initiatives outlined in the FFA Schedules to which they are a party<sup>1</sup>, ensuring that compliance with the Building Code 2016 is made a condition of tender for and performance of building work by all contractors and subcontractors, and providing the necessary assurances to the Commonwealth.

### Shared roles and responsibilities

21. The Parties will meet the requirements of Schedule E, Clause 26 of the IGA FFR, by ensuring that prior agreement is reached on the nature and content of any events, announcements,

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<sup>1</sup> See interpretation

promotional material or publicity relating to activities under this Agreement, and that the roles of both Parties will be acknowledged and recognised appropriately.

## **PART 4 – PERFORMANCE MONITORING AND REPORTING**

### **Performance benchmarks or milestones**

22. Milestones for initiatives, their relationship to the activities, expected completion dates, relevant reporting dates and expected payments to be made will be set out in the FFA Schedules. The Parties agree to meet the milestones and/or performance benchmarks set out in these FFA Schedules. The Commonwealth will make payments subject to the performance report demonstrating the relevant milestone has been met. Milestones should reflect the completion of a phase of the initiative.
23. The States will provide performance reports in accordance with requirements they have agreed to in FFA Schedules. The States will report the minimum required to demonstrate that milestones have been met against the agreed performance benchmarks or milestones, that is, yearly and at most six-monthly. Each performance report is to contain a description of actual performance in the period to date against the initiative milestones.
24. Reporting requirements should be proportionate to the risk involved by the initiative. States have the flexibility to determine how best to meet the reporting requirements of this Agreement and can make use of any appropriate data sources, including existing State reporting mechanisms.
25. Performance indicators should be meaningful, simple and comprehensible to the public. Indicators should be limited to those necessary to measure performance and inform the public about progress of initiatives or other outputs.
26. This Agreement will not alter any of the States existing reporting requirements under the FFA Schedules.

## **PART 5 – FINANCIAL ARRANGEMENTS**

### **Financial contributions**

27. The Commonwealth's and the States' estimated financial contributions to the operation of this Agreement, including through National Partnership payments to the States paid in accordance with Schedule D — Payment Arrangements of the IGA FFR, are shown in the FFA Schedules. All payments are GST exclusive.
28. Budgets contained in the FFA Schedules are indicative only and States retain the flexibility to move funds between components and/or years, as long as outcomes are not affected. The Commonwealth contribution can only be moved between years with the agreement of the Commonwealth.
29. If a milestone is met in advance of the due date, where the relevant performance report demonstrates that the milestone has been met, the Commonwealth may make the associated payment earlier than scheduled provided it falls within the same financial year as the original milestone date.
30. The Commonwealth's funding contribution will not be reduced where the States secure funding from other activity partners.
31. Unless otherwise stated, having regard to the agreed estimated costs of initiative specified in FFA Schedules to this Agreement, the States will not be required to pay a refund to the



Commonwealth if the actual cost of the initiative is less than the agreed estimated cost of the initiative. Similarly, the States bear all risk should the costs of an initiative exceed the agreed estimated costs. The Parties acknowledge that this arrangement provides the maximum incentive for the States to deliver initiatives cost effectively and efficiently.

32. This Agreement will not alter any existing funding levels, funding arrangements or funding profiles under the FFA Schedules.

## PART 6 – GOVERNANCE ARRANGEMENTS

### Enforceability of the Agreement

33. The Parties do not intend any of the provisions of this Agreement to be legally enforceable. However, this does not lessen the Parties' commitment to this Agreement.

### Review of the Agreement

34. To assess if the agreement is fit for purpose and the degree to which the agreed objectives have been achieved, a review of the Agreement may commence by July 2021.

### Variation of the Agreement

35. This Agreement (excluding the FFA Schedules) may be varied or terminated at any time by agreement in writing by all the Parties.
36. FFA Schedules may be amended or added at any time by agreement in writing by all relevant Commonwealth and State portfolio ministers. Attachment A may be consequentially amended to include initiatives that are added to this Agreement.
37. FFA Schedules and/or *Performance requirements, reporting and payment summary* Tables that have no impact on other Parties to the FFA Schedules may be amended or agreed at any time by agreement in writing by the relevant Commonwealth and State portfolio ministers.
38. For multilateral FFA Schedules, performance milestones or benchmarks, reporting dates, associated payments and summary of estimated financial contributions that have no impact on other Parties to the FFA Schedules may be amended at any time by agreement in writing by the relevant Commonwealth and State portfolio ministers.
39. A Party to the Agreement may terminate their participation in the Agreement at any time by notifying all Parties in writing.

### Delegations

40. The relevant Commonwealth Minister is authorised, as agreed by CFFR, to agree and amend FFA Schedules and to certify that performance benchmarks set out in relevant Schedules have been achieved, so that payments may be made.
41. The relevant Commonwealth Minister may delegate the assessment of project-based performance benchmarks or milestones in FFA Schedules and the authorisation of related project payments to senior Commonwealth officials, having regard to the financial and policy risks associated with those payments.
42. Attachment A can be amended by Commonwealth Treasury officials responsible for Commonwealth-State relations.

## Dispute resolution

- 43. Any Party may give notice to other Parties of a dispute under this Agreement.
- 44. Officials of relevant Parties will attempt to resolve any dispute in the first instance.
- 45. If a dispute cannot be resolved by officials, it may be escalated to the relevant Ministers.

## Interpretation

- 46. The Australian Government Building and Construction WHS Accreditation Scheme (the Scheme) and the Building Code 2016 (the Code) (as amended from time to time) apply to all construction projects indirectly funded by the Australian Government through grant and other programs where, from 1 January 2015:
  - a. for the purposes of the Scheme, the value of the Commonwealth contribution is at least \$6,000,000 (including GST) and represents at least 50% of the total project value, and for the purposes of the Code, the value of the Commonwealth contribution is at least \$5,000,000 (including GST) and represents at least 50% of the total project value; or
  - b. for the purposes of the Scheme and Code, the value of the Commonwealth contribution is \$10,000,000 (including GST) or more, irrespective of the proportion of Commonwealth funding; and
  - c. for the purposes of the Scheme, the head contract for building work is valued at \$4,000,000 or more, and for the purposes of the Code, the head contract for building work is valued at \$3,000,000 or more.
- 47. In this Agreement:
  - a. **FFA Schedules** means all initiatives under this agreement.

## LIST A – ALL SCHEDULES TO THE NATIONAL PARTNERSHIP FOR STREAMLINED AGREEMENTS CONSOLIDATED UNDER THIS AGREEMENT

Name of Schedule
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## LIST B – ALL NATIONAL PARTNERSHIP AGREEMENTS CONSOLIDATED UNDER THIS AGREEMENT

Name of Agreement
Land Transport Infrastructure Projects (2019-2024)

## LIST C – ALL PROJECT AGREEMENTS CONSOLIDATED UNDER THIS AGREEMENT

Name of Agreement
Adelaide City Deal
Barkly Regional Deal
Darwin City Deal: Education and Community Precinct
Geelong City Deal
Launceston City Deal - Tamar River Estuary Catchment Management
Launceston City Deal - Tamar River Estuary Urban Water
Townsville City Deal: Port of Townsville Channel Capacity Upgrade
Western Sydney City Deal



## Schedule

## National Water Grid Fund

FEDERATION FUNDING AGREEMENT INFRASTRUCTURE

**Table 1: Formalities and operation of schedule**

Parties	<p>Commonwealth</p> <p>New South Wales</p> <p>Victoria</p> <p>Queensland</p> <p>Western Australia</p> <p>South Australia</p> <p>Tasmania</p> <p>Northern Territory</p> <p>Australian Capital Territory</p>
Duration	<p>This Schedule will commence as soon as the Commonwealth and one other Party sign it and will expire on 30 June 2031.</p>
Purpose	<p>This Schedule will support the development and delivery of nationally important water infrastructure projects that support primary industries and unlock potential, promote the growth and sustainability of regional economies, and build resilience.</p> <p>In entering into this Schedule, the Commonwealth and the States and Territories (the States) recognise they have a mutual interest in improving outcomes through national water infrastructure development and need to work together to achieve those outcomes.</p>
Related Documents	<p>This Schedule must also be read in conjunction with the National Water Grid Investment Framework (the Framework) and the National Water Grid Authority's Science Strategy.</p>
Estimated financial contributions	<p>Details of the Commonwealth and the States' estimated financial contributions to the operation of this Schedule are set out in the tables below and the relevant appendices to this Schedule.</p> <p>State funding contributions may include contributions from third parties including local governments and other non-government organisations.</p> <p>Commonwealth contributions will be provided upon the achievement of agreed project milestones by the relevant State.</p>

Funding arrangements	<p><i>Capital works</i></p> <p>The Commonwealth may offer a combination of funding and finance of up to 50 per cent of the project's total capital costs for delivery.</p> <p><i>Development funding</i></p> <p>The Commonwealth will seek a financial co-contribution for all project proposals. However, the Commonwealth may agree to provide up to 100 per cent of funds for elements of business case development and science projects, at its discretion.</p> <p><i>Project cost savings</i></p> <p>Where projects are delivered for less than the agreed estimated costs, States should work with the Commonwealth to agree a reallocation of the remaining Commonwealth contribution to other water infrastructure projects within their jurisdiction, consistent with the principles of the Framework and the objectives of this Schedule.</p>
Project milestones	<p>The States will deliver the water infrastructure projects set out in this Schedule and its Appendices, based on project milestones which have been jointly agreed and which may, by written agreement, be varied by the relevant parties from time to time.</p>
Commonwealth Funding Recognition	<p>In addition to the requirements set out in clause 21 of the Federation Funding Agreement for Infrastructure, States agree to:</p> <ul style="list-style-type: none"> <li>(a) recognise the Commonwealth's funding contribution to projects in all publications, promotional and advertising materials, including project signage, and public announcements and activities in relation to a project as appropriate, and must consult the Commonwealth prior to release of all promotional-related materials concerning projects funded through this Schedule;</li> <li>(b) provide reasonable opportunity for the Commonwealth to contribute to developing communications strategies for projects with a Commonwealth funding contribution;</li> <li>(c) provide the Commonwealth with equal access to products that they obtain for use in the development of promotional material including but not limited to project data, footage and images; and</li> <li>(d) where the Commonwealth is a majority funder of a project, promotional material and public recognition should provide major prominence to the Commonwealth's contribution, with the Parties to agree the content and timing.</li> </ul>
Variations and Delegations	<p>Senior Commonwealth and State Officials are authorised to make non-material changes to project milestones as set out in the Appendices to this Schedule, as agreed in writing by both parties, having due regard to financial and policy risks.</p>



**Table 6A: South Australia – Projects and payment summary**

Outputs (Projects)	Project scope	Total Commonwealth contribution	Total non-Commonwealth contribution
<b>New Water Infrastructure to Barossa Detailed Business Case</b>	<p>The Detailed Business Case will investigate the viability of delivering new water supply to Barossa and Eden Valleys that addresses industry demand from the wine, livestock, and horticulture sectors. New water sources would provide security from declining rainfall, surface water and underground water availability.</p> <p>The proposed project aims to provide secure, climate independent and new water infrastructure, support growth and productivity to the broader region for primary industries, and help meet long term market demand.</p> <p>The Business Case will consider infrastructure options to treat, transfer, and distribute high-quality recycled water that is able to complement other water sources and supplies and to bring long-term water security and certainty to the region.</p>	\$3,500,000	\$1,550,000
<b>Eden Valley Raw Water Scheme Preliminary Business Case</b>	<p>The Preliminary Business Case will include technical investigations to support the proposed construction of approximately 53km of new large capacity water supply pipelines, pump stations and storage that would provide access to 3.2GL per annum of irrigation quality water for Eden Valley. If constructed, the project would aim to provide opportunity for access to a new source of water for approximately 20,000ha.</p>	\$1,000,000	\$130,000*
<b>Clare Valley Water Supply Preliminary Business Case</b>	<p>The Preliminary Business Case will include investigations into a proposed 45-50km pipeline and a new pump station to deliver up to 4GL per annum from the Bundaleer reservoir to the Clare Valley region. If constructed, the project would aim to promote growth and increase annual grape yields from an average of 20,000-25,000 tonnes per year to 30,000 tonnes by 2030.</p>	\$800,000	\$0



<b>SA Connections Funding Pathway Package</b>	<p>Construction of the following projects:</p> <p>Waikerie Irrigated Agricultural Water Access and Security project</p> <p>Greenway's Irrigation Trust – Increasing Water Availability, Reliability and Efficiency</p> <p>Recycled Water Pipeline to Nairne – Stage 1</p> <p>Callington Connection</p> <p>Water Recycling Project – Seven Point Park</p> <p>Project 312 – The Olive Oil project</p> <p>Regional Recharge Farms</p> <p>Pogona Barbata – Water for High-Tech Horticulture</p> <p>Barossa Wine Grape Water Source Diversification</p> <p>Improving Water Deliverability and Accessibility in the Lower Murray Reclaimed Irrigation Area.</p>	\$20,000,000	\$55,235,830
<b>Northern Water Supply Detailed Business Case</b>	<p>The Detailed Business Case will investigate a range of sustainable water delivery options with the aim to reduce reliance on finite groundwater sources as well as the River Murray and preserve impacts on ecosystems, fauna and flora and indigenous cultural assets reliant on these natural resources. This project also aims to activate a global copper province and support broader economic development in the region.</p> <p>The Detailed Business Case will develop a financial model that estimates the net financial performance of the preferred option including investment required; undertake technical investigations; manage environmental approvals; develop a stakeholder management plan; develop land access and approval plans; and develop the project's Governance Framework.</p>	\$5,000,000	\$10,000,000
<b>McLaren Vale Irrigation Water Security Project</b>	<p>The McLaren Vale Irrigation Water Security Project Detailed Business Case seeks to further increase the availability of recycled water for irrigation uses to the McLaren Vale and surrounding areas, which will also enhance the security of water in the region from the impacts of climate change.</p>	\$470,000	\$30,000*

\*This is an in-kind contribution.

Table 6B: South Australia – Projects and payment summary – Science Projects			
Outputs (Projects)	Project scope	Total Commonwealth contribution	Total non-Commonwealth contribution
Further sustainable expansion of irrigated agriculture along the Northern Adelaide Corridor	Research trial over 3 years to address challenges of increasing agricultural expansion north of Adelaide (Mallala to Balaklava). Water volumes and quality will be identified and modelling done to assess its use for growing crops in the region.	\$1,120,000	\$480,000
Optimising the agricultural uses of varying water qualities in the Barossa Region	This 12-month project will address the challenge of matching water demand with volume and quality. A research report will be produced with advice on infrastructure required to store water (when it is not required) and blend (when the quality is not fit for purpose). Groundwater volumes and water quality within this region identified through the SA DEW groundwater assessment will inform agronomic modelling to assess the sustainability of groundwater use for growing a range of crops on the region's soil types.	\$280,000	\$120,000
Adaptation of the South-Eastern Drainage System under a changing climate	Research Report. This project focusses on adaptation of the drainage system (in the Limestone Coast Landscape Region) and the potential to retain and redirect water in the landscape to mitigate risks and build resilience to the benefit of multiple primary industries and the environment.	\$1,500,000	\$500,000

Signed for and on behalf of the Commonwealth of Australia by



**The Honourable Barnaby Joyce MP**

Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development

29 / 3 / 2022

Signed for and on behalf of the State of South Australia by



**The Honourable Clare Scriven MLC**

Minister for Primary Industries and Regional Development

/ / 2022

## National Water Grid Fund

FEDERATION FUNDING AGREEMENT – INFRASTRUCTURE

**Table E1: Formalities and operation of schedule**

Parties	Commonwealth South Australia
Purpose	This Appendix has been developed in accordance with the National Water Grid Fund Schedule (the Schedule), to set out the Commonwealth and South Australia's estimated expenditure profile and performance milestones to support the operation of the Schedule.



## Estimated financial contributions

Table E2 (\$)	2021-22	2022-23	2023-24	2024-25	Total
Estimated total budget	47,992,915	46,392,915	6,860,000	470,000	101,715,830
Less estimated National Partnership Payments					
New Water Infrastructure to the Barossa	3,500,000	0	0	0	3,500,000
Eden Valley Raw Water Scheme Preliminary Business Case	1,000,000	0	0	0	1,000,000
Clare Valley Water Supply Preliminary Business Case	600,000	200,000	0	0	800,000
Connections Funding Pathway	5,000,000	10,000,000	5,000,000	0	20,000,000
Northern Water Supply Project	1,500,000	3,000,000	500,000	0	5,000,000
McLaren Vale Irrigation Water Security Project	120,000	350,000	0	0	470,000
Further sustainable expansion of irrigated agriculture along the Northern Adelaide Corridor	350,000	280,000	490,000	0	1,120,000
Optimising the agricultural uses of varying water qualities in the Barossa Region	70,000	140,000	70,000	0	280,000
Adaptation of the South-Eastern Drainage System under a changing climate	300,000	320,000	510,000	370,000	1,500,000
Balance of non-Commonwealth contributions	35,552,915	32,102,915	290,000	100,000	68,045,830

**Table E3: South Australia - Performance requirements, reporting and payment summary**

Output (Project)	Performance milestones	Milestone due	Payment
New Water Infrastructure to the Barossa Detailed Business Case	Milestone 1 – Acceptance of Project Plan including key deliverables and timelines for the delivery of the Detailed Business Case.	30 September 2021	\$1,000,000
	Milestone 2 – Completion of draft Preliminary Summary Report of options analysis and detailed demand profile.	31 January 2022	\$2,000,000
	Milestone 3 – Acceptance by the Australian Government of the Detailed Business Case.	31 May 2022	\$500,000
Eden Valley Raw Water Scheme Preliminary Business Case	Milestone 1 – Acceptance of Project Plan including key deliverables and timelines for the delivery of the Preliminary Business Case.	31 December 2021	\$250,000
	Milestone 2 – Completion of draft Preliminary Business Case.	31 January 2022	\$500,000
	Milestone 3 – Acceptance by the Australian Government of the final Preliminary Business Case.	31 March 2022	\$250,000
Clare Valley Water Supply Preliminary Business Case	Milestone 1 – Acceptance of Project Plan including key deliverables and timelines for the delivery of the Preliminary Business Case.	31 December 2021	\$200,000
	Milestone 2 – Completion of draft Preliminary Business Case	31 May 2022	\$400,000
	Milestone 3 – Acceptance by the Australian Government of the final Preliminary Business Case.	31 July 2022	\$200,000
Connections Funding Pathway	Milestone 1 – Written confirmation of the details of the SA Connections Package, including: Projects to be delivered Expected costs of each project and confirmation of funding partner contributions Construction timing for each project.	31 October 2021	\$5,000,000



	Milestone 2 – Submission and acceptance of a Progress Report detailing the status of delivery of the SA Connections Package, including: Current status of each project Advice on any changes to construction timing Advice on cost amendments (if any) for each project, including amendments to funding partner contributions Challenges or issues in delivery of the package.	31 August 2022	\$10,000,000
	Milestone 3 – Submission and acceptance of a Post Completion Report, including confirmation that all projects have been completed and advice on final costs of each project in the package.	31 August 2023	\$5,000,000
Northern Water Supply Detailed Business Case	Milestone 1 – Acceptance of Project Plan including key deliverables and timelines for the delivery of the Detailed Business Case.	31 March 2022	\$1,500,000
	Milestone 2 – Completion of draft Detailed Business Case.	30 April 2023	\$3,000,000
	Milestone 3 – Acceptance by the Australian Government of the final Detailed Business Case.	31 July 2023	\$500,000
McLaren Vale Irrigation Water Security Project	Milestone 1 – Acceptance of Project Plan including key deliverables and timelines for the delivery of the Detailed Business Case.	31 May 2022	\$120,000
	Milestone 2 – Completion of draft Detailed Business Case.	30 November 2022	\$300,000
	Milestone 3 – Acceptance by the Australian Government of the final Detailed Business Case.	31 March 2023	\$50,000

**Table E4: South Australia - Performance requirements, reporting and payment summary – Science Projects**

Output (Project)	Performance milestones	Milestone due	Payment
Further sustainable expansion of irrigated	Milestone 1 – Delivery and acceptance of a project plan outlining the project.	31 March 2022	\$350,000
	Milestone 2 - Delivery and acceptance of a report including information on groundwater volume and quality assessed.	31 January 2023	\$280,000



agriculture along the Northern Adelaide Corridor	Milestone 3 - Delivery and acceptance of a report, including information on: Agronomic modelling domain developed and optimised Irrigation expansion on the receiving environment assessed Longevity of water utilisation and mitigation strategies under current and future climate assessed.	31 July 2023	\$280,000
	Milestone 4 - Delivery and acceptance of a final report, including information on: Field component completed Off farm desalinisation and low-cost energy options assessed and recommendations Storage, brine disposal and infrastructure considerations developed.	28 June 2024	\$210,000
Optimising the agricultural uses of varying water qualities in the Barossa Region	Milestone 1 - Delivery and acceptance of a Project Plan outlining the project.	31 March 2022	\$70,000
	Milestone 2 - Delivery and acceptance of the Interim Report, including information on: Assessment of all water volumes, quality and current crop demand Modelled data showing water volume and quality demand required by crops based on soil types in the Barossa and Eden Valley.	31 January 2023	\$140,000
	Milestone 3 - Delivery and acceptance of the Final Report, including information as above plus economic analysis of options and infrastructure requirements.	31 July 2023	\$70,000
Adaptation of the South-Eastern Drainage System under a changing climate	Milestone 1 – Acceptance of the confirmed partnership and project management arrangements.	31 March 2022	\$300,000
	Milestone 2 – Delivery and acceptance of a report, including information on: South eastern drainage system water balance Generic groundwater feasibility models Localised groundwater models Detailed soil, water, solute modelling.	31 January 2023	\$320,000
	Milestone 3 – Delivery and acceptance of a progress report, including information on: Monitoring of groundwater, soil moisture and drains - year 1 Aerial geophysics surveys report.	31 July 2023	\$510,000
	Milestone 4 - Delivery and acceptance of a report, including information on: Monitoring of groundwater, soil moisture and drains - year 2 Aerial geophysics data analysis.	31 July 2024	\$290,000

	Milestone 5 - Delivery and acceptance of a final report, including information on: Infrastructure options prioritisation Finalisation and publication of relevant data, modelling and findings.	31 January 2025	\$80,000
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## Attachment C



The Hon Barnaby Joyce MP  
Deputy Prime Minister  
Minister for Infrastructure, Transport and Regional Development

Media release Wednesday 16 February 2022

Copy from <https://minister.infrastructure.gov.au/joyce/media-release/delivering-secure-and-sustainable-water-future-south-australia>

## Delivering a secure and sustainable water future for South Australia

A historic, state-building project that will boost South Australia's economy, create jobs and deliver a long-term sustainable water source in the state's north is one step closer to reality.

The Australian and South Australian governments have committed \$15 million for a business case to take the Northern Water Supply project forward and further secure the state's water future.

Among the options being considered is a desalination plant located in the Upper Spencer Gulf, which would reduce water reliance on the Great Artesian Basin and the River Murray.

If construction proceeds, the project could support up to 8,000 construction jobs and up to 6,000 ongoing jobs once operating.

Deputy Prime Minister Barnaby Joyce said delivering a secure and sustainable water source in the region would drive the growth of regional communities and industries.

"The Liberal and Nationals Government is committed to delivering the water infrastructure South Australians need and we are getting the job done," the Deputy Prime Minister said.

"Our \$5 million investment builds on the state's \$10 million commitment to progress a business case that will inform the future direction of this much-needed project.

"A safe, reliable and sustainable water source will improve water security, create jobs and help unlock the economic potential of new and expanded opportunities for businesses in the state's north.

"Since 2015, the Australian Government has committed more than \$75 million from National Water Grid Fund towards projects in South Australia.

"This includes projects supporting premium grape production in McLaren Vale, water security for farmers on the Coolanie Plains, and new water for agribusinesses through the Northern Adelaide Irrigation Scheme."

Mines in northern South Australia rely on these sources for their groundwater, which can be expensive to extract and can be affected by salinity and other water quality issues.



## Attachment C

Previous attempts to provide a sustainable water supply to this vast region have not been successful because they have lacked a strong customer base.

To support the business case, the SA Government has entered into a MOU with SA Water, BHP and Oz Minerals to progress the projects and address the regions water needs.

South Australian Premier Steven Marshall said this was why it has been important for the Government to play a coordinating role to bring together a range of potential customers to make this project possible.

He said the Northern Water Supply project has the potential to create thousands of jobs throughout South Australia.

“This project is a once-in-a-lifetime opportunity to secure a brighter future for South Australia and create jobs in an environmentally sustainable way,” Premier Marshall said.

“We are always looking for ways to ensure we are using water efficiently because ongoing and secure access to water is integral to economic growth and regional communities rely on industry for jobs, community strength and resilience.

“A desalination plant is an option we will investigate to provide a sustainable and sufficient water supply to support many industries, including the burgeoning hydrogen industry, mining, horticulture, pastoral, agriculture sectors and the transition to green steel.

“To be able to partner with some of South Australia’s biggest companies to decrease reliance on our finite water resources and future-proof our state in a changing climate is really pleasing.”

Premier Marshall thanked all the parties, including the South Australian Chamber of Mines and Energy, for their dedicated work to make today’s announcement possible.

Federal Member for Grey Rowan Ramsey said the expansion of the resources industry in the north of the state was a reality and not some dream in the far-off future.

“South Australia already relies heavily on the resources industry and water is an essential ingredient to mine, concentrate and process our product,” Mr Ramsey said.

“Currently, this water is sourced from either the Great Artesian Basin or the Murray River, and trying to extract more from these sources is not environmentally sound.

“We are well aware of the long-term issues with the Murray and the Great Artesian Basin is a national treasure which is vital to our traditional grazing industries and small communities that continue to thrive in our harsh environment.

“While we know the basin replenishes, it is an incredibly slow process and maintaining the pressure in the basin is of paramount importance. Simply, we cannot continue to grow the resources industry without finding a new source of water.

“It is encouraging that our two biggest players in the industry, BHP and OZ Minerals, recognise the need and are part of the MOU. Desalination would seem the obvious answer,

## Attachment C

but there will be a whole lot of community concerns which will need to be addressed along the way. This project will do that.”

Infrastructure Australia has recognised the importance of a new sustainable water source to improve water resilience and increase water supply to the northern parts of South Australia.

More information can be found on the [Northern Water Supply project website](#).



The Hon Barnaby Joyce MP  
Deputy Prime Minister  
Minister for Infrastructure, Transport and Regional Development

Media release Thursday 10 March 2022

Copy from <https://minister.infrastructure.gov.au/joyce/media-release/business-case-new-recycled-water-supply-mclaren-vale>

## **Business case for new recycled water supply at McLaren Vale**

The Australian Government is funding a business case into the possible construction of a new reservoir that could hold up to 1,350 megalitres of recycled water for South Australia's McLaren Vale district.

If viable, the McLaren Vale Irrigation Water Security project could deliver an estimated 750 megalitres of new water allocations for irrigation in the region, helping businesses grow and supporting jobs.

Upgrades to increase the capacity of the Willunga Basin Water's existing recycled water network will also be considered.

The Australian Government is providing \$470,000 toward the \$500,000 business case, with the remaining \$30,000 coming from the South Australian Government and other partners.

Deputy Prime Minister and Minister for Infrastructure, Transport and Regional Development Barnaby Joyce said delivering a secure and sustainable water source across these regions would drive the growth of regional communities and industries.

"We are committed to delivering the water infrastructure South Australians need and this moves us closer to getting the job done for the McLaren Vale district," the Deputy Prime Minister said.

"This project could increase economic activity in the region by as much as \$100 million and support up to 300 jobs, providing a much-needed economic boost."

