



Our ref: CORP F2023/000845  
Receipt No: 18515096

CORPORATE SERVICES  
Level 15  
25 Grenfell Street  
Adelaide SA 5000  
GPO Box 1671  
Adelaide SA 5001  
DX 667  
Tel 8429 0422  
www.pir.sa.gov.au

1 December 2023

Removed for Disclosure Log

Dear

Removed for Disclosure Log

### 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 1 November 2023, seeking access to the following:

*"Circa 21 Sept 2023 a forum was held to discuss initial marine science studies to support SA Water's proposal to build a desalination plant on the Eyre Peninsula.*

*1) I seek access to any reports (summary of otherwise) flowing from the forum and any briefings/reports of advice provided to the Minister in relation to the forum.*

*2) I also seek access to any documents that relate to the requesting/commissioning of environmental studies related to desalination plants in South Australia since September 2021.*

*3) I also seek access to any environmental studies/reports/analysis related to desalination plants in South Australia that have been in the possession of PIRSA since September 2021.*

*In respect of 3, I do not seek access via FOI to any studies/reports/analysis that are in the public domain already, but would be grateful if the decision maker could point to where they are publicly available.*

*I only seek access to the latest final or latest draft of any studies/reports/analysis."*

Timeframe: 1/09/2021 to 1/11/2023

With respect to item 2, as per your email of 14 November 2023, it was confirmed that the scope is revised to documents that propose/commission work, ie project brief and scope of the work to be undertaken and any variations to the instruction/project brief.

Accordingly, the following determination has been finalised.

I have located fifteen 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
1a	Attachment to Document 1 – Eyre Peninsula Desalination Plant Marine Science Forum 21/9/2023 – Forum Summary Notes by SA Water Refer: <a href="https://www.amazonaws.com/e42015d9b39acd75e24064839e5e0855/Marine%20Science%20Forum%20Summary%20Notes%20-%20September%202023.pdf">e42015d9b39acd75e24064839e5e0855 Marine Science Forum Summary Notes - September 2023.pdf (amazonaws.com)</a>	6
3	Attachment to Document 9 - PIRSA/SARDI Modelling blue mussel larval connectivity in Boston Bay - Draft Research Project Scope and Costing	7
4	Infrastructure SA / PIRSA/SARDI Memorandum of Administrative Arrangement – Oceanographic modelling to inform the Northern Water Project dated 15/7/2022	15
5	PIRSA/Flinders University Research Agreement – Oceanographic Monitoring dated 9/3/2023	40
6	PIRSA/Flinders University Research Agreement Schedule – Northern Water Supply Project – WP12 Marine Environmental Studies – Oceanographic Climate Modelling dated 9/10/2023	34
7	PIRSA/Flinders University Research Agreement Schedule – Northern Water Supply Project – WP12 Marine Environmental Studies – Oceanographic Far Field Modelling dated 9/10/2023	34
8	PIRSA/SARDI / The University of Adelaide Research Agreement Schedule – Oceanographic Modelling and Monitoring Boston Bay dated 7/9/2021	51
10	Oceanographic monitoring and far-field modelling to inform desalination in Boston Bay – SARDI Publication No F2022/000347-1 dated February 2023 Refer: <a href="https://www.pir.sa.gov.au/oceanographic-monitoring-and-far-field-modelling-to-inform-desalination-in-boston-bay-report-to-sa-water">Oceanographic monitoring and far-field modelling to inform desalination in Boston Bay. Report to SA Water (pir.sa.gov.au)</a>	81
11	Oceanographic modelling to inform the Northern Water Project – SARDI Publication No F2022/000247-1 dated August 2022 Refer: <a href="https://www.amazonaws.com/oceanographic-modelling-to-inform-the-northern-water-project-report-to-infrastructure-sa">Oceanographic modelling to inform the Northern Water Project. Report to Infrastructure SA (amazonaws.com)</a>	29
12	SARDI Consultation - Larval transport modelling to inform the SA Water Desalination Project	1
13	An evaluation of proposed larval transport modelling to inform the SA Water Desalination Project dated May 2022	8



14	SARDI response to the independent review of the SARDI report entitled "Oceanographic Monitoring and Far-Field Modelling to inform Desalination in Boston Bay" dated 31/3/2023 Refer: <a href="#">(PDF) Subject: Response to the Independent Review of the SARDI Report entitled 'Oceanographic Monitoring and Far-Field Modelling to inform Desalination in Boston Bay (SARDI Publication No. F2022/000347-1)' BY A/Prof. Jochen Kaempf. From: A/Prof. Mark Doubell and Dr Charles James (SARDI Aquatic and Livestock Sciences) (researchgate.net)</a>	7
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## **Determination 2**

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

Doc No.	Description of document	No. of Pages
1	Minute from Chief Executive, PIRSA to Minister for Primary Industries and Regional Development dated 9/10/2023 re proposed desalination plant at Billy Lights Point – SARDI Report	4
9	Email thread between PIRSA and SA Water officers dated 30/3/2022 to 5/6/2023 re SA Water – larval modelling updated research scope and costing – Proposed variation to current contract	3

The information removed from the above documents is pursuant to Clause 6(1) of Schedule 1 of the Freedom of Information Act which states:

### ***"6 - Documents affecting personal affairs***

*(1) A document is an exempt document if it contains matter the disclosure of which would involve the unreasonable disclosure of information concerning the personal affairs of any person (living or dead)."*

The information removed from Document 1 consists of the name of an organisation and a law firm.

The term 'personal affairs' has been held to involve 'matters of private concern to an individual' and the 'composite collection of activities personal to the individual concerned'.

It is considered that members of the public can correspond with Ministers and public sector agencies without fear that their identities are released.

The information removed from Document 9 consists of mobile telephone numbers of Departmental and University staff members.

As a mobile telephone number allows a person, including an officer of an agency, to be contacted outside of business hours and is information that is not ordinarily available to the public, the information is taken to concern the personal affairs of an individual.

Accordingly, it is considered that disclosure of this information would be an unreasonable intrusion into the privacy rights of the individuals concerned.

### **Determination 3**

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

Doc No.	Description of document	No. of Pages
2	PIRSA/SARDI Draft Research Project Scope and Costing	7

Access to the above document is refused pursuant to Clause 9(1) of Schedule 1 of the Freedom of Information Act which states:

***“9—Internal working documents***

*(1) A document is an exempt document if it contains matter—*

*(a) that relates to -*

*(i) any opinion, advice or recommendation that has been obtained, prepared or recorded; or*

*(ii) any consultation or deliberation that has taken place, in the course of, or for the purpose of, the decision-making functions of the Government, a Minister or an agency; and*

*(b) the disclosure of which would, on balance, be contrary to the public interest.”*

The document consists of an early draft of a variation of contract which has been prepared for internal decision-making purposes.

In addressing the public interest test for the Clause 9(1) 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 interest.

*Contrary to the public interest:*

- The recent age of the information was considered and the continuing relevance of the matter.
- The draft variation document was prepared in its current version and has not yet proceeded further, pending further consideration.



- The document is not the final version ready for internal decision-making purposes and confidentiality of certain information must be maintained prior to a decision being made.
- The need to ensure the efficient administration of Government in obtaining information in which to make decisions.
- Disclosing this information may compromise the manner in which information is gathered in the future for the decision-making processes of Government to the detriment of the betterment for South Australia.

Having considered the various factors weighing for and against disclosure, I have determined that disclosure of this document 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 [Making a Freedom of Information Application | State Records of South Australia \(archives.sa.gov.au\)](http://archives.sa.gov.au), 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**

## Research Project Scope and Costing

### SCHEDULE 1 - RESEARCH PROJECT SCOPE

#### 1. PROJECT DETAIL

##### 1.1 Title

#### Modelling blue mussel larval connectivity in Boston bay

Department: South Australian Water Corporation (SA Water)

Branch:

Attention: Hazel Vandeleur

Address: South Australian Water Corporation  
250 Victoria Square  
ADELAIDE SA 5000

Position: Senior Environment Impact Assessment Officer

Email: Hazel.Vandeleur@sawater.com.au

Telephone: 0407 106 531

##### 1.3 Principal Investigator

Name: Mark Doubell

Position: Oceanography Sub Program Leader

Address: SARDI Aquatic Sciences  
PO Box 120  
HENLEY BEACH SA 5022

Email: mark.doubell@sa.gov.au

Telephone: 8429 0982 / 0437 369 045

##### 1.4 Subcontractor/Collaborator

Not Applicable

##### 1.5 Timeframe

Commencement Date: 01/03/2022

Completion Date: 01/07/2022

##### 1.6 Summary

SA Water has requested SARDI undertake larval transport studies to inform on the connectivity of blue mussels within Boston Bay and surrounding region during the spawning season. To achieve this, SARDI will couple ocean current predictions from the high-resolution hydrodynamic model for Boston Bay (HRBBM) currently under



## **Research Project Scope and Costing**

development with a particle tracking model (LTRANS) to simulate the transport and connectivity of pelagic larval stage mussels.

Biological models to describe the spawning and dispersal characteristics of mussel larvae needed to undertake particle tracking scenario studies have been developed in consultation with SA Water and Mussel Industry representatives.

Modelling results will be evaluated to assess the potential impact of desalinisation plant intake on mussel spawning stock. A final report will be provided to SA Water and Industry summarising the model development, validation of the hydrodynamic model, and larval transport scenario study results.

## **2. PROJECT DESCRIPTION**

### **2.1 BACKGROUND**

Security of regional water supplies is a key priority for SA Water and existing water supplies for regional communities on Eyre Peninsula need to be supplemented to ensure future proofing. To achieve this, SA Water proposes to build a desalination plant at Boston Bay, Port Lincoln.

The SA mussel aquaculture industry has farms in lower Spencer Gulf with the majority located around the Port Lincoln region. Due its proximity to the planned desalination plant, industry has raised concerns regarding the potential impact of the desalination plant on its current annual production of ~1,800 tonnes valued ~\$4 million (EconSearch, 2020).

To assess the potential impact of a desalinisation plant intake on the mussel industry and provide more information on the connectivity of spawning mussel larvae in the region, SA water has requested SARDI undertake larval transport modelling studies using the new high-resolution model under development for Boston Bay.

### **2.2 NEED**

SA Water has requested SARDI undertake biophysical modelling of mussel larval transport and dispersal to inform on the connectivity of blue mussel larvae during the spawning season. To achieve this, SARDI will use the nested high-resolution hydrodynamic model for Boston Bay (HRBBM) currently under development for the region. The HRBBM has a spatial resolution of 300m and provides the best available predictions of the oceanographic circulation including currents driven by tides, wind and thermohaline forcing. The LTRANS particle tracking model will be used to undertake larval (particle) tracking scenario studies to assess the suitability and potential impact of the planned desalinisation plant on mussel spawning stock.

## Research Project Scope and Costing

### 2.3 OBJECTIVES

**2.3.1** Develop a biological model for blue mussel to inform larval (particle) tracking studies in consultation with Industry and SA Water.

**2.3.2** Generate HRBBM hydrodynamic model results at the required temporal resolution (hourly) to run the larval transport model.

**2.3.3** Undertake larval transport and dispersal modelling studies to improve assess the potential influence of the region's oceanographic circulation on mussel connectivity across the region and the level of connectivity associated with the planned desalination intake location.

### 2.4 METHODS

SA Water has requested SARDI undertake biophysical modelling larval transport studies to inform on the connectivity of blue mussel larvae during the spawning season. To achieve this, SARDI will use the high-resolution hydrodynamic model for Boston Bay (HRBBM) currently under development. Results of the HRBBM model will be used to drive the LTRANS particle tracking model to predict larval dispersal studies. Model validation for currents, temperature, salinity and sea-level based on 6 months of observations will be presented to support the application of the hydrodynamic model.

The biological model adopted to represent spawning mussels has been developed in consultation with Industry. Mussel larvae will be assumed to be passive (i.e., no behaviour). The simulated spawning season will commence in May and end in October for three representative years in the period 2016-2020. For each spawning season, monthly spawning events beginning in May and ending in September will be simulated. For each monthly event, particles (representing larvae) will be released daily for a period of 5 days at each model grid cell (500m resolution, 10 particles per model grid cell). Particles will be tracked for 28 days with the capability to settle at mussel lease sites from days 21-28. Any particle crossing the within 300m of the desalination intake pipe location will be 'killed' and considered removed from the system.

Results for the three spawning seasons will be collated to understand to inter-annual variability in the connectivity patterns and the potential impact of the intake pipe on mussel larvae recruitment.

### 2.5 RISK ASSESSMENT

Issue (Damages)	Cause	Result	Possible Scenario	Maximum Foreseeable Loss - Mitigation
Industry input into project development ceases	Industry reasons	Industry not accepting results	Industry withdraws from further engagement /consultation	Considerable communication/engagement has been put into developing the biological model with Industry to a level we are confident to proceed.  Mitigation: (i) Continue engagement. (ii) Have project methods verified



### Research Project Scope and Costing

				by shellfish expert (e.g. Prof Xiaoxu Li (SARDI))
Computing hardware required to run model breakdowns	Desktop computer or PIRSA high-performance-computer (HPC) breakdowns	Delay to project delivery	Desktop computer or server breakdowns	Delay to project delivery. Mitigation: replacement desktop computer or alternative HPC (Adelaide Uni) sourced
SA Water prioritises provision other desalination modelling	SA Water project requirements change	Delay to project delivery	SA Water prioritises desalination plant discharge scenario modelling over mussel particle tracking	Delay to project delivery. Mitigation: milestone schedule modified

## 3. DELIVERABLES

### 3.1 Service Provided:

Dr Mark Doubell (Oceanography Sub-program leader) to supervise the project including provision of the data to SA Water and contribute to the data analysis and project reports.  
Dr Charles James (Oceanographer/Modeller) to process the survey data, perform qa/qc, undertake the oceanographic modelling, and contribute to the project reports.

### 3.2 Outcomes:

1. Provision of larval transport and dispersal modelling studies to quantify the potential influence of the region's oceanographic circulation on mussel connectivity across the region and the level of connectivity associated with the planned desalination intake location.
2. Modelling studies to be conducted for 3 different years to understand extent of natural variability in connectivity.

### 3.3 Outputs and Extension:

Extension of this work may be required at a future date including:

- i) Design of field monitoring program to validate model results.
- ii) Additional modelling studies to advise on connectivity of mussel larvae with desalination intake for different intake locations.

Provision of these services is not implied in any way and is not covered as a part of this research contract.

## SARDI Aquatic Sciences

### Research Project Scope and Costing

#### 3.4 Intellectual Property:

SARDI will retain the sole IP of the ocean models (South Australian Regional Ocean Model (SAROM), Two Gulfs Model (TGM) and High-Resolution Boston Bay model (HRBBM)) and biological particle tracking model developed for mussels used and developed in this project.

## 4. FUNDING ARRANGEMENTS

### 4.1 PROJECT COST

PROJECT COST	(\$ Ex GST
SUBTOTAL	39,865.00
GST	3,986.50
TOTAL	43,851.50

### 4.2 MILESTONE AND PAYMENT SCHEDULE

Date	Milestone	Payment (\$) Ex GST
on signing of contract	Project starts. SA Water (re) commences consultation with Industry to finalise biological model.	15,000
15-March-2022	SA Water in consultation with Industry provides final biological model and model scenario start dates for 3 years in the period 2016-2020 to SARDI. SARDI commences modelling.	0
1-May-2022	Results for 1 spawning seasons (years) reported for review. Scenarios finalised for final model runs Draft report-describing methods and model results for 3 spawning seasons provided to SA Water.	10,865
10-June-2022	Results for 3 spawning seasons (years) reported. Draft final report provided to SA Water.	0
1-July-2022	Submission of final report to SA Water and Industry	14,000
<b>SUBTOTAL</b>		<b>39,865.00</b>
<b>GST</b>		<b>3,986.50</b>
<b>TOTAL COST</b>		<b>43,851.50</b>



## SARDI Aquatic Sciences

### Research Project Scope and Costing

#### 5. PROJECT STAFF

Staff (if identified)	Position	FTE Commitment	Funded/ In-Kind
Charles James	Oceanographer & Lead ocean modeller (PO303)	0.13	Funded
Mark Doubell	Oceanography sub-program leader (PO303)	0.05	Funded

DRAFT

## Research Project Scope and Costing

**SCHEDULE 2 - RESEARCH PROJECT COSTING****1. PROJECT COST SUMMARY**

<b>Cost</b>	<b>Detail</b>	<b>Total (\$) Ex GST</b>
Salaries	fte	24,445
Operating		2,624
Overhead		12,796
Capital		
SARDI Inkind		8,097
<b>Total Cost</b>		<b>47,962</b>
<b>Revenue - PRICE</b>		
<b>Total Revenue</b>		<b>39,865</b>
<b>Net Surplus/(Deficit)</b>		<b>-8,097</b>
<b>SARDI Investment</b>		<b>8,097</b>





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## MEMORANDUM OF ADMINISTRATIVE ARRANGEMENT

**BETWEEN:** Infrastructure SA 30 Wakefield Street, Adelaide SA 5000 (ABN 16 372 487 442) (“ISA”)

**AND**

**SOUTH AUSTRALIAN RESEARCH AND DEVELOPMENT INSTITUTE**, a division of the  
**DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONS** of Level 15, 25 Grenfell Street, Adelaide  
SA 5000 (ABN 53 763 159 658) (“Grantee”)

**INTENT:**

- The South Australian Government agrees to provide “Research Funds” via ISA to the Grantee enabling Oceanographic modelling to inform the Northern Water Project.
- ISA will provide the research funds as per Item 10 of Schedule 1 (**Grant Amount**) as set out in Item 11 of Schedule 1 (**Payment Details**) and the Grantee will use the funds for the purpose as set out in Item 7 of Schedule 1 (**Purpose**) in accordance with this Memorandum of Administrative Arrangement (**MoAA**).

**ADMINISTRATIVE ARRANGEMENT:**

1. **ACKNOWLEDGEMENT**

ISA and the Grantee acknowledge that this is an administrative arrangement between administrative units, agencies or instrumentalities of the Crown in right of the State of South Australia and is not intended to create a legally binding agreement.

2. **TERM OF THIS MOAA**

This MoAA will start on the **Commencement Date** and end on the **Expiry Date** as set out in Item 3 and 4 of Schedule 1, unless it is terminated earlier in accordance with this MoAA (**Term**).

3. **FUNDS**

- 3.1 ISA will pay the Funds, meaning those funds (the Grant Amount) specified in Item 10 of Schedule 1 (**Funds**) to the Grantee at the times and in the manner set out in Item 11 of Schedule 1.
- 3.2 At the end of the Term the Grantee will provide a report on any part of the Funds which are not expended towards the Purpose in accordance with this MoAA (**Unexpended Funds**) and will repay any Unexpended Funds to ISA unless ISA gives written approval for the Grantee to retain any Unexpended Funds.

4. **GST**

- 4.1 ISA is not liable to pay the GST payment or any instalment of the GST payment unless the Grantee has delivered to ISA a valid Tax Invoice under GST Law detailing the Payments and associated GST payment.
- 4.2 For the purpose of this clause, GST Law has the meaning attributed to it in the A New Tax System (Goods and Services Tax) Act 1999.



## 5. OBLIGATIONS OF THE GRANTEE

- 5.1 The Grantee will only use the Funds for the Purpose.
- 5.2 The Grantee will implement the Purpose in accordance with this MoAA and with all reasonable directions from ISA.
- 5.3 The Grantee must provide at its expense during the Term, all facilities, equipment and information necessary for the performance of the Purpose.

## 6. REPORTING

The Grantee will:

- 6.1 provide to ISA the reports specified in Item 9 of Schedule 1; and
- 6.2 if requested by ISA at any time during the Term, such other information, records and reports as ISA reasonably requires about the Purpose and the use of the Funds.

## 7. BREACH BY GRANTEE

If the Grantee is in breach of any condition of this MoAA, the Grantee must notify ISA of the breach in writing and provide details of how the Grantee intends to remedy such breach.

## 8. REPAYMENT OF FUNDS

- 8.1 Where ISA is satisfied the Grantee is in breach of any condition under this MoAA, ISA may, acting reasonably, by notice in writing to the Grantee:
  - 8.1.1 require the Grantee to repay either the whole or a portion of the Funds (whether expended or not) by specifying a proportion of the Funds to be repaid to ISA (**Repayment Amount**) and designate a date as a repayment date for the purposes of this Arrangement (**Repayment Date**); or
  - 8.1.2 withhold all future funding from the Grantee for this Purpose.
- 8.2 ISA may review any decision made under this clause 8 if the Grantee is able to satisfy ISA that the Grantee has complied with the conditions in this MoAA.

## 9. CONFIDENTIAL INFORMATION

- 9.1 The parties acknowledge and agree that from time to time they will share confidential information.
- 9.2 Both the Grantee and ISA acknowledge that they are Government agencies, and they will comply with their obligations relating to the disclosure of confidential information to third parties.
- 9.3 Each party acknowledges that the other party may disclose confidential information:
  - 9.3.1 To Parliament, the Governor, a Parliamentary or Cabinet committee or sub-committee; or
  - 9.3.2 To any agency, authority, instrumentality, Minister of Office of the State of South Australia to whom it is customary for that party to disclose information such as Confidential Information; or
  - 9.3.3 If required by law.

## 10. PROTECTION OF PERSONAL INFORMATION

- 10.1 This Arrangement may require either or both parties to collect, deal with, store, use and disclose Personal Information. If this is the case:
- 10.1.1 The parties acknowledge and agree that they are each bound by the South Australian Government's Information Privacy Principles (**IPPs**).
- 10.1.2 The parties acknowledge and agree that they will conduct any activity under this Arrangement in accordance with the IPPs and Personal Information will only be dealt with in accordance with the IPPs.

## 11. DISPUTE RESOLUTION

- 11.1 If a dispute arises between the parties in relation to this MoAA it will be referred to senior officers of each party for resolution and, if necessary, to the Chief Executive Officer of each party for resolution.
- 11.2 If the parties are unable to resolve the dispute under clause 11.1, then the parties will refer the matter to the Premier for direction about the resolution of the dispute.

## 12. CONTACT OFFICERS

- 12.1 Each party will nominate a Contact Officer to be responsible for this MoAA. The initial Contact Persons are set out in Item 6 of Schedule 1 and may be changed from time to time by notifying the other party in writing.
- 12.2 Any notification under this MoAA is to be given to the Contact Officer for each party.

## 13. INTELLECTUAL PROPERTY

- 13.1 The Grantee owns all Intellectual Property in all things produced by the Grantee in the performance of the Purpose.
- 13.2 The ISA does not own the Grantee's Intellectual Property in existence before the date of this MoAA, or in any existing publications or other work produced by or on behalf of the Grantee prior to, or otherwise than in the course of performing the Purpose (**Background IP**).
- 13.3 ISA owns all documents prepared by the Grantee in connection with the performance of the Purpose, and upon termination and any other time demanded by the ISA, the Grantee must deliver to the ISA all documents provided by or originating from ISA and all documents produced by the Grantee in the course of performing the Purpose.
- 13.4 For the purposes of this MoAA, (**Intellectual Property**) means all intellectual property rights, including:
- 13.4.1 Patents, plant breeder's rights, copyright, rights in circuit layouts, registered designs, trademarks, know-how and any right to have Confidential Information kept confidential; and
- 13.4.2 Any application or right to apply for registration of any of the rights referred to in clause 13.4.1,
- but for the avoidance of doubt excludes moral rights and performer's rights.



**SIGNED AS AN ADMINISTRATIVE ARRANGEMENT**

**SIGNED** for and on behalf of the **Infrastructure SA** by an authorised officer for this purpose:

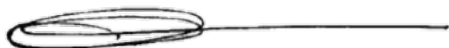


.....  
Signature

Project Director Northern Water  
Print Name & Job Title

Date: ...19 June 22.....

**SIGNED** for and on behalf of the **DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONS** by an authorised officer for this purpose:



.....  
Signature

Dr Mike Steer, Research Director,  
SARDI Aquatic and Livestock Sciences  
.....  
Print Name & Job Title

Date: 15 July 2022  
.....

**SCHEDULE 1**

Item 1	Government Party – ISA	Infrastructure SA 30 Wakefield Street, Adelaide SA 5000 (ABN 16 372 487 442)
Item 2	Government Party - Grantee	<b>SOUTH AUSTRALIAN RESEARCH AND DEVELOPMENT INSTITUTE</b> , a division of the <b>DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONS</b> of Level 15, 25 Grenfell Street, ADELAIDE SA 5000 (ABN 53 763 159 658)
Item 3	Commencement Date	Date of execution of the MoAA
Item 4	Expiry Date	2 months from the Commencement Date
Item 5	Extension Period(s)	Not Applicable
Item 6	Contact Persons	<p><u>Government Party - ISA:</u> Mr Michael Morgan Project Director Northern Water Infrastructure SA Level 15, Wakefield House</p> <p>Email: <a href="mailto:mike.morgan@sa.gov.au">mike.morgan@sa.gov.au</a></p> <p><u>Government Party - Grantee:</u> Dr Mike Steer Research Director SARDI Aquatic and Livestock Sciences 2 Hamra Avenue West Beach SA 5024</p> <p>Email: <a href="mailto:michael.steer@sa.gov.au">michael.steer@sa.gov.au</a></p>
Item 7	Purpose	Oceanographic modelling to inform the Northern Water Project as outlined in the attached Research Project Scope and Costing (Attachment 1)
Item 8	Outcomes	As outlined in the attached Research Project Scope and Costing (Attachment 1)
Item 9	Reports and Meetings	Full report by the Grantee to ISA prior to the Expiry Date. Adhoc Reports to ISA, as required by ISA.
Item 10	Grant Amount	<p>\$16,921.00 AUD</p> <p><input checked="" type="checkbox"/> GST exclusive</p>
Item 11	Payment Details	<p>Schedule of Payments:</p> <p>1st Instalment: \$16,921 plus GST payable within 21 days of signing of agreement</p> <p>Payment will be made via Electronic Funds Transfer following</p>



		the provision of a valid Tax Invoice from the Grantee to ISA detailing the Payment Details and Purpose.
Item 12	Invoice Issuing Party	<input type="checkbox"/> Government Party - ISA <input checked="" type="checkbox"/> Government Party - Grantee
Item 13	Grant Reconciliation Date(s)	Not applicable
Item 14	Additional Recipient Financial Information	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 15	Government Party IP Licence	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Item 16	<b>Insurances</b> Public Liability Insurance	The Grantee warrants that it is entitled to the benefits of the South Australian Government insurance and risk management arrangements administered by SAicorp in respect of this Agreement. For the purposes of this clause 'SAicorp' means the Insurance Division of the South Australian Government Financing Authority established pursuant to the <i>Government Financing Authority Act 1982</i> (SA).
Item 17	Liability Limit	NA
Item 18	Form of Funding Acknowledgement	NA

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**ATTACHMENT 1**

Research Project Scope and Costing

## Research Project Scope and Costing

### SCHEDULE 1 - RESEARCH PROJECT SCOPE

#### 1. PROJECT DETAIL

##### 1.1 Title

Oceanographic modelling to inform Northern Water Project: Phase 1

##### 1.2 Client Contact Details

Department: Infrastructure SA  
 Attention: Mike Morgan  
 Address: Level 15, Wakefield House  
 30 Wakefield Street  
 ADELAIDE SA 5000  
 Position: Director, Commercial Projects  
 Email: mike.morgan@sa.gov.au  
 Telephone: 04123 092 165

##### 1.3 Principal Investigator

Name: Mark Doubell  
 Position: Oceanography Sub Program Leader  
 Address: SARDI Aquatic Sciences  
 PO Box 120  
 HENLEY BEACH SA 5022  
 Email: mark.doubell@sa.gov.au  
 Telephone: 8429 0982 / 0437 369 045

##### 1.4 Subcontractor/Collaborator

Not Applicable

##### 1.5 Timeframe

Commencement Date: The date of signing of the agreement  
 Completion Date: Two months from the agreement commencement date



## Research Project Scope and Costing

### 1.6 Summary

The development of a desalinisation plant is being considered to help secure regional water supplies in Upper Spencer Gulf as part of the Northern Water Supply Project. Infrastructure SA has requested SARDI undertake preliminary oceanographic modelling to inform the initial site selection process.