South Australian Minister for Primary Industries and Regional Development David Basham welcomed the funding for the business case.

"We know that water is a critical resource for our farmers so they can continue to grow world-class produce, contributing to a strong economy and supporting local jobs," Minister Basham said.

"The business case is another important step towards greater water access in regional South Australia and builds on similar work being undertaken at the Barossa, Eden and Clare valleys and the successful Coolanie Water Scheme which is delivering positive results for farmers on the Eyre Peninsula."



## Attachment D

South Australian Minister for Environment and Water David Speirs said ensuring long-term water security for farmers is a priority for the South Australian Government.

“We know that water is one of our most valuable resources which is not only required for critical human needs but it drives economic growth to create jobs as well as supporting a healthy environment,” Minister Speirs said.

“We are pleased to be working with the Commonwealth Government as well as industry to deliver solutions.”

Senator for South Australia Andrew McLachlan CSC said the Australian Government also has \$20 million flowing to a package of 10 construction projects across the state under the National Water Grid Connections pathway, which will together increase water availability by 1,895 megalitres each year.

“This will support around 1,860 hectares of additional irrigable land in the state, bolstering our local production while supporting around 60 construction jobs and 860 ongoing positions,” Senator McLachlan said.

“We are also looking forward to the future, by providing \$1.8 million to investigate the future construction of new water infrastructure projects in the Eden and Clare valleys.

“Today’s announcement is yet another demonstration of our unwavering commitment to invest in the water infrastructure farmers and agricultural producers in South Australia need to access quality, reliable water to grow their business and prosper.

“Water is our most precious resource and the lifeblood of primary producing regions like McLaren Vale and the Clare Valley. It is essential that we continue to invest in innovative projects that improve water access and security and build resilience to drought as a result of climate change.”

The detailed business case for the McLaren Vale Irrigation Water Security project will undertake demand studies, network modelling, concept design, site investigations and geotechnical analysis.

The business case is expected to be completed later this year.

More information on National Water Grid projects please visit [www.nationalwatergrid.gov.au](http://www.nationalwatergrid.gov.au).

eA196901

The Hon Barnaby Joyce MP  
Deputy Prime Minister  
Minister for Infrastructure, Transport and Regional Development  
Parliament House  
CANBERRA ACT 2600

Email: [minister.joyce@infrastructure.gov.au](mailto:minister.joyce@infrastructure.gov.au)

Dear Deputy Prime Minister

Thank you for your letter of 29 March 2022 congratulating me on my appointment as Minister for Primary Industries and Regional Development, and Minister for Forest Industries, and for providing the revised National Water Grid Fund Schedule to the *Federation Financing Agreement – Infrastructure*.

I am pleased to provide you with the co-signed revised Schedule to formally secure funds to South Australia for the recently approved water infrastructure projects.

The revised Schedule presents an opportunity to renew the partnership between the Commonwealth and the South Australian Government for water infrastructure projects and investments to support existing primary industries and new and expanded agriculture.

I look forward to working with you on current and emerging opportunities for South Australia.

Yours sincerely

Hon Clare Scriven MLC  
**MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT**  
**MINISTER FOR FOREST INDUSTRIES**

/ / 2022

Enclosed – Signed Revised National Water Grid Fund Schedule to the *Federation Financing Agreement – Infrastructure*



Minute to  
**Minister for Primary Industries and Regional Development**  
**Minister for Forest Industries**

Ref: eA196969



For	Noting
Critical Date	13 June 2022
Subject	<b>Barossa New Water Project – Status Update</b>

### Synopsis

Your office has requested an overview and the current status of the Barossa New Water Project and the interface with the Northern Adelaide Irrigation Scheme. It is proposed that PIRSA meet with you on both initiatives to discuss upcoming decision-making processes for government. This briefing only relates to the Barossa New Water Project. A separate briefing on the Northern Adelaide Irrigation Scheme has been prepared (Refer A5421228).

### Recommendations

That you:

1. Note the brief.

**NOTED**

Hon Clare Scriven MLC

**Minister for Primary Industries  
and Regional Development**

9 / 10 / 2022

### Ministerial Comments



## Background

- PIRSA has been facilitating two significant economic development initiatives in the Barossa New Water Project and the Northern Adelaide Irrigation Scheme (NAIS).
- Both initiatives are funded by the State and Commonwealth governments. For Commonwealth funded projects, as the Minister for Primary Industries and Regional Development, you are the South Australian signatory to the *FFA - Infrastructure Schedule*, with the Deputy Prime Minister responsible at the Commonwealth level.
- PIRSA is responsible for the overall leadership, administration, and governance arrangements for the funding. This includes managing project funding agreements and the agricultural water infrastructure investment policy framework across government.
- Your office has requested an overview and the current status of both initiatives and the interface between them. It is proposed that PIRSA meet with you on both initiatives to discuss upcoming decision-making processes for government.
- This briefing only relates to the Barossa New Water Project. A separate briefing on the Northern Adelaide Irrigation Scheme was prepared (Refer A5421228).

## Discussion

- With construction of NAIS well underway, the former State Government brought forward the opportunity to expand the scheme to the Barossa and Eden Valley regions. The strategy considered poor seasonal conditions, the longer-term threat of climate change and increasing industry demand for water.
- PIRSA funded a Preliminary Business Case for expanding NAIS to the Barossa. Initial long-term estimates indicated the project could generate \$292 million per year in economic activity and deliver 1,000 new jobs. PIRSA subsequently secured \$3.5 million from the Commonwealth to develop a Detailed Business Case.
- On 26 February 2021, Infrastructure Australia recognised this project as a priority initiative on its new Infrastructure Priority List.
- The former State Government committed around \$1.5 million towards the investigations, including \$750,000 for SA Water to undertake technical investigations as an indicative Public Sector Comparator should it be asked to build a new scheme.
- In August 2021, PIRSA engaged Kellogg, Brown and Root Pty Ltd (KBR) as the Business Case Advisor to develop the Detailed Business Case.

### *Detailed Business Case*

- The purpose of the Detailed Business Case is to inform future investments decisions by South Australia and the Commonwealth to construct new water infrastructure.
- The Detailed Business Case will confirm industry demand for water, the economic benefit it will derive from production growth, the infrastructure and operational costs (which will determine the price of water) and the project's viability and return on investment for State Government (public value) and/or for the private sector.
- The initial demand assessments from KBR have indicated that there is genuine interest for new water from primary producers in the Barossa and Eden Valleys, with likely demand for new water of 8.6GL (5.6GL Barossa and 3GL Eden Valley). This level of demand has not been indicated by water users during the demand assessment surveys undertaken throughout the business case process.
- To develop a viable scheme that does not require the State Government subsidising annual operating costs, KBR advise that industry demand in the order of 13GL is required.



### *Project Governance*

- The project is being led by PIRSA. Governance arrangements for the project include a cross-government Steering Committee comprising senior executives of PIRSA (Chair), the Department of Treasury and Finance (DTF), the Department for Environment and Water, and SA Water. Other supporting entities include Infrastructure SA, and other commercial, legal, technical and probity advisors.

### *Probity Plan and Communications Protocols*

- A Probity Plan relating to communications with the market has been developed (Attachment A). The Probity Plan is consistent with the governance arrangements established by DTF for a number of comparable Government projects, and outlines a number of controls, policies and procedures directed at ensuring the overall probity of the project, including approaches to Ministers by private sector proponents. As a general practice, where private sector and non-government parties seek to meet Ministers (or their staff) to discuss the project, those parties should be re-directed to PIRSA.

### *Interface between Barossa New Water Project and NAIS*

- KBR is working with SA Water and other project partners to understand interfaces between the project and existing SA Water infrastructure, along with confirming design standards, design assumptions and pricing. KBR will deliver an infrastructure solution engineered to a fit for purpose irrigation scheme design standard. This will differ to SA Water design/operational standards. SA Water design/operational standards will be incorporated into the Public Sector Comparator investigations.
- A key principle of KBR's engineering design is to optimise the infrastructure to reduce the capital and operating expenditure of the project. KBR is exploring two route options to delivery recycled water from Bolivar Waste Water Treatment Plant.
  - Option 1: Direct Route from Bolivar to Barossa (bypassing NAIS)
  - Option 2: Indirect Route from Bolivar to Barossa utilising NAIS trunk main to Two Wells.
- In the development of the Detailed Business Case, SA Water, at a recent meeting of the agency Chief Executives, requested that detailed information on the 2 options needed to be fully shared between SA Water and KBR. This will allow the implications of the options for SA Water's financial / budget position to be considered for a full understanding of the financial / budget implications for SA Water and government of any recommendations on next steps arising from the Detailed Business Case. This work is progressing.
- A dashboard providing an overview of the Barossa New Water Project and NAIS is provided at Attachment B.
- The completion date of the Detailed Business Case is expected mid 2022. A draft Detailed Business Case expected from KBR by 28 June 2022, with a final (following agency review/comments) due 9 August 2022. The cross-government Steering Committee noted these dates at its meeting on 25 May 2022. KBR recently requested a further extension but this has not been supported at this time. PIRSA will continue to work with KBR to ensure the Detailed Business Case is finalised as soon as practicable.

### **Consultation**

- Steering Committee agencies have been consulted on this briefing.

## Attachments

- A. Probity Plan and Communications Protocols
- B. BNW Project Dashboard.



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Mehdi Doroudi  
**CHIEF EXECUTIVE**  
Department of Primary Industries and Regions

07 / 06 / 2022

<b>CONTACT</b>	Bengy Paolo
<b>POSITION</b>	Director, Major Programs
<b>DIVISION</b>	Industry and Regional Development
<b>MOBILE and LANDLINE</b>	0417088379
<b>PREPARED BY</b>	Julie Wedderburn



# NEW INFRASTRUCTURE TO THE BAROSSA WATER

(Barossa new water project)





\$3.5

million

secured for 2021—22

Business Case

Funding secured from the Commonwealth Government through the National Water Infrastructure Development Fund, to partner with the State Government in the development of a business case.

This complements the \$1.5 million investment made by the South Australian Government in 2019—20 and 2020-21 to support a preliminary business case, public sector comparator technical investigations by SA Water, market sounding and community and industry engagement.

## The project

To deliver new, secure, climate-independent and affordable water to complement other water sources and underpin productivity growth in the region. The project seeks to leverage investment in the Northern Adelaide Irrigation Scheme (NAIS) and address industry demand. Such as wine, livestock, and horticulture, for new water sources arising from declining rainfall, surface water and underground water availability.

### Project phases

- Phase 1 (August 2021 — April 2022)** Detailed Business Case (current)
- Phase 2 (to be confirmed)** Submit funding application to the National Water Infrastructure Development Fund
- Phase 3 (to be confirmed)** Secure capital funding for construction



### Rationale/ Case for Change

- The Barossa region is a significant contributor to the wine and tourism sector.
- The Barossa New Water Project aims to address the demand for new water sources from the wine, livestock and horticulture industries in the Barossa and Eden Valleys.
- The project recognises that industry demand for new water is constrained by existing water sources, including declining rainfall and surface water capture, declining groundwater quality and pipeline capacity restrictions on imported River Murray water infrastructure.



### Project drivers

- Primary project drivers include:
1. Increasing productivity in our local primary industries and for multiple beneficiaries of new water
  2. Helping generate employment opportunities.
  3. Facilitating economic benefits for the broader region. reducing wastewater entering the marine environment.
  4. Improving climate resilience and access to secure and affordable water.



## Detailed Business Case

Phase 1

August 2021 – April 2022

### Purpose:

- To provide clear and comprehensive evidence for decision makers in relation to considerations to progress to a construction project
- To position South Australia to secure a portion of capital funding (e.g. from Commonwealth Government through National Water Grid Authority) for the costs of constructing new water infrastructure
- To define project methodology to ensure investment decision is sound, which may include private sector investment.

### Key deliverables:

- Multi criteria analysis
- Demand analysis
- Engineering design and costings
- Cost benefit analysis
- Detailed business case
- Development (implementation) plan
- Capital funding application for National Water Infrastructure Development Fund.



### Scope of Business Case:

- Consideration of 8GL supply (minus transmission losses) from Northern Adelaide Irrigation Scheme (NAIS) to the Barossa Valley and Eden Valley
- Consideration of SA Water’s technical investigations of raw water supply to Eden Valley from Murray to Adelaide Pipeline (MAPL)
- Understand industry demand for water (including quantity, quality, uses and willingness to pay) in the Barossa Valley and Eden Valley
- Understand gaps between current and forecast demand
- Analyse and model the benefits, uplift factors, and costs of the scheme at a regional, state and national level
- Explore business model and funding requirements, including potentially feasible commercial models and options
- Exploring potential route options and developing full scheme design and costings for capital and operating expenditure for an identified, preferred route
- Developing an implementation strategy that may include preferred procurement or delivery model, packaging, and market engagement.

Phase 2

To be confirmed

Submit funding application to National Water Infrastructure Development Fund.

Phase 3

To be confirmed

Secure capital funding for construction.







# NEW INFRASTRUCTURE TO THE BAROSSA WATER

(Barossa new water project)

## Project phases

1	<p><b>NAIS Investigations —NWIDF Business Case (2017) — \$2.5 million</b></p> <p><b>Status: Complete</b></p> <p><b>Purpose:</b> To secure climate and independent supply of 20GL/year of suitable quality water from Bolivar Waste Water Treatment Plant (WWTP)</p> <p><b>Outcomes:</b> Completion of business case / application to Commonwealth Government seeking funding contribution for construction (National Water Infrastructure Development Fund —NWIDF)</p>
2	<p><b>NAIS Construction (2018—2019) —\$155.6 million</b></p> <p><b>Status: Complete</b></p> <p><b>Purpose:</b> To construct new infrastructure (NAIS — stage 1) and upgrade existing infrastructure i.e Bolivar Waste Water Treatment Plant (WWTP) additional 12GL; build core recycled water transmission main from Bolivar to Two Wells (20 GL capacity); seasonal balancing storage; distribution network and pumping stations.</p> <p><b>Outcomes:</b> Construction of new infrastructure; complementary Northern Adelaide Plains Agribusiness Initiative (NAPAI); the release of Registration of Interest of water users for NAIS Water</p>
3	<p><b>NAIS Stage 1 First Water Delivered (November 2019)</b></p> <p><b>Status: Complete</b></p> <p><b>Purpose:</b> To deliver first water from NAIS Stage 1</p> <p><b>Outcomes:</b> First water delivered</p>
4	<p><b>NAIS Expansion Preliminary Business Case (2019—2020) — \$300,000</b></p> <p><b>Status: Complete</b></p> <p><b>Purpose:</b> To assess the potential to provide new water source to the Barossa Region and Clare Region for the NAIS (including assessing demand)</p> <p><b>Outcomes:</b> Preliminary Business Case — confirmation that a commercial case exists for investment in new recycled water infrastructure to grow the Barossa Region. The Business case includes additional 8 GL of recycled water from NAIS; supplying up to 14 GL recycled water to the Barossa; growers in Clare would welcome a new water source at comparable cost to existing irrigation sources</p>
5	<p><b>Barossa New Water Preliminary Investigations (2020-2021) — \$1.55 million</b></p> <p><b>Status: Complete</b></p> <p><b>Purpose:</b> To gauge market interest in the project and consider additional demand information for water (received from Barossa Infrastructure Limited and Barossa Grape and Wine Association); to identify industry and community issues and options relating to supply and delivery of water to Barossa Region</p> <p><b>Outcomes:</b> Public Sector Comparator —Technical Investigations SA Water; Regional Issues and Options; Consultation Report; Market Sounding Report; Application to National Water Grid Authority for Detailed Business Case</p>
6	<p><b>Barossa New Water Project Business Case (2021—2022) — \$3.5 million</b></p> <p><b>Status: In Progress</b></p> <p><b>Purpose:</b> To deliver a detailed business case will confirm demand for water; economic viability and supply; delivery of new, secure, climate-independent water infrastructure to the region.</p> <p><b>Outcomes:</b> Detailed Business Case (including commercial model for delivery); Implementation Strategy; funding application to National Water Grid Authority (for portion of funds for construction)</p>
7	<p><b>Construction Phase: TBA</b></p> <p><b>Status:</b> Not started (subject to securing capital funding and private sector/ non-government investment)</p> <p><b>Outcome:</b> Construction completed</p>

## Achievements

<p><b>Funding secured for construction</b></p> <ul style="list-style-type: none"><li>• \$110 million State (SA Water)</li><li>• \$45.6 million Commonwealth</li></ul>	
<p><b>Infrastructure completed to deliver water (12 GL) from Bolivar to Northern Adelaide Plains</b></p>	
<p><b>First water delivered by SA Water</b></p>	
<p><b>Preliminary Business Case</b></p>	
<p><b>\$3.5 million secured for Detailed Business Case</b></p> <p><b>Principles of cooperation with Barossa Infrastructure Limited</b></p>	
<p><b>Evidence based data to progress to construction and application for capital funding to Commonwealth Government</b></p>	
<p><b>Achievement – Construction completed (pending)</b></p>	



**Farley, Lisa (PIRSA)**

**From:** Appleford, Peter (PIRSA-SARDI)  
**Sent:** Tuesday, 27 September 2022 10:10 AM  
**To:** Smith, Mark (PIRSA); Wedderburn, Julie (PIRSA)  
**Subject:** RE: Feasibility studies

**Categories:** Red Category

**OFFICIAL**

Hi Mark  
 Are these what you want?

- PIRSA is currently leading the development of a detailed business case to investigate options relating to providing additional water to the Barossa and Eden Valleys. This business case is being finalised and will be considered by government in regard to next steps.
- PIRSA is also leading the development of a preliminary business case to supply additional water to the Clare Valley. A draft business case has been provided and feedback is currently being considered by the contractor.
- Both business cases are being developed on a demand based methodology, where the demand for water at various price points is considered against capital and operational expenditure requirements. This will determine the viability of any options considered.
- Regional updates on the progress of both business cases are currently being organised.

**Peter Appleford** | Executive Director

South Australian Research and Development Institute - SARDI - and Major Programs| **Department of Primary Industries and Regions**

Government of South Australia | Level 12 Grenfell Street, Adelaide 5000

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[pir.sa.gov.au](http://pir.sa.gov.au)



*The Department of Primary Industries and Regions respects Aboriginal people as the state's first people and nations. We recognise Aboriginal people as traditional owners and occupants of South Australian land and waters. We pay our respects to Aboriginal cultures and to Elders past, present and emerging.*

Disclaimer: The information in this email may be confidential and/or legally privileged. Use or disclosure of the information by anyone other than the intended recipient is prohibited and may be unlawful.

**From:** Smith, Mark (PIRSA) <Mark.Smith5@sa.gov.au>

**Sent:** Tuesday, 27 September 2022 9:28 AM



**To:** Appleford, Peter (PIRSA-SARDI) <Peter.Appleford@sa.gov.au>  
**Subject:** Feasibility studies

OFFICIAL

Hi Peter

I hope you are well.

Are you able to provide me with a few lines the Minister could use in a speech today about some of the feasibility studies that have been happening – such as the Barossa and Clare Valley investigations?

Kind regards

Mark

**Mark Smith** | Ministerial Liaison Officer  
Office of the Hon Clare Scriven MLC  
**Minister for Primary Industries and Regional Development**  
**Minister for Forest Industries**  
Government of South Australia | 1 King William Street, Adelaide  
GPO Box 1671 Adelaide SA 5001  
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[pir.sa.gov.au](http://pir.sa.gov.au)



*The Department of Primary Industries and Regions respects Aboriginal people as the state's first people and nations. We recognise Aboriginal people as traditional owners and occupants of South Australian land and waters. We pay our respects to Aboriginal cultures and to Elders past, present and emerging.*

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Minute to  
**Minister for Primary Industries and Regional Development**  
**Minister for Forest Industries**

eA197824  
8/8/22.

Ref: A5549893

For	<b>Approval</b>
Critical Date	<b>12 August 2022</b>
Subject	<b>Release of the Clare Valley Water Strategic Supply Availability Review Report (redacted)</b>

**Synopsis**

To approve PIRSA's intention to release the Clare Valley Water Strategic Supply Availability Review Report (redacted version) available only upon request and to be referenced on the PIRSA website.

**Recommendations**

That you:

1. Approve PIRSA's intention to release the Clare Valley Water Strategic Supply Availability Review Report (redacted) which will be made available to the public by request only, as outlined in this briefing.

**APPROVED / NOT APPROVED**



Hon Clare Scriven MLC

**Minister for Primary Industries  
and Regional Development**

**Minister for Forest Industries**

21 / 10 / 2022

**Ministerial Comments -**



## Background

- The Clare Valley Water Strategic Supply Availability Review (the Review) was a partnership between the Department of Primary Industries and Regions, Clare Valley Wine and Grape Association (CVWGA) and other government agencies (DEW, DTF, SA Water, ISA) to investigate and assess the water supply options for the Clare Valley to inform the Preliminary Business Case (PBC). Inside Infrastructure was engaged to undertake the Review which was completed in December 2021.
- The Review assessed seasonal water availability and supply options for the Clare Valley, based on prior investigations including:
  1. Recycled water from Bolivar Wastewater Treatment Plant
  2. Water from the Morgan Whyalla Pipeline via Bundaleer Reservoir
  3. Augmentation of the existing Clare Valley Water Supply Scheme
  4. Other water supply availability options.
- The Review of the water source/supply informed the development of the PBC, supporting the development of demand, engineering, stakeholder engagement and commercial/economic assessment and made recommendations for water supply options to the region.
- The CVWGA is particularly keen for the redacted report to be available to accommodate requests from a number of its members, in the interest of transparency and sharing information with its members. It is understood some members have been strong advocates for a recycled water scheme proposal from *VineSecure South Australia*, "a recycled irrigation proposal for the Clare, Barossa and Eden Valleys as well as the Adelaide Hills".

## Discussion

- The Review evaluated 38 water types based on the availability and reliability of the supply to achieve the CVWGA's 2030 ambitions to provide an additional 10,000 tonnes/year of yield by 2030 ("30,000 by 2030").
- The Review Team adopted an additional water supply requirement to the region of 5 GL/year to provide the additional 10,000 tonnes/year of yield by 2030.
- Ten shortlisted options were developed and assessed via Multi-Criteria Analysis (MCA) based on regional equity, comparative capital requirements and political/legislative considerations. The top ranked options were:
  1. Water supplied to the region from a new raw water pipeline from the River Murray.
  2. Water supplied via the Morgan Whyalla system off peak to the Bundaleer Reservoir to supply the region via a raw water pipeline to the north of the Clare Geographical Indicator (GI).
  3. Water supplied via a direct offtake off of the Morgan Whyalla system potentially utilising the existing Clare Valley Water Supply Scheme (CVWSS).
- All three options were assessed from a commercial perspective and assumed Commonwealth funding of 50% (to support capital costs) and merit further consideration



in the Preliminary Business Case (PBC) comparison with existing water supply options for irrigators.

- It was noted that if the affordability factor was not included (or reduced) in the MCA assessment.
- The other water supply option worthy of consideration in a PBC is the treatment and transfer of Class B water from the combined output from Bolivar High Salinity and the main Bolivar Waste Water Treatment Plants. Recycled water generally scored lower due to expected cost to treat to an acceptable water quality and the need to supply the water from long distances. There was also seasonal availability challenges.
- The Clare Valley Water Strategic Supply Availability Review Report (Review Report) was finalised in December 2021.
- The Review Report has largely been superseded by the development of the Clare Valley Preliminary Business Case (PBC) which is currently being undertaken by Kellogg Brown and Root Pty Ltd (KBR). The PBC is due to be completed in late August 2022.
  - PIRSA received the draft PBC from KBR on 1 August 2022 and the short list of infrastructure options is not dissimilar to the short list of supply options in the Strategic Review Report.
  - The draft PBC is more comprehensive and robust as it considers expressed demand for new water (demand assessment), economic and financial analysis, and affordability, social, environmental and sustainability consideration.
  - It is not PIRSA's intention to publicly release the final PBC, as it is likely to contain commercially sensitive information.
- The Clare Valley Project Reference Group (CV PRG) comprising representatives from CVWGA and Government agencies including SA Water, DTF, ISA, DEW and PIRSA, are the governance group for the Clare Valley Water Project.
- The CV PRG at its meeting on 19 May 2022 supported the release of a redacted version of the Review Report, as SA Water had previously expressed concerns about commercial in confidence information contained within the Review Report.
- The CV PRG supported the release of the Water Strategic Supply Availability Review Report (redacted) (**Attachment A**) noting the following:
  - SA Water confirmed they are comfortable for the redacted Review Report to be released.
  - The redacted Review Report will be available upon request only, via the CVWGA Executive Officer (this being considered the most pragmatic and sensible process).
  - Reference to the Review Report will also be made on the PIRSA website directing people to the CVWGA Executive Officer to request a copy.
- PIRSA in accordance with SA Water's request has redacted information from the Review Report that SA Water considers to be commercial in confidence or commercially sensitive information.

### **Stakeholder / regional impacts, consultation and engagement**

- CVWGA is the key representative group of grape growers and wine makers in the Clare Valley and have consulted their members in development of the Review Report.

### **Management of key risks**

- The CVWGA is an appropriate representative group located in the region to manage the release of the redacted document (by request only), this being considered the most pragmatic and sensible process.
- The CVWGA is particularly keen for the redacted Review Report to be available to accommodate requests from a number of its members. It is a point in time document based on desk-top analysis and has been used to inform the draft PBC.
- SA Water commercial in confidence material in the Review Report has been redacted.

### **Legislative and/or financial implications**

- None

### **Attachments**

A. Clare Valley Water Strategic Supply Availability Review (redacted)



### **CHIEF EXECUTIVE**

Department of Primary Industries and Regions

8/8/2022

<b>CONTACT</b>	Peter Appleford
<b>POSITION</b>	Executive Director
<b>DIVISION</b>	Industry and Regional Development
<b>MOBILE</b>	0412797720
<b>Cleared by</b>	Angela De Duonni



# Clare Valley Water Strategic Supply Availability Review

## Strategic Supply Availability Review

Prepared for: Department of Primary Industries and Regions

Issue: Rev 2

Date: 23 December 2021





# Executive Summary

## Review Background

The Clare Valley is considered a premium South Australian viticulture region that has produced long-term average annual yields of circa 20,000 tonnes.

The regions limited availability of natural surface water and groundwater resources sustain wine grape plantings, with supply further supplemented by potable water supplied by South Australian Water Corporation (SA Water) via the Morgan-Whyalla pipeline. The Clare Valley Water Supply System (CVWSS) is utilised to transfer the bulk water from the Morgan-Whyalla pipeline for irrigation purposes.

Declining long-term trends in annual rainfall has caused increased stress on local water resources and elevated stress on the CVWSS.

The region seeks to increase its productivity and through funding received through the National Water Grid Authority (NWGA), the State Government will undertake a Preliminary Business Case (PBC) to assess the options to provide a platform of water security in the region to enable a sustainable yield of 30,000 tonnes by 2030.

This Strategic Supply Availability Review will inform the PBC on the water sources that will most likely form the basis for water supply options to the region. The focus of this review is on the water source/supply, with development of demand, engineering, stakeholder engagement and commercial/economic assessment to be provided in the PBC.

Although demand is to be developed in the PBC, to inform this review, the Review Team adopted an additional water supply requirement to the region of 5 GL/year to provide the additional 10,000 tonnes/year of yield by 2030.

The Review Team included Inside Infrastructure supported by Capital Strategies and Airborne Logic.

## Water Source Assessment

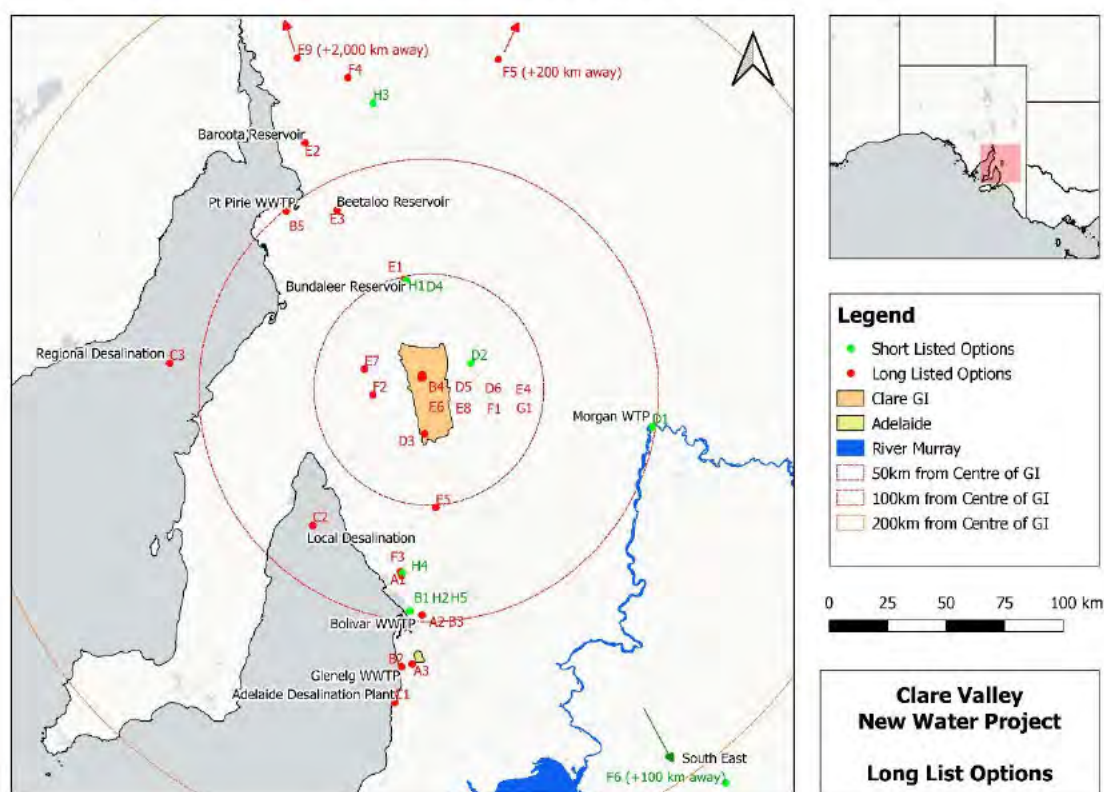
The water source assessment included an initial long list that considered a wide variety of different water types (recycled, surface, ground, aquifer, sea water etc.) and geographic locations respective to the Clare Geographical Indication (GI).

38 options were considered and screened based on the availability and reliability of the supply to achieve the region's 2030 ambitions. The options were also screened for affordability in treatment and transport of each source to the Clare GI to enable a fair comparison between sources and an assessment of the timing to enable each supply to be delivered to the Clare GI to support a 2030 timeframe.

The 38 options were shortlisted to 10 options that predominately centred on two water source options for the region:

- The River Murray through direct connection or via existing SA Water Infrastructure
- Recycled water from SA Water treatment facilities in metropolitan Adelaide.

The range of options considered respective to the Clare GI are shown below.



The ten shortlisted options were developed and assessed via a Multi-Criteria Analysis (MCA) process to determine their suitability to meet the ambitions of the region. The MCA assessment built on the long-list screening process with the inclusion of an assessment of regional equity, comparative capital requirements and political/legislative considerations.

The outcome favoured water supply to the region from a River Murray source as shown below.

Options	Baseline	Sensitivity Assessments			
		Equal Weighting	Reliability and Quantum	Cost	No Cost
D1 New Pipeline to River Murray	1	1	1	1	2
H1 Bundaleer Catchment and Morgan Whyalla	5	3	3	4	5
B1 Bolivar WWTP	7	7	7	7	7
D2 Morgan Whyalla Pipeline Direct Offtake	3	3	3	4	4
D4 Bundaleer from Morgan Whyalla	2	2	2	2	2
F6 South East	9	9	9	9	9
H2 GAP and NAIS	8	8	8	8	8
H3 Regional desal and RM	4	5	6	3	6
H4 T2 and NAIS	10	10	10	10	10
H5 Bolivar WWTP and Bolivar HS	6	6	5	6	1

The top ranked options were:

1. Water supplied to the region from a new raw water pipeline from the River Murray
2. Water supplied via the Morgan Whyalla system off peak to the Bundaleer Reservoir to supply the region via a raw water pipeline to the north of the Clare GI
3. Water supplied via a direct offtake off of the Morgan Whyalla system potentially utilising the existing CVWSS.

All three options were assessed from a commercial perspective and, with a 50% Commonwealth funding assumption to support capital costs offer merit for further consideration in the PBC for comparison with existing water supply options for irrigators.

The Review Team further note that if the affordability factor was not included (or reduced) in the MCA assessment, the other water supply option worthy of consideration in a PBC is the treatment and transfer of Class B water from the combined output from Bolivar High Salinity and the main Bolivar WWTPs. The Bolivar High Salinity water has no existing or allocated demand to impact its availability/reliability, however would have relatively high cost to treat to a level suitable for irrigation in the Clare GI.



## Abbreviations

BIL	-	Barossa Infrastructure Limited
CAPEX	-	Capital Expenditure
CVWGA	-	Clare Valley Wine Grape Association
CVWSS	-	Clare Valley Water Supply Scheme
CWMS	-	Community Wastewater Management System
DAF	-	Dissolved Air Floatation
DENR	-	Department for Environment and Natural Resources
DEWNER	-	Department for Environment, Water and Natural Resources
DEW	-	Department for Environment and Water
DTF	-	Department of Treasury and Finance
ESCOSA	-	Essential Services Commission of South Australia
GAB	-	Great Artesian Basin
GAP	-	Glenelg Adelaide Pipeline
GI	-	Geographical Indicator
GL	-	Gigalitres
HS	-	High Salinity
MCA	-	Multi-Criteria Analysis
ML	-	Megalitres
NAIS	-	Northern Adelaide Irrigation Scheme
NWIDF	-	National Water Infrastructure Development Fund
OPEX	-	Operational Expenditure
PBC	-	Preliminary Business Case
PIRSA	-	Department of Primary Industries and Regions
Pxx	-	X% of exceedance
RFI	-	Request for Information
RFQ	-	Request for Quotation
SA Water	-	SA Water Corporation
VPS	-	Virginia Pipeline Scheme
WTP	-	Water Treatment Plant
WWTP	-	Wastewater Treatment Plant

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**Appendix A Request for Information Register**

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# 1. Review Team

Inside Infrastructure has been engaged by PIRSA to undertake this Review. **Dr. Chris Hewitson**, Director of Inside Infrastructure will lead the review. Chris has worked closely with the CVWGA and PIRSA and is very familiar with the project and the water resource options likely to be available for assessment in this review.

Inside Infrastructure is supported by:

- **John Kerr**, Director of Capital Strategies, who developed the commercial funding structures for similar project in the Barossa Valley and Langhorne Creek and
- **Andy Chambers**, Director of Airborne Logic, who has a long irrigator-engagement history in the Clare region and worked with Inside Infrastructure on the Pre-Feasibility Study for the CVWGA

and the Preliminary Business Case for Barossa New Water.

John will lead the Commercial aspects of the review and will draw on **Richard Cawley**, Principal Advisor from Inside Infrastructure to support assessments of water source pricing and affordability. Richard previously advised the government on third party access arrangements and was Senior Manager at SA Water for its past three regulatory/pricing submissions.

**Dr. Adam Tomlinson**, who assisted on the previous Clare work and the wider Inside Infrastructure team will support the framing and assessment of water source options.

The team structure has been provided in Figure 1-1.

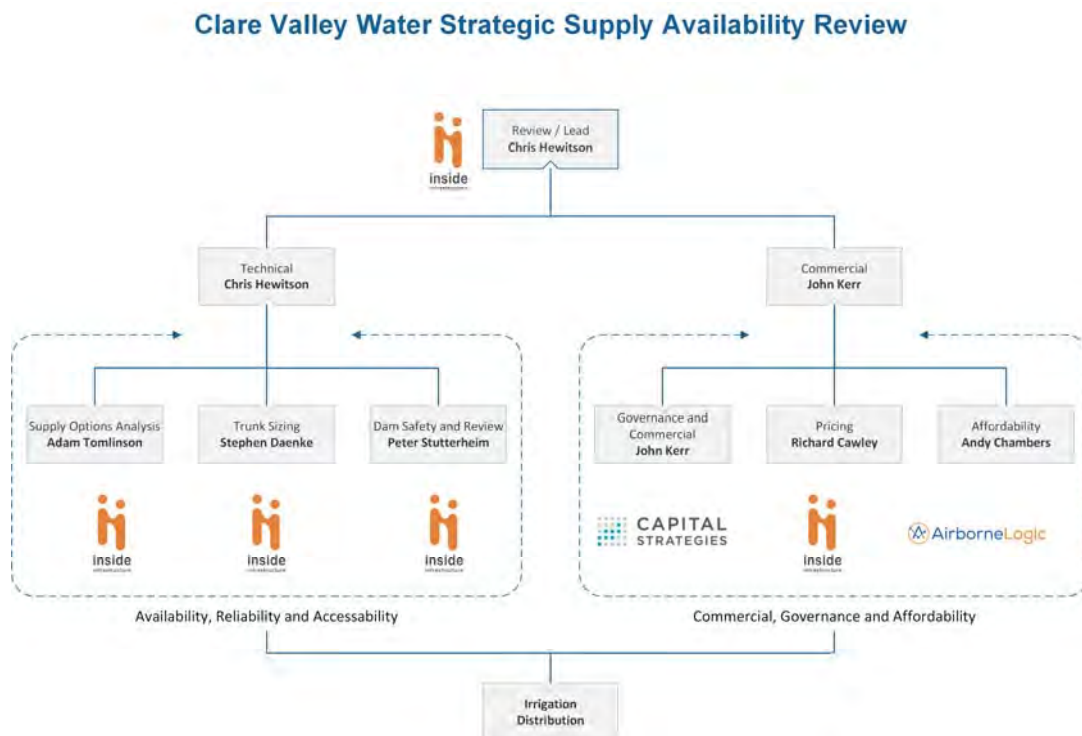


Figure 1-1 - Project team structure



## 2. Background and Scope of Review

### 2.1. Project Description and Purpose

The Clare Valley is considered a premium South Australian viticulture region that has produced long-term average annual yields between 20,000-25,000 tonnes.

The regions limited availability of natural surface water and groundwater resources sustain wine grape plantings, with supply further supplemented by potable water supplied by South Australian Water Corporation (SA Water) via the Morgan-Whyalla pipeline. The Clare Valley Water Supply System (CVWSS) is utilised to transfer the bulk water from the Morgan-Whyalla pipeline for irrigation purposes.

Declining long-term trends in annual rainfall has caused increased stress on local water resources and elevated stress on the CVWSS (Table 2-1).

Table 2-1 Declining trend in annual rainfall<sup>1</sup>

Time Period	Annual Rainfall (mm)
1961-1990	568
1991-2020	529
2020-2021*	443

\*July 2020-June 2021

The CVWSS is at full capacity during the growing season in summer when irrigation is essential to ensure development of vine canopy and grape yield<sup>2</sup>. Consultation with the Clare Valley Wine Grape Association has

identified that the association and its growers are pursuing to deliver a new baseline of 30,000 tonnes per annum of high value grape production by 2030. Clare Valley's (CVWGA and its growers) ambition aligns strongly with the broader South Australian Government's Growth State agenda to contribute \$23 billion to the state's economy through the Food, Wine and Agribusiness Sector by 2030<sup>3</sup>.

### 2.2. Scope

The purpose of the Review is to assess seasonal water availability and supply options for the Clare Valley, based on prior investigations.

The primary output of the Review will be a Strategic Supply Availability Review Report that includes a strategic assessment of possible water availability and supply options to the region, and a summary of appropriate governance and commercial models for an irrigation distribution network.

#### 2.2.1. Included in Review Scope

The review scope includes:

- building upon prior investigations, including testing assumptions, risks and conclusions made to ensure a PBC is well informed and based upon valid supply availability
- Assessment of the long-term reliability, availability, and affordability of water

<sup>1</sup> Regional Snapshot 2020-21, Clare Valley, Wine Australia 2021

<sup>2</sup> Request for quote (RFQ) Clare Valley Water Strategic Supply Availability Review, PIRSA, 2021

<sup>3</sup> Growth State, <https://www.23billionby2030.com.au/>, 2020



sources under consideration, including water volumes

- Assessment of any policy, regulatory, accessibility, distribution and other considerations with the water supply availability identified, including constraints to water availability, that may need to be taken into account
  - Engagement with water suppliers or material water holders and with policy makers
  - Recommendation of options (water availability/supply) to progress for further investigation in a PBC
  - Assessment other water supply availability considerations relevant for a PBC
  - A summary of appropriate governance and commercial models for an irrigation distribution network.
- Commercial pricing of supply options.

### 2.2.2. Excluded from Review Scope

Based on PIRSA's confirmation at the November 22nd Commencement meeting with the Project Reference Group, the following areas are excluded from the review scope as they would be taken into account in a PBC:

- Demand analysis, assessment or engagement
- Engineering development of water resource options
- Engineering development of transfer infrastructure requirements for water resource options
- Development of in-region distribution options
- Costing of water source options



## 3. Approach

The review was delivered through four phases:

1. Inform: Information requests and meetings with key knowledge holders. This is discussed further in Section 4 of this review
2. Frame: Development of a long list of options and to screen to a short list of ten for further consideration. This is discussed further in Section 5.
3. Assess: Further development of the shortlist to support assessment through an MCA process. The outcome from this stage is a recommendation of water

source/supply options to consider in the PBC.

The shortlisted options are presented in Section 6 and the MCA process described in Section 7.

4. Commercial: Summary commercial models and governance options for the in-region distribution system and how this may interface/support recommended source/supply options.

Commercial and governance is discussed in Section 8 of this report.

The approach is summarised in Figure 3-1 below.

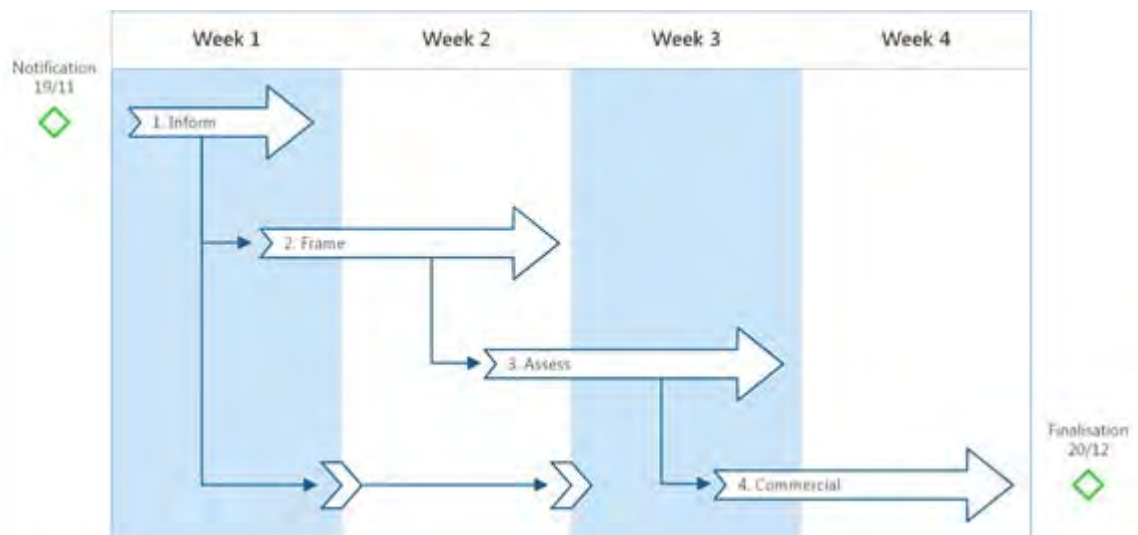


Figure 3-1 - Project approach summary



## 4. Information to Support the Review

Supporting documentation from key stakeholders was required to inform the Strategic Review of feasible supply options to the Clare Valley.

### 4.1. Assumptions to inform the review

The review seeks to assess availability of water source options to support the Clare Region's '30 by 30' strategic target:

- The quantum of water available from the source
- The timing to enable this source to support a '30 by 30' ambition.

#### Quantum

The Clare Region currently delivers approximately 20,000 tonnes of yield in most years. To achieve a further 10,000 tonnes of yield reliably an indicative quantum of 5 GL/yr has been adopted for this review (noting that demand analysis and assessment is not in the scope of this review and will form part of the PBC).

An additional 5GL/year assumes (for the purposes of this review) that:

- 70% of this additional yield will be from existing vines (0.7ML/ha additional over 5000 ha) and
- 30% from new plantings (1.5 ML/ha over 1000 ha).

#### Timing

To achieve the '30 by 30' strategic target, a water supply would nominally need to be supplying water for the 2025/26 season to allow five years of establishment for new plantings prior to the 2030/31 season.

This would favour water source options able to be developed and delivered in three years from the completion of a detailed business case that demonstrates financial and economic viability that secures funding for construction.

Factors that influence timing would include environmental and approval requirements and technical/engineering requirements to treat and transfer the source to the region.

#### Other factors

The review will also consider cost/kL at source and to the Clare region (affordability). Further, the review will include assessment of the resource sustainability and availability by indicating the confidence (reliability) of each resource. This will include any treatment indicative OPEX to deliver water to the region at a quality consistent with grower expectations of salinity from the 2020 Pre-Feasibility work: 500 mg/L (mode) 657 mg/L (mean)<sup>4</sup>.

Capital assessments are not part of the current review scope.

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<sup>4</sup> Edge: Report for Clare Valley Wine and Grape Association Water Pre-Feasibility Study, December 2020



## 4.2. Information requests and sources to support assumptions

Critical information was required to provide an up to date assessment on water supply options available to the Clare Valley. The information requested concerns the supply

Information was requested from:

- Department of Primary Industries and Regions (PIRSA)
- The Clare Valley Wine and Grape Association (CVWGA)
- The South Australian Water Corporation (SA Water)
- The Department for Environment and Water (DEW); and
- The Department of Treasury and Finance (DTF)

The full RFI list is provided in Appendix A with an overview of the information sought from each organisation and relevance to the review.

### 4.2.1. PIRSA

PIRSA provided access to excerpts of the 2019 Preliminary Business Case for the NAIS Barossa Expansion relevant to the consideration of Clare.

This information will support assumptions on affordability for growers for the MCA assessment and in understanding the level of existing lined storage in the region to support commercial model considerations.

### 4.2.2. CVWGA

The CVWGA provided information on the current SA Water charges for water to the

region (2021-22)<sup>5</sup>. This supports the affordability criteria for the assessment process.

The Association further provided information (in raw form) to support its 30,000 tonne yield by 2030 strategic goal that would ultimately be supported by a new water supply to the region.

Although the scope of this assessment does not include demand analysis and assessment, understanding this goal will inform the broad quantum of water required to enable this outcome and in determining which water sources (or combination of sources) are able to meet this requirement.

### 4.2.3. SA Water

SA Water provided information regarding its infrastructure and water source areas.

#### Bolivar and Glenelg

Source availability and diurnal information on volume and quality were provided for the Glenelg WWTP and the High Salinity plant.

NAIS monthly demand expectations (for the full Stage 1 12 GL only) and allowances for losses were provided. Utilisation of the Bolivar DAF (monthly time steps) was also provided.

#### Morgan-Whyalla and CVWSS

SA Water is undertaking a masterplan of the Morgan Whyalla system currently. The information provided in response to the RFI list was their allowances for demand to the Clare Region (for Clare growers) under Low, Medium and High demand considerations that they have incorporated into this masterplan.

No further information on either the Morgan Whyalla or Clare Valley Water Supply systems

<sup>5</sup> SA Water: Clare Valley Peak Water Transportation, Schedule of Charges 2021-2022

was provided to support the review as the masterplan is still being finalised. The masterplan should be completed and able to inform a PBC. It is recommended that this information is requested in readiness to inform a PBC.

Separate and additional to the information provided by SA Water the Review Team accessed information from publically available documents to provide capacity information on the Morgan Whyalla system.<sup>67</sup>

### **Bundaleer Reservoir**

SA Water provided the Bundaleer Dam Safety Review completed in 2013<sup>8</sup> and extracts from the 2017 NWIDF business case application for the Northern Reservoirs Utilisation Project<sup>9</sup>.

#### **4.2.4. DEW**

DEW provided information and responses to surface, ground and River Murray water resource options.

DEW also provided the 2014 Goyder report on the options for supply to the Clare Valley<sup>10</sup> to inform on wider regional water supply options.

### **Regional Ground and Surface water**

DEW provided a 2019/20 report on the capability and sustainability of prescribed

water resources in the region<sup>11</sup>. We also have access to the previous 2018/19 report<sup>12</sup>.

Yield assessments on the catchment for the Bundaleer Reservoir were also provided.<sup>1314</sup>

### **River Murray**

DEW confirmed that there are no restrictions to the purchase/lease of water from the River Murray or the transportation and use of this water within the Clare region.

Any arrangements would be subject to the current market for access to River Murray allocations/entitlements or under agreement with SA Water to utilise State entitlements. DEW provided links to the Water Allocation Calculator and Water Allocation and Entitlement Trading<sup>15</sup> dashboards

### **External to region resources**

DEW further provided information to support water source options that remained in consideration following the initial long list screening process including the T2 aquifer in the Northern Adelaide Plains<sup>16</sup> and on transfer of non-prescribed resources for use in other regions.

<sup>6</sup> SA Water: Morgan Water Treatment Plant – Balancing Storage Project Development Application, 2017

<sup>7</sup> DFW: Eyre Peninsula Demand and Supply Statement April 2011

<sup>8</sup> GHD: Bundaleer Dam Safety Review, Stage 2 Review Report. For SA Water, October 2013

<sup>9</sup> PIRSA: Northern Reservoirs Utilisation Project – Bundaleer Pipeline Scheme. NWIDF Business Case. Volume 1: Main Report, February 2017.

<sup>10</sup> Goyder Institute for Water Research: Inventory of Water Resources and Management Supply Options in the Clare Valley, August 2014

<sup>11</sup> DEW: Clare Valley Prescribed Water Resources Area 2019-20 water resources assessment. October 2021 DEW Technical report 2021/08

<sup>12</sup> DEW: Clare Valley Prescribed Water Resources Area 2018-19 water resources assessment. November 2020 DEW Technical report 2020/24

<sup>13</sup> SA Water: Northern Dams Yield Analysis Bundaleer, Beetaloo and Baroota Reservoirs. December 2005.

<sup>14</sup> DEW: Northern Reservoirs Sustainable Yields Project Analysis of available data to estimate sustainable yields of the Northern Reservoir catchments, November 2016

<sup>15</sup> Home – River Murray Water Allocation Calculator (waterconnect.sa.gov.au)

<sup>16</sup> DEW: Central Adelaide and Northern Adelaide Plains Prescribed Wells Areas 2018-19 water resources assessment. December, 2020 DEW Technical report 2020/30

#### 4.2.5. DTF

##### **Third Party Access**

DTF provided the current status of legislation for third party access in South Australia<sup>17</sup> and the ESCOSA review of this legislation<sup>18</sup> which is relevant to water source options that would benefit by accessing existing infrastructure e.g. River Murray water that utilises the Morgan Whyalla system for transit to the Clare region.

##### **Unsolicited Proposals**

DTF also advised that there are no current or recent (up to 3 years) unsolicited proposals for water supply to the Clare Region with their department. Though the review team believe that any privately-considered options would be incorporated in the long-list options assessed, any current/recent proponents would have been contacted to consider providing their ideas/concepts into the options assessment.

Though Flinders Peak Water<sup>19</sup> does not have a proposal currently with DTF, the review team is aware that they are in contact with major growers in the Clare region and as such have been approached for engagement as part of this review.

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<sup>17</sup> South Australia: Water Industry (Third Party Access) Amendment Act 2015. An Act to amend the Water Industry Act 2012.

<sup>18</sup> ESCOSA: 2019 Review of Water Third Party Access Regime, FIRAL REPORT, May 2019

<sup>19</sup> Flinderspeak.com.au





# 5. Long List Options Screening

## 5.1. Long List of Options

The long list options formed eight broad source categories:

- Class A Recycled Water
- Class B Recycled Water
- Sea Water Desalination
- River Murray
- Surface Water
- Ground Water
- Industrial
- Hybrids of above options

There were a total of 38 options considered in the long list. The proportion of considered options in each category is represented below (Figure 5-1):

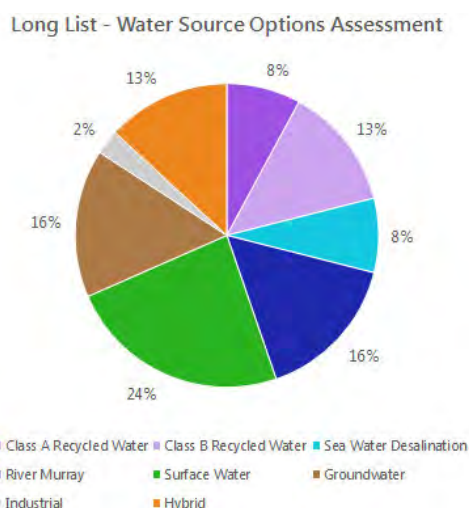


Figure 5-1 - Source overview

A map showing the options geographically in proximity to the Clare GI is provided in Appendix B.

### 5.1.1. Class A Recycled Water

Class A recycled water is water that has undergone a tertiary treatment step. Class A water is suitable for broad irrigation and municipal use and generally is at a quality that can directly support a desalination treatment step should there be a requirement for a reduction in salinity.

Options that were considered included:

- A.1. The Northern Adelaide Irrigation System (NAIS)
- A.2. The Bolivar DAF which currently supplies the Virginia Pipeline Scheme (VPS)
- A.3. The Glenelg to Adelaide Recycled Water Project (GAP)

Class A recycled water currently supports irrigation of wine grapes in the Northern Adelaide Plains and (with Bunyip/BIL sources) irrigation in the Barossa Valley.

### 5.1.2. Class B Recycled Water

Class B recycled water is water that has undergone secondary treatment and is the general level of treatment adopted in South Australia prior to discharge to the marine environment or for irrigation of municipal parks, gardens and sporting fields.

Class B recycled water is also utilised for irrigation of viticulture including the use of water from Christies Beach WWTP and

Aldinga WWTP for grape production in the McLaren Vale.

Class B options considered in this assessment included:

- B.1. Bolivar WWTP
- B.2. Glenelg WWTP
- B.3. Bolivar High Salinity
- B.4. Community Wastewater Management Systems (CWMS) local to the Clare region.
- B.5. Port Pirie WWTP

Class B water is likely to require additional treatment prior to desalination should the salinity of this source be above acceptable levels for irrigation to viticulture.

Source availability for Class B water is limited to the catchment supporting a plant.