To achieve this SARDI will undertake preliminary (i.e., Phase 1) modelling studies using SARDI's 1.5 km resolution Two Gulfs Model. The model will be used to assess the dispersion capacity of three site locations which have been shortlisted by Infrastructure SA. Model scenario studies using passive 'dye' tracers representing point source emissions will be undertaken to assess the relative suitability of the locations to host a desalinisation plant. A report summarising the model and results will be provided to Infrastructure SA. The report will include recommendations for future monitoring and model development necessary to provide improved 'validated' models necessary for more reliable and accurate modelling of brine discharges and the measurement of accompanying baseline environmental data needed for model validation and the plant development and approval process.

## 2. PROJECT DESCRIPTION

### 2.1 BACKGROUND

Security of regional water supplies is a key priority for the South Australian government and is required to reduce dependency on groundwater supplies and to future proof water resources needed for regional communities and associated existing (e.g., agriculture, mining) and emerging industries in the far north and Upper Spencer Gulf. As a part of the Northern Water Supply Project a new coastal desalination plant located in Upper Spencer Gulf is under consideration.

Since the inception of the national Integrated Marine Observing System (IMOS) in 2007, SARDI has led the collection of ocean observations in South Australia. SARDI has used these observations to develop a range of hydrodynamic models (Middleton et al. 2013, 2014, 2017) to better understand the circulation and climate of the state's shelf, coastal and gulf regions. Application of the models have been wide ranging, and have supported the sustainable use, development, and management of the state's fisheries (McLeay et al. 2016; Fowler 2019, Rogers et al. 2020) and aquaculture sectors (Middleton et al. 2013, Doubell et al. 2015, Gillanders et al. 2015, Roberts et al. 2020, Tanner et al. 2020). More recent applications include improving our understanding of marine debris dispersal (Redondo Rodriguez and James 2020) and supporting real-time decision making of PIRSA marine managers and marine industry sectors to mitigate biosecurity threats (e.g. Pacific Oyster Mortality Syndrome) using the novel data-assimilating eSA-Marine modelling forecast system ([https://pir.sa.gov.au/research/esa\\_marine](https://pir.sa.gov.au/research/esa_marine)) run in partnership with the Bureau of Meteorology (BOM). Currently, SARDI is undertaking a modelling and monitoring project to understand the fate of brine discharges associated with a SA Water desalination plant planned for the lower Eyre Peninsula.

## Research Project Scope and Costing

In recognition of the SARDI's oceanographic ocean monitoring and modelling expertise, Infrastructure SA has requested preliminary modelling studies be undertaken to inform and progress the initial desalination plant site selection process.

### References:

McLeay L, Doubell MJ, Roberts S, Dixon C, Andreachio L, James C, Luick J, Middleton JF. (2016) A biophysical model to optimise recruitment and sustainable harvest in southern Australia's largest prawn fishery, *Fisheries Oceanography*, 25:2, 164-182.  
<https://doi.org/10.1111/fog.12143>

Doubell MJ, James C and Middleton J. (2015) Modelling of oceanographic variables for the development of additional finfish aquaculture in Spencer Gulf. Final Report prepared for Clean Seas Tuna Ltd. South Australian Research and Development Institute (Aquatic Sciences), Adelaide, SARDI Publication No. F2014/000740-1.

Drew, M.J., Rogers, T., Doubell, M.J., James, C., Oxley, A., McGarvey, R., Smart, J., Catalano, S., Redondo Rodriguez, A., Fowler, A.J., Matthews, D. and Steer, M.A. (2020) King George Whiting (*Sillaginodes punctatus*) spawning dynamics in South Australia's southern gulfs. Final report to the Fisheries Research and Development Corporation (FRDC), Project No. 2016/003, 71pp.

Fowler, A., Doubell, M., Drew, M. and Matthews, M. (2019) Larvae-distribution and abundance. In Fowler, A.J. Do commercial fishery data reflect stock status in South Australia's southern Garfish fisheries. Final report to the Fisheries Research and Development Corporation (FRDC), Project No. 2015/018, 105 pp.

Gillanders, BM, S Goldsworthy, TAA Prowse, M Doubell, J Middleton, P Rogers, JE Tanner, NA Clisby, C James, J Luick, P van Ruth, CJA Bradshaw, TM Ward (2015) Spencer Gulf research initiative: Development of an ecosystem model for fisheries and aquaculture. University of Adelaide and SARDI Aquatic Sciences, Adelaide. CC BY 3.

Middleton J, Doubell MJ, James C, Luick J. and van Ruth P. (2013) PIRSA Initiative II: Carrying Capacity of Spencer Gulf: Hydrodynamic and Biogeochemical Measurement Modelling and Performance Monitoring. In Middleton et al. (2013). PIRSA Initiative II: Carrying Capacity of Spencer Gulf: Hydrodynamic and Biogeochemical Measurement Modelling and Performance Monitoring. Final report for the Fisheries Research and Development Corporation. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2013/000311-1. SARDI Research Report Series No. 705. 96 pp.

Middleton JF and Doubell MJ. (2014) Carrying Capacity for Finfish Aquaculture Part 1 – Near-field semi analytic solutions. *Aquacultural Engineering*, 62, 54-65. <https://doi.org/10.1016/j.aquaeng.2014.07.005>

Middleton JF, Luick J and James CJ. (2014) Carrying Capacity for Finfish Aquaculture Part II – Rapid assessment using hydrodynamic and semi-analytic solutions. *Aquacultural Engineering*, 62, 66-78.  
<https://doi.org/10.1016/j.aquaeng.2014.07.006>

Middleton JF, Sanderey P, James C, Mattner T, Rough K and Roberts S. (2017). eSA-Marine-phase 1: the first step towards an operational nowcast/forecast ocean prediction system for Southern Australia. South Australian Research and Development Institute. FRDC Project No. 2016/005.

Middleton JF, Driffin D, Luick J, Hertzfeld M, James C and Oke P. (2017) Physical oceanography of the Great Australian Bight: the science that underpins. Final report GABRP Project 1.1. Great Australian Bight Research Program, GABRP Research Report Series Number 20, 109pp.

Redondo Rodriguez, A. and James, C. (2020). Modelling marine debris dispersal in the South Australian gulfs region - RESTRICTED. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2020/000100-1. SARDI Research Report Series No. 1052. 26pp.

Roberts, S., James, C., Bansemer, M., Colberg, F., Aijaz, S., Jakaitis, K., Schulz E., Middleton J. 2020. Primary Industries and Regions South Australia. Improving early detection surveillance and emergency disease response to Ostreid herpesvirus using a hydrodynamic dispersion model: updating disease management areas for the South Australian oyster industry. Adelaide, January. CC BY 3.0. FRDC Report No. 2018-090.

Rogers, T.A., A. Redondo Rodriguez, A.J. Fowler, M.J. Doubell, M.J. Drew, M.A. Steer, D. Matthews, C. James, and B.M. Gillanders. (2020) Using a biophysical model to investigate connectivity between spawning grounds and nursery areas of King George whiting (*Sillaginodes punctatus*: Perciformes) in South Australia's gulfs. *Fisheries Oceanography*, 00: 1– 18. <https://doi.org/10.1111/fog.12502>

Tanner, J.E, Doubell, M.J., van Ruth, P., James, C., and Middleton, J. (2020) Aquaculture Environmental Monitoring Program: 2015-2019. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2019/000334-1. SARDI Research Report Series No. 1053. 67pp.

## Research Project Scope and Costing

### 2.2 NEED

Infrastructure SA has requested an initial assessment of the Upper Spencer Gulf regions capacity to host a desalination plant. This study will use SARDI's 1.5 km resolution hindcast model for Spencer and St Vincent's Gulf (i.e., Two Gulfs Model, TGM) to inform the initial desalination plant site selection process. The 'Phase 1' modelling studies described below will allow for the rapid assessment and comparison of the relative capacity of three different site locations shortlisted by Infrastructure SA, as well as a broader understanding of spatial differences in Upper Spencer Gulfs oceanography, to host a desalination plant. Results will be used to inform the site selection process and provide recommendations for future (Phase 2) monitoring and modelling work which will be required to accurately model the likely impact of brine discharges associated with the ~100 GL/annum desalination plant under consideration for Upper Spencer Gulf.

### 2.3 OBJECTIVES

2.3.1 Use the existing SARDI 1.5 km hindcast model (years 2016-2021) to understand the dispersion potential of point source discharges in Upper Spencer Gulf.

2.3.2 Use the model results to provide an initial assessment on the relative suitability of three site locations shortlisted by Infrastructure SA.

2.3.3 Using the model results to advise on the design of a monitoring program need to provide the baseline data needed for further model development and validation. This will be required to accurately predict the potential impact of brine discharges from a desalination plant and to support the plant design and approval process.

### 2.4 METHODS

#### Model Scenario Studies.

SARDI's 1.5 km Two Gulfs Model (TGM) will be used to model the dispersion of point source discharges over multiple years (2016-2021) for three locations selected by Infrastructure SA in Upper spencer Gulf. Lateral boundary conditions and initial fields for the TGM are generated from SARDI's 2.5 km South Australian Regional Ocean Model (SAROM) which is forced by global model predications provided by 10km versions of CSIRO's Blue Link Reanalysis and/or the CSIRO/Bureau of Meteorology's OceanMAPS ocean models. The surface atmospheric forcing will be provided by the NCEP Climate Forecast System v2 for all model runs.

At this preliminary stage, point source discharges will be modelled as non-active passive 'dye' tracers. This approach will allow for an initial rapid assessment of the dispersion potential and hence capacity of the different locations to support brine discharges. This approach is recommended considering the timelines indicated by Infrastructure SA and in consideration of the current model limitations, and recommended improvements, required to more accurately simulate the dynamic impacts of brine discharges on dispersion, regional connectivity, circulation and residency (i.e. as an active trace which can change fluid dynamics).



## Research Project Scope and Costing

### 2.5 RISK ASSESSMENT

#### (SARDI consideration from involvement in the project)

Issue (Damages)	Cause	Result	Possible Scenario	Maximum Foreseeable Loss - Mitigation
Discharges initially modelled as passive traces	Model development is required before a more detailed/ accurate assessment of brine discharges are modelled. (i.e., salt input as active tracers which can change dynamics)	Current model limitations may over/under predict dispersion, connectivity, and residence.	Improved model bathymetry and model validation is required to develop a more accurate model for implementing and assessing brine discharges.	Infrastructure SA and stakeholders need to be aware of model limitations and that results provided give an initial/preliminary assessment.
Delay in modelling studies	Staff availability due to COVID or sickness	Delayed results	COVID	Results delayed and modelling tasks transferred to other staff member.

## 3. DELIVERABLES

### 3.1 Service Provided:

Dr Mark Doubell (Oceanography Sub-program leader) to supervise the project including provision of reports.

Dr Charles James (Senior Oceanographer/Modeller) to perform modelling studies, analyse model results and contribute to the final report.

### 3.2 Outcomes:

Final report presenting the methods and model scenario study results showing the relative capacity of the three initial locations to disperse point source discharges. Provide recommendations for model improvement and validation, and the design of a baseline monitoring program to accurately assess the suitability of the region to host a desalination plant.

## Research Project Scope and Costing

### 3.3 Outputs and Extension:

Extension of this work may be required at a future date and would provide a legacy for the benefit of all marine sectors in South Australia. Possible extensions include:

- i) Phase 2 development of a high-resolution (0.3-100's km) hydrodynamic model to undertake detailed brine discharge plume dispersion studies to accurately support the desalination plant design and approval process.
- ii) Design, deployment and maintenance of the field monitoring program required to support model development, validation and application as part of the desalination plant design and approval process. It is recommended this monitoring program be integrated within the current national Integrated Marine Observing System (IMOS) which SARDI leads in South Australia. SARDI can ensure all data collected is quality-controlled according to national IMOS standards and made freely available through the IMOS Australian Ocean Data Network (AODN).
- iii) Integration into the SARDI/BoM eSA-Marine system to enable nowcast/forecasts of brine dispersion from an active desalination plant for transparency, regulatory and mitigation purposes.

Provision of these services is not implied in any way and is not covered as a part of this research contract.

### 3.4 Intellectual Property:

SARDI will retain the sole IP of the ocean models South Australian Regional Ocean Model (SAROM), Two Gulfs Model (TGM) and any other models developed by SARDI during this project in accordance with Clause 13 of the MoAA.

## 4. FUNDING ARRANGEMENTS

### 4.1 PROJECT COST

PROJECT COST	(\$ Ex GST
SUBTOTAL	16,921.00
GST	1,692.10
TOTAL	18,613.10

## Research Project Scope and Costing

### 4.2 MILESTONE AND PAYMENT SCHEDULE

Date	Milestone	Payment (\$) Ex GST
The date of signing of the agreement	On signing of the agreement Infrastructure SA advises SARDI of site locations, and plant capacity to enable modelling studies.	16,921.00
6 weeks after commencement	<b>Submission of Final report</b> provided to Infrastructure SA detailing the modelling results and future recommendations.	0
<b>SUBTOTAL</b>		<b>16,921.00</b>
<b>GST</b>		1,692.10
<b>TOTAL COST</b>		<b>18,613.10</b>

### 5. PROJECT STAFF

Staff (if identified)	Position	FTE Commitment	Funded/ In-Kind
Mark Doubell	Oceanography sub-program leader (PO303)	0.02	Funded
Charles James	Oceanographer & Lead ocean modeller (PO303)	0.04	Funded



## Research Project Scope and Costing

### SCHEDULE 2 - RESEARCH PROJECT COSTING

#### 1. PROJECT COST SUMMARY

Total Cost		20,270
Revenue - PRICE		
Infrastructure SA		16,921
Total Revenue		16,921
Net Surplus/(Deficit)		-3,349
SARDI Investment		3,349



## RESEARCH AGREEMENT

This Schedule and the terms and conditions attached comprise a binding Research Agreement between the Flinders University (**University**) and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (**PIRSA**) pursuant to the terms and conditions of the Affiliate Agreement and Strategic Alliance Agreement executed between the University and PIRSA both dated 18/01/2022 with respect to the Research Activity identified below.