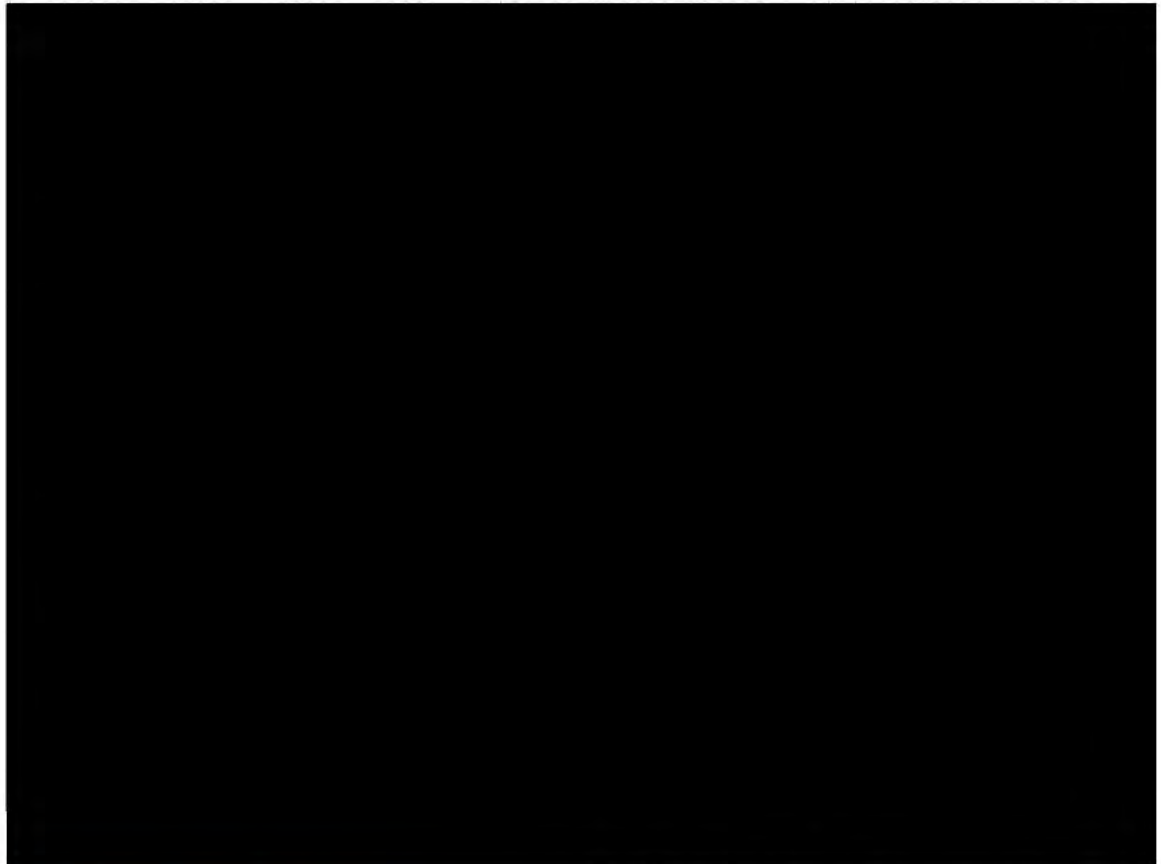
The source availability for Class B water has been based on the current volume of

secondary treated water from the plant minus the current allocated/contracted tertiary (Class A) water.



<sup>20</sup> Analysis from SA Water source spreadsheet  
 'Preliminary Estimate of Surplus WW-BolivarASHSWWTP  
 31082021 (From SA Water November 2021)





### 5.1.3. Sea Water Desalination

Sea Water Desalination draws a marine source of water and then treats the water to a level fit for a domestic, irrigation or industrial purpose.

Options considered in this review included:

- C.1. Access to the Adelaide Desalination Plant
- C.2. New desalination plant specific to the Clare Valley
- C.3. Access to a broader (future) regional desalination plant

Sea Water offers a virtually unlimited resource that is constrained by the costs of the treatment process to meet use requirements.

Sea Water Desalination does support horticulture including wine-grape production internationally.

### 5.1.4. River Murray

The River Murray currently provides the majority of South Australia's water for domestic, irrigation and industrial uses.

Options considered included:

- D.1. A standalone pipeline to access raw water from the River Murray
- D.2. A direct offtake from the Morgan-Whyalla pipeline
- D.3. A direct offtake from the Swan Reach to Paskeville system
- D.4. Offtake from the Bundaleer Reservoir filled solely from the Morgan-Whyalla pipeline



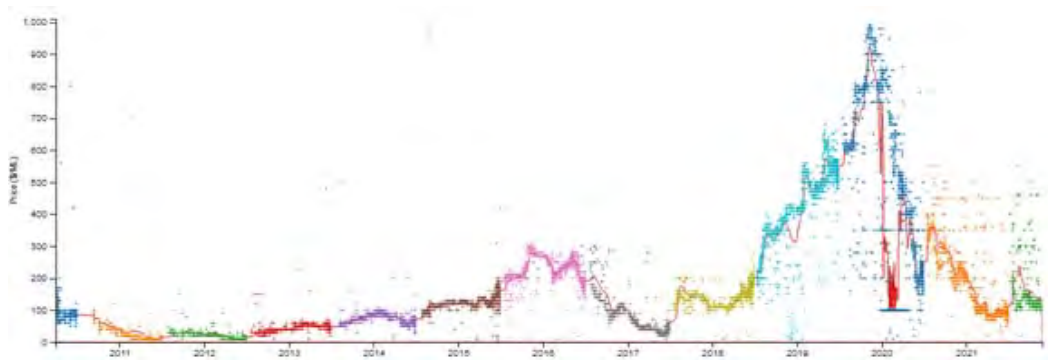
- D.5. The Clare Valley Water Supply System potable supply
- D.6. The Clare Valley Water Supply System off-peak water transfer

Raw water from the river is suitable for viticulture production and supports the Barossa and Riverland growing regions.

Treated water from the river source also supports viticulture in South Australia including the Clare Valley.

Access to River Murray Water is market based with the ability to procure entitlements or annual allocations based on the market. The costs of allocations (purchase for annual use) over the past ten years is provided below in Figure 5-3.<sup>22</sup>

It indicates a long-term 'average' of circa \$200/ML or \$0.2/kL.



**Figure 5-3 Historic allocation costs over the past 10 years**  
**River Murray Water Allocation (\$/ML) 2011-2021**

### 5.1.5. Surface Water

Surface water incorporates non-River Murray river systems and catchments local to, regional and external to the Clare Valley.

Options considered included:

- E.1. Bundaleer catchment
- E.2. Baroota catchment
- E.3. Beetaloo catchment
- #.4. Local river systems (Hill/Hutt/Wakefield)
- E.5. Neighbouring/Regional river systems (e.g. Gilbert)
- E.6. Stormwater capture (local to region)

- E.7. Stormwater capture (imported to region)
- E.8. Unutilised surface dam capture in region
- E.9. Interstate watersheds (e.g. Ord River)

Surface water from river systems and catchments is already being accessed to support viticulture in the Clare Valley.

### 5.1.6. Ground Water

Groundwater sources considered are generally in salinity levels comparable with the recycled water options

Options considered included:

<sup>22</sup><https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/water-trades-allocation-charts.aspx>

- F.1. Local aquifers within Clare GI
- F.2. Neighbouring aquifers to Clare GI
- F.3. T2 Aquifer in the Northern Adelaide Plains
- F.4. Wider region aquifer (e.g. Willochra Basin)
- F.5. The Great Artesian Basin (GAB)
- F.6. South East groundwater

Groundwater is already being accessed to support viticulture in the Clare Valley, Coonawarra, McLaren Vale and Barossa wine regions in SA.

#### 5.1.7. Industrial

Industrial water is water re-used from industrial processes.

The option considered was:

- G.1. In-region winery effluent

Industrial water is an input into viticulture irrigation including the (relatively low percentile of overall supply) of treated winery/industrial water (<0.5 GL) to the BIL water supply system.

#### 5.1.8. Hybrid

Hybrid options include combinations of water sources where there appear to be location and/or water quality synergies.

A select set of hybrid options were considered in the long list including:

- H.1. Bundaleer Catchment and River Murray supply to Bundaleer from the Morgan Whyalla
- H.2. GAP and NAIS
- H.3. Regional desalination and River Murray supply through the Morgan Whyalla
- H.4. T2 Aquifer and NAIS

- H.5. Bolivar WWTP and Bolivar HS combined sources

## 5.2. Screening process

The screening process was tasked to develop a top-ten source option field from the 38 long list of water source options.

The process considered four measures to screen options:

1. Quantum of water available from the source (availability of resource)
2. Confidence of supply (of this quantum) from the water source (reliability)
3. The indicative cost/kL from a water purchase and operation perspective to bring that source to the Clare GI (affordability)
4. The likely timing (years) to deliver the source to the Clare GI to meet the '30 by 30' strategic intention (availability to the region).

For the long list screening, each measure is scored evenly. The short-list will then be assessed through a weighted MCA process described further in Section 7.

### 5.2.1. Source Quantum

Based on the assumption that the Clare Valley region requires circa 5GL additional water annually to meet its '30 by 30' strategic target, the review team has assessed each source across the following five categories and given a score from 1 to 5:

1. <0.5 GL/year: **Very Low** availability. Not a resource to depend on for a '30 by 30' target
2. 0.5 to 2 GL/year: **Low** availability. Only of interest as a supporting source if geographically supporting another water source

3. 2 to 5 GL/year: **Moderate** availability. Capable of being a significant input to support another source for '30 by 30'
4. 5 to 10 GL/year: **High** availability. Likely able to support the full requirement for '30 by 30'
5. >10 GL/year: **Very high** water availability

The quantum of water was categorised into the above bands based on the current usage/commitments of water resources from each source option and the corresponding remaining unutilised/uncommitted capacity.

### 5.2.2. Reliability/Confidence

The second measure considered the level of confidence that the water source would achieve the quantum. This was assessed based on the probability (PX) it would achieve the quantum in a given year. A P90 would see the water source having a 90% confidence (i.e. 9 out of 10 years) of meeting/exceeding its quantum.

Each source was rated from 1 to 5 based on:

1. P10: **Very Low** confidence/reliability
2. P50: **Low** confidence/reliability
3. P90: **Moderate** confidence/reliability
4. P95: **High** confidence/reliability
5. P99: **Very high** confidence/reliability.

A confidence assessment takes into account limitations on achieving a guaranteed quantum such as fluctuations in the available water resources due to climate variability.

### 5.2.3. Indicative cost of water

The third measure considers (at an indicative level) the cost/kL of water to the Clare GI (not including costs of distribution). This does not include any capital costs of any source option

but allows for cost of water plus operating (pumping and treatment etc.).

The cost was compared to the existing water cost band of \$1.0-\$2.0/kL for Clare irrigators which is a combination of peak/off-peak water from the existing SA Water supply and access to surface and ground water sources.

Each source was rated from 1 to 5 based on:

1. >\$5/kL: **Very Low** affordability compared to existing water cost
2. \$2-\$5/kL: **Low** affordability compared to existing water cost
3. \$1-\$2/kL: **Moderate** affordability - comparable to existing water cost
4. \$0.5-\$1.0/kL: **High** affordability compared to existing
5. <\$0.5/kL: **Very High** affordability.

### 5.2.4. Timing

The final measure in assessing the long list was the expected time to be able to deliver the water source to the Clare GI. Considerations for this include the expected approvals or environmental constraints on the source option or the technical requirements to enable the option to deliver 'first water' to support the '30 by 30' target.

Each source was rated from 1 to 5 based on:

1. >10 years: **Very Low** ability to meet target
2. 5-10 years: **Low** ability to meet target
3. 2-5 years: **Moderate** ability to meet target
4. 1-2 years: **High** ability to meet target
5. <1 year: **Very High** ability to meet target.

### 5.2.5. Approach

Each long list option was then assessed during an internal Review Team workshop



based on the combination of its 1–5 rating over the four areas.

For example, a water source option that has:

- High availability (4)
- Very High reliability (5)
- Moderate affordability (3)
- Moderate ability to meet target timing (3)

Would have a score of  $4 \times 5 \times 3 \times 3 = 180$ .

Options were then ranked and a top ten list was taken forward for further development and a thorough MCA assessment.

#### 5.2.6. Outcome of long-list screening

Following the adoption of the above approach, the top ten options and their respective scores are shown in table Table 5-1 below.

**Table 5-1 - Long list screening summary**

No.	Option	Score
D1	New raw water pipeline from the River Murray	240
H1	Bundaleer fed from both River Murray and Catchment	240
B1	Bolivar WWTP - Class B	225
D2	Direct Offtake from Morgan Whyalla (or existing trunk)	192
D4	Bundaleer fed from Morgan Whyalla solely	192
H4	T2 Aquifer in tandem with NAIS	180
H2	Bolivar WWTP & HS combined	150

No.	Option	Score
F6	South East groundwater (potential substitution with RM source)	150
H3	Regional Desalination and River Murray	150
H5	GAP in tandem with NAIS	150

Options D5 and D6 pertaining to the augmentation of the existing CVWSS did not make the shortlist as the capacity of the CVWSS is pending confirmation, however these options can be considered subsets of option D2.

The detailed screening process, scoring and outcomes across all 38 options is provided in Appendix C.

The shortlisted options (in green) with the wider long list (in red) are represented geographically to the Clare GI in Figure 5-4.

The top ten source options were then taken forward into the MCA process for further development based on RFI information received, assessment and recommendation.

Minor quantity sources that are local to the region (e.g. B4: CWMS) whilst not considered as a significant source to support '30 by 30' would also be expected to be considered as minor-supporting sources (similar to CWMS for the BIL system in the Barossa) in the PBC.

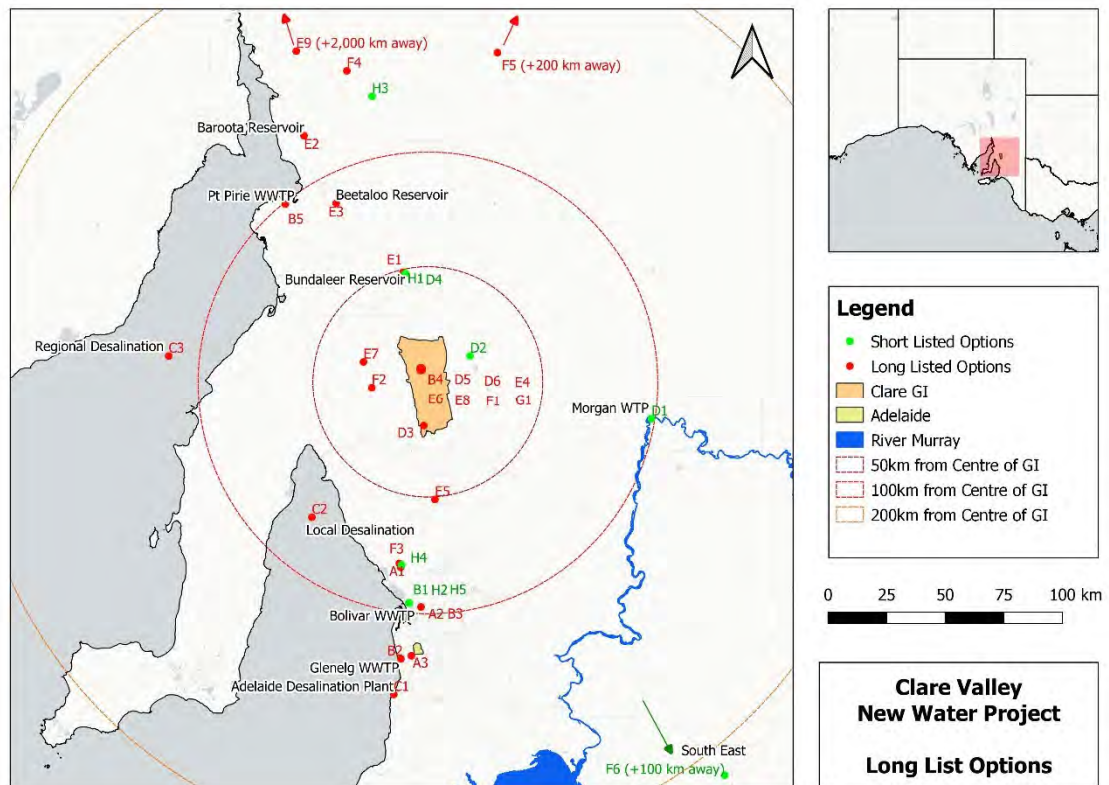


Figure 5-4 - Geographical representation of Long List options



## 6. Short-list Source Description

A shortlist of ten options was developed after the pre-screening process described in Chapter 5.

system ensuring backflow connection details are in place to protect CVWSS water quality for potable use.

### 6.1. Purpose

Each of the shortlisted options from the screening process are described in this section to support the MCA assessment, commercial options development and review findings.

Each source option description will include considerations (from RFI material and industry knowledge) that may increase or decrease its potential to supply the Clare region. These considerations will inform future options development in a PBC.

### 6.2. Short-listed Options

The shortlisted options are considered to be the most likely options to increase the delivery of water resources to the Clare Valley region that can successfully support a "30 by 30" strategic target for growth based upon the supplies availability, reliability and affordability.

Options D2 and H3, which access water from the Morgan Whyalla system offer the potential to be distributed within the Clare GI either through a new system or through a significantly augmented CVWSS.

All other short-listed options will require a new distribution system.

The existing CVWSS may be a supporting water resource option to a new distribution

#### 6.2.1. New Pipeline to River Murray (D1)



#### Water Source

This option explores the ability to transport River Murray raw water resources to the Clare Valley region via the construction of a new pipeline. The delivery of additional water resources will be solely used to bolster primary industries in the region (with consideration of options to benefit other primary industries along the route of the new pipeline).

The pipeline route will span approximately 100km to reach the extremity of the Clare GI boundary (depending on a detailed route analysis and selection).



## Water Availability

The River Murray source provides a very high water availability and is a highly reliable source of water. There are no availability constraints to water from this source.

Water can be accessed through entitlement or allocation. South Australia's entitlement from the River Murray is shown in Figure 6-1.

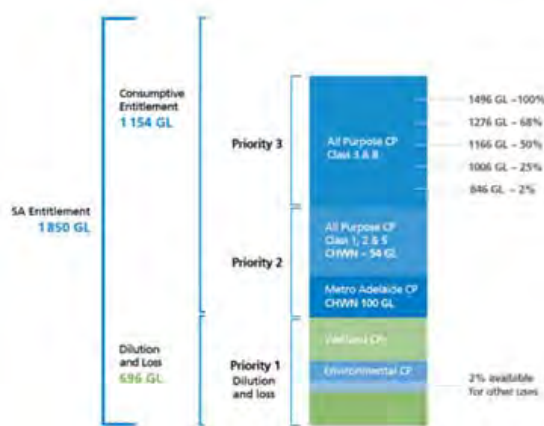


Figure 6-1 - SA entitlement from the River Murray

The price of water is subject to market variability, over the past 10 years the average/typical cost/kL is circa \$0.2/kL.<sup>23</sup>

## Considerations

This option offers a raw water alternative to the Morgan Whyalla system and avoids treatment costs in the water price for irrigators.

Reverting one of the existing Morgan Whyalla pipelines as a raw water asset was not included in the review.

## Connection to the Clare GI

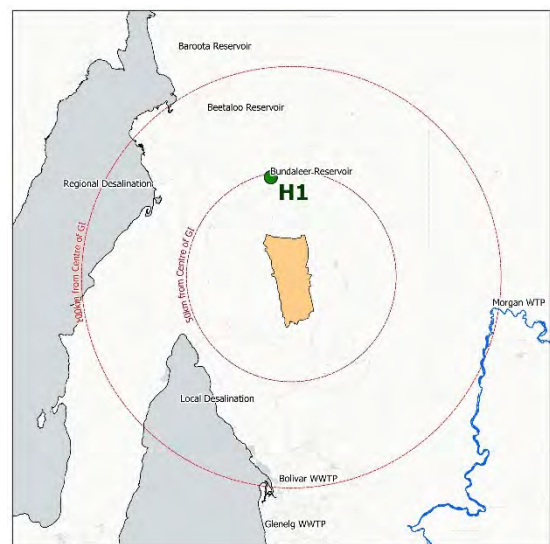
Connection of this source to the Clare GI from the River Murray will likely involve:

- Establishment of a trunk corridor (100-110km) between the source and Clare GI.

A trunk corridor would include the easements to support the pipe route and construction of a suitably sized and rated trunk main.

- Multiple pumping stations to lift the water to the Clare GI
- Water storage to support system control or cost optimisation.

## 6.2.2. Bundaleer Reservoir utilising Morgan-Whyalla Pipeline and local catchment (H1)



## Water Source

The Morgan-Whyalla system runs alongside the Bundaleer Reservoir, with a connection to (previous to July 1997) fill the reservoir to act as a balancing storage.

The salinity of this source is typically below 200 mg/L<sup>24</sup>.

The Bundaleer Reservoir has a very small (8 km<sup>2</sup>) local catchment with its historic yield viability achieved through access to a wider 1,559 km<sup>2</sup> supplementary catchment including the Bundaleer Creek (420km<sup>2</sup>) and

<sup>23</sup><https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/water-trades-allocation-charts.aspx>

<sup>24</sup> SA Water: Drinking Water Quality Report 2015-16

(prior to 1986) the Broughton River and Freshwater Creek catchments<sup>25</sup>.

The salinity of water supply from Bundaleer Creek is also variable. Since 1982/83 (whilst the reservoir was still utilised for water supply) diversions were limited to occasions when water quality in Bundaleer Creek was suitable (salinity less than 500 mg/L and turbidity and colour levels assessed as acceptable). This reduced inflow from 3,450 ML (1975-1982) to 1,600 ML (1983-1986).<sup>26</sup>

From the above, salinity from this source would likely be above 500 mg/L and require further reduction to meet the circa 500mg/L salinity levels of the Clare Valley winegrape growers. This can be achieved through shandying Morgan Whyalla potable water with reservoir water (typically below 200mg/L). Supply of sufficient volumes of potable water will significantly reduce the salinity of reservoir water to meet irrigator requirements.

The Bundaleer reservoir is located 35km from the northern extent of the Clare GI.

### Water Availability

The water availability from the Morgan-Whyalla System to feed into Bundaleer is >10 GL/year.

The water availability from the Bundaleer Creek supporting catchments is widely variable with circa 1 GL/year (P90) up to >20 GL/year (P10). The P50 estimate (2005) was 7 GL/year, however this is reduced to ~2/GL as only about 30% of the flows from Bundaleer Creek were diverted into the reservoir at this time.<sup>27</sup> Other studies indicated a 2.3-2.4

GL/year availability (Table 6-1)<sup>28</sup>. It is noted that all the studies assess information >15 years ago.

**Table 6-1 - Bundaleer Yield, P50**

Source	Bundaleer Yield (ML)
DENR, 1996 (1941 – 1994)	2,480
Goyder Institute, 2015a (after DENR) (1941 – 1996)	2,316
Tonkin, 2005 (1968 – 2005)	2,071

The salinity of water entering the reservoir from the Bundaleer Creek source is relatively high and further assessment of salinity levels and any seasonality fluctuation is recommended in a PBC should this option be taken forward.

Nominally a 2:1 ratio between Morgan-Whyalla supply and Bundaleer Creek supply would deliver a quality level acceptable to the region with no further requirement for treatment. This will be achieved by mixing lower salinity River Murray water with catchment water within the Bundaleer Reservoir.

### Considerations

Factors that may decrease availability include:

- The reservoir is currently operated at a reduced level due to asset-condition concerns. The Bundaleer Reservoir would be subject to a Dam Safety Upgrade to support this option to offer its listed 6.37 GL capacity for use as a water source.

The preliminary dam safety review was undertaken in 2013<sup>29</sup> The scope, requirement and cost of this upgrade

<sup>25</sup> SA Water: Northern Dams Yield Analysis Bundaleer, Beetaloo and Baroota Reservoirs. December 2005.

<sup>26</sup> SA Water: Northern Dams Yield Analysis Bundaleer, Beetaloo and Baroota Reservoirs. December 2005

<sup>27</sup> SA Water: Northern Dams Yield Analysis Bundaleer, Beetaloo and Baroota Reservoirs. December 2005.

<sup>28</sup> DEW: Northern Reservoirs Sustainable Yields Project Analysis of available data to estimate sustainable yields of the Northern Reservoir catchments, November 2016

<sup>29</sup> GHD: Bundaleer Dam Safety Review, Stage 2 Review Report. For SA Water, October 2013

would need to be reviewed should this option be taken forward through a PBC.

- The reservoir was recently (2019) opened up for recreation<sup>30</sup> which may support a minimum water level in the reservoir.

Factors that may increase or decrease source availability include:

- Understanding the Bundaleer Creek catchment potential and water quality considering climate impacts on the system, ability to draw high or lower volumes than the 30% indicated in provided literature.

Information on the status and condition of the previously used connection to the Morgan Whyalla system would also support a PBC.

The utilisation of a large scale balancing storage offers potential to access water from the River Murray when it is market beneficial as the allocation cost does demonstrate seasonal variability.<sup>31</sup>

### Connection to the Clare GI

Connection of this source to the Clare GI from the Bundaleer Reservoir will likely involve:

- Asset recommissioning/renewal/improvement works at Bundaleer Reservoir
- Establishment of a trunk corridor (35-40km) between the Bundaleer Reservoir and the Clare GI
- One pumping station to lift the water to the Clare GI

### 6.2.3. Bolivar WWTP (B1)



### Water Source

The Bolivar WWTP treats over half of Adelaide's collected wastewater and treats water to a secondary standard (Class B) before returning water to the marine environment via the Bolivar Channel.

The Bolivar WWTP source includes all water that is not currently contracted or allocated through SA Water's advanced treatment schemes including the Virginia Pipeline Scheme and NAIS.

For the purposes of this review, NAIS is considered to include Stage 1 (12 GL/year) noting that a future Stage 2 (8 GL) is a consideration not only for NAIS options - but for the Bolivar WWTP option which is the source water for NAIS.

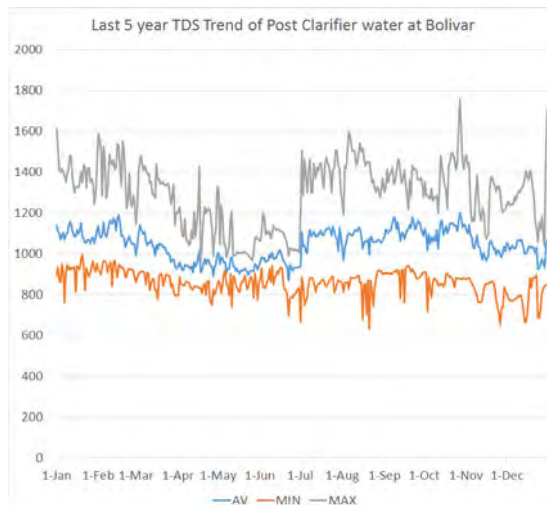
The salinity of water is also seasonal, typically within a 1,100 to 1,200 mg/L range over the past 5-years (Figure 6-2)<sup>32</sup>.

<sup>30</sup><https://www.regions.sa.gov.au/projects/dew/recreation/al-access-at-bundaleer-reservoir-reserve>

<sup>31</sup><https://www.waterconnect.sa.gov.au/Systems/WTR/Pages/water-trades-allocation-charts.aspx>

<sup>32</sup> SA Water RFI Response 29 November 2021





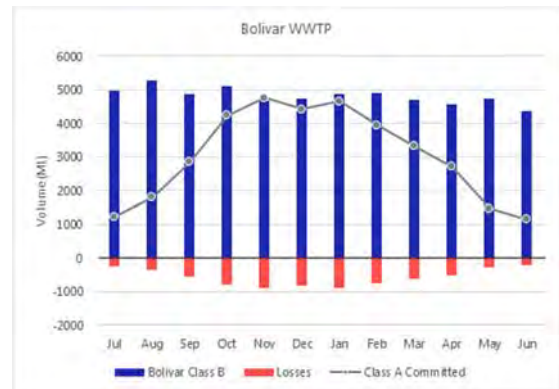
**Figure 6-2 - 5 Year representation of min, mean and max TDS post clarifier.**

The water volumes show some (minor) fluctuation across the year but are typically between 4.5-5 GL/month.

The source is located approximately 80km from the southern extent of the Clare GI.

### Water Availability

The Bolivar WWTP has a source availability of 14.5 GL/year accounting for current Class A water that is contracted/committed and losses at various stages of storage and treatment. This is represented across the year below in Figure 6-3<sup>33</sup>.



**Figure 6-3 - Bolivar source assessment overview**

Water from Bolivar WTP (Class A or B) would require treatment to reduce salinity.

### Considerations

Factors that may decrease water availability include:

- Other projects (e.g. Barossa New Water) are currently considering Bolivar/NAIS as a supply
- Water restrictions during the Millennium Drought reduced inflows to Adelaide's wastewater treatment facilities. A future event may reduce the available pool which may disadvantage the Clare region as a more recent customer for this source

Factors that may increase water availability include:

- Water into Bolivar is likely to increase over time with population growth which may offer a higher volume
- A policy consideration/change (from government) in the water allocation from Bolivar/NAIS (e.g. 6GL from NAIS Stage 1B) to the Northern Adelaide Plains for use in other regions.

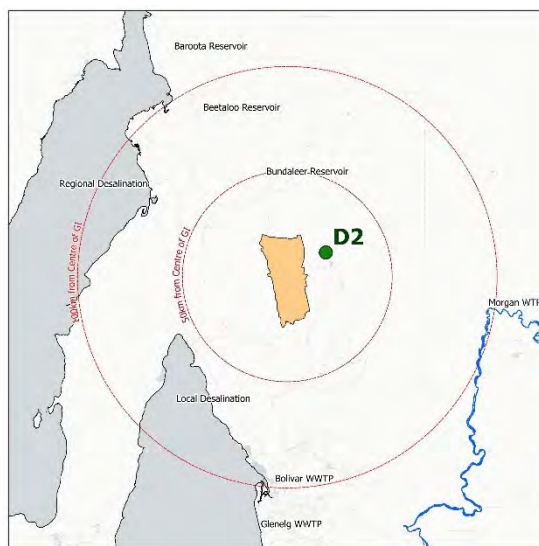
<sup>33</sup> Adapted from SA Water RFI Response 29 November 2021

### Connection to the Clare GI

Connection of this source to the Clare GI from Bolivar WWTP will likely involve:

- Additional treatment to achieve a water quality to meet irrigator requirements
- Establishment of a (80-100km) trunk corridor between the source and the Clare GI
- Multiple pumping stations to lift the water to the Clare GI
- Substantial water storage to manage availability shortfalls between October and March.

### 6.2.4. Direct Offtake from the Morgan-Whyalla Pipeline (D2)



### Water Source

The water source is River Murray water treated to a potable standard at the Morgan WTP and is equivalent to the current CVWSS supply. SA Water has advised the inclusion of future demand scenarios for Clare growers from the master planning exercise for the

Morgan Whyalla Swan Reach System. The estimated future annual allowances for the region (growers) under low, medium and high scenarios were<sup>34</sup>:

- Low - 4,105 ML/a
- Medium - 5,828 ML/a
- High - 6,396 ML/a

The above allowances include all existing demand (this is believed to be circa 3GL/a<sup>35</sup>). All 3 scenarios are well within the anticipated availability of the Morgan-Whyalla system.

The water quality is typically between 110 and 210ppm<sup>36</sup>.

### Water Availability

Water availability is limited by capacity within the Morgan-Whyalla system.

This is assumed to exceed 20 GL/year based on:

- A 200 ML/day capacity at the Morgan WTP (with ability to pump at a higher peak of 220ML/day for up to 5 hours)<sup>37</sup>
- An allowed 120 ML/day average demand (historic peak day demand in 2008<sup>38</sup>) from the system providing 80 ML/day availability at Morgan.
- Allowances for system availability (95%) and a capacity decrease near the Clare GI (75%) result in an available capacity to the region of 57 ML/day or 20.8 GL/year.

### Considerations

Capacity in the Morgan Whyalla is not consistent across the year. During some weeks/months availability may be limited or unavailable.

<sup>34</sup> SA Water RFI, 30/11/2021

<sup>35</sup> CVWGA Prefeasibility study, 2021

<sup>36</sup> SA Water: Drinking Water Quality Report 2015-16

<sup>37</sup> SA Water: Morgan Water Treatment Plant – Balancing Storage Project Development Application, 2017

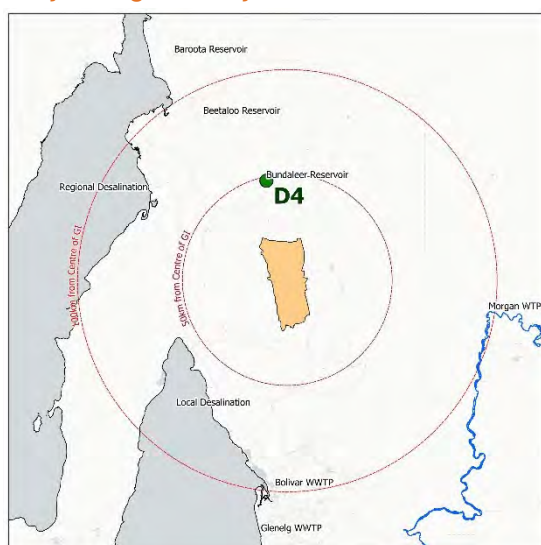
<sup>38</sup> DFW: Eyre Peninsula Demand and Supply Statement April 2011

### Connection to the Clare GI

Connection of this source to the Clare GI from the Morgan-Whyalla will likely involve:

- A new connection to the Morgan-Whyalla
- Establishment of a trunk corridor (10–15km) between the source and Clare GI - or to access existing SA Water trunk transfer mains (connecting the Morgan Whyalla to the Swan Reach Paskeville systems) that already traverse the Clare GI
- Balancing/retained storage to manage system seasonal availability.

### 6.2.5. Bundaleer Reservoir utilising only Morgan-Whyalla water (D4)



The Bundaleer Reservoir has a very small (8 km<sup>2</sup>) local catchment with its historic yield viability achieved through access to a wider 1,559 km<sup>2</sup> supplementary catchment including the Bundaleer Creek (400km<sup>2</sup>) and (prior to 1986) the Broughton River and Freshwater Creek catchments<sup>39</sup>.

This uniquely enables the Bundaleer Reservoir to offer a current volume of up to 6.37 GL that can be effectively disconnected from catchment source water and entirely sourced from the Morgan-Whyalla system which would provide treated River Murray Water as used currently by irrigators in the Clare GI.

### Considerations

The factors regrading Bundaleer are largely consistent with Option H1 (Section 6.2.2).

Other factors that may improve the potential of this resource include:

- Contingent use: Provides a high quality consistent water resource to support the Contingency Use of Bundaleer for the Morgan-Whyalla
- Dam safety: Would the upgrade requirements be reduced for a reservoir that is not subject to flood events, spill way use etc. and is in control of its level/height for dam management and/or maintenance?
- Increased capacity: With the reservoir disconnected from catchment sources, the necessity for the spillway capacity and freeboard allowances (currently exceeding requirement<sup>40</sup>) could be reviewed to increase the storage potential of the reservoir.

A factor to consider in this option is:

- Allowance for loss through evaporation would likely be considered at a supply price/cost (e.g. current off-peak) as there is no catchment water to off-set evaporation.

<sup>39</sup> SA Water: Northern Dams Yield Analysis Bundaleer, Beetaloo and Baroota Reservoirs. December 2005.

<sup>40</sup> GHD: Bundaleer Dam Safety Review, Stage 2 Review Report. For SA Water, October 2013 p52



The water resource is located 35km from the northern boundary of the Clare GI.

Current off-peak water price for Clare irrigators is \$1.27/kL<sup>41</sup> plus allowance to purchase water from the River Murray.

### Connection to the Clare GI

Connection of this source to the Clare GI from the Bundaleer Reservoir will likely involve:

- Asset renewal/improvement works at Bundaleer Reservoir - including potential to increase capacity
- Establishment of a trunk corridor (35-40km) between the source and Clare GI
- One pumping station to lift the water to the Clare GI

### 6.2.6. GAP and NAIS (H2)



### Water Source

This source utilises the 'available' advanced treatment capacity at both Bolivar WWTP (NAIS) Glenelg WWTP (GAP).

Both GAP and NAIS provide water at a high quality for public health standards, but the salinity (TDS) of both supplies (GAP 1100mg/L and NAIS 1100-1300mg/L)<sup>42</sup> is above likely irrigator requirements.

### Water Availability

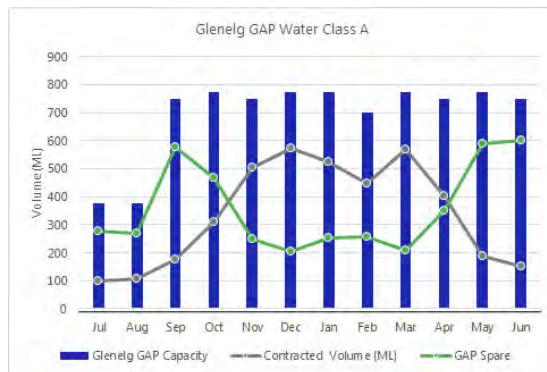
Further to the discussion on the use of Bolivar WWTP as a water source (Section 6.2.3) NAIS as a source alone has availability assuming Stage 2 infrastructure/augmentation is provided of 8 GL/year based on the 20 GL/year total water availability through the trunk infrastructure and accounting for the Stage 1 12 GL/year already contracted/allocated to the Northern Adelaide Plains. All of this additional 8 GL/year is limited to April-September.

The inclusion of water from the Glenelg to Adelaide Park Lands (GAP) recycled water scheme can offset the availability challenges to NAIS. GAP available supply is ~4.3 GL/year with some availability during the irrigation period (Figure 6-4)<sup>43</sup>.

<sup>41</sup> SA Water: Off-Peak Water Transportation Agreement (with individual water customers in the Clare Valley), 2020. This includes a \$1.17/kL consumption fee and a \$100/ML (\$0.1/kL) allocation fee. \$1.27 assumes full allocation take-up.

<sup>42</sup> SA Water RFI Response 29 November 2021 and 6 December 2021

<sup>43</sup> Adapted from SA Water RFI Response 6 December 2021



**Figure 6-4 - GAP source assessment overview**

### Considerations

Factors that may decrease water availability include:

- Other projects (e.g. Barossa New Water) are currently considering Bolivar/NAIS as a supply
- Water restrictions during the Millennium Drought reduced inflows to Adelaide's wastewater treatment facilities. A future event may reduce the available pool which may disadvantage the Clare region as a more recent customer for this source

Factors that may increase water availability include:

- The inclusion of supply from the Bolivar DAF plant (VPS)
- A policy consideration/change (from government) in the water allocation from Bolivar/NAIS (e.g. 6GL from NAIS Stage 1B) to the Northern Adelaide Plains for use in other regions

Connection of this source to the Clare GI from GAP/NAIS will likely involve:

- Additional treatment to achieve a water quality to meet irrigator requirements

- Establishment of a (80-100km) trunk corridor between the source and the Clare GI
- Multiple pumping stations to lift the water to the Clare GI

Substantial water storage to manage availability shortfalls between October and March.

### 6.2.7. Regional desalination and River Murray supply through the Morgan Whyalla (H3)



### Water Sources

The water sources are a combination of Desalinated Sea Water and River Murray Water, likely through the Morgan Whyalla system.

There is currently no existing regional desalination plant connected as a supply into the Morgan Whyalla system. The SA Government is currently considering a Northern Water Supply desalination project<sup>44</sup> that has the potential to support this option.

<sup>44</sup> ISA: Capital Intentions Statement 2021

Salinity from both sources would be consistent with existing levels, typically below 200 mg/L.

### Water Availability

Both water sources offer very high availability (raw water) limited by the capacity of the Morgan Whyalla system and the size of the desalination plant.

This option would offer an increased water availability to Option D2 (Section 6.2.4) and would reduce the seasonal variability or the Morgan Whyalla.

### Considerations

Factors that may decrease availability include:

- This option is dependent on other projects of state interest proceeding. If they were not to proceed, the availability from this option would revert back to D4
- The option is reliant on SA Water accepting water from a desalination plant into its Morgan Whyalla system either as third party access or as a utility provider or retailer of this resource

### Connection to the Clare GI

The connection requirements to the Clare GI would be similar to Option D4 (Section 6.2.4), or if Bundaleer was utilised to support this option, D5 (Section 6.2.5).

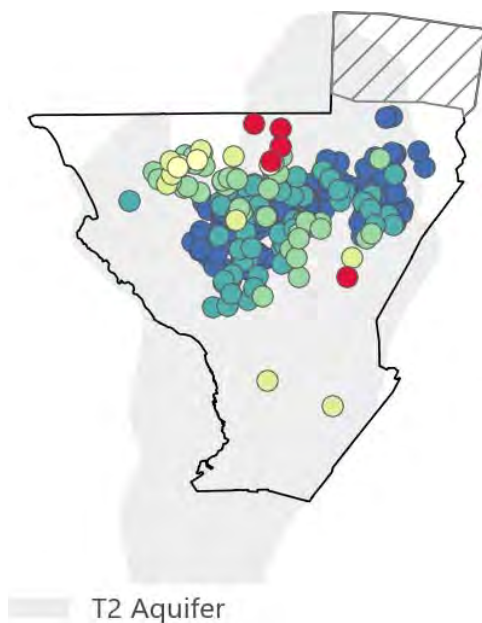
### 6.2.8. T2 Aquifer and NAIS (H4)



### Water Source

Option H4 utilises water from the NAIS infrastructure (refer Section 6.2.6) in tandem with the T2 aquifer in the Northern Adelaide Plains to provide a relatively consistent supply volume across a 12-month period. The T2 aquifer is shown with the NAP boundary (Figure 6-5).

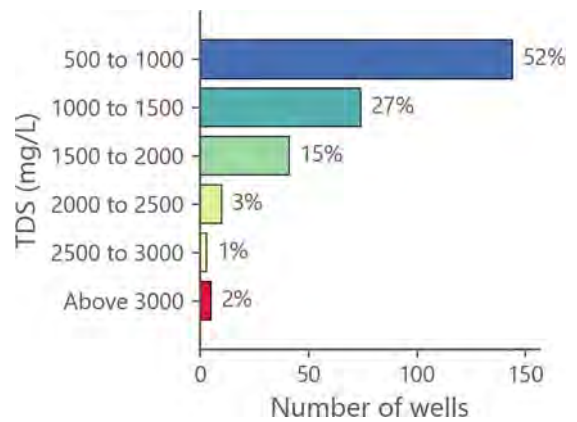




**Figure 6-5 - T2 aquifer location with reference to the Northern Adelaide Plains boundary**

This option is located 80km to the southern boundary of the Clare GI and the source is considered to be from the current termination of the NAIS trunk system/storages north of Two Wells and utilisation of groundwater wells in reasonable proximity.

Salinity levels in the T2 aquifer would be similar to NAIS (1100-1300 mg/L). Salinity is also presenting as stable or decreasing across the majority (94%) of wells (Figure 6-6)<sup>45</sup>.



**Figure 6-6 - TDS of T2 aquifer based on wells indicated in Figure 6-5.**

### Water Availability

The T2 aquifer would typically be capable of providing 2-5GL to complement NAIS.

NAIS (fully allocated for Northern Adelaide Plains -Stage 1, and Barossa Stage 2) would have total water availability of 20 GL/year with current customer agreements within the Stage 1A provision of 6 GL/year and Stage 1B provision of a 6 GL/year allocated to the Northern Adelaide Plains (NAP).

This option assumes that the T2 would operate during the summer months when NAIS (assuming SA Water full take-up is realised) is not available and that NAIS supply is provided when there is capacity in the treatment and trunk systems.

Historic extraction volumes from the T1 and T2 aquifers are provided in Figure 6-7.

<sup>45</sup> DEW: Central Adelaide and Northern Adelaide Plains Prescribed Wells Areas 2018-19 water resources

assessment. December, 2020 DEW Technical report 2020/30

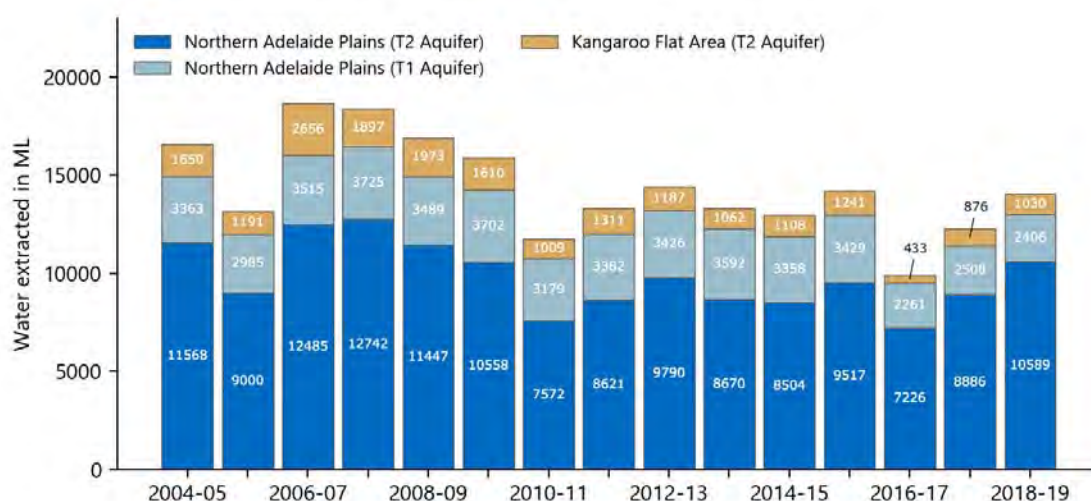


Figure 6-7 - Extraction volumes from the T1 and T2 aquifer

## Considerations

Challenges to this supply include:

- The Barossa New Water is currently in a more advanced project stage than Clare and is based on utilisation of available NAIS supply. If this project progresses, it will significantly reduce the availability of this resource to be too dependent on the T2 aquifer
- The T2 aquifer is a prescribed resource and any transfer of this resource outside of this region would need State Government approval.
- The use of the T2 for Clare may not be supported by existing water users in the region and be politically challenge to realise.

Opportunities that may improve availability include:

- Ability to draw on two resources of similar salinity levels to provide supply security

- Potential for change in allocation to NAIS Stage 1B (6GL) supply to be able to be provided external to the Northern Adelaide Plains.

The challenges and opportunities regarding the T2 Aquifer are currently being considered in the Water Allocation Plan for the region which is due for release by mid-2022<sup>46</sup>.

## Connection to the Clare GI

The connection to the Clare GI will likely require:

- Connection from T2 wells to the NAIS storages north of Two Wells
- Treatment to reduce salinity to acceptable levels for irrigators
- A trunk corridor (80-100km)
- Pumping stations to lift water to Clare GI
- Balancing storage at the Clare GI

<sup>46</sup> Indicated by DEW 20th December 2021

### 6.2.9. South East (F6)



#### Water Source

Option F6 utilises abundant groundwater resources available in the limestone coast region (south east). The available water can be directly supplied north to Clare Valley or, used to offset River Murray water that can be provided to the Clare region.

Offsetting River Murray water can be achieved through the provision of reliable groundwater resources to irrigators around the lower lakes to increase allocation to the Clare Valley region via the Morgan-Whyalla pipeline

If an offset model is adopted, this effectively becomes a subset of a River Murray option.

Salinity of this source is variable depending on location in the South East. It is expected to be  $>1,500 \text{ mg/L}$ <sup>47</sup> so will require further treatment for irrigation use.

#### Water Availability

Groundwater throughout the region is readily available but must align with the regions water allocation plans diversion limits. These diversion limits ranges across the region but generally the water resources are

underutilised significantly below the target management limits.

Water availability in the South East has been assessed by DEW over the past 12-months and is currently under internal review.

#### Considerations

Challenges to this supply include:

- Reductions in future allocations
- Groundwater resources within the south east are prescribed water resources and any transfer of this resource outside of this region would need State Government approval.
- The use of the south east groundwater to offset River Murray water for Clare may not be supported by existing water users in the region and be politically challenge to realise.
- Localised augmentation of the SA Water CVWSS is still required.

Opportunities that may improve availability include:

- Method can potentially increase allocations of River Murray resources to the Clare Valley Region
- Maintains the same demand on River Murray water resources whilst increasing supply to the Clare Valley
- Provides a sustainable source of water to the lower lakes irrigators

#### Connection to the Clare GI

The connection to the Clare GI will likely require:

- Connections from suitable groundwater sources for treatment to reduce salinity to acceptable levels for irrigators

<sup>47</sup> PIRSA: AgInsight South Australia

- A trunk corridor (>100km) to existing River Murray demand locations
- Pumping station/s to transfer supply
- Balancing storage at the lower lakes

It will also require similar infrastructure to option D2 to connect the Clare GI from the Morgan Whyalla.

### 6.2.10. Bolivar WWTP and Bolivar HS combined sources (H5)



#### Water Source

The water source is the combined flow from Bolivar WWTP and the Bolivar High Salinity WWTP into the Bolivar Outfall Channel (Figure 6-8).

The salinity (TDS) of the water source is typically (current) between 2,000 mg/L and 2500 mg/L<sup>48</sup>.

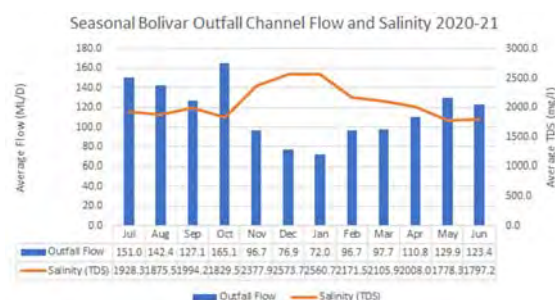


Figure 6-8 - Historic flow and salinity within Bolivar outfall channel (2020-21)

#### Water Availability

The water availability from the combined plants is 21.5 GL/year. It is very seasonally based due to the level of contracted/allocated Class A demand and allowance for losses (refer Section 6.2.2).

The water availability is shown based on monthly data<sup>49</sup> below.

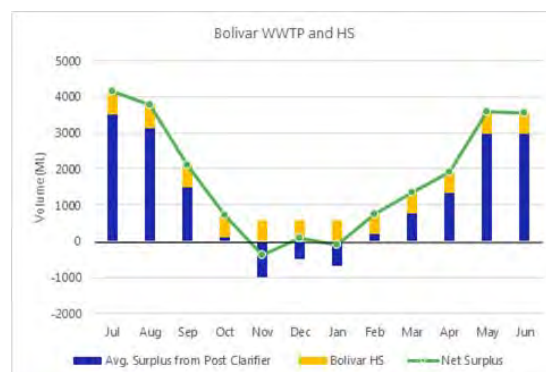


Figure 6-9 Bolivar and Bolivar High Salinity source assessment.

#### Considerations

Considerations that may impact source availability include:

- Source has a variable salinity depending on the proportion from each plant. Although currently between 2,000 to 2,500 mg/L, this range will substantially increase during full contracted/allocated

<sup>48</sup> SA Water RFI response 29 November 2021

<sup>49</sup> Adapted from SA Water RFI response 29 November 2021



take-up. This might increase the range from 2,000ppm during winter months up to 7,000ppm when it is only the Bolivar HS supply available.

- Bolivar HS catchment has high industrial inputs which would need to be considered in advanced treatment
- The Barossa New Water Project is considering supply from Bolivar WWTP and if this project progresses will significantly reduce (>8 GL/year) water availability.

### **Connection to Clare GI**

Connection of this source to the Clare GI from a combined Bolivar WWTP and HS source will likely involve:

- Additional treatment to achieve a water quality to meet irrigator requirements - including flexibility to accommodate variable influent water salinity
- Establishment of a (80-100km) trunk corridor between the source and the Clare GI
- Multiple pumping stations to lift the water to the Clare GI
- Substantial water storage to manage availability shortfalls between October and March.



# 7. Multi-Criteria Analysis and Outcomes

The shortlisted options detailed in Chapter 6 are assessed via a Multi Criteria Analysis (MCA) assessment. The development of an MCA is a fair and transparent process that compares a range of criteria against each option to determine a suite of preferred options.

## 7.1. Assessment Criteria

The assessment criteria used in the MCA process have been chosen on the merit on the options ability to support the Clare Valley's "30 by 30" ambition. The assessment criteria considered each option's ability to;

- deliver water for an affordable OPEX;
- deliver water for an affordable CAPEX;
- deliver a sufficient quantum of water to increase the regions yield on existing plantings (tonnes/ha) and to support the development of additional plantings;
- ensure a reliable supply of additional water resources;
- deliver water in a timely manner to support the regions 2030 ambition;
- ensure that the water resources can be equitably distributed across the region' and;

- navigate political and legislative barriers to successfully implement the scheme.

The MCA process was discussed with the broader working group for input and commentary prior to assessment.

## 7.2. Weighting and justification

Each of the MCA assessment criterion are ranked against the other criteria to calculate weighting score. This score determines the significance of each criterion in achieving the supply of additional water resources to the Clare Valley that supports the associations '30 by 30' ambition.

A weighting score is calculated by ranking each criterion to determine if each criterion is;

- (0) much less important;
- (1) less important;
- (2) equally as important;
- (3) more important, or;
- (4) much more important, than the other criteria.

The ranking process is completed systematically for each of the criterion to calculate a weighting score known as a baseline assessment. The baseline assessment determines the significance of each criterion based on the MCA working groups assessment (Table 7-1). A range of sensitivity tests are then manually applied to assess the impact of various weighting scores including:

- Equal weighting assessment
- Cost sensitive assessment
- Quantum and reliability assessment

Table 7-1 - Weighting and sensitivity of criteria

Weighting Table										Sensitivity Testing			
Scoring Guide 0. Much Less Important 1. Less Important 2. Equally as Important 3. More Important 4. Much More Important	OPEX cost to region	Quantum	Reliability	Timing	CAPEX (Connection Charge)	Equity	Political / Legislative	Total Score	Baseline (%)	Equal Rating (%)	Reliability and Quantum (%)	Cost (%)	No Cost (%)
OPEX cost to region		1	1	3	2	1	2	10	12	14	10	25	0
Quantum	3		3	3	2	3	2	16	19	14	25	10	20
Reliability	3	1		3	2	4	3	16	19	14	25	10	20
Timing	1	1	1		1	2	1	7	8	14	10	10	20
CAPEX (Connection Charge)	2	2	2	3		3	3	15	18	14	10	25	0
Equity	3	1	0	2	1		2	9	11	14	10	10	20
Political / Legislative	2	2	2	3	1	2		12	14	14	10	10	20
								85	100	100	100	100	100

### 7.3. MCA Assessment

The shortlisted options are scored against the weighted criteria to determine a preferred options ranking. The options scoring is

designed to separate out options that do not support, or potentially hinder Clare Valley Wine Grape Association's ambition to develop a new baseline of 30,000 tonnes (Table 7-2).

Table 7-2 - Scoring and rational

Score	Description
9	Choice strongly supports the CVWGA's '30 by 30' baseline
7	Choice moderately supports the CVWGA's '30 by 30' baseline
3	Choice partially supports the CVWGA's '30 by 30' baseline
1	Choice does not support the CVWGA's '30 by 30' baseline

Each option is allocated a scoring to indicate how well it meets the necessary criteria and

an overall weighted score is calculated. The results of the baseline assessment are provided in Table 7-3.