<b>Item 1</b>	<b>Name of Funding Body and Funding Agreement</b>	1.1 Funding body: Premier of South Australia  1.2 Funding Agreement: Standard Goods and Services Agreement – No. B267546, executed 1 December 2022 (Annexure B)
<b>Item 2</b>	<b>Title of Research Activity</b>	Oceanographic Monitoring
<b>Item 3</b>	<b>Project Start Date</b>	On Execution of this Research Agreement Schedule
<b>Item 4</b>	<b>Project End Date</b>	28 November 2023
<b>Item 5</b>	<b>Researchers involved by institution</b>	<b>Chief Investigator/s:</b>  (a) from Flinders University: None  (b) from PIRSA: Mark Doubell – Sub-Program lead Affiliate Associate Professor - Flinders University
		<b>Specified Personnel:</b>  (a) from Flinders University: None  (b) from PIRSA: Mark Doubell – (Sub-Program lead – Affiliate Associate Professor – Flinders University Paul Malthouse (Oceanographic Technician) Ian Moody (Oceanographic Technician) Dave Delaine (Marine Technician)

		<b>Responsible Officer</b> University Director, Research Development and Support Sturt Road, Bedford Park SA 5042 Phone: 08 8201 5074 Email: director.rds@flinders.edu.au  PIRSA Dr Peter Appleford Executive Director, South Australian Research and Development Institute and Major Programs Email: pirsasardiexecutiveoffice@sa.gov.au
<b>Item 6</b>	<b>Role of researchers in the Research Activity from each institution</b>	The Chief Investigator - PIRSA, agrees that the Research Activity will be conducted as outlined in the Funding Agreement – Appendix 1: Research Project Scope and Costing – Schedule 1 – Research Project Scope – 1.6 Summary, 2.3 Objectives and 2.4 Methods.
<b>Item 7</b>	<b>Project Outputs</b>	As detailed in the Funding Agreement – Appendix 1: Research Project Scope and Costing – Schedule 1 – Research Scope – 3.1 Service Provided, 3.2 Outcomes and 3.3 Outputs.
<b>Item 8</b>	<b>Premises</b>	Research work will be conducted on SARDI premises, and trial sites across South Australia except where work has been subcontracted.
<b>Item 9</b>	<b>Cash/in-kind Contributions</b>	PIRSA:  2022/23 - \$136,256 (in-kind) (GST Exclusive) Total - \$136,256 (in-kind) (GST Exclusive)
<b>Item 10</b>	<b>Reports</b>	To be provided in accordance with the Funding Agreement - Appendix 1: Agreement details – Item 15 and Item 16
<b>Item 11</b>	<b>Approved sub-contractor/s to PIRSA</b>	Nil



**Item 12 Background IP/material contributed to the Research Activity by each institution**

Institution	Background IP	Date made available to project	Limitations/restrictions
<b>Funding Body</b>	Nil		
<b>University</b>	Nil		
<b>PIRSA</b>	SARDI will retain the sole IP of the regional ocean models (South Australian Regional Ocean Model (SAROM), Two Gulfs Model (TGM) and coastal ocean mooring designs used in this project.	On commencement and throughout duration of project	Nil

**Item 13 Clauses from Funding Agreement that bind PIRSA**

PIRSA agrees to comply with the following clauses in the Funding Agreement as if it were a party to the Funding Agreement:

Clause reference	Title of clause
Clause 1	Contract Length
Clause 2	Contract Managers
Clause 3	Supply of Goods (if applicable)
Clause 4	Inspection and Acceptance of Goods (if applicable)
Clause 5	Warranty Period (if applicable)
Clause 6	Supply of Services (if applicable)
Clause 7	Reports and Manuals (if applicable)
Clause 8	Service Variation (if applicable)
Clause 9	Supplier's Warranties
Clause 10	Supplier's Personnel
Clause 11	Price and Payment
Clause 12	GST
Clause 13	Intellectual Property Rights
Clause 14	Not Applicable (See Item 19 Special Conditions – No.4)
Clause 15	Liability Limit
Clause 16	Confidential Information
Clause 17	Set-Off
Clause 18	Dispute Resolution
Clause 19	Ending this Contract
Clause 20	Effect of Ending this Contract
Clause 21	Subcontracting
Clause 22	Conflict of Interest
Clause 23	Compliance with Laws
Clause 24	Governing Law and Jurisdiction
Clause 25	Entire Agreement

Clause 26	No Assignment
Clause 27	Modification
Clause 28	Severance
Clause 29	Counterparts
Clause 30	Work Health and Safety
Clause 31	Acting Ethically
Clause 32	Interpretation
Clause 33	Special Conditions
Attachment 1	Agreement Details
Attachment 2	Standard Terms and Conditions (as per clauses above)
Attachment 3	Glossary of Defined Terms
Attachment 4	Special Conditions
Attachment 5	Specifications
Attachment 6	Pricing and Payment
Appendix 1	Research Project Scope and Costing

#### **Item 14 Ownership of IP and licences as between PIRSA and the University**

	Select option that applies pursuant to the IP Protocol	Details of any restrictions on use
Ownership of IP	<p>The Funding Body owns 100% of the developed Intellectual Property.</p> <p>As per clause 17.2.3 of the Intellectual Property Protocol (Annexure A) in accordance with clause 17 of the “Intellectual Property” of the Strategic Alliance Agreement.</p>	

### Item 15 Grant Funds and Use of Grant Funds

Total Funding amount is: \$690,832 (GST Exclusive)

Specified Personnel may expend the Funds as necessary to support the Research Activity provided that:

- a) Grant Funds are applied only to achieve the approved research objectives of the Grant;
- b) All expenditure is in accordance with the requirements of the Funding Agreement, noting that use of Funding for some purposes is expressly excluded in the Funding Agreement;
- c) Funding approved for specific pieces of Equipment is used for this purpose; and
- d) Funding is not used to provide infrastructure that should be provided by PIRSA.

#### Approved Budget (GST Exclusive)

Year	Current Account Balance	2022/23	2023/24	Total
Funds to be retained by the University	N/A	N/A	N/A	N/A
Funds transferred to PIRSA	N/A	\$550,000	\$140,832	\$690,832
Funds transferred to University on execution of Deed of Novation	N/A	N/A	N/A	N/A
<b>ANNUAL AMOUNT AWARDED</b>	N/A	\$550,000	\$140,832	\$690,832

*NOTE: Invoices to be raised in accordance with relevant Milestones under the Funding Agreement and will be paid by the University to PIRSA following receipt of funds from the Funding Body. Payments to the University (for the Current Account Balance) will be returned to PIRSA to undertake the research.*

### Item 16 Student Involvement

Not applicable

### Item 17 Standard Research Terms and Conditions

The University and PIRSA agree that the terms and conditions contained in this Research Agreement Schedule and the Standard Research Terms and Conditions shall apply to the Research Activity referred to in this document. Item 13 and Item 15 and any Special Conditions will take priority over the Standard Research Terms and Conditions to the extent of any inconsistency.

### Item 18 Research Support Funding




In accordance with clause 9.4 of the Strategic Alliance Agreement between PIRSA and the University, the University and PIRSA may agree to vary down the level of Research Support Funding for a particular Research Agreement. This may occur where some or all of the costs associated with hosting the Research Agreement reside with the University.

Not applicable.

## Item 19 Special Conditions

1. PIRSA must ensure that the Research Activity is delivered by the Named Persons in the Funding Agreement – Attachment 1 – Agreement Details – Item 8. PIRSA may substitute a Named Person with the University's consent.
2. PIRSA will grant to the University, a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement, with a right to sublicense to the Premier of South Australia and the Crown in right of the State of South Australia, so that the University can comply with its obligation in the Funding Agreement – Attachment 2 – Standard Terms and Conditions - Clause 13.2.
3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any sub-contract or other arrangement with that other party. For the avoidance of doubt, this will extend to subcontracting the additional subcontractors listed in the Funding Agreement.
4. PIRSA warrants that it is entitled to the benefits of the South Australian Government insurance and risk management arrangements administered by SAicorp in respect of this Agreement. For the purposes of this clause 'SAicorp' means the Insurance Division of the South Australian Government Financing Authority established pursuant to the Government Financing Authority Act 1982 (SA).

### Signed as an Agreement.

For and on behalf of <b>FLINDERS UNIVERSITY</b> by:  	This Agreement is executed for and on behalf of the <b>MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT</b> by a person duly authorised in that regard in the presence of:  
Signature of Authorised Person	Signature of Authorised Person Print Name: Dr Peter Appleford
 Robert Saint	
Name of authorised signatory	Signature of Witness Print Name: Naomi Bailey
Date: 06/03/2023	Date: 09/03/23



## **STANDARD RESEARCH AGREEMENT TERMS AND CONDITIONS WITH APPROVED AFFILIATED ORGANISATIONS**

These Standard Research Agreement Terms and Conditions shall apply to all Research Activities for which the University and PIRSA have completed a Research Agreement Schedule.

### **1. DEFINITIONS**

#### **1.1. In this Research Agreement:**

**Affiliate Agreement** means the agreement titled 'Affiliate Agreement' entered into between the Flinders University, and PIRSA, under which this Research Agreement is established.

**Background Intellectual Property** (Background IP) means any Intellectual Property which pre-exists the Research Activity or is independently developed outside of the Research Activity that is owned or controlled by a Party and which that Party chooses at its sole discretion to make available for the purpose of carrying out the Research Activity.

**Developed Intellectual Property** (Developed IP) means any Intellectual Property that is developed or created by either the University or PIRSA in the course of a Research Activity.

**Effective Date** means the date referred to in Item 3 of the Research Agreement Schedule which the Parties have agreed that this Research Agreement is deemed to have come into force.

**Ethics Committee** means an ethics or biosafety committee which has been established by any of the Parties or the Federal or a State Government, and has been properly constituted according to national and state guidelines and/or legislation to approve research activities involving human experimentation, animals, quarantine materials or dealings with genetically modified organisms.

**Grant Funds** means the monies provided by a Funding Body under a Grant.

**Funding Agreement** means the agreement forming Annexure B to this Research Agreement.

**Funding Body** means the specified funding organisation providing the Grant Funds for a Grant.

**Intellectual Property** (IP) means all rights conferred under statute, common law and in equity in relation to copyright, inventions, registered and unregistered trademarks, trade secrets and know how, design, patents, proprietary rights granted under the Plant Breeder's Rights Act 1994, semiconductor or circuit board layout rights, trade, business or company names, Confidential information or other proprietary rights, or any rights to registration of such rights, whether created before or after the date of this Agreement and whether created in Australia or elsewhere and all other intellectual property as defined in Article 2 of the Conventions establishing the World Intellectual Property Organisation of July 1967.

**Intellectual Property Protocol** means the Intellectual Property protocol referred to in clause 5 hereof and set out in Annexure A, and includes any additional or substituted

Intellectual Property protocol which may be agreed in writing between the Parties from time to time.

**Research Agreement** means the Research Agreement Schedule and the Standard Research Agreement Terms and Conditions and all its schedules and annexures which together comprise this Research Agreement.

**Research Activity** means the research which is the subject of a Research Agreement Schedule under the Strategic Alliance Agreement.

**Report** means a document, correspondence or report in any form whatsoever that is necessary or desirable to ensure compliance with the Funding Agreement.

**Research Agreement Schedule** shall mean the completed pro-forma schedule for the specific Research Activity in the form set out in Annexure A of the Strategic Alliance Agreement.

**Research Code** has the meaning ascribed to it in the Strategic Alliance Agreement.

**Specified Personnel** means those persons specified in Item 5 of the Schedule.

**Strategic Alliance Agreement** means the Agreement of that same name entered into between the Parties pursuant to and at the same time as the Affiliate Agreement.

**Term** shall mean the period of the Funding Agreement, or such other period in the event this Research Agreement is terminated earlier under Clause 10.

**University Affiliate** has the meaning ascribed to it in the Strategic Alliance Agreement.

1.2. In this Research Agreement:

- 1.2.1. all references to clauses are references to clauses in this Research Agreement;
- 1.2.2. expressions cognate with expressions defined in clause 1.1 will be construed accordingly; and
- 1.2.3. the meaning of capitalised words not specifically defined in this Research Agreement shall take their meaning from the Affiliate Agreement and Strategic Alliance Agreement.

1.3. This Research Agreement shall be construed and read in conjunction with the terms and conditions contained in the Affiliate and Strategic Alliance Agreements entered into between the University and PIRSA which are incorporated into this Research Agreement and the Funding Agreement.

1.4. In the event of conflict or inconsistency between the terms of the Funding Agreement, the Affiliate Agreement, the Strategic Alliance Agreement, a Research Agreement and any annexure of a Research Agreement (and in this case it is in the sequence the annexure appears), the conflict or inconsistency will be resolved in the order that the documents are written above in this clause.

**2. PERFORMANCE OF RESEARCH ACTIVITY**

- 2.1. The Parties agree to complete the roles, and responsibilities, and to provide the contribution to the Research Activities as described in the Research Agreement Schedule for this Research Activity.
- 2.2. PIRSA understands that the University will receive, account for and expend the Grant Funds and will direct the use of the Grant Funds in accordance with the Funding Agreement.
- 2.3. The University will transfer Grant Funds to PIRSA, and PIRSA, must:-
  - 2.3.1. receive and manage those Grant Funds as a subcontractor for the University, in accordance with the budget set out in the Funding Agreement and the University's obligations under the Funding Agreement;
  - 2.3.2. comply with the terms of the Funding Agreement as directed by the University and not cause the University to be in breach of the Funding Agreement;
  - 2.3.3. comply with the terms and conditions set out in this Research Agreement; and
  - 2.3.4. ensure that its University Affiliate(s) and employees who have access to the Grant Funds comply with the requirements set out in the Funding Agreement.
- 2.4. PIRSA will acquit to the University the Grant Funds it receives pursuant to clause 2.3.
- 2.5. In the event that a Funding Body requires any financial adjustments to be made pursuant to the Funding Agreement, the University will advise PIRSA which will comply with any such requirement for financial adjustment and continue to comply with the Funding Agreement.