Table 7-3 - MCA Baseline assessment

Ambition	Minimise	Maximise	Maximise	Minimise	Minimise	Maximise	Preferred		
Criteria	Affordability: OPEX cost of water to the region	Availability: Quantum of water to support a 30 by 30 strategy	Reliability of water to the region	Timing to deliver additional water resources	Connection Charge*	Distribution: Equity across the region	Political / legislative	Overall Score	Overall Rank
Baseline Weighting (%)	12%	19%	19%	8%	18%	11%	14%	100%	
Options									
D1 New Pipeline to River Murray	9	9	7	9	7	9	7	7.99	1
H1 Bundaleer Catchment and Morgan-Whyalla	7	9	7	9	7	9	3	7.19	5
B1 Bolivar WWTP	3	7	7	3	3	7	7	5.49	7
D2 Morgan Whyalla Pipeline Direct Offtake	7	9	7	7	7	7	7	7.38	3
D4 Bundaleer from Morgan Whyalla	7	9	7	9	7	9	7	7.75	2
F6 South East	1	9	7	3	1	7	1	4.44	9
H2 GAP and NAIS	3	9	7	3	1	7	3	4.95	8
H3 Regional desal and Morgan-Whyalla	9*	9	7	3	7	7	7	7.28	4
H4 T2 and NAIS	3	7	3	3	1	7	1	3.54	10
H5 Bolivar WWTP and Bolivar HS	3	9	9	7	3	7	9	6.86	6

\* Assuming no increase in water cost from the Morgan-Whyalla system

The same scores in the baseline assessment are then applied to each of the sensitivity assessments for a fair comparison. The results of the baseline assessment and the

various sensitivity tests are summarised in Table 7-4.

**Table 7-4 - Summary of findings from the MCA workshop.**

Options	Baseline	Sensitivity Assessments			
		Equal Weighting	Reliability and Quantum	Cost	No Cost
D1 New Pipeline to River Murray	1	1	1	1	2
H1 Bundaleer Catchment and Morgan Whyalla	5	3	3	4	5
B1 Bolivar WWTP	7	7	7	7	7
D2 Morgan Whyalla Pipeline Direct Offtake	3	3	3	4	4
D4 Bundaleer from Morgan Whyalla	2	2	2	2	2
F6 South East	9	9	9	9	9
H2 GAP and NAIS	8	8	8	8	8
H3 Regional desal and RM	4	5	6	3	6
H4 T2 and NAIS	10	10	10	10	10
H5 Bolivar WWTP and Bolivar HS	6	6	5	6	1

#### 7.4. Recommended Sources for Further Investigation in PBC

The baseline MCA process identified the top three rated options are:

- **D1** - New pipeline to the River Murray to supply raw water to the region
- **D4** - Utilisation of the Bundaleer reservoir to fill with off-peak water from the Morgan-Whyalla system whilst disconnected from the local catchment
- **D2** - Augmentation of the existing SA Water supply scheme with the installation of a direct offtake from the Morgan-Whyalla pipeline into a new regional storage solution

These options scored highly across each of the criterion and were considered best

positioned to deliver a new baseline of 30,000 tonnes by 2030 within the Clare Valley GI. Options D1, D3 and D2 continued to rank highly across each of the sensitivity tests.

The next highest ranked options that also scored highly were:

- **H1** - Utilisation of the Bundaleer reservoir to fill with off-peak water from the Morgan-Whyalla system whilst taking advantage of the local catchment runoff
- **H3** - Freeing up capacity of the Morgan-Whyalla system through the construction of a regional desalination plant (i.e. Northern Water)

It is noted that the H1 option is a subset of D4, however, H1 has reliance on the Bundaleer Creek and would likely have greater Dam Safety requirements.

Additionally, H3 option is a subset of D2. H3, would still require augmentation of the existing SA Water system to deliver increased water resources equitably throughout the Clare Valley GI - or be distributed through a new network.

Numerous recycled water options were considered during the MCA assessment (B1, H2, H4 and H5). However, each of these options scored lower due to expected cost to treat to an acceptable water quality and the need to supply the water from a long distance. There are also seasonal availability challenges with the recycled water options, even including consideration of Bolivar HS water (H5) due to NAIS and VPS commitments.



# 8. Commercial Models and Governance

## 8.1. Introduction

The following sections provide indicative commercial models for shortlisted delivery options together with an outline of the key issues requiring further consideration in the lead up to the preparation of the PBC.

The scope confirmation (refer Section 2.2.2) that these elements are out of scope for this Review has required that an indicative outline of the key options be developed for use only in the commercial sections.

## 8.2. Options for Consideration

This section focuses on three options developed during the screening process in earlier sections of this report.

These options are:

- D1 New pipeline from River Murray
- D4 Bundaleer Reservoir utilising only Morgan – Whyalla water

- D2 Direct offtake from the Morgan Whyalla pipeline.

Each of these options is discussed further below.

### 8.2.1. D1 - New Pipeline from River Murray

#### Description

This option involves the establishment of a new trunk main from the River Murray through to the Auburn region.

As it will be a raw water solution a new reticulation system will be required throughout the Clare Valley.

This option should enable on-demand delivery to the end user.





Figure 8-10 Option D1 - New pipeline from River Murray

### Commercial framework considerations

This option can be considered on a standalone basis as it does not require negotiating asset access/sharing arrangements with SA Water.

Preliminary affordability assessments indicate that this option will require capital funding assistance.

It is envisaged that the whole scheme cost for this option should qualify for Federal Government funding assistance.

### 8.2.2. D4 - Bundaleer Reservoir utilising only Morgan-Whyalla water.

#### Description

This option envisages utilisation of the Morgan Whyalla pipeline to deliver water to the Bundaleer Reservoir.

From the Bundaleer Reservoir, a new connection main would be constructed to circa Stanley Flat.

Once the water (treated at Morgan), is delivered into the Bundaleer Reservoir, it will revert to a raw water state. As such, a new reticulation network would require construction throughout the Clare Valley.

This option should enable on-demand delivery to the end user.

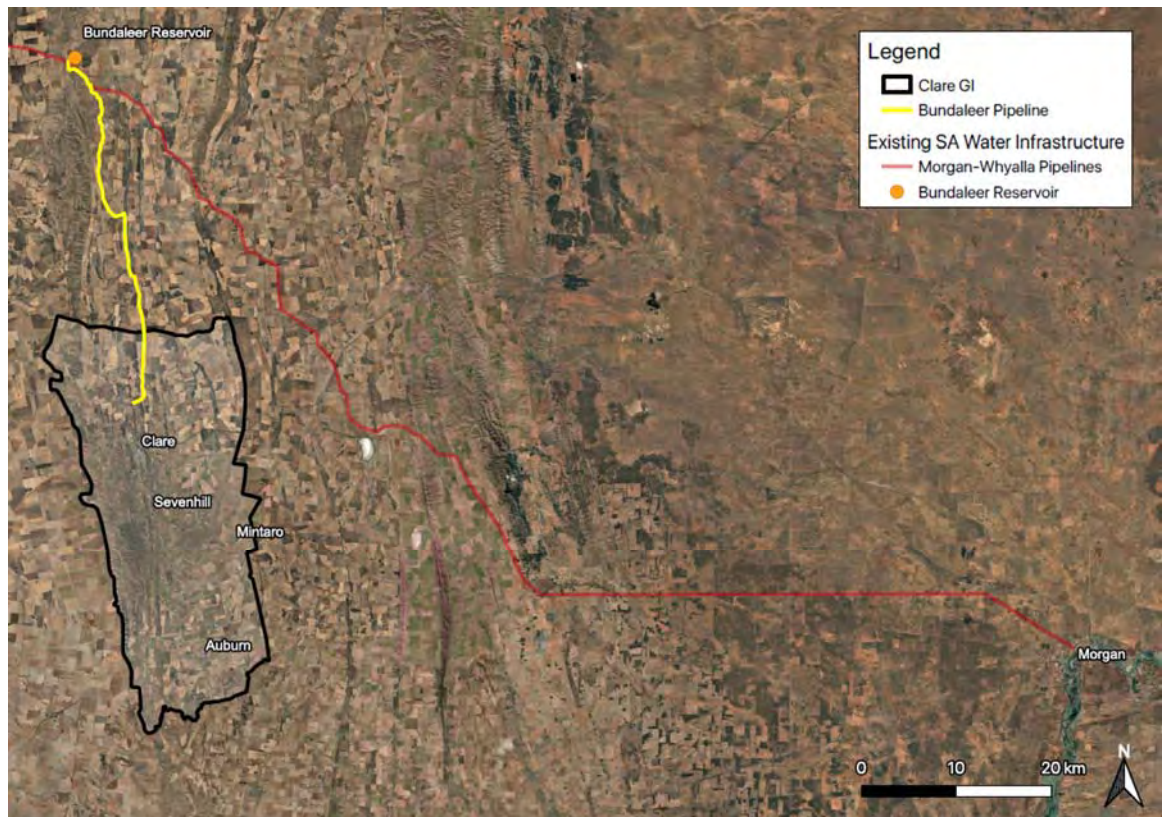


Figure 8-2 - Option D4 - Bundaleer Reservoir utilising only Morgan-Whyalla water

### Commercial framework considerations

This option will require negotiation of a Water Transport Agreement with SA Water and possibly an Access/Usage Agreement with respect to the Bundaleer Reservoir.

Preliminary affordability assessments indicate that this option will require capital funding assistance.

It is envisaged that the new raw water mains to and around the Clare Valley will qualify for Federal Government funding assistance.

#### 8.2.3. D2 - Direct Offtake from the Morgan-Whyalla Pipeline

This option builds on the current CVWSS supply concepts and involves utilising the Morgan Whyalla pipeline and to deliver to an offtake around Hanson Tanks.

A new main would be constructed through Mintaro to Auburn with regular lateral offtakes heading west to storage/supply points in the Clare Valley.

Subject to storage design limitations, it is envisaged that this option may be able to maintain its filtered water status. As such distribution by the potable network may be practical.

This option may be limited by peak/off-peak availability in the Morgan Whyalla pipeline. It is envisaged that the volume will be available as a hybrid of off-peak and on-demand delivery to the end user.



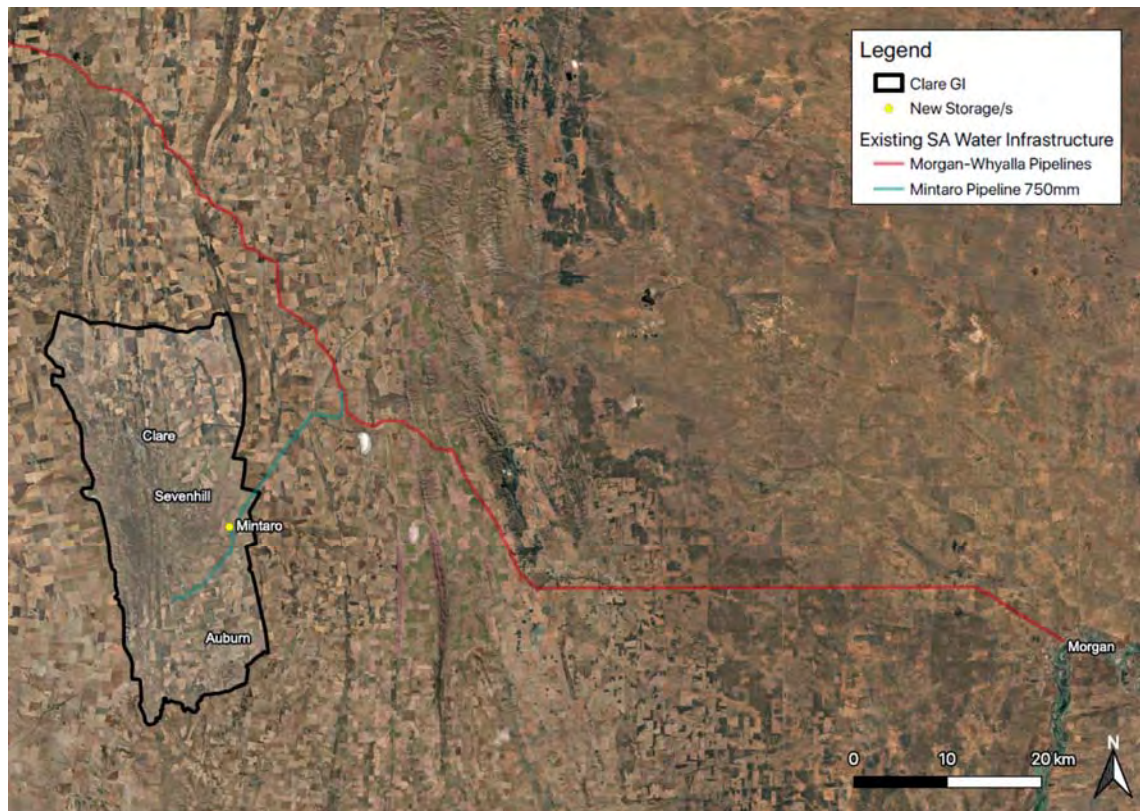


Figure 8-3 - Option D2 - Direct Offtake from the Morgan-Whyalla Pipeline

### Commercial framework considerations

This option may be an extension of current CVWSS supply arrangements or possibly a new supplier arrangement.

Preliminary affordability assessments indicate that this option will require capital funding assistance.

Securing Federal government funding assistance for this option requires further discussion with SA Water.

### 8.3. Project Scoping

High-level information on the likely requirements to implement each option is provided in Appendix D.

Assuming that there is a 50% contribution from the Commonwealth to support capital

expenditure, the review team believe that all three shortlisted options have merit in further assessment in the PBC and appear to have competitive long-term costs when compared with the current options available to irrigators.

Further discussion on our indicative assessments (out of scope for this review) to inform this position can be shared separate to this report.

### 8.4. Commercial and Governance Issues Identified During Scoping Work

From the work undertaken to date, the following commercial and governance issues could be further developed in the lead up to the Preliminary Business Case process.

#### 8.4.1. Commercial Issues

The following commercial issues/directions are indicated by findings of this report.

##### **Water source**

Based on the supply side review undertaken in this study, it appears the most viable supplementary water source for the Clare Valley will be sourced at the River Murray.

This resource will be delivered to the Clare Valley through either SA Water's existing infrastructure (possibly augmented) or a new pipeline from the river. Governance issues associated with these options are further discussed below.

##### **Requirement for funding assistance**

This review indicates that all of these schemes will likely require capital funding assistance to achieve a price considered affordable by sufficient end users.

The next critical step in advancing a supplementary water resource for the Clare Valley is the preparation of a Preliminary Business Case for consideration by the Federal Government. Funding has been secured for this process which will commence in early 2022.

##### **Power offset arrangements**

The critical cost element in all options is the power associated with moving large volumes of water. These costs can either be incurred through capital intensive renewable energy or operating cost intensive traditional energy sources. Investigations should be made into whether a renewable source can be included in the project capital scope and qualify for inclusion in capital funding subsidy arrangements. The review notes that inclusion of a renewable energy source would also assist in sustaining the climate sensitive credentials of the Clare Valley.

#### 8.4.2. Governance Issues

The following governance issues require further investigation. Preparatory work could be undertaken in these areas to assist the timely preparation of the Preliminary Business Case.

##### **Engagement with SA Water**

A critical issue will be SA Water's preparedness to negotiate terms and conditions for certain asset access arrangements and their water price expectations with respect to same.

The review understands that SA Water is currently undertaking a master planning exercise for the Morgan Whyalla Swan Reach system. Ensuring that the timing of this exercise aligns with the preliminary business case process will be important.

SA Water's expectations with respect to these water prices will predominantly determine whether using existing assets or developing new infrastructure is the preferred direction identified in the Preliminary Business Case.

##### **Community ownership**

There has been some discussion with respect to establishing a grower owned entity to build/own/operate all or some of the required project work.

Examples of these structures include the current irrigation systems being operated in the Barossa Valley and Langhorne Creek regions by community owned unlisted public companies.

Enabling these structures takes considerable community commitment and a preparedness to invest. The CVWGA should consider arranging a survey amongst the major parties interested in supplementary water to determine their preference with respect to providing capital to deliver the project to own/operate certain project elements.



**Private funding**

Private capital could be secured for delivery of a project of this nature.

Previous examples of schemes include the Virginia Pipeline Scheme in the 1990s and the Willunga Basin Water Company in the mid 2000's.

The supply of private capital to projects nature is a somewhat narrow market. Early engagement to test the market interest is recommended.

**Contract terms**

Securing capital support for a project of this nature will require long-term contract commitment from customers.

In the lead up to detailed demand work, the PBC and CVWGA should consider developing preferred contract terms with the its constituents. These contract terms would cover issues including water quality, water scheduling, contract duration and renewal options, indicative pricing and price escalation terms.

# Appendix A Request for Information Register

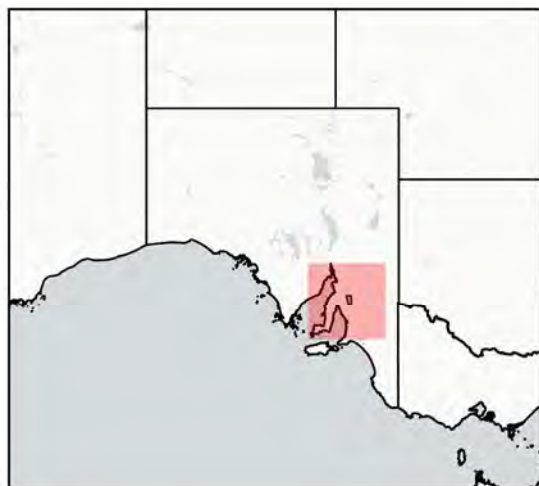
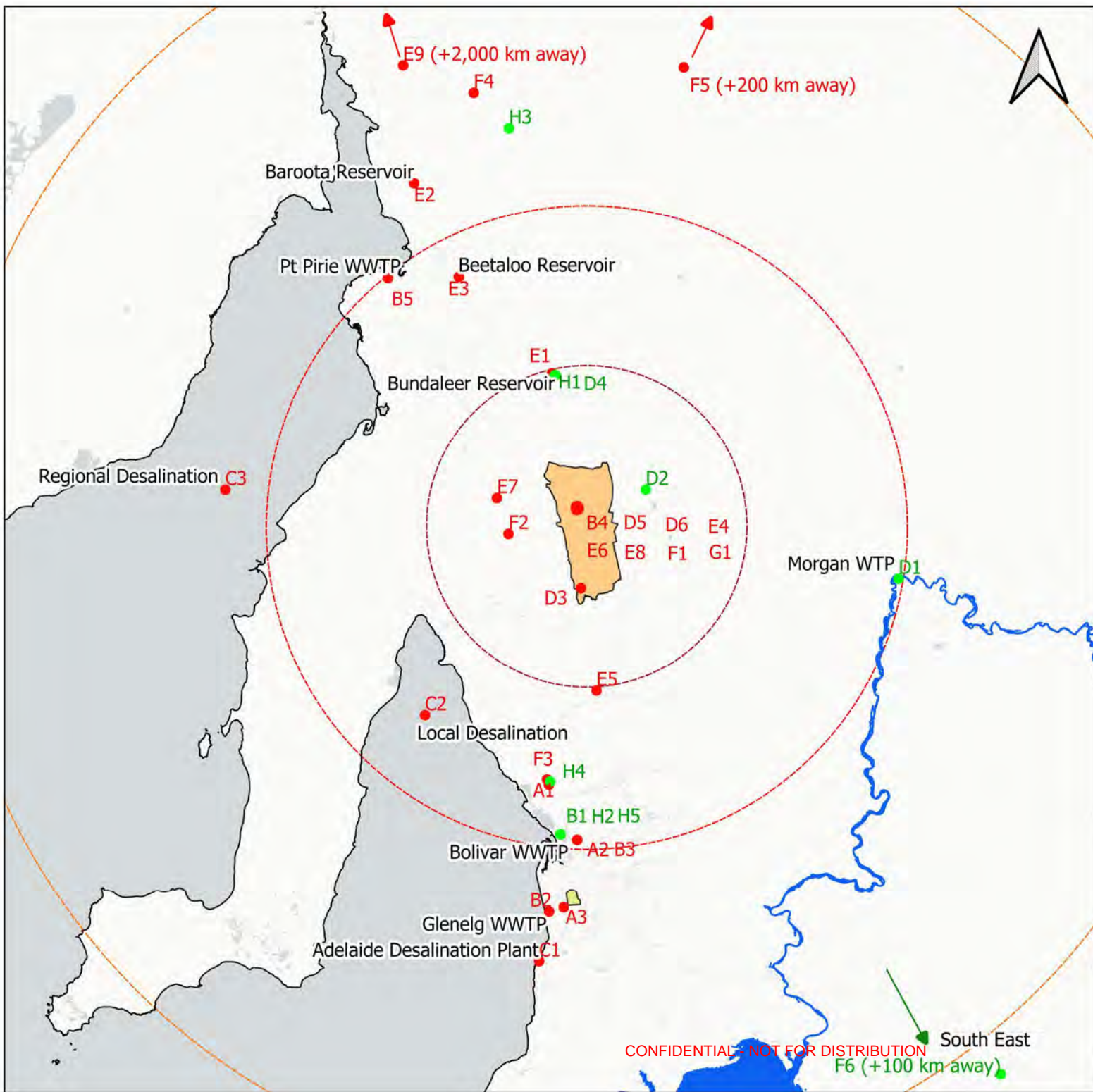
**Project:** Clare Valley Water Strategic Supply Availability Review  
**Title:** Request for Information  
**Date Issued:** 24/11/2021  
**Author:** Chris Hewitson

Item Number	Information Request	Date Requested	Request Due	Status	Rational
<b>PIRSA</b>					
1.1.	Release of Barossa expansion preliminary business case (Clare Valley excerpts)	24/11/2021	26.11/2021	●	Provided
<b>Clare Valley Wine Grape Association</b>					
2.1.	What is the existing price agreement(s) for accessing CVWSS water	24/11/2021	26.11/2021	●	Provided
2.2.	Release of the Clare Valley Water pre-feasibility study for reference	24/11/2021	26.11/2021	●	Provided
<b>SA Water</b>					
3.1.	Current and 5-year historical flow information through the Morgan Filtration Plant and key pumping stations along the Morgan-Whyalla trunk system between Morgan and Bundaleer - (daily time steps)	24/11/2021	26.11/2021	●	SA Water are currently undertaking a master planning exercise for the Morgan Whyalla Swan Reach System. In an email received on 30/11 it was stated that by the end of this year we (SA Water) will have clearer visibility of a number of adaptive policy and planning pathways catering to an uncertain future. Low, Medium and High annual and monthly time step demand scenarios were provided indicated what SA Water have planned for the Clare Valley region (including current consumption)
3.2.	Current and 5-year historical monthly discharge information from the Bolivar WWTP, the Bolivar High Salinity WWTP and the Glenelg WWTP	24/11/2021	26.11/2021	●	Provided
3.3.	Current and 5-year projected contracted/agreed water volumes for recycled water from Bolivar and Glenelg WWTP including monthly estimates of demand	24/11/2021	26.11/2021	●	Provided
3.4.	Capacity assessments of the existing CVWSS trunk mains – Peak and Off-Peak	24/11/2021	26.11/2021	●	SA Water are currently undertaking a master planning exercise for the Morgan Whyalla Swan Reach System. In an email received on 30/11 it was stated that by the end of this year we (SA Water) will have clearer visibility of a number of adaptive policy and planning pathways catering to an uncertain future. Low, Medium and High annual and monthly time step demand scenarios were provided indicated what SA Water have planned for the Clare Valley region (including current consumption)
3.5.	Dam Safety Assessment Report for Bundaleer Reservoir	24/11/2021	26.11/2021	●	Provided
3.6.	Access to information regarding water quality (nutrients, salinity, pH, turbidity etc.) from Bolivar, Bolivar HS and Glenelg WWTPs. 5-year history in 1-month time steps.	24/11/2021	26.11/2021	●	Provided
3.7.	Current and 5-year historical flow information into the CVWSS trunk main from the Morgan-Whyalla connection(s)	24/11/2021	26.11/2021	●	SA Water are currently undertaking a master planning exercise for the Morgan Whyalla Swan Reach System. In an email received on 30/11 it was stated that by the end of this year we (SA Water) will have clearer visibility of a number of adaptive policy and planning pathways catering to an uncertain future. Low, Medium and High annual and monthly time step demand scenarios were provided indicated what SA Water have planned for the Clare Valley region (including current consumption)
3.8.	Capacity Assessments of the M-W trunk system (most recent)	24/11/2021	26.11/2021	●	SA Water are currently undertaking a master planning exercise for the Morgan Whyalla Swan Reach System. In an email received on 30/11 it was stated that by the end of this year we (SA Water) will have clearer visibility of a number of adaptive policy and planning pathways catering to an uncertain future. Low, Medium and High annual and monthly time step demand scenarios were provided indicated what SA Water have planned for the Clare Valley region (including current consumption)
3.9.	Capacity Assessment of the NAIS trunk system from Bolivar to the storages at Two Wells	24/11/2021	26.11/2021	●	In an email received on 29/11: There is no capacity assessment on the NAIS trunk system from Bolivar to the storages at Two Wells.
3.10.	Capacity Assessment of the GAP trunk main. Monthly time steps for the GAP Main PS at Glenelg WWTP.	24/11/2021	26.11/2021	●	Provided
<b>Department for Environment and Water</b>					
4.1.	Water allocations for different entitlement/allocation classes of River Murray Water	24/11/2021	26.11/2021	●	Provided
4.2.	Volume and map of prescribed surface water and ground water resources in the Clare GI	24/11/2021	26.11/2021	●	Provided
4.3.	Can you please provide the reservoir access legislation/requirements for Bundaleer Reservoir?	24/11/2021	26.11/2021	●	Indicated that it is a non prescribed resource and that the site is managed by SA Water and they are a primary contact for any additional information.
4.4.	What are the legal requirements to access River Murray to supply Clare Valley with irrigation water	24/11/2021	26.11/2021	●	Provided - No issues accessing River Murray Entitlements to supply Clare with River Murray Water. All take would need to be within the existing SDL and purchased in the market.
4.5.	Does DEW have any limitations to the volume of water could Clare Valley access direct from the River Murray	24/11/2021	26.11/2021	●	Provided - Volume available only limited by cost and pipeline capacity
4.6.	What volume of water is currently licenced/prescribed to the Clare Valley region (ground water, surface water)	24/11/2021	26.11/2021	●	Provided
4.7.	What is the legislative requirement for bringing in current water to the region from the SA Water supply system	24/11/2021	26.11/2021	●	Provided
4.8.	Inventory of surface water storages in the Clare Valley Region.	24/11/2021	26.11/2021	●	None currently available.
4.9.	Are there any current applications for new surface water storages in the region	24/11/2021	26.11/2021	●	To be determined via discussion with local council. Applications will need to be consistent with current WAP rules
4.10.	Release of current water allocation plan for the region (including any updates)	24/11/2021	26.11/2021	●	SA Water likely to be custodians of this information
4.11.	Can you provide inflow records into Bundaleer Reservoir for the past 5-years (monthly time step)	24/11/2021	26.11/2021	●	Provided, details of multiple investigation into historic inflow into the Bundaleer Reservoir from surrounding catchment with indication of flow based upon a range of annual exceedance probabilities (AEP) of rainfall. Including the AEP 0.5 (average) flows.
4.12.	Can you provide existing demand/outflow records for Bundaleer for the past 5-years (monthly time step)	24/11/2021	26.11/2021	●	SA Water likely to be custodians of this information
<b>Department of Treasury and Finance</b>					
5.1.	Current third party access legislation	22/11/2021	26.11/2021	●	Provided
5.2.	Any unsolicited proposals for water supply to the Clare region in the past 3 years	22/11/2021	26.11/2021	●	Provided