### **3. ETHICAL STANDARDS**

- 3.1. The Parties will maintain a close coordination in relation to ethical standards to ensure compliance with the guidelines of the Australian Health Ethics Committee and other applicable health ethics directives or guidelines.
- 3.2. For the purposes of a Research Activity, a Party will not engage in any activity that involves human experimentation, and will not permit any of its employees, students and other persons in any way associated with or sponsored by that Party to do so, unless the activity has been approved in advance by an appropriate Ethics Committee.
- 3.3. The University will accept protocol approvals granted by Ethics Committees that the University has deemed appropriate.
- 3.4. With respect to a Research Activity requiring animal ethics approval, each Party may require approval by its respective Ethics Committee.
- 3.5. Each Party acknowledges that Personnel involved in a Research Activity are to comply with the Research Code.
- 3.6. PIRSA represents that to its own knowledge that there is no conflict of interest that currently exists in relation to it or its Specified Personnel performing the Research Activities. In the event that a conflict of interest were to arise PIRSA shall immediately notify the University in writing of such conflict of interest.

#### **4. INSURANCE AND INDEMNITIES**

- 4.1. Except for the insurance cover the University meets for its University Affiliates whilst they are undertaking Academic Duties as a University Affiliate for the University, PIRSA will ensure it has insurance required and will be responsible for all liability coverage, costs, damage, loss or liability and other matters relating to the University Affiliate (unless otherwise agreed by separate agreement), PIRSA's other employees, subcontractors or consultants.
- 4.2. Each Party (the indemnitor) hereby indemnifies and agrees to keep indemnified the other Party and its respective directors, officers, employees, agents and representatives (the indemnitee) from and against any and all liability, loss, damage, cost or expense (including legal fees based on a party/party basis, but excluding any loss of profits, special, indirect or consequential losses or punitive or exemplary damages) howsoever arising that the indemnitee may suffer, incur or sustain as a result of any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitor or any of its directors, officers, employees, agents and representatives in its conduct of this Research Agreement, provided that the indemnity given by the indemnitor will be reduced proportionately to the extent that any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitee may have contributed to any such liability, loss, damage, cost or expense.

#### **5. INTELLECTUAL PROPERTY**

- 5.1. The Parties agree that the ownership of Background IP contributed by a Party for the Research Activity is not affected by this Agreement and that all Background IP remains the property of the Party that makes it available for the purpose of carrying out the Research Activity. The Party providing particular Background IP may use that Background IP, or licence others to use that Background IP, for any purpose.
- 5.2. The Parties acknowledge that ownership of Developed IP will vest in accordance with the Funding Agreement and agree that as between them, they will deal with the Developed Intellectual Property in accordance with the guiding principles contained in the Strategic Alliance Agreement and with the Research Agreement Schedule and Intellectual Property Protocol in Annexure A to this Research Agreement if required.
- 5.3. If a student enrolled with the University is involved in the Research Activity involving PIRSA, the University will enter into a Student IP Agreement with the student and the Parties will deal with the Research Activity and the Developed Intellectual Property that the student may create from the Research Activity as set out in the Student IP Agreement.
- 5.4. Subject to any specific requirements set out in Schedule 2, PIRSA warrants that in undertaking a Research Activity it will ensure that:
  - 5.4.1. no infringement of the Intellectual Property rights of any third party occurs;
  - 5.4.2. no Intellectual Property rights of any third party are used or incorporated in the material and the reports provided to the University for compliance with a Funding Agreement without the third party's prior written consent; and
  - 5.4.3. it will comply with the provisions set out in the Funding Agreement which relate to Developed Intellectual Property and provide the warranties and



representations as if it were the University as set out in a Research Agreement Schedule and relevant clauses of the Funding Agreement.

## **6. PUBLICATIONS**

- 6.1. Any publications to be authored in respect of research undertaken pursuant to this Research Agreement will be in accordance with the relevant provisions of the Funding Agreement identified in the Research Agreement Schedule, the Student IP Agreement and/or the separate project agreement entered between the Parties. But in any event authorship of publications will be in accordance with the guidelines set out in the Research Code.
- 6.2. The Parties agree that where a University Affiliate of the University is an author in any publication that results from a Research Activity, whether as the sole author or a joint author, the 'by-lines' in the publication will acknowledge both the University and PIRSA's role in undertaking the Research Activity.
- 6.3. Any advertising material or other written materials produced by either Party that relate to the Research Activity shall acknowledge the Funding Body as required by the Funding Agreement. The Parties agree to comply with the Funding Body's direction in relation to the use of their logo.

## **7. SUBCONTRACTING**

- 7.1. Except where the subcontractor has been approved in the Funding Agreement, the University will not, without prior written approval of PIRSA, subcontract out any work or any part thereof relating to this Research Agreement or any Funding Agreement.
- 7.2. PIRSA may subcontract any work or part thereof relating to this Research Agreement or any Funding Agreement to the persons or entities listed in Item 11 of the Research Agreement Schedule.
- 7.3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any subcontract or other arrangement with that other party.

## **8. CONFIDENTIALITY**

- 8.1. Each Party acknowledges that all Confidential Information disclosed by one Party to the other is confidential and agrees that the other Party's Confidential Information must be kept confidential and must not be disclosed to any third party without the prior written consent of the disclosing Party except if:
  - 8.1.1. disclosed to the receiving party's contractors, or agents or the Funding Body as necessary for the performance of this Agreement provided that such contractors, or agents or Funding Body are instructed as to the requirement to keep the information confidential;
  - 8.1.2. disclosed to the receiving party's solicitors, auditors, insurers or accountants provided that such persons are instructed as to the requirement to keep the information confidential;
  - 8.1.3. disclosed pursuant to the requirement of any law or regulation or the order of any court of competent jurisdiction, and the receiving party has informed the

disclosing party, within a reasonable time after being required to make the disclosure, of the requirement to make the disclosure and the information required to be disclosed; or

- 8.1.4. approved for release in writing by an authorised representative of the disclosing party.

- 8.2 For the avoidance of doubt, this Agreement may be disclosed by the Parties in accordance with the *Freedom of Information Act 1991*.

- 8.3 The Minister may disclose Confidential Information:

8.3.1 to Parliament, the Governor, Cabinet or a Parliamentary or Cabinet committee or subcommittee; and

8.3.2 to an agency, authority, instrumentality Minister or Officer to the State of South Australia to whom it is customary for the Minister of Primary Industries and Regional Development to disclose information such as the Confidential Information for the purpose of undertaking their Ministerial duties (whether or not the Minister is legally obliged to do so);

provided that the recipient is informed of the confidential nature of the Confidential Information and the requirement to keep it confidential.

## **9. RELATIONSHIP BETWEEN THE PARTIES**

- 9.1. PIRSA agrees to undertake the Research Activity for the University set out in this Research Agreement:

9.1.1. neither Party has any authority or power to act for, or to assume any responsibility, liability or obligation on behalf of the other Party, or to bind the other Party in any manner whatsoever;

9.1.2. the Parties are independent entities and their relationship for the purposes of this Research Agreement is one of collaborative venturers and is limited to carrying out the activities in pursuit of the objectives set out in this Research Agreement; and

9.1.3. the obligations and liabilities of the Parties are several and are neither joint, nor joint and several.

## **10. TERMINATION**

- 10.1. This Research Agreement or any part thereof may be terminated by either Party by providing the other Party with thirty (30) days' written notice unless otherwise required under a Funding Agreement.

- 10.2. This Research Agreement will terminate upon termination of the Funding Agreement by the Funding Body.

- 10.3. The University must notify PIRSA in writing within 5 days of the termination of the Funding Agreement.

10.4. If this Research Agreement is terminated in accordance with this Clause 10 then:

10.4.1. it will be without prejudice to the continuing enforceability of any rights or obligations of the Parties accrued at the time of termination; and

10.4.2. the Parties will consult in good faith as to the best way to deal with and manage any Research Activity that is not finalised at the date of termination, and will reach a fair and equitable agreement regarding the Research Activity so that the University is not in breach of the Funding Agreement.

## **11. SEVERANCE**

11.1. Any provisions of this Research Agreement held to be illegal or otherwise in conflict with any applicable laws, statutes or regulations will be deemed to be severed from the remainder of the Research Agreement and the validity of the remaining provisions will not be affected.

## **12. GOVERNING LAW**

12.1. This Research Agreement is governed by the law in force in South Australia. Each Party submits to the non-exclusive jurisdiction of the courts of South Australia.

## **13. ENTIRE AGREEMENT**

13.1. This Research Agreement shall constitute the entire agreement between the Parties in relation to the subject matter referred to herein and supersedes all previous agreements negotiations or understandings on that subject matter.

## **14. ASSIGNMENT**

14.1. A Party may not assign or novate its rights under this Research Agreement without the express written consent of the other Party and any purported assignment in contravention of this provision is void.

## **15. FURTHER ASSURANCES**

15.1. Each Party will execute and deliver all deeds, documents and instruments to do all acts and things as are necessary to give full effect to all the agreement, arrangements and transactions contemplated by this Research Agreement.

## **16. INDEPENDENT CONTRACTORS**

16.1. Each Party acts under this Research Agreement as an independent contractor.

## **17. NOTICES**

17.1. In any circumstances where pursuant to the terms of this Research Agreement any demand or notice in writing is required to be given it will be sufficient for it to be given by notice in writing signed by the Party giving the notice or for and on behalf of the Party giving the notice by an authorised officer of that Party or by its solicitors and that demand or notice be served upon the Party intended to receive the demand or notice by delivering it at the following relevant address or email address:

17.1.1. If to the University:  
Director, Research Development and Support

Flinders University  
Address: Room B1, Basement Level, Union Building  
Bedford Park SA 5042  
Email: [simon.brennan@flinders.edu.au](mailto:simon.brennan@flinders.edu.au)  
Tel: + 61 8 8429 5074

17.1.2. If to PIRSA:  
General Manager  
Plant Research Centre  
Waite Research Precinct  
Gate 2b, Hartley Grove  
Urrbrae, SA, 5064  
Email: [hazel.cochrane2@sa.gov.au](mailto:hazel.cochrane2@sa.gov.au)  
Tel: +61 8 8429 0259

17.2. Any communication or document received on a non-working day in the place of receipt of a Party after 5:00 pm (local time) on a working day will be effective at the commencement of business on the next working day in the place of receipt.

17.3. A Party may vary its address for service for the purpose of this clause by notifying the other Party in writing.

## **18. WAIVER**

18.1. No waiver of any right under this Research Agreement or forbearance or delay in the enforcement or any other indulgence, including but not limited to an indulgence of time granted by one Party to the other, shall affect the strict rights of that Party under this Research Agreement. All the rights and powers of that Party shall remain in full force and effect notwithstanding any such waiver, forbearance, delay or other indulgence on the part of that Party. Any variation or waiver agreed between the Parties shall be ineffective unless in writing and agreed by each Party.

## **19. COUNTERPARTS**

19.1. This document may be executed in any number of counterparts, and by the Parties in separate counterparts, but is not effective until each Party has executed at least one counterpart. Each counterpart of this document constitutes an original of this document but the counterparts together constitute one and the same instrument.

## **20. DELAY**

20.1. No Party will be responsible for any failure or delay in carrying out any of the obligations on its part to be performed or observed under this Research Agreement due to circumstances beyond its control, but will use its best endeavours to remove the cause of such circumstances as expeditiously as possible.

## **21. GST**

21.1. If any Supply made under this Research Agreement is a Taxable Supply then:

21.1.1. a tax invoice in an appropriate form shall be rendered by the supplier of the Taxable Supply; and

21.1.2. in addition to any consideration payable under this Research Agreement, the supplier of the Taxable Supply shall be entitled to recover from the recipient of the Taxable Supply an additional amount on account of GST, such amount to



be equal to the amount of the GST liability of the supplier in respect of the Taxable Supply calculated in accordance with the GST Act.

- 21.2. For the purposes of this clause each of 'GST', 'GST Act', 'Recipient', 'Supply', 'Taxable Supply' and 'Tax Invoice' have the same meaning as those terms have in the *A New Tax System (Good and Services Tax) Act 1999*.

## **22. DISPUTE RESOLUTION**

- 22.1. The Parties will without delay and in good faith attempt to resolve any dispute or difference which may arise between them in relation to this Agreement in accordance with the succeeding provisions of this clause.

- 22.2. Any dispute or difference arising between the Parties will be resolved in accordance with the following procedure:

22.2.1. the Party claiming that a dispute exists will notify the other Party that a dispute exists;

22.2.2. a meeting will be convened forthwith between senior representatives of the Parties being the Chief Executive Officer, Vice-Chancellor & President, Chairman or equivalent positions (or nominees) for resolution of the dispute or difference; and

22.2.3. if the dispute or difference is not resolved by the persons referred to in clause 22.2.2 above within such time as they agree but not being more than sixty (60) days then the Parties will attempt to resolve the matter by mediation or other alternative dispute resolution mechanism in accordance with the rules of such alternative dispute resolution mechanism and the Parties will each contribute equally to the cost of the mediator employed or other person assisting the Parties in any other alternative dispute resolution mechanism they use.

- 22.3. Each Party acknowledges that compliance with these provisions is a condition precedent to any entitlement to a claim, relief or remedy, whether by way of proceedings in a court of competent jurisdiction pursuant to this Research Agreement or otherwise in respect of such dispute or difference. However this will not preclude a Party from seeking any urgent interlocutory relief in a court of competent jurisdiction.