Status key	
●	Provided
●	In process
●	Not provided

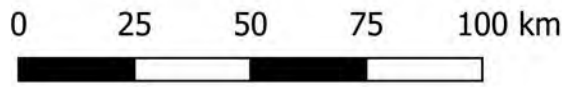
## Appendix B Long List Options Map





**Legend**

- Short Listed Options
- Long Listed Options
- Clare GI
- Adelaide
- River Murray
- 50km from Centre of GI
- 100km from Centre of GI
- 200km from Centre of GI



**Clare Valley  
New Water Project**

**Long List Options**

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# Appendix C Shortlisting Assessment Overview

ID	Option Name	Source Type	Option description	Rating			
A	Class A Recycled Water	Wastewater	Description	Volume	Confidence	OPEX Delivered to CV	Time for First Water
A.1	NAIS		Provision of Class A recycled water via existing NAIS trunk infrastructure to Two Wells. Water resources will then be transferred north to the Clare Valley to support viticulture growth in the Clare Valley. This scheme as it is currently operated could support the development of a 5-10 GL/a scheme. This will depend on the uptake by future NAIS customers and the potential expansion the Barossa Valley. This water will be provided at approx. 1,100mg/L and will require RO treatment to an acceptable quality of circa 650mg/L	4	4	2	4
A.2	Bolivar DAF		Provision of spare capacity Class A recycled water from the Bolivar DAF plant primarily during winter and during off peak demand periods. Spare capacity of this system could support the development of a 5-10 GL/a scheme. This water will be provided at approx. 1,100mg/L and will require RO treatment to an acceptable quality of circa 650mg/L	4	3	3	3
A.3	GAP		Provision of spare capacity Class A recycled water from the GAP. Spare capacity of pipeline plant primarily during winter and during periods of off peak demand. Spare capacity of the scheme could support the development of a 5-10 GL/a scheme. This water will be provided at approx. 900mg/L and will require RO treatment to an acceptable quality of circa 650mg/L	4	5	2	3
B	Class B Recycled Water	Wastewater	Description	Volume	Confidence	Cost	Timing
B.1	Bolivar WWTP		Provision of Bolivar wastewater at a Class B grade. This water source is readily available and could support the development of a >10GL/a scheme to the Clare Valley. This option will require treatment to ensure that the source is acceptable to meet all irrigation requirements.	5	5	3	3
B.2	Glenelg WWTP		Provision of Glenelg Class B wastewater is a readily available water resource that could support the development of a >10GL/a scheme to the Clare Valley. This option will require treatment to ensure that the source is acceptable to meet all irrigation requirements.	5	4	2	3
B.3	Bolivar HS		Provision of Class B Bolivar HS wastewater is a readily available water resource that could support the development of a 5-10GL/a scheme to the Clare Valley. This option will require treatment to ensure that the source is acceptable to meet irrigation requirements (ANZECC & ARMCANZ (2000) water quality guidelines).	4	5	2	3
B.4	CWMS		Utilisation of available water resources from the existing CWMS scheme could be a useful water resource to supplement the development of a Clare Valley scheme. Currently, this water resource will only support the development of a scheme that can deliver <0.5GL/a. Forecasts of regional growth will increase future water availability. This water resource will require further treatment to ensure that the source is acceptable to meet irrigation requirements (ANZECC & ARMCANZ (2000) water quality guidelines)	1	4	3	4
B.5	Port Pirie WWTP		Recycled water reuse from Port Pirie is a Class B water resource. The availability of this water resource could support the development of a 0.5-2 GL/a scheme. Growth of the region could increase the availability of the recycled water source in the future. This water resource will require further treatment to ensure that the source is acceptable to meet irrigation requirements (ANZECC & ARMCANZ (2000) water quality guidelines).	2	4	2	3
C	Sea Water Desalination	Sea Water	Description	Volume	Confidence	Cost	Timing
C.1	Adelaide desalination		Substantial augmentation of the existing network to distribute water from the Adelaide desalination plant could support the development of a >10GL/a scheme to supply irrigation water to the Clare Valley. Alternatively Adelaide desalination water could be purchased in order to free up allocation of River Murray water that can be supplied to the Clare Valley region.	5	4	1	3
C.2	New desalination plant Clare specific		The development of a new desalination plant towards the west of the Clare Valley could be build to meet the development of a >10GL/a scheme to the Clare Valley.	5	5	1	3
C.3	Broader regional plant (SA)		The development of a broader regional plant (i.e. Northern Water) could either deliver, or substitute River Murray water in order to support the development of a >10 GL/a scheme to the Clare Valley	5	4	2	3
D	River Murray	Surface water	Description	Volume	Confidence	Cost	Timing

D.1	New Pipeline to River Murray		The development of a new pipeline to the River Murray could deliver raw water to the Clare Valley that can support a >10GL/a scheme. This water source can be pumped as an as needs basis. A new distribution scheme will also need to be developed to make this option equitable for all growers.	5	4	3	4
D.2	Morgan Whyalla Pipeline Direct Offtake		A direct offtake from Morgan Whyalla pipeline or one of the major trunk mains that feed Mintaro can distribute water into a new storage dam in the region. Water within this dam can be accessed under 3rd party arrangements to support a 5-10GL/a scheme within the Clare Valley. A new distribution scheme will also need to be developed to make this option equitable for all growers.	4	4	3	4
D.3	Swan Reach Paskeville Direct Offtake		A direct offtake from Swan Reach Paskeville pipeline can distribute water into a new storage dam in the region. Water within this dam can be accessed under 3rd party arrangements to support a <0.5GL/a scheme within the Clare Valley. A new distribution scheme will also need to be developed to make this option equitable for all growers.	1	3	3	5
D.4	Bundaleer from Morgan Whyalla		Water from the Morgan Whyalla pipeline can be shandied into the Bundaleer Reservoir. This will provide a significant body of water that can store water to support the development of a 5-10GL/a scheme to the Clare Valley. Addition of water from the Morgan Whyalla pipeline will reduce the salinity of the dam water to provide a suitable water quality that meets growers requirements of circa 650mg/L. A dam safety investigation / upgrade will need to be completed and water will need to be transferred south into a distribution network to ensure the resources is equitable. This option assumes the isolation of the reservoir from the surrounding catchment to manage water quality and inflows.	4	4	3	4
D.5	CVWSS Potable		Use of water from the existing CVWSS could provide an additional 0.5-2GL/a of water to the region, This will require augmentation of the existing system to meet daily demands. Water will be provided at potable irrigation rates	3	4	2	4
D.6	CVWSS Potable Off-peak		The utilisation of the CVWSS during off-peak demand could provide an additional 0.5-2GL/a of water to the region. This will require augmentation of the existing system to meet daily demands. This option primarily supports growers with sufficient on farm storage to take water during off-peak	3	4	3	3
E	Surface Water	Surface Water	Description	Volume	Confidence	Cost	Timing
E.1	Bundaleer Catchment		Rainfall runoff captured by the Bundaleer catchment could support a 2-5GL/a scheme to the Clare Valley. The water will have to be transferred to the region and treated to ensure salinity and other water quality parameters are appropriate.	3	2	4	4
E.2	Baroota Catchment		Rainfall runoff captured by the Baroota catchment could support a 2-5GL/a scheme to the Clare Valley. The water will have to be transferred to the region and treated to ensure salinity and other water quality parameters are appropriate.	3	2	4	3
E.3	Beetaloo Catchment		Rainfall runoff captured by the Beetaloo catchment could support a 0.5-2GL/a scheme to the Clare Valley. The water will have to be transferred to the region and treated to ensure salinity and other water quality parameters are appropriate. The reliability of this resources is less certain.	2	2	4	3
E.4	Local river systems (Hutt / Hill / Wakefield)		Utilisation of any spare capacity of river systems within the region could support viticulture production in the region. Noting that this water resource is heavily constrained and must utilised within sustainable limits. It is estimated that the available water could only support the development of a <0.5 GL/a scheme within in the Clare Valley.	1	2	5	5
E.5	Neighbouring River Systems (i.e. Gilbert and Para Systems)		Utilisation of any spare capacity of river systems external to the region could support viticulture production in the region. It is estimated that the available water could only support the development of a <0.5 GL/a scheme within in the Clare Valley.	1	3	5	4
E.6	Stormwater Local		Capture and reuse pf stormwater runoff within the region could support the development of a 0.5-2GL/a scheme within the Clare Valley. Captured water would have to be treated to ensure water quality parameters are fit for purpose. The reliability of this resources is comparatively uncertain.	2	2	4	5



E.7	Stormwater Imported		Capture and reuse pf stormwater runoff external to the region could support the development of a 0.5-2GL/a scheme within the Clare Valley. Captured water would have to be treated to ensure water quality parameters are fit for purpose. The reliability of this resources is comparatively uncertain.	2	3	3	4
E.8	Existing Unutilised Surface Dam Capture in Region		The utilisation of all surface dam capture within the region could support the development of a 0.5-2GL/a scheme within the Clare Valley. Surface water runoff captured by farm dams is a prescribed water resource within the region. Many of the dams in the region are sized larger than the volume that is able to be irrigated per year. Changes to policy that allow the utilisation of on farm dam water will free up water resources for irrigation.	2	2	5	5
E.9	Ord River		Access to water resources from the Ord River can support the development of a >10GL/a scheme to the Clare Valley.	5	5	1	1
F	Groundwater	Groundwater	Description	Volume	Confidence	Cost	Timing
F.1	Local Aquifer		Utilisation of any spare capacity groundwater resources within the region could support viticulture production in the region. Noting that this water resource is heavily constrained and must utilised within sustainable limits. It is estimated that the available water could only support the development of a <0.5 GL/a scheme within in the Clare Valley.	1	3	5	5
F.2	Neighbouring Aquifer		Utilisation of any spare capacity of river systems external to the region could support viticulture production in the region. Noting that this water resource is heavily constrained. It is estimated that the available water could support the development of a 0.5-2 GL/a scheme within in the Clare Valley. The reliability of this resources is comparatively uncertain.	2	2	4	4
F.3	Accessing T2 Aquifer - Northern Adelaide Plains		Accessing water allocations via the T2 aquifer could support the development of a >10GL/a scheme to the Clare Valley region. The water is of a high salinity and will need to be treated to meet growers rudiments and expectations	3	4	2	3
F.4	Willochra Basin		Accessing water allocations via the Willochra Basin could support the development of a 5-10GL/a scheme to the Clare Valley region. The water is of a high salinity and will need to be treated to meet growers rudiments and expectations	4	4	2	2
F.5	GAB		Accessing water allocations via the GAB could support the development of a >10GL/a scheme to the Clare Valley region. The water is of a high salinity and will need to be treated to meet growers rudiments and expectations	5	5	1	2
F.6	South East		Access to water resources from the South East can support the development of a >10GL/a scheme to the Clare Valley. This can be achieved via the development of a new pipeline or by supplementing River Murray resources that can then be transferred via the Morgan Whyalla System.	5	5	2	3
G	Industrial	Wastewater	Description	Volume	Confidence	Cost	Timing
G.1	Winery Reuse		Increased on farm/regional recycling of industrial water from grape production could support the development of a <0.5GL/a scheme within the Clare Valley. A change in practices and installation of a buffeting treatment plant will free up these water resources for reuse.	1	5	4	4
H	Hybrid	Hybrid	Description	Volume	Confidence	Cost	Timing
H.1	Bundaleer Catchment and RM		Water from the Morgan Whyalla pipeline can be shandied into the Bundaleer Reservoir. This will provide a significant body of water that can store water to support the development of a 5-10GL/a scheme to the Clare Valley. Addition of water from the Morgan Whyalla pipeline will reduce the salinity of the dam water to provide a suitable water quality that meets growers requirements of circa 650mg/L. A dam safety investigation / upgrade will need to be completed and water will need to be transferred south into a distribution network to ensure the resources is equitable. This option assumes that the reservoir is still connected to the surrounding catchment and therefore is able to capture seasonal runoff. This option increases the confidence of being able to access 5-10GL/a.	4	5	3	4

H.2	GAP and NAIS		Transfer of GAP and NAIS water resources to the Clare Valley region could support the delivery of >10GL/a high quality recycled water resources. This could supply in tandem offering a consistent water quality at Class A or higher with capability to supply consistently across the year. The water will require RO treatment to reduce salinity levels that is adequate for viticulture irrigation (circa 650mg/L)	5	5	2	3
H.3	Regional desal and RM		Utilisation of the Morgan Whyalla system could enable supply of >10GL/a to the Clare Valle from combined regional desalination and river Murray sources. Infrastructure SA currently have a parallel project for Northern Water in Options Analysis phase.	5	5	2	3
H.4	T2 and NAIS		Supply from the T2 Aquifer in tandem with the NAIS source (Stage 2 or Stage 1B depending on access arrangements) could support the development of a >10GL/a supply scheme. This hybrid option allows for a flatter supply across year comparative to each option considered individually.	4	5	3	3
H.5	Bolivar WWTP and Bolivar HS		A combination of both Bolivar WWTP (Class B) and Bolivar HS sources could support the development of a >10GL/a supply scheme to the Clare Valley. Currently combine in the Bolivar channel and offer a reliable quantum albeit at a quality of 2500ppm - which would increase if NAIS is successfully taken up by other projects/customers.	5	5	2	3

Methodology				
Rating	Volume	Confidence of Volume	Cost at Source	Timing
1	<0.5 GL	P10	>\$5/kL	>10 years
2	0.5-2 GL	P50	\$2.0-5.0/kL	5-10 years
3	2-5 GL	P90	\$1.0-2.0/kL	2-5 years
4	5-10 GL	P95	\$0.5-1.0/kL	1-2 years
5	>10 GL	P99+	< \$0.5/kL	<1 year

#	Volume	Confidence	Cost to CV	Timing	Score	Scheme
1	5	4	3	4	240	New Pipeline to River Murray
1	4	5	3	4	240	Bundaleer Catchment and RM
2	5	5	3	3	225	Bolivar WWTP
3	4	4	3	4	192	Morgan Whyalla Pipeline Direct Offtake
3	4	4	3	4	192	Bundaleer from Morgan Whyalla
4	4	5	3	3	180	T2 and NAIS
5	5	5	2	3	150	Bolivar WWTP and Bolivar HS
5	5	5	2	3	150	GAP and NAIS
5	5	5	2	3	150	Regional desal and RM
5	5	5	2	3	150	South East



# Appendix D Commercial and Governance Requirements

**D1 New Pipeline to River Murray****CAPEX**

Scheme requirements	Commentary
New Pipeline to Auburn	A new pipeline will need to be developed that extends from an offtake point from the River Murray to the Clare Valley GI. The pipeline will be circa 110km and will require minor treatment (filtration) at the point of extraction from the River to meet irrigation requirements (i.e. TDS).
New Balancing Terminal Storage	A new balancing storage will be required within the Clare Valley GI at the termination of the new pipeline. This storage will help to manage demands during peak demand.
Distribution System	This new raw water pipeline will require the installation of a new irrigation reticulation scheme across the Clare GI. Additionally the scheme will have to extend north to Stanley Flat and beyond to pick up on new areas that will allow for regional growth.
Summary	<b>This scheme has a significant capital investment which may be managed through long-term arrangements with customers.</b>

**OPEX**

Scheme requirements	Cometary
Water Access	The access to River Murray water resources will require an annual River Murray entitlement.
Water Delivery to Growers on Demand	This cost will include the CAPEX recovery of the new pipeline and associated pumping costs.
Overheads and Margin	Final pricing will also need to make allowance for overheads and possible a profit margin. This will be dependant on the project delivery method and operating model selected.
Summary	<b>A built for purpose irrigation scheme reduces the annual operational expenditure as there is no need to incur a treatment cost.</b>

**D4 Bundaleer from Morgan Whyalla****CAPEX**

Scheme requirements	Commentary
Connection upgrades to SA Water trunk main	This scheme will require a reliable Morgan-Whyalla pipeline (or other) connection to the Bundaleer Reservoir.
Dam Safety upgrade	To ensure that the storage can be maximised the Bundaleer reservoir will require dam safety upgrades to ensure that the asset risk is ALARP. The dam safety requirements will need to be investigated with consideration of a significantly reduced catchment size as suggested in option D4.
New pipe ine to Clare	This option will require the construction of a new raw water irrigation pipeline that connects the Bundaleer Reservoir to the Clare Valley GI. The pipeline will be circa 35-40 km (to the Clare GI) and can benefit the irrigation network as the trunk main passes directly through the northern extent of the GI which has the potential for future development and water uptake to achieve a 30,000 tonnes/ha new baseline.
Distribution System	This new raw water pipeline will require the installation of a new irrigation reticulation scheme across the Clare GI. Accessing water resources from the Bundaleer Reservoir will allow for the system to pick up additional new demand in the northern extent of the Clare Valley GI.
Summary	<b>The scheme makes the most of existing SA water lineal infrastructure and storage assets. The Bundaleer Reservoir will be improved and is still available as a (improved) contingent water storage and supply for SA Water customers.</b>

**OPEX**

Scheme requirements	Commentary
Water Access	The access to River Murray water resources will require an annual River Murray entitlement.
Water Treatment	Water through the Morgan-Whyalla pipeline is potable and will therefore incur a treatment cost. This cost also cover the CAPEX recovery for the Morgan Treatment plant.
Water Distribution to Storage	This cost will include the CAPEX recovery of the Morgan-Whyalla pipeline and associated pumping costs.
Water Delivery to Growers on Demand	This cost will include the CAPEX recovery of the new pipeline and associated pumping costs.
Overheads and Margin	Final pricing will also need to make allowance for overheads and possible a profit margin. This will be dependant on the project delivery method and operating model selected.
Summary	<b>This scheme will require treatment costs however this will allow Clare Valley growers to maximise the benefits of off-peak water supply charges.</b>

**D2 Morgan Whyalla Pipeline Direct Offtake****CAPEX**

Scheme requirements	Commentary
Connection upgrades to SA Water trunk main	Potential upgrades to SA Water's existing Morgan-Whyalla pipeline and the connection to Mintaro.

New Clare Valley Terminal Storage	Significant storage installation (either individual dam or numerous dams across the region) will need to be installed to ensure Clare Valley growers can maximise the benefits of the off-peak water. Can be optimised with in system/customer storages./
Upgrades of CV connection	This scheme (if retained as a potable system) will require upgrades to SA Water's existing connection into the region downstream of storage/s.
Distribution System	This option will require upgrading the existing distribution network throughout the Clare Valley GI to allow for increased transfer of water throughout the region. Additionally, the distribution network should be expanded to the northern extent of the region to ensure that any prospects of expansion and growth will help meet the new 30,000 tonnes/ha baseline.
<b>Summary</b>	<b>This option increases supply capability of the existing scheme whilst allowing irrigators to maximise the use of off-peak water at reduced supply charges.</b>

#### OPEX

Scheme requirements	Commentary
Water Access	The access to River Murray water resources will require an annual River Murray entitlement.
Water Treatment	Water through the Morgan-Whyalla pipeline is potable and will therefore incur a treatment cost. This cost also covers the CAPEX recovery for the Morgan Treatment plant.
Water Distribution to Storage	This cost will include the CAPEX recovery of the Morgan-Whyalla pipeline and associated pumping costs.
Water Delivery to Growers on Demand	This cost will cover costs associated with distribution throughout the reticulation system.
Overheads and Margin	Final pricing will also need to make allowance for overheads and possible a profit margin. This will be dependant on the project delivery method and operating model selected.
<b>Summary</b>	<b>This scheme will require treatment costs however this will allow Clare Valley growers to maximise the benefits of off-peak water supply charges. The scheme also expands on the existing potable network that can drive growth across the region.</b>

# Document Properties

## Document history and Status

Revision	Date Issued	Reviewed	Approved By	Date Approved	Revision Type
A (in development)	10 December 2021	AT	CH	10 December 2021	DRAFT
1	20 December 2021	AT/RC	CH	20 December 2021	ISSUE
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Minute to  
**Minister for Primary Industries and Regional Development**  
**Minister for Forest Industries**

Ref: A5548953

For	Noting
Critical Date	Nil
Subject	<b>Meeting with Barossa Infrastructure Limited 31 August 2022</b>



**Synopsis**

You are meeting with Barossa Infrastructure Limited (BIL) on 31 August 2022. BIL wish to discuss the New Water Infrastructure to the Barossa (Barossa New Water) Project. This minute provides an update on the Barossa New Water including recent engagement with BIL.

**Recommendations**

That you:

1. Note the brief.

**NOTED**

.....*Clare Scriven*.....

Hon Clare Scriven MLC

**Minister for Primary Industries  
and Regional Development**

**Minister for Forest Industries**

31 / 8 / 2022

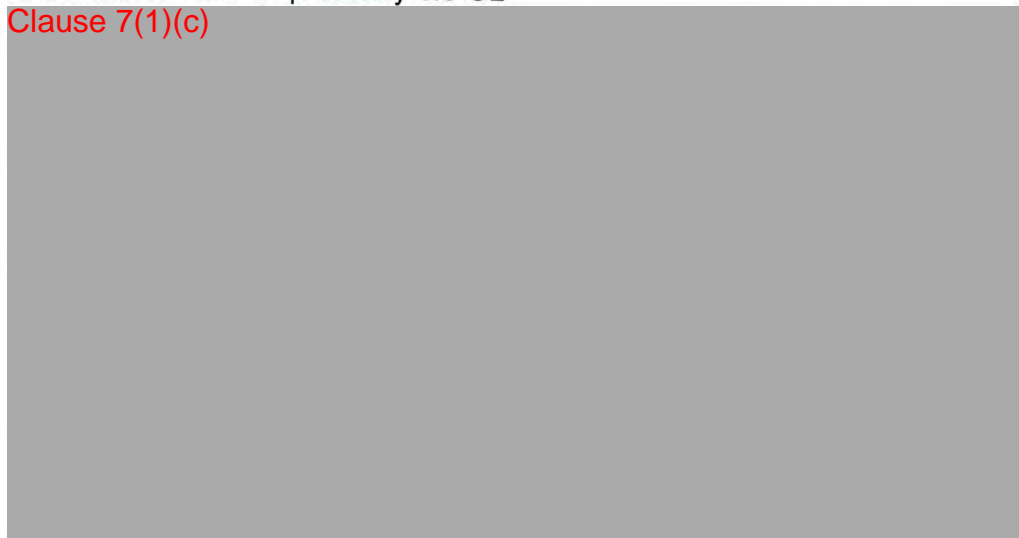
**Ministerial Comments** - *This box must be with the Ministers sign off and can be made smaller if needed (check)*

## Background

- You are meeting with Barossa Infrastructure Limited (BIL) on 31 August 2022. BIL wish to discuss the New Water Infrastructure to the Barossa (Barossa New Water - BNW) Project.
- The BNW Project aims to deliver new, secure, climate-independent, and affordable water to complement other water sources, with the aim to grow productivity in the region and increase economic benefits to the state.
- Over the past 13 months Kellogg, Brown and Root Pty Ltd (KBR) has developed a Detailed Business Case (DBC) exploring demand for water, economic and commercial viability and supply and delivery of new water infrastructure for the Barossa region to improve the security and climate independence of water supply.
- The DBC includes consideration of:
  - Recycled water to Barossa Valley and Eden Valley from BWWTP
  - Raw water to Eden Valley from Mannum to Adelaide Pipeline
- Project partners (DTF, SA Water, DEW) and project advisors reviewed the draft DBC and provided feedback. Concurrently, the draft DBC underwent Infrastructure SA Gate 2 Review and PIRSA submitted a response to ISA Gate 2 Review recommendations (*refer briefing A5542936*).
- Five infrastructure options have been explored in the DBC.

## Discussion

- The key findings for the business case are:
  - The delivery of water to Barossa and den Valley is technically feasible
  - The economic analysis supports the business case. All four infrastructure options have a Benefit Cost Ratio greater than 1
  - Demand for water is presently 8.6 GL
  - **Clause 7(1)(c)**



**Clause 7(1)(c)**



Clause 7(1)(c)



- A DBC was provided on 8 August 2022. After further feedback PIRSA is expecting a final DBC to be provided by KBR in the first week of September.

Clause 7(1)(c)



#### *Barossa Infrastructure Limited*

- PIRSA met with BIL on three occasions over the past 2 months under the *Principles of Cooperation* agreement, to discuss the project and seek feedback on the draft DBC.

Clause 7(1)(c)



#### *Next steps*

- The DBC demonstrates the requirement for significant government investment.

Clause 1(1)(e)



#### **Stakeholder / regional impacts, consultation and engagement**

- Barossa Australia (formerly Barossa Grape and Wine Association) has been a strong advocate for the BNW Project. It has expressed the need for regular updates to the Barossa community on the status of the project.
- PIRSA will prepare key messages to be conveyed to external stakeholders, to support the interim period between finalising the DBC and the Government's consideration of the project through Cabinet process.
- Following a decision by Government on the project and the determination of the next steps, a communications and stakeholder engagement strategy will be developed to ensure that stakeholders remain informed on the progress of the proposed project.



### Legislative and/or financial implications

- The Final DBC and consideration by Government represents the close of Phase 1 of this project. No funds have been committed to future phases. Future costs are dependent on the Government's decision to proceed with additional phases of the project.

### Attachments

A. Nil

.....

### CHIEF EXECUTIVE

Department of Primary Industries and Regions

/ / 2022

<b>CONTACT</b>	Peter Appleford
<b>POSITION</b>	Executive Director
<b>DIVISION</b>	Industry and Regional Development
<b>MOBILE and LANDLINE</b>	0412797720
<b>Cleared by</b>	Angela De Duonni

Clause 7(1)(c)



# **NEW WATER INFRASTRUCTURE TO THE BAROSSA PROJECT**

## ***BAROSSA NEW WATER PROJECT***

### **PROBITY PLAN AND COMMUNICATIONS PROTOCOLS**

*Updated 23 May 2022*

Reference: A5453663



**Government  
of South Australia**

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## PURPOSE

1. The Department for Primary Industries and Regions (PIRSA), the Department of Treasury and Finance (DTF), the Department for Environment and Water (DEW), and SA Water are collaborating on the investigation of options to deliver additional water into the Barossa Zone (Barossa and Eden Valleys). The investigation is through infrastructure that “aims to deliver reclaimed water from the Bolivar Wastewater Treatment Plant via existing and new infrastructure, to deliver long-term water security.
2. The agencies, via the Governance arrangements outlined in this document, are responsible for the effective preparatory and planning work in anticipation of (and execution if applicable) of a possible market process (or other process) to secure the provision of a private provider (or public / private joint venture) of recycled water to deliver primary industry demand in the Barossa Zone.
3. This Probity Plan and Communications Protocols (**Probity Plan**) has been prepared to establish and maintain the probity of the Project. It sets out a number of controls, policies and procedures directed at ensuring the overall integrity of the Project.
4. The Probity Plan applies to the preparation and planning and pre-market process stages of the Project and all other work associated with the Project. Should a market process (or other feasible transaction be approved) be undertaken, the Probity Plan will be updated to incorporate this.
5. The Government officers and contractors set out in Attachment 3 (as updated from time to time) comprise the **Project Team** (PIRSA, DTF, DEW, SA Water). This document will be distributed to the Project Team so as to inform them of their obligations and will also provide a framework within which the probity adviser will provide advice.

## WHO MUST COMPLY

6. Every member of the Project Team must comply with the requirements of this document. This includes Government officers, advisers and employees as well as external contractors and consultants.

## PROBITY PRINCIPLES

7. The Probity Plan has been developed on the basis of the following principles:
  - 7.1 Optimising public policy, financial returns, risk transfer and regulatory outcomes for Government from the Project.
  - 7.2 Appropriately recognising the undertakings made by the Government in relation to the Project.
  - 7.3 Protecting Government from loss of Cabinet confidentiality and loss of legal professional privilege.
  - 7.4 Conducting the Project in a fair, impartial and unbiased manner.
  - 7.5 Protecting third parties' confidential information as appropriate.
  - 7.6 Properly identifying and managing any conflicts of interest or potential conflicts of interest.
  - 7.7 Ensuring physical and technological security and confidentiality of Project documentation and related information.
  - 7.8 Creating and maintaining an auditable trail of records for decisions made throughout the Project.
  - 7.9 Project Team Members will be provided with a briefing by the Probity Advisor at the commencement of their engagement with regard to the requirements of this document.

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## PROJECT GOVERNANCE

8. The Project is governed by a Project Steering Committee with strategic and Whole-of-Government oversight of the Project, chaired by PIRSA. The Steering Committee comprises membership from PIRSA (Chair and Project Sponsor, Executive Director, Industry and Regional Development), DTF (Executive Director, Commercial and Economics Branch), DEW (Executive Director, Water and River Murray) and SA Water (Senior Manager Customer Growth).
9. The Project Director (PIRSA) attends Project Steering Committee meetings in an ex officio capacity, and the Probity Adviser will attend to provide advice on probity related matters at the meeting and as they arise.
10. The Project Director (PIRSA) will also serve as the link between the various working parties and the Project Steering Committee.
11. The Project Steering Committee approves the reporting arrangements across the Project described at Attachment 3.

## PROBITY ADVISER

12. A Probity Adviser has been appointed who will provide probity advice in relation to the Project. That advice may include specific additional measures in relation to document handling and communications.

## CONFIDENTIALITY

13. No person should provide details or substantive information about the Project that is not publicly available to any person external to the Project Team (including other Government employees), without the prior written approval of the Chair of the Steering Committee or the Project Steering Committee, or unless addressed as part of this Probity Plan or part of the Project's communication plan or strategy.
14. Steps must be taken to protect confidential information in the hands of Government, whether it belongs to the Government or to a prospective private sector or non-government participant (**Respondent**). This includes ensuring that all Project Team members are reminded of their confidentiality obligations. Confidentiality obligations apply to Government employees under their terms of employment and the *Public Sector Act 2009* or the *SA Water Corporation Enterprise Agreement 2018*. Confidentiality obligations for contractors and consultants should be included in the terms of their engagement.
15. In addition, all Project Team members are to sign a confidentiality undertaking at Attachment 1, which will be collected by PIRSA and DTF (in relation to their roles as secretariat of the Commercial and Legal Working Group).

## CONFLICTS OF INTEREST

16. Any actual or potential conflict of interest must be identified and addressed.
17. A conflict of interest might arise if a Project Team member has:
  - 17.1 a close professional or personal relationship with a Respondent (or an officer or employee of a Respondent);
  - 17.2 a financial interest in a Respondent; or
  - 17.3 a valuable interest in a particular outcome from the Project (other than their remuneration or fee payable by the Government).
18. All Project Team members must sign a conflict of interest declaration and must disclose any actual or potential conflict as it arises. The form of the required declaration is in Attachment 1.
19. PIRSA will maintain a register of disclosures and give consideration to all disclosures in conjunction with the probity adviser for the Project.

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20. The Project Director (PIRSA) will advise the Chair of the Project Steering Committee, and the Project Steering Committee of any conflict of interest that is disclosed, together with the detail of the action taken in response to it.
  21. Any perceived actual or potential conflict of interest will be appropriately managed by the Project Steering Committee with advice from the probity adviser.
  22. In relation to financial interests in Respondents held by Project Team members, the materiality of the interest is a relevant consideration as to whether there exists an actual or potential conflict of interest.
  23. Disclosure must also be made by Project Team members of any employment by a Respondent of any near relative.

## **COMMUNICATIONS PROTOCOLS**

24. Project Team members will adhere to the following protocols in all Project communications.

### **Maintaining Cabinet-in-Confidence**

25. A document will be confidential to Cabinet (often called "Cabinet-in-Confidence") and exempt from disclosure under the *Freedom of Information Act 1991*:
  - 25.1 if it is a document that has been specifically prepared for submission to Cabinet (whether or not it has been submitted);
  - 25.2 if it is a preliminary draft of such a document;
  - 25.3 if it is a document that is a copy of or part of, or contains an extract from, one of the above;
  - 25.4 if it contains matter the disclosure of which would disclose information concerning any deliberation or decision of Cabinet; or
  - 25.5 if it is a briefing paper specifically prepared for the use of a Minister in relation to a matter submitted, or proposed to be submitted to Cabinet.
26. It should be remembered that a document does not need to be actually submitted to Cabinet in order to fall within this definition.
27. A comparable regime applies in relation to Executive Council confidentiality.
28. If there is any possibility that a document might be subject to Cabinet, a committee of Cabinet or Executive Council confidentiality as described above (remembering that it is a broad definition), it should be prominently labelled "**OFFICIAL: Sensitive//SA CABINET**". Although merely labelling a document "**OFFICIAL: Sensitive//SA CABINET**" will not make it so (a substantive assessment would need to be made in each case), it does serve as a useful reminder that the issue must be considered before the document is released. Conversely, while the absence of a label will not exclude Cabinet confidentiality, it does heighten the risk that the document might be inadvertently disclosed.

### **Maintaining Legal Professional Privilege**

29. Legal professional privilege attaches to documents created for the dominant purpose of seeking or receiving legal advice or for use in anticipated or actual legal proceedings.
30. Documents that are not the subject of legal professional privilege but are relevant to a dispute between parties are required to be produced to each other party in the course of legal proceedings.
31. Confidentiality is an essential requirement for documents that are to be classified as and to remain privileged. A document created for a privileged purpose will lose its status as privileged if its confidentiality is not preserved.
32. If there is any possibility that a document might be subject to legal professional privilege it should be prominently labelled "**OFFICIAL: Sensitive//Legal privilege**". Although merely labelling a document "**OFFICIAL: Sensitive//Legal privilege**" will not make it so (a substantive assessment would need to be made in each case), it does serve as a useful

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reminder that the issue must be considered before the document is released. Conversely, while the absence of a label will not exclude privilege, it does heighten the risk that the document might be inadvertently disclosed.

### **The Freedom of Information Act 1991**

33. The objects of the FOI Act (s3) are:
  - 33.1 to promote openness in government and accountability of Ministers of the Crown and other government agencies and thereby to enhance respect for the law and further the good government of the State; and
  - 33.2 to facilitate more effective participation by members of the public in the processes involved in the making and administration of laws and policies.
34. In applying these objects, the Government must have regard to the many exemptions to disclosure contained in the FOI Act. The exemptions that are most likely to apply to documents in this transaction include:
  - 34.1 Cabinet-in-Confidence documents (including Cabinet committee documents).
  - 34.2 Executive Council documents.
  - 34.3 Documents affecting inter-governmental relations with the Commonwealth, a State or a local council (a public interest test applies).
  - 34.4 Documents affecting a Respondent's or other third party's business affairs (public interest test applies).
  - 34.5 SA Government internal working documents (public interest test applies).
  - 34.6 Documents the subject of legal professional privilege.
  - 34.7 Documents containing a third party's confidential material (public interest test applies).
  - 34.8 Documents the subject of contractual confidentiality restrictions approved by the relevant Minister.
  - 34.9 Documents affecting the economy of the State (public interest test applies).
  - 34.10 Documents from an exempt agency such as the Crown Solicitor's Office.
35. While a document by document assessment must be made, it is important that the Project Team is mindful of the likely breadth of exempt documents and the consequent need to treat all documents as confidential.

### **Communications within the Project Team**

36. All communications within the Project Team should be treated as strictly confidential.
37. Document handling, transportation and transmission should be done in a way that is reasonably secure. For example, documents should be carried in bags rather than loose and never left unattended in public. USB sticks and other non-secure portable storage devices must not be used unless of a type approved by the Project Director (PIRSA) in consultation with the Probity Adviser, and email addresses should be double checked before emails are sent.
38. If a potential breach of confidentiality occurs, the Project Director (PIRSA), the Chair of the Steering Committee and the Crown Solicitor's Office (CSO) must be notified immediately in order to enable mitigation of the consequences.

### **Communications with Potential Respondents**

39. In the planning and preparation (pre-market) stages there may be a requirement to engage with potential Respondents and other interested parties, to determine the feasibility of the project and potential operating models.
40. The Project Team's communications with potential and actual Respondents must be carefully managed to ensure that the State's position is put consistently, in a way that



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enhances the State's commercial and legal position and in a way that will not expose the State to accusations of unfairness.

41. The Project Steering Committee and the Project Director (PIRSA) (subject to any reservations imposed by the Minister for Primary Industries and Regional Development or Cabinet), are able to provide authorisations for communications with Respondents. This does not apply to communication as part of the normal course of business (i.e. SA Water communicating with current / potential customers).
42. As a guiding principle, communications with Respondents must be fair between Respondents. It is important to note that fairness does not necessarily equate to exactly the same information being provided to all Respondents. Market Approach Rules (if required) will provide more detail in this regard.
43. The probity adviser will be involved in certain communications with Respondents. Guidance should be sought from the Project Director (PIRSA) as to when the probity adviser should be involved in communications.

#### **Communications with Project Stakeholders**

44. The Project Team's communications with all stakeholders must be carefully managed to maintain confidentiality and to ensure that the State's policy, commercial and legal interests are properly protected.
45. The Project Director (PIRSA) or the Project Steering Committee (and where applicable the Responsible Ministers, Treasurer or Cabinet) may authorise communications with stakeholders.
46. A Communication and Stakeholder Management Plan will be developed, which will detail how the communication process and strategy for the project will be managed.
47. Where the communication relates specifically to a Minister and their advisers, the following communication protocol must be followed:
  - 47.1 If a member of the Project Team is required to communicate with a Minister information on a topic that is connected to the Project, but is not specifically related to the Project, then the Chair of the Project Steering Committee may authorise that communication.
  - 47.2 If the communication relates directly or indirectly to the Project then authorisation must be obtained from the Project Director in the first instance or the Chair of the Project Steering Committee.
  - 47.3 Any communication on the Project to or from a Minister and his advisers should generally be through the Minister for Primary Industries and Regional Development.
48. No communications can occur outside of these authorisations.

#### **Communication and Interaction with Current Infrastructure Owners**

49. There are current infrastructure owners in the Project region, who privately own and operate distribution networks providing water to potential end-users of this project.
50. Barossa Infrastructure Limited (BIL) (a current infrastructure owner) is a long-standing cooperative of Barossa Valley wine grape growers that provides a high quality water supply in the Barossa which, when applied in environmentally and viticulturally appropriate quantities, sustains crop yield and quality through dry periods at a cost that is lower than other quality water sources
51. BIL's infrastructure delivers up to 11GL per annum of water across an area of 450km<sup>2</sup> in the Barossa Valley floor, using 200km of pipeline, six pump stations, 32 pressure reducing valves and a 500ML water storage facility. BIL has a network of approximately 470 water delivery points for roughly 320 customers, comprising approximately 90% of the Barossa Valley's wine grape grower market.

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52. **Clause 7(1)(c)**

53. Given BIL's long established network and customer base, a Principles of Cooperation documents how the State Government and BIL will interact during the detailed business case preparation stage of the Project (Attachment 4).

**Communications with Media**

54. Communications with the media cannot occur without prior approval of the Minister for Primary Industries and Regional Development (or his nominated representative) or Cabinet.

**Advice to Government**

55. The business of the Project Steering Committee will be conveyed to the Minister for Primary Industries and Regional Development as the Minister responsible for the Project.

**Endorsement of the Probity Plan**

56. The Project Steering Committee endorsed the Probity Plan for the purposes of the Project on 19 February 2021 (version).

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**ATTACHMENT 1 – CONFLICT OF INTEREST AND CONFIDENTIALITY DECLARATION**  
**FOR**  
**BAROSSA NEW WATER PROJECT**  
**(“Project”)**

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***Conflict of Interest Declaration***

This form is to be used to declare any matters that could be perceived as creating a conflict of interest in the carrying out of activities in relation to the **New Water Infrastructure to Barossa Project**.

I,.....[insert full name]  
of.....[insert Department and business unit or business name]  
declare that to the best of my knowledge, I do not have:

- any financial interest in the outcome or appointment of a supplier(s) for the provision of goods or services relating to the Project;
- any immediate relatives or close friends with a financial interest in the provision of goods or services that may be offered in relation to the Project;
- any personal bias or inclination which would in any way affect my decisions in relation to the Project;
- any personal obligation, allegiance or loyalty which would in any way affect my decisions in relation to the Project,

except as set out below:

1. ....
2. ....
3. ....
4. ....
5. ....
6. ....

I undertake to make a further declaration detailing any conflict, potential conflict or apparent conflict which may arise during the Project.

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## **Confidentiality**

I acknowledge that I will be given access to information pertaining to or in respect of the **New Water Infrastructure to Barossa Project**. I acknowledge that all information (whether acquired by oral or written means) provided to me or acquired by me in the course of my duties is strictly confidential. I agree to keep all information and documents relating to this matter secret and confidential.

I will not disclose anything about the Project or any information received by me in connection with the Project except as authorised by PIRSA, unless:

- I am compelled to do so by law;
- The information is already legally in the public domain; or
- I have obtained prior permission in writing from PIRSA.

All documents and information provided to me in relation to the Project will be stored in a secure manner and will be returned to PIRSA on request at the conclusion of the Project.

Yours sincerely

Signed: .....

Dated: .....



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## ATTACHMENT 2 – AGENCY PROJECT TEAM MEMBERS

### **Lead Agency**

PIRSA

Additional membership will be documented as required

### **Other SA Government Agencies**

DTF

DEW

SA Water

Infrastructure SA

Additional membership will be documented as required

### **Crown Solicitor's Office**

### **Advisers**

Probity Advisers – BDO Advisory (SA) Pty Ltd

Commercial and Market Strategy Advisor – Paxon Group

High Level Transaction Advisor – Gray Andreotti (Commercial) Advisory Pty Ltd

Business Case Advisor - Kellogg, Brown and Root Pty Ltd (KBR)

Stakeholder Liaison – Barossa Grape and Wine Association

Additional membership will be documented as required

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## ATTACHMENT 3 - PROJECT HIERARCHY AND GOVERNANCE ARRANGEMENTS

### Project Steering Committee

See 1 in the attached Project Governance Hierarchy.

- *Project Steering Committee:*

The Project Steering Committee is responsible for providing high level project governance, guidance and strategic oversight and direction on matters relating to the development and delivery of New Water Infrastructure to the Barossa Project (Attachment 5 Terms of Reference). These include development and implementation of project scope, ensuring project alignment to South Australian strategic initiatives, monitoring project risks, quality, cost and timeliness, ensuring that appropriate Probity Principles are applied, and providing the Project Director (PIRSA) with support and high level decision making.

See 1a in the attached Project Governance Hierarchy.

*Participates in activities undertaken by the Project Steering Committee, the Project Team (and other Working Groups as nominated), and provides independent legal advice directly to the Project Director through the Crown Solicitor's Office as required.*

### Commercial and Legal Working Group

See 2 in the attached Project Governance Hierarchy.

- *Commercial and Legal Working Group:*

The primary focus of the Commercial and Legal Working Group will be in the delivery of the preliminary Scoping Study that identifies options for structuring the market and identifying the associated risks, including the possible treatment(s) of residual obligations.

Following the relevant approvals, the Commercial and Legal Working Group will focus on the development and delivery of a suitable Market Design and Entry Process; and on the development and delivery of the Market Approach, Market Establishment, and Market Transition.

The Commercial and Legal Working Group reports to the Project Steering Committee, works to its Terms of Reference, and will be supported by specialist project advisors, with the above to be considered by the Project Steering Committee.

### Stakeholder Reference Group

See 3 in the attached Project Governance Hierarchy.

- *Stakeholder Reference Group:*

The Project Steering Committee may consider establishing an external Stakeholder Reference Group to support the development and implementation of a Communication and Stakeholder Engagement Strategy that details the key stakeholders and the strategies for engagement, the conduits and messages that are to be communicated, the education programs required for a successful delivery of the Project, and the key timings and interactions required for each of the key deliverables.

Note that all of the above will be considered by the Commercial and Legal Working Group, and the Project Steering Committee.

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## **Probity Adviser**

See **4** in the attached Project Governance Hierarchy.

- *Probity Adviser:*

The Probity Adviser will develop and monitor a probity plan as required, review processes and provide advice on probity matters and issues as required. The Probity Adviser will also attend Project Steering Committee, Working Group, and other meetings as required.

## **PIRSA Project Team**

See **5** in the attached Project Governance Hierarchy.

- *Project Sponsor:*

The Project Sponsor Chairs the Project Steering Committee, and reports to the Chief Executive, PIRSA. The role includes providing strategic leadership and direction and project approvals and resourcing that ensures alignment to PIRSA and Government objectives.

- *Project Director:*

The Project Director reports to the Project Sponsor and the Chief Executive, PIRSA. The role includes project leadership, direction and priorities to ensure project objectives and outcomes are achieved; ensures appropriate governance and resourcing is established; and facilitates effective Government (State/Federal) and external stakeholder partnerships.

- *Project Team:*

The Project Manager and Project Team is responsible for successful completion of all assigned project related tasks; ensures the project achieves its objectives effectively and efficiently; and works collaboratively with key government agency and industry stakeholders to support the outcomes for the project.

## **SA Water Project Director and Project Team**

See **6** in the attached Project Governance Hierarchy.

- *SA Water Project Director:*

The Project Director is accountable to the Project Steering Committee for the successful delivery of the Project transaction; and for providing direction to Project Support resources, in the delivery of Project related activities and outcomes.

- *SA Water Project Team:*

The Project Team is responsible for successful completion of all project related tasks assigned by the Project Director.

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## DTF Project Director and Project Team

See 7 in the attached Project Governance Hierarchy.

- *DTF Project Director:*

The Project Director is accountable to the Project Steering Committee for the successful delivery of the Project transaction; and for providing direction to Project Support resources, in the delivery of Project related activities and outcomes.

- *DTF Project Team:*

The Project Team is responsible for successful completion of all project related tasks assigned by the Project Director.

## SA Water and SA Water Board

See 8 in the attached Project Governance Hierarchy.

- *SA Water:*

SA Water is wholly owned by the South Australian Government as a government business enterprise (GBE) under the *South Australian Water Corporation Act 1994* and services around 1.7 million South Australians. SA Water is a statutory corporation under the *Public Corporations Act 1993*, responsible to the Minister for Environment and Water.

As an essential service provider, SA Water is regulated by the Essential Services Commission of South Australia (ESCOSA) to ensure it efficiently delivers services to customers. The *Water Industry Act 2012* establishes the regulatory framework for the water and sewerage industry and governs all water industry entities providing retail services to South Australian customers. SA Water holds a Water Retail Industry Licence and is required to comply with the regulatory framework and all associated reporting and compliance requirements. SA Water's primary functions:

- Supply water by means of reticulated systems;
- Store, treat and supply bulk water;
- Remove and treat wastewater from homes and businesses by means of sewerage systems.

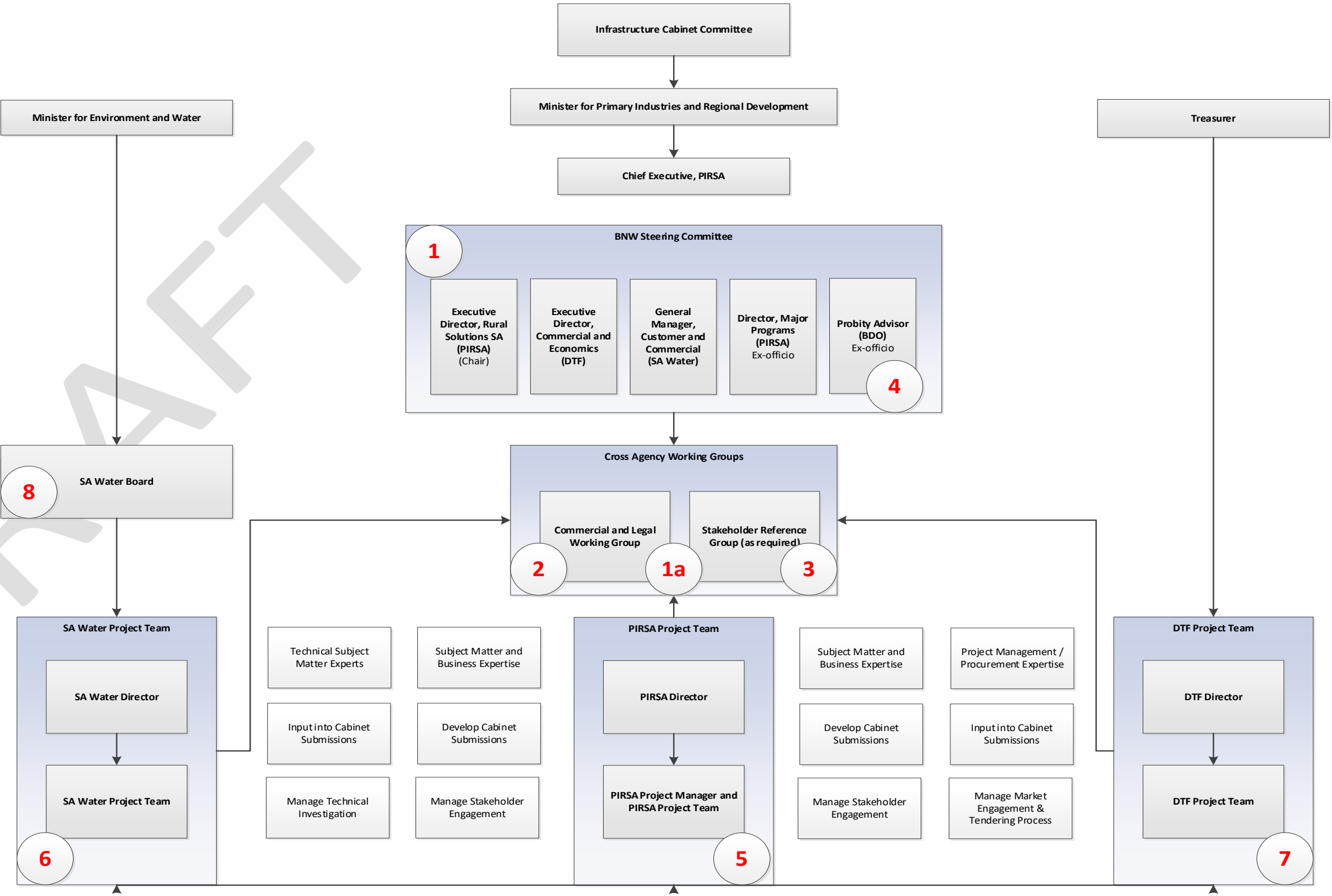
- *SA Water Board:*

The Board of SA Water is responsible for the overall corporate governance of SA Water, managing the direction of the Corporation including approving strategic direction and values, monitoring performance and evaluating senior management (*Public Corporation Act*, Section 14 (1).) The Board reports to the Minister for Environment and Water.

As SA Water have a broader role outside the Project, a Memorandum of Administrative Arrangement (MOAA) (or similar), may be established if needed, to articulate the role of SA Water in the project, as distinct from their broader role as a GBE.



**BAROSSA NEW WATER  
PROJECT HIERARCHY AND GOVERNANCE ARRANGEMENTS**



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**ATTACHMENT 4 - BAROSSA INFRASTRUCTURE LIMITED – PRINCIPLES OF  
COOPERATION**

Clause 7(1)(c)



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Clause 7(1)(c)



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Clause 7(1)(c)





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## ATTACHMENT 5 – PROJECT STEERING COMMITTEE TERMS OF REFERENCE

### **New Water Infrastructure to Barossa Project** Project Steering Committee Terms of Reference

#### **Purpose**

The objective of the Steering Committee is to provide strategic oversight and direction on matters relating to the development and delivery of the New Water Infrastructure to Barossa Project.

#### **Output**

The Steering Committee will:

- Provide advice and guidance on the project (including to project team / agencies and Government) for the effective development and implementation of project scope and deliverables, and to ensure Government and project targets and outcomes are achieved.
- Ensure the project aligns with South Australian strategic initiatives and assist with resolving strategic-level issues and risks.
- Oversee the strategy and development of the procurement process, including the market sounding and stakeholder engagement processes, and other procurement processes.
- Actively advocate the broader economic and regional benefits of the project and help to facilitate broad support from industry, Federal, State and local government.
- Use influence and authority to assist the project to achieve its outcomes and ensure a collaborative approach and resourcing between relevant agencies, including establishing and overseeing working groups or similar.

#### **Convening Meetings**

The Committee will meet fortnightly or as required, with dates to be predetermined with members. Special meetings may also be held to consider specific matters which may arise.

Meetings will be for a minimum of 1 hour in person or online to address the required volume and timeliness of strategic decisions. Meetings will be cancelled and/or postponed by the Chair, if discussions and/ or decisions are not required from the Committee. The frequency and duration of meetings will be reviewed by the Chair from time to time to determine ongoing meeting arrangements.

Out of session meetings will be arranged via email through the Chair. An out of session meeting may be called to address urgent matters referred to the Committee by members of the Committee, or matters raised directly with the Chair.

#### **Agenda papers and records**

Proposed agenda items and papers are to be provided to PIRSA (eg as Executive support to the Committee), for consideration by the Chair, three working days prior to a meeting.

PIRSA's Executive Officer will record the minutes and action items list for each meeting and circulate these too members within five working days of a meeting being held.

Accurate and complete Committee records, including terms of reference, meeting agendas, papers, meeting minutes, action items lists and other matters, will be captured and maintained in the PIRSA Objective EDRMS file in accordance with the *PIRSA Document and Records Management Policy IM P 002* and associated guidelines, to ensure governance, records management and audit requirements are met.

## Membership

Committee members will:

- operate in an open, collaborative and consultative manner that facilitates achievement of outcomes that advance State Government objectives as a whole;
- act as a primary channel for information sharing and coordination of activities between agencies and the Committee; and
- ensure that their respective agencies are kept informed on the items discussed at Committee meetings as required, and that they work collaboratively.

Table 1: Steering Committee members

Officer	Position	Organisation
Peter Appleford (Chair and Project Sponsor)	Executive Director, Industry and Regional Development	PIRSA
Brad Gay	Executive Director, Commercial and Economics Branch	Department of Treasury and Finance
Ben Bruce	Executive Director, Water and River Murray	Department for Environment and Water
Matt Minagall	Senior Manager Customer Growth	SA Water

Members are bound by the [Public Sector Act 2009](#) and [Code of Ethics for the South Australian Public Sector](#).

## Quorum

A quorum will be 2 members. If a quorum is not present within 30 minutes after the time appointed for a meeting, the meeting will not proceed.

## Proxies

If a member is unable to attend a meeting of the Steering Committee the member may nominate to the Chair, a person who will attend the meeting instead of the member.

## Conflicts of interest

Members, or meeting attendees as agreed by the Committee, who become aware of any conflict of interest or potential conflict of interest prior to or during the course of the meeting will immediately advise the Chair and excuse themselves for the meeting or for the particular agenda item if necessary. In instances where there is a possibility of a potential conflict of interest, the matter will be discussed in the first instance with the Chair, prior to attending the meeting.

Conflicts of interest also apply to invited guests attending to present to the Committee. It will be the responsibility of the Chair to call for any conflict of interest prior to the commencement of a meeting.

A conflict of interest may include any interest, business or other relationship that could be reasonably perceived to materially interfere with the member's or person's ability to act in the best interests of the South Australian Government.

## Confidentiality of deliberations

In general, deliberations will NOT be considered confidential unless they are explicitly declared and minuted as such. Committee members, meeting attendees and invited guests will exercise discretion with regard to the deliberations of the Committee, particularly where material is identified in writing or verbally as confidential or commercial in confidence.