## **23. SURVIVAL**

- 23.1. Clauses 1 (Definitions), 4.2 (Indemnities), 5 (Intellectual Property), 8 (Confidentiality), 12 (Governing Law), 22 (Dispute Resolution) and this Clause 23 (Survival) will survive the expiry or any termination of this Research Agreement to the extent necessary to interpret and give effect to the rights and obligations of the Parties.

## **ANNEXURE A – INTELLECTUAL PROPERTY PROTOCOL**

As per clause 17 — “Intellectual Property” of the Strategic Alliance Agreement executed between Flinders University and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (PIRSA);

### **17. INTELLECTUAL PROPERTY**

- 17.1. The Parties acknowledge that each has its own Intellectual Property policy and clauses within its employment contracts relating to the ownership and use of Intellectual Property developed by each Party's employees.
- 17.2. Intellectual Property developed by University Affiliates in the course of Research Activities will be owned in accordance with the terms and conditions specified in the Research Agreement, having consideration to the guiding principles below:
  - 17.2.1. Where the Chief Investigator of a Grant application is an employee of PIRSA, and where there is no collaborative involvement with the University in a relevant Research Activity under the terms of a Funding Agreement, then subject to the provisions of the Funding Agreement PIRSA shall have all rights, title and interest in the ownership of any and all Intellectual Property that may arise from the Research Activity, and PIRSA shall have sole responsibility for the management of the same in accordance with PIRSA's policies and procedures relating to Intellectual Property .
  - 17.2.2. Where a Research Activity involves collaboration by researchers from the University and PIRSA in the undertaking of a Research Activity, the Parties agree that:
    - 17.2.2.1. ownership of the Intellectual Property will be determined in accordance with the relevant Research Agreement; and
    - 17.2.2.2. Intellectual Property will generally be owned in accordance with the respective financial and in-kind contributions to the relevant Research Activity; and
    - 17.2.2.3. each of them or their appointed representatives or agents shall negotiate in good faith an agreement to articulate any modifications to the rights of ownership and responsibilities for management of such Intellectual Property.
  - 17.2.3. Where the Funding Body owns 100% of the developed Intellectual Property under the Funding Agreement PIRSA will:
    - 17.2.3.1. assign all its right title and interest in the developed Intellectual Property to the University so that the University may deliver the rights to the Funding Body;
    - 17.2.3.2. PIRSA will sign any documents and require its personnel to sign any documents to perfect title to the developed Intellectual Property in the University;
    - 17.2.3.3. Where applicable, the Parties will share any commercial returns received by the University from commercialisation of the developed Intellectual Property based on the parties' respective intellectual, cash and in-kind contributions to the creation of the developed Intellectual Property.

- 17.3. Unless otherwise agreed in writing between PIRSA and the University, any Intellectual Property created by University Affiliates in teaching and educational materials in the course of undertaking Academic Duties shall be dealt with in accordance with the University's policies or the agreement between the University and a University Affiliate.
- 17.4. PIRSA acknowledges and agrees that save as may otherwise be specified by separate agreement (including in a Research Agreement), students of the University will be licensed to use the Intellectual Property in all educational and assessment materials produced by them as part of Research Activity, including for the avoidance of doubt in their thesis subject to any reasonable confidentiality obligation.

## **ANNEXURE B – FUNDING AGREEMENT**

Standard Good and Services Agreement

Oceanographic Monitoring No.B267546 , executed 1 December 2022



**OFFICIAL****STANDARD GOODS AND SERVICES AGREEMENT****Oceanographic Monitoring****B267546****Government  
of South Australia****AGREEMENT** made on **1 December** of **2022****BETWEEN:****THE GOVERNMENT PARTY NAMED IN ITEM 1 OF ATTACHMENT 1** ("the Government Party")**AND:****THE PARTY NAMED IN ITEM 2 OF ATTACHMENT 1** ("the Supplier")

**IT IS AGREED** that this Execution Page, the Agreement Details (Attachment 1), the Terms and Conditions (Attachment 2), the Glossary of Defined Terms (Attachment 3), the Special Conditions (Attachment 4), the Specifications (Attachment 5) and the Pricing and Payment (Attachment 6), will together comprise the Agreement between the Parties for the provision of the Goods and/or Services specified in Attachment 1.

**EXECUTED AS AN AGREEMENT**

**SIGNED** by a duly authorised officer for and on )  
 behalf of **THE GOVERNMENT PARTY NAMED** )  
**IN ITEM 1 OF ATTACHMENT 1** in the presence )  
 of: )

Witness signature

.Tara Mayne.....

Witness name

Authorised officer signature

..Jeremy Conway.....

Authorised officer name

**EXECUTED** by **THE PARTY NAMED IN ITEM 2**  
**OF ATTACHMENT 1** by a duly authorised officer

in accordance with section 126 of the

*Corporations Act 2001* (Cth): )

DocuSigned by:

11/29/2022 )

F966CDB02E294E1.....

Witness signature

DocuSigned by:

11/29/2022 )

730D2C96B8E348F.....

Authorised officer signature

Julia Parker

Witness name

Reference No:

Version 2.2: August 2021

~~OFFICIAL~~

Robert saint  
.....

Authorised officer name

**Attachment 1 - Agreement Details**

<b>Item 1</b>	<b>Government Party</b>	Premier of South Australia  a body corporate pursuant to the Administrative Arrangements Act 1994 (SA) of State Administration Centre, 200 Victoria Square, ADELAIDE SA 5001
<b>Item 2</b>	<b>Supplier</b>	Flinders University 65 542 596 200  Sturt Rd Bedford Park, South Australia, 5042
<b>Item 3</b>	<b>Commencement Date</b>	Date of execution by the last party.
<b>Item 4</b>	<b>Expiry Date</b>	28 November 2023
<b>Item 5</b>	<b>Extension Period</b>	There will be no extensions of the contract.
<b>Item 6</b>	<b>Supplier's ABN</b>	65 542 596 200  Registered for GST: Yes
<b>Item 7</b>	<b>Contract Managers</b>	Government Party:  Michael Morgan Project Director, Northern Water Supply Project  Level 4 Wakefield House,  30 Wakefield Street, Adelaide SA 5000  Supplier:  Erin Plews, Research Support Officer  Flinders University, Sturt Road, Bedford Park, South Australia 5042  Ph: 8201 5962  <a href="mailto:pirsapartnership@flinders.edu.au">pirsapartnership@flinders.edu.au</a>
<b>Item 8</b>	<b>Named Persons</b>	Project Manager: Mark Doubell  Position: Affiliate Associate Professor  Address: Flinders University, Sturt Road, Bedford Park, South Australia 5042  Phone: 08 8429 0982 / 0437 369 045  Email: <a href="mailto:mark.doubell@sa.gov.au">mark.doubell@sa.gov.au</a>
<b>Item 9</b>	<b>Details of Goods</b>	Oceanographic monitoring services

		Please refer to Attachment 5 for a detailed description of the services to be provided.
<b>Item 10</b>	<b>Delivery Date</b> <b>Delivery Point</b>	Not Applicable Not Applicable
<b>Item 11</b>	<b>Installation Date</b>	Not Applicable
<b>Item 12</b>	<b>Warranty Period</b>	Not Applicable
<b>Item 13</b>	<b>Details of Services</b>	Oceanographic monitoring services Please refer to Attachment 5 for a detailed description of the services to be provided.
<b>Item 14</b>	<b>Delivery Date</b> <b>Delivery Point</b>	From signing of the agreement until 28 November 2023 Infrastructure SA Level 15, Wakefield House 30 Wakefield Street, Adelaide SA 5000
<b>Item 15</b>	<b>Reports and Manuals</b>	As described in Attachment 5
<b>Item 16</b>	<b>Milestone Dates</b>	November 2022: On signing of agreement; SARDI orders oceanographic equipment – \$450,000 (Excluding GST)  October/ November 2022: Mooring deployment and CTD sampling using existing SARDI equipment – \$0  15 January 2023: Mooring deployment and CTD sampling using existing SARDI equipment – \$0  15 March 2023: Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date. Includes installation of new equipment –or on receipt of new equipment - \$100,000 (Excluding GST)  15 May 2023: Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date – \$0  October/ November 2023: Mooring retrieval – \$0  1 November 2023: Final delivery of data to Infrastructure SA. Upload of all QA/QC data to IMOS AODN – \$140,832 (Excluding GST)
<b>Item 17</b>	<b>Price and Payment (including address for invoices)</b>	Price: \$759,915.20 (GST inclusive) Manner of Payment: instalments, payments attached to the achievement of milestones. Invoices to be addressed to: <i>Attn: Mike Morgan</i> <i>Project Director – Northern Water Supply</i> <i>Infrastructure SA (part of Department of Premier and Cabinet)</i> <i>Northern Water Supply Project –Business Case – NA009</i>

		Invoices to state the milestone completed, date and contract name. Refer to Attachment 5 for invoicing schedule.
<b>Item 18</b>	<b>Insurances</b> Public Liability Insurance  Product Liability Insurance	General and Products Liability / Professional Indemnity FLI 23 GPL / AUS22899001  UniMutual / AON
<b>Item 19</b>	<b>Liability Limit</b>	\$20,000,000 / \$20,000,000 Both policies expire on 31/10/2023.
<b>Item 20</b>	<b>Other Termination Rights</b>	Not Applicable
<b>Item 21</b>	<b>Approved Subcontractors</b>	Minister for Primary Industries and Regional Development (Acting through the South Australian Research and Development Institute (SARDI)), a Division of the Department of Primary Industries and Regions (PIRSA).
<b>Item 22</b>	<b>Additional Personnel Checks</b>	Not Applicable
<b>Item 23</b>	<b>Notice Period for Termination for Convenience</b>	Thirty (30) calendar days



## Attachment 2 - Standard Terms &amp; Conditions

## AGREED TERMS

## 1. CONTRACT LENGTH

1.1 This Agreement commences on the Commencement Date and continues until the Expiry Date, unless terminated earlier or extended under clause 1.2.

1.2 This Agreement may be extended by the Government Party for the Extension Period by giving reasonable notice prior to the Expiry Date.

## 2. CONTRACT MANAGERS

The persons named in Attachment 1 as the Contract Managers are the first point of contact between the Parties and are responsible for overseeing the effective administration of the Agreement including variations and extensions.

## 3. SUPPLY OF GOODS (IF APPLICABLE)

3.1 If Goods are being supplied under this Agreement then the Supplier must:

- (a) supply the Goods in accordance with this Agreement;
- (b) sell the Goods without encumbrance;
- (c) deliver the Goods to the Delivery Point on or before the Delivery Date;
- (d) comply with the Government Party's reasonable directions and delivery instructions;
- (e) if requested by the Government Party, provide the Government Party with material safety data sheets with respect to the Goods delivered;
- (f) provide test evidence for the Goods if required; and
- (g) if indicated in Attachment 1, install the Goods on or before the Installation Date.

3.2 If the Supplier cannot comply with any of its obligations under clause 3.1, the Supplier must notify the Government Party in writing immediately.

## 4. INSPECTION AND ACCEPTANCE OF GOODS (IF APPLICABLE)

4.1 The Government Party may inspect the Goods to determine whether to accept or reject the Goods.

4.2 The Government Party must accept the Goods if they conform with the requirements of this Agreement.

4.3 Subject to clause 4.4, the Goods are deemed to be accepted either:

- (a) on delivery, if the Government Party notifies the Supplier that it accepts the goods; or
- (b) if no notice is issued by the Government Party, then 5 Business Days after delivery of the Goods to the Delivery Point.

4.4 If the Goods are consumable products and the Goods are found to be defective when first used, then the Government Party may reject the Goods under clause 4.5.

4.5 If the Government Party rejects the Goods due to non-conformity with the requirements of this Agreement, then the Government Party must notify the Supplier as soon as possible and require the Supplier at its sole cost, and at the Government Party's election to either:

- (a) resupply the Goods and remove the non-conforming Goods from the Delivery Point; or
- (b) repair the Goods.

4.6 Acceptance of the Goods does not relieve the Supplier of any of its obligations under this Agreement.

4.7 The Supplier bears the risk in the Goods until delivery to the Delivery Point. Title in the Goods will pass to the Government Party upon the Government Party's acceptance of the Goods.

## 5. WARRANTY PERIOD (IF APPLICABLE)

5.1 If during the Warranty Period the Goods fail to comply with the warranties in clause 9.1 then the Government Party may in its absolute discretion require that the Supplier at its expense:

- (a) replace the Goods within 10 Business Days of notification by the Government Party (or such other time

as is agreed); or

- (b) refund the Price.

## 6. SUPPLY OF SERVICES (IF APPLICABLE)

6.1 If Services are being supplied under this Agreement then the Supplier must ensure that the Supplier's Personnel provide the Services described in Attachment 1 in accordance with the terms and conditions of this Agreement.

6.2 Where Attachment 1 specifies Named Persons then the Services must be delivered by those Named Persons.

- A. The Supplier may substitute a Named Person with the consent of the Government Party subject to the Government Party being satisfied as to the expertise, experience and suitability of the substitute.

6.3 The Supplier must ensure that Services are delivered:

- (a) to a standard that meets or exceeds the Service Levels;
- (b) in accordance with the warranties in clause 9.4; and
- (c) by any Milestone Dates.

6.4 The Government Party's remedies for the Supplier's failure to meet a Service Level or for a breach of a warranty, includes resupply of the Services, a reduction of the price, termination, rebates or any other remedy specified in the Special Conditions.

## 7. REPORTS AND MANUALS (IF APPLICABLE)

The Supplier must provide those reports, manuals or other materials specified in Attachment 1.

## 8. SERVICE VARIATION (IF APPLICABLE)

8.1 If the Government Party wishes to vary the scope of the Services ("Variation"), it must issue a written request to the Supplier and the Supplier must within 5 Business Days (or such other period as agreed) provide a written quote ("Quote") setting out:

- (a) any impacts on the timing of or completion of tasks;
- (b) the varied price and payment arrangements; and
- (c) any changes to the terms that apply to the performance of the Services.

8.2 The Parties must negotiate in good faith to agree on the price and other terms applicable to the Variation.

8.3 If the Parties agree in writing to the terms of the Variation then:

- (a) the Supplier must perform the Services as varied by the Variation;
- (b) the Government Party must pay the varied price;
- (c) the terms and conditions of the Agreement are varied by the terms of the Variation.

## 9. SUPPLIER'S WARRANTIES

9.1 If Goods are being supplied under this Agreement then the Supplier warrants that it has good and unencumbered title to the Goods and the Goods:

- (a) conform with any description applied and any sample provided by the Supplier;
- (b) are new (unless otherwise specified);
- (c) are free from defects in materials, manufacture and workmanship;
- (d) conform to any applicable Australian Standards or other standards nominated in this Agreement;
- (e) conform to the Specifications and any technical Specifications provided by the Supplier;
- (f) are of merchantable quality;
- (g) are installed correctly (if the Supplier is responsible for installation);
- (h) are fit for their intended purpose; and
- (i) are manufactured and supplied without infringing any person's Intellectual Property Rights.

- 9.2 The Supplier must ensure that the Government Party receives the full benefit of any manufacturer's warranties in respect of the Goods.
- 9.3 During any Warranty Period any defects in the Goods must be rectified at the Supplier's expense.
- 9.4 If Services are being supplied under this Agreement then the Supplier warrants that the Services will:
- comply with the description of the Services in Attachment 1;
  - be provided with due care and skill;
  - be provided in a timely and efficient manner;
  - be provided in accordance with the best practices current in the Supplier's industry;
  - be supplied without infringing any person's Intellectual Property Rights;
  - be performed by the Supplier and/or the Supplier's Personnel; and
  - be supplied in the most cost effective manner consistent with the required level of quality and performance.

## 10. SUPPLIER'S PERSONNEL

- 10.1 The Supplier, if required by the Government Party, must give its consent to and procure the consent of the Supplier's Personnel, to the conduct of a police check or any Additional Personnel Checks specified in Attachment 1.
- 10.2 If the Government Party gives the Supplier notice in writing requiring those persons to be withdrawn from supplying the Goods or providing the Services, and the Supplier must immediately comply with the notice and provide replacement Personnel acceptable to the Government Party.
- 10.3 The Supplier and the Supplier's Personnel must only use the Government Party's computer systems with the specific authorisation of the Government Party and only in the manner as directed by the Government Party from time to time.
- 10.4 The Government Party reserves the right to refuse entry to any of the Government Party's premises to any of the Supplier's Personnel.

## 11. PRICE AND PAYMENT

- 11.1 In consideration for the supply of the Goods and/or the Services, the Government Party will pay the Price.
- 11.2 Unless otherwise expressly stated the Price is inclusive of GST.
- 11.3 The Supplier is entitled to invoice the Government Party for payment in respect of the Goods and/or Services, when the Goods have been supplied and accepted under clause 4, and the Services have been supplied in accordance with this Agreement.

## 12. GST

- 12.1 Subject to clause 12.2 the Supplier represents that:
- the ABN shown in Attachment 1 is the Supplier's ABN; and
  - it is registered under the *A New Tax System (Australian Business Number) Act 1999* (Cth),
- 12.2 If the Supplier is not registered for GST, then GST must not be charged on supplies made under this Agreement.

## 13. INTELLECTUAL PROPERTY RIGHTS

- 13.1 Nothing in this Agreement affects the ownership of Intellectual Property Rights created before the Commencement Date.
- 13.2 The Supplier grants to the Government Party and the Crown in right of the State of South Australia a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement.

## 14. INSURANCE

- 14.1 The Supplier must effect and maintain the policies of insurance specified in Attachment 1 for not less than the amounts specified in Attachment 1.
- 14.2 The policies of insurance referred to in clause 14.1 must be held until the expiry of the Agreement.

## 15. LIABILITY LIMIT

- 15.1 The Supplier's liability to the Government Party under this Agreement is limited to the amount specified in Attachment 1.

## 16. CONFIDENTIAL INFORMATION

- 16.1 Subject to this clause 16, neither Party may disclose any Confidential Information belonging to the other Party except as genuinely and necessarily required for the purpose of this Agreement.
- 16.2 A Party may disclose Confidential Information belonging to the other Party:
- to an employee, agent or adviser of that Party, on a "need to know" and confidential basis;
  - as required by law or a court order;
  - in accordance with any Parliamentary or constitutional convention;
  - to the Australian Competition and Consumer Commission (ACCC) if the party reasonably suspects, or is notified by the ACCC that it reasonably suspects, that there is Cartel Conduct or unlawful collusion in connection with the supply of Goods or Services under this Agreement; or
  - for the purposes of prosecuting or defending proceedings.
- 16.3 The Parties may mutually agree to disclose Confidential Information.

## 17. SET-OFF

Any claim the Government Party may have against the Supplier may be set off against monies owed to the Supplier under this Agreement.

## 18. DISPUTE RESOLUTION

- 18.1 Subject to clause 18.4 a Party may not commence legal proceedings without first referring the dispute to the other Party under this clause.
- 18.2 Either Party may give the other a notice in writing ("**dispute notice**") setting out the details of the dispute.
- 18.3 Within 5 Business Days or such other period as may be agreed by the Parties, representatives must meet and use reasonable endeavours to resolve the dispute.
- 18.4 A Party may seek immediate interlocutory relief or other interim remedy in case of genuine urgency.

## 19. ENDING THIS CONTRACT

- 19.1 The Government Party may terminate this Agreement immediately upon giving notice in writing to the Supplier if:
- the Government Party reasonably forms the opinion that the Supplier will be unable to perform its obligations under this Agreement;
  - the Supplier is in breach of this Agreement and has not rectified such breach within 10 Business Days of the Government Party giving notice in writing to the Supplier requiring the rectification of such breach;
  - the Government Party becomes aware that the Supplier is in breach of its statutory obligations with respect to its employees;
  - the Supplier fails to comply with a notice issued under clause 10.2; or
  - the Supplier fails to disclose a conflict of interest;
  - any Other Termination Right occurs; or
  - the Supplier suffers or, in the reasonable opinion of the Government Party, is in jeopardy of becoming subject to any form of insolvency administration or bankruptcy.
- 19.2 The Government Party may terminate this Agreement without cause by giving the Supplier the period of notice specified in Attachment 1 ("**Notice Period for Termination for Convenience**").
- 19.3 If the Government Party terminates this Agreement in accordance with clause 19.2:
- the Supplier has no claim against the Government Party arising out of or in relation to such termination other than the right to be paid for Goods accepted and/or Services provided before the effective termination date; and

- (b) the Supplier must comply with all reasonable directions given by the Government Party.
- 19.4 The Supplier may terminate this Agreement immediately upon giving notice in writing to the Government Party if the Government Party is in breach of this Agreement and has not rectified such breach within 14 days of the Supplier giving notice in writing to the Purchaser requiring the rectification of such breach.
- 20. EFFECT OF ENDING THIS CONTRACT**
- 20.1 Any termination of this Agreement by either Party does not affect any accrued right of either Party.
- 20.2 Despite termination or completion of this Agreement, this clause 20 and clauses 9, 13, 14, 15, 16, 17 and those Special Conditions that by their nature remain in force, shall survive.
- 21. SUBCONTRACTING**
- 21.1 With the exception of the Approved Subcontractors described in Attachment 1, the Supplier must not engage any subcontractor without the prior written permission of the Government Party.
- 21.2 The Supplier remains responsible for obligations performed by the Approved Subcontractors to the same extent as if such obligations were performed by the Supplier.
- 22. CONFLICT OF INTEREST**
- 22.1 The Supplier must disclose in writing to the Government Party all actual and potential conflicts of interest that exist, arise or may arise (either for the Supplier or the Supplier's Personnel) in the course of performing its obligations under this Agreement as soon as practical after it becomes aware of that conflict.
- 23. COMPLIANCE WITH LAWS**
- The Supplier must comply with the laws in force in the State of South Australia in performing its obligations under this Agreement.
- 24. GOVERNING LAW AND JURISDICTION**
- 24.1 This Agreement is governed by the laws in the State of South Australia.
- 24.2 The courts of the State of South Australia have exclusive jurisdiction in connection with this Agreement.
- 25. ENTIRE AGREEMENT**
- The Agreement constitutes the entire agreement between the Parties in respect of the matters dealt with in this Agreement and supersedes all prior agreements, understanding and negotiations in respect of the matters dealt with in this Agreement.
- 26. NO ASSIGNMENT**
- 26.1 The Supplier must not assign, encumber or otherwise transfer any of its rights or obligations under this Agreement without the written approval of the Government Party which approval shall not be unreasonably withheld.
- 26.2 Subject to any contrary legislative intention, the Parties agree that if there is any Machinery of Government Change, this Agreement is deemed to refer to the new entity succeeding or replacing the Government Party and all of the Government Party's rights and obligations under this Agreement will continue and will become rights and obligations of that new entity.
- 27. MODIFICATION**
- No addition to or modification of any provision of this Agreement will be binding upon the Parties unless made by written instrument signed by the Parties.

**28. SEVERANCE**

- 28.1 Each word, phrase, sentence, paragraph and clause of this Agreement is severable.
- 28.2 Severance of any part of this Agreement will not affect any other part of this Agreement.

**29. COUNTERPARTS**

This Agreement may be executed in any number of counterparts each of which is taken to be an original. All of those counterparts taken together constitute one (1) instrument. An executed counterpart may be delivered by email.

**30. WORK HEALTH & SAFETY**

- 30.1 The Supplier must comply with the *Work Health and Safety Act 2012* (SA) at all times, regardless of whether the Government Party issues direction in that regard or not.
- 30.2 If all or part of the work under this Agreement is to be provided on the premises of the Government Party and under the direction of the Government Party, the Supplier must comply with the Government Party's work health and safety policies, procedures and instructions. If the Supplier becomes aware of any potentially hazardous situation on the Government Party's premises, the Supplier must immediately bring it to the Government Party's attention.

**31. ACTING ETHICALLY**

The Supplier must conduct itself in a manner that does not invite, directly or indirectly, the Government Party's officers, employees or agents or any public sector employee (as defined in the *Public Sector Act 2009* (SA)) to behave unethically, to prefer private interests over the Government Party's interests or to otherwise contravene the Code of Ethics for the South Australian Public Sector.

**32. INTERPRETATION**

- 32.1 Defined terms are set out in the Glossary of Defined Terms in Attachment 3.
- 32.2 In resolving inconsistencies in this Agreement, the documents have the following order of priority:
- (a) Special Conditions (Attachment 4);
  - (b) Standard Terms and Conditions (Attachment 2); and
  - (c) the other Attachments.
- 32.3 In this Agreement (unless the context requires otherwise):
- (a) a reference to any legislation includes:
    - (i) all legislation, regulations and other forms of statutory instrument issued under that legislation; and
    - (ii) any modification, consolidation, amendment, re-enactment or substitution of that legislation;
  - (b) a word in the singular includes the plural and a word in the plural includes the singular;
  - (c) a reference to two or more persons is a reference to those persons jointly and severally;
  - (d) a reference to dollars is to Australian dollars;
  - (e) a reference to a Party includes that party's administrators, successors and permitted assigns.

**33. SPECIAL CONDITIONS**

The special conditions (if any) form part of this Agreement and to the extent of any inconsistency, take precedence over the other terms of this Agreement.

### Attachment 3 - Glossary of Defined Terms

**NOTE: Not all terms may be required for a particular procurement**

In this Agreement:

- (a) **"Acceptance Date"** means the date that the Goods are accepted by the Government Party;
- (b) **"Approved Subcontractors"** means those subcontractors specified in Attachment 1;
- (c) **"Business Day"** means any day that is not a Saturday or Sunday or a public holiday in South Australia;
- (d) **"Cartel Conduct"** means conduct by two or more parties who are competitors (or would be but for the conduct) who enter into a contract, arrangement or understanding that involves price fixing, output restrictions, allocating customers, suppliers or territories, or bid-rigging, as defined in s44ZZRD of the *Competition and Consumer Act 2010* (Cth);
- (e) **"Code of Ethics for the South Australian Public Sector"** is the code of ethics for the purposes of the *Public Sector Act 2009* (SA);
- (f) **"Confidential Information"** means information which is identified either as confidential information (if disclosed by the Government Party) or proprietary information (if disclosed by the Supplier), but does not include this Agreement;
- (g) **"Consultancy Services"** means services provided by Consultants;
- (h) **"Consultant"** has the same meaning as in DPC027 *Disclosure of Government Contracts* and means a person or entity that is engaged by a public authority for a specified period to carry out a task that requires specialist skills and knowledge not available in the public authority. The objectives of the task will be achieved by the consultant free from direction by the public authority as to the way it is performed and in circumstances in which the engagement of a person under normal circumstances is not a feasible alternative;
- (i) **"Delivery Date"** means the date and time specified in Attachment 1 for delivery of the Goods;
- (j) **"Delivery Point"** means the location(s) specified in Attachment 1, where the Goods and/or Services will be delivered;
- (k) **"Extension Period"** means the period by which the Agreement is extended as specified in Attachment 1;
- (l) **"Goods"** means the goods specified in Attachment 1;
- (m) **"GST"** means the tax imposed by the GST Law;
- (n) **"GST Law"** has the meaning attributed in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth);
- (o) **"Installation Date"** means the date specified in Attachment 1 for the installation of the Goods;
- (p) **"Intellectual Property Rights"** means all intellectual property rights, including but not limited to:
  - (i) patents, copyright, registered designs, trademarks, know-how and any right to have Confidential Information kept confidential; and
  - (ii) any application or right to apply for registration of any of the rights referred to in paragraph (a), but for the avoidance of doubt excludes moral rights and performers' rights;
- (q) **"Machinery of Government Change"** means a change to the structure, function or operations of the South Australian Government or the Government Party as a result of any government reorganisation, restructuring or other organisational or functional change;
- (r) **"Measurement Period"** means the period over which the performance of a Service Level is measured;
- (s) **"Milestone Dates"** means dates by which Services must be delivered as specified in Attachment 1;
- (t) **"Named Persons"** means the persons specified in Attachment 1;
- (u) **"Notice Period for Termination for Convenience"** means the time period specified in Attachment 1;
- (v) **"Other Termination Right"** means the termination rights specified in Attachment 1;
- (w) **"Party"** means a party to this Agreement;
- (x) **"Personal Information"** means information or an opinion, whether true or not, relating to a natural person or the affairs of a natural person whose identity is apparent, or can reasonable be ascertained, from the information or opinion;
- (y) **"Purchase Order"** means an order for Goods and/or Services submitted by the Government Party to the Supplier;
- (z) **"Price"** means the price payable under this Agreement specified in Attachment 1 and includes any price varied under clause 8;
- (aa) **"Service Levels"** means the service levels (if any) specified in the Specifications;
- (bb) **"Services"** means the services specified in Attachment 1;
- (cc) **"Special Conditions"** means the conditions in Attachment 4 and where relevant includes agency specific Special Conditions;
- (dd) **"Specifications"** means the detailed description of the Goods/Services in Attachment 5;
- (ee) **"Supplier Personnel"** means any Approved Subcontractors, employees, agents and any other person employed or engaged by the Supplier to perform this Agreement and includes the Named Persons;
- (ff) **"Term"** means the period commencing on the Commencement and ending on the Expiry Date unless terminated earlier and includes any extension and;
- (gg) **"Warranty Period"** means the period specified in Attachment 1.

#### **Attachment 4 - Special Conditions**

##### **S14. RESPECTFUL BEHAVIOURS**

S14.1 The Supplier acknowledges the Government Party's zero tolerance towards men's violence against women in the workplace and the broader community.

S14.2 The Supplier agrees that, in performing the Services, the Supplier's Personnel will at all times:

S14.2.1 act in a manner that is non-threatening, courteous and respectful; and

S14.2.2 comply with any instructions, policies, procedures or guidelines issued by the Government Party regarding acceptable workplace behaviour.

S14.3 If the Government Party believes that the Supplier's Personnel are failing to comply with the behavioural standards specified in this clause, then the Government Party may in its absolute discretion:

S14.3.1 prohibit access by the relevant Supplier's Personnel to the Government Party's premises; and

S14.3.2 direct the Supplier to withdraw the relevant Supplier's Personnel from providing the Services.



~~OFFICIAL~~

## **Attachment 5 - Specifications**

For further details on specifications, please refer to Appendix 1 – Research Project Scope and Costing titled 'Oceanographic monitoring to inform Northern Water Project'

## Attachment 6 – Pricing and Payment

## 4.2 MILESTONE AND PAYMENT SCHEDULE

Date	Milestone	Payment (\$) Ex GST
The date of signing of the agreement	On signing of the agreement SARDI orders oceanographic equipment.	450,000
October/ November-2022	Mooring deployment and CTD sampling using existing SARDI equipment	0
15-January-2023	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.	0
15-March-2023 or on receipt of new equipment	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.  Includes installation of new equipment	100,000
15-May-2023	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.	0
October/ November - 2023	Mooring retrieval	
1-November-2023	Final delivery of data to Infrastructure SA. Upload of all QA/QC data to IMOS AODN.	140,832
<b>SUBTOTAL</b>		<b>690,832.00</b>
<b>GST</b>		<b>69,083.20</b>
<b>TOTAL COST</b>		<b>759,915.20</b>

For a detailed breakdown of costs, please refer to Appendix 1 – Research Project Scope and Costing titled 'Oceanographic monitoring to inform Northern Water Project'

## Research Project Scope and Costing

### SCHEDULE 1 - RESEARCH PROJECT SCOPE

#### 1. PROJECT DETAIL

##### 1.1 Title

**Oceanographic monitoring to inform Northern Water Project**

##### 1.2 Client Contact Details

Department: Infrastructure SA  
 Branch:  
 Attention: Mike Morgan  
 Address: Level 15, Wakefield House  
 30 Wakefield Street  
 ADELAIDE SA 5000

Position: Director, Commercial Projects  
 Email: mike.morgan@sa.gov.au  
 Telephone: 04123 092 165

##### 1.3 Principal Investigator

Name: Mark Doubell  
 Position: Affiliate Associate Professor, Flinders University  
 Address: PO Box 120  
 HENLEY BEACH SA 5022  
 Email: mark.doubell@sa.gov.au  
 Telephone: 8429 0982 / 0437 369 045

##### 1.3 Administration Details

Name: Erin Plews  
 Position: Research Grants Officer, Flinders University  
 Address: Sturt Road  
 BEDFORD PARK SA 5042  
 Email: pirsapartnership@flinders.edu.au  
 Telephone: 08 8201 5962

##### 1.4 Subcontractor/Collaborator

Minister for Primary Industries and Regional Development (Acting through the South Australian Research and Development Institute)

##### 1.5 Timeframe

Commencement Date: 1-October-2022  
 Completion Date: 1-November-2023

## Research Project Scope and Costing

### 1.6 Summary

As a part of the Northern Water Supply Project (<https://northernwatersupply.sa.gov.au/>) development of a desalination plant in upper Spencer Gulf is being considered. Infrastructure SA has requested Flinders University undertake oceanographic monitoring to support the plant development and approval process. Collected oceanographic data will be used to establish a baseline of observations and support the development, validation and application of hydrodynamic models needed to investigate the potential impact of desalination plant intake and outfall on the Spencer Gulf marine environment.

## 2. PROJECT DESCRIPTION

### 2.1 BACKGROUND

Since 2007 SARDI has led the collection of oceanographic observations through the implementation of the national Integrated Marine Observing System (IMOS) in South Australia and other Service Level Agreement projects (e.g., Aquaculture Environmental Monitoring Program; Tanner et al., 2020). Observations have been used to develop a range of hydrodynamic models and support research studies to better understand the circulation and climate of the state's shelf, coastal and gulf regions.

Infrastructure SA has requested Flinders University undertake oceanographic measurements to support the development of a desalination plant in upper Spencer Gulf.

The following project scope is based on recommendations (Doubell and James, 2022) that timeseries of oceanographic observations are made over a minimum period of one year to (i) develop a baseline of *in situ* observations in upper Spencer Gulf including near the planned discharge location and (ii) support the development and validation of hydrodynamic models required to accurately predict increases in salinity associated with brine discharges, as well as supplementary studies such as the larval transport and connectivity for key fisheries species (e.g. prawns) and climate change scenario modelling to better understand the long-term potential impacts of desalination in upper Spencer Gulf.

*Doubell, M. and James, C. 2022. Oceanographic modelling to inform the Northern Water Project. Report to Infrastructure SA. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F022/000247-1. SARDI Research Report Series No. 1146. 22pp.*

*Tanner, J.E, Doubell, M., van Ruth, P., James, C. and Middleton, J. (2020). Aquaculture Environmental Monitoring Program: 2015-2019. South Australian Research and Development Institute (Aquatic Sciences), Adelaide. SARDI Publication No. F2019/000334-1.*

### 2.2 NEED

This study will collect observations of relevant oceanographic variables needed to support the desalination plant development and approval process. Observations include continuous (timeseries) measurements of currents, waves, temperature, salinity, sea level height and water quality variables (chlorophyll, turbidity, dissolved oxygen) using ocean moorings. The moorings will be maintained for a period of 12 months and will be supported by the collection of vertical profiles of temperature, salinity, and water quality variables with depth.

## Research Project Scope and Costing

### 2.3 OBJECTIVES

2.3.1 Implement a field survey program to collect oceanographic data for a period of one-year by maintaining four ocean moorings. Supplement the moored observations with vertical profiles of key hydrographic and water quality variables.

2.3.2 Undertake quality assurance /quality control (QA/QC) processing on the collected data streams following Integrated Marine Observing System (IMOS) procedures. Provide raw and QA/QC data to Infrastructure SA. Deposit QA/QC data on the IMOS Australian Ocean Data Network (<https://portal.aodn.org.au/>).

### 2.4 METHODS

#### Field Surveys

Four bottom moorings will be deployed in October 2022 and maintained for a period of one year. Moorings will initially use SARDI equipment with the rental cost provided as project in-kind. Funding for the purchase of new equipment is requested to ensure the collection of high-quality data and to allow for swapping between existing/new equipment. Swapping of equipment assists in minimizing data loss due to equipment failure (e.g., biofouling) and ensures efficient use of staff and vessel resources, thereby reducing project costs.

Table 1 outlines the existing sensors and equipment to be deployed at each mooring location shown in Figure 1. SARDI Oceanography follows national IMOS standards and uses the highest quality Seabird Scientific conductivity-temperature-depth (CTD) and water quality sensors. Seabird equipment uses a pumped CTD sensor configuration which ensures high accuracy and precision and minimizes data loss due to biofouling. In most cases we recommended new equipment purchases should be like-for-like. For Mooring 1 we recommend using a Xylem Analytics YSI EXO Multiparameter Sonde for CTD and water quality measures. This sensor has live telemetry capabilities. Trialling this sensor will be beneficial in understanding their reliability and accuracy for providing real-time observations needed to support an operational desalination plant.

Figure 1 shows the proposed field survey design including relevant IMOS mooring sites which are serviced by SARDI. Monitoring locations are superimposed over the bottom salinity field predicted during winter by SARDI's hydrodynamic model. The salinity distribution shows the presence of the high-saline plume extending from north to south along the eastern side. This plume tracks the density-driven outflow and is accompanied by an inflow of lower salinity water from the shelf along the western side of the gulf. The location of Moorings 1, 2 and 3 and the cross-gulf CTD transect are positioned to observe the density driven circulation and the extreme conditions for temperature and salinity experienced in northern Spencer gulf (i.e., at Mooring 1). These observations are recommended to improve and validate hydrodynamic models for the region to ensure they accurately predict the long-term flushing and salinity field in upper Spencer Gulf. Mooring 4 will be deployed at the potential outfall location to collect a baseline of observations. Based on the results of Doubell and James (2022) Mooring 4 is positioned at the Mullaquana outfall in Figure 1. The final location of the discharge site is to be confirmed by Infrastructure SA prior to the commencement of the field surveys.

*Table 1. Summary of the existing and new oceanographic equipment required to undertake the observation program in Upper Spencer Gulf.*

## Research Project Scope and Costing

Existing equipment	Description	Mooring 1	Mooring 2	Mooring 3	Mooring 4	New equipment
Nortek ADCP	Current speed and direction with depth, waves		✓		✓	Like-for-like
Seabird 16plus	Pumped CTD, turbidity fluorescence & dissolved oxygen	✓			✓	Mooring 1- ExoSonde live telemetry CTD and water quality sensor. No dissolved oxygen on existing equipment.  Mooring 4: like-for-like. Includes dissolved oxygen.
Seabird 37SMP	Pumped CTD		✓	✓		Like-for-like
Edge Tech Release & pop-up buoy	Mooring deployment/recovery equipment (no surface expression)		✓	✓	✓	Release pack at Mooring 1 may not be necessary if live telemetry requires surface expression.
Novatech Iridium beacon	Mooring recovery satellite tracker	✓	✓		✓	Limited existing stock. Request 1 additional satellite tracker to fit Mooring 3 as part of new equipment purchase.
Mooring frame	Used for housing sensors and deployment/recovery	✓	✓	✓	✓	Like-for-like

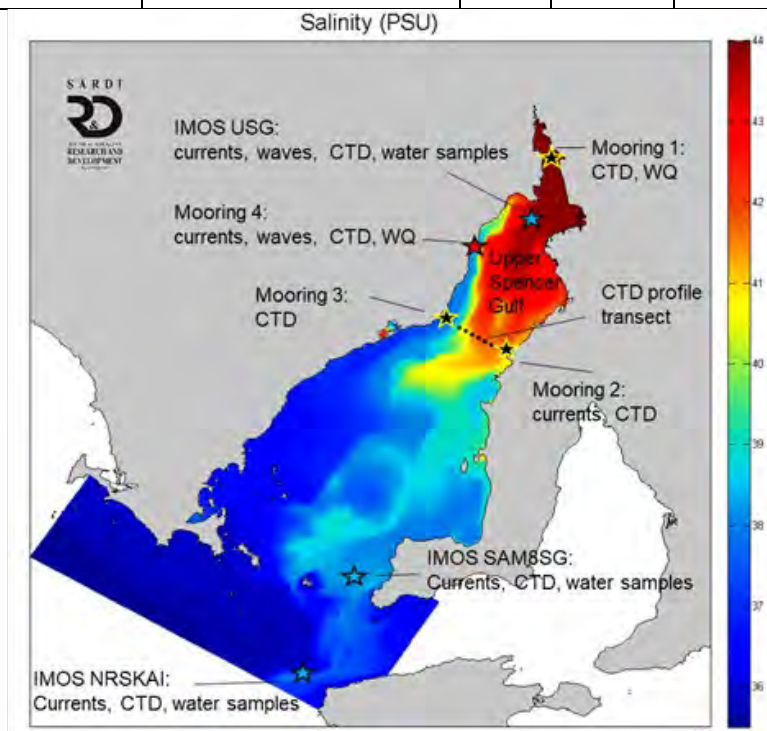


Figure 1. Map of Spencer gulf showing an example of the four mooring locations and cross-gulf CTD transect proposed for monitoring in Upper Spencer Gulf. A description of the oceanographic variables provided by each mooring is provided (noting WQ stands for water quality parameters). The location of project relevant IMOS mooring sites which are serviced by SARDI are also shown. Monitoring locations are superimposed over the bottom salinity (psu) distributions predicted during winter by SARDI's hydrodynamic model.

The moorings will be deployed, recovered, and serviced following the field schedule shown in Table 2. Most of the work will use SARDI's large research vessel the RV-Ngerin. Due to



## Research Project Scope and Costing

limited availability of the RV Ngerin in 2022/23 ship-time has already been reserved for this project.

The RV Ngerin allows mooring work to be undertaken more efficiently and under a broader range of ocean/weather conditions compared to using smaller vessels. Working from the RV Ngerin also permits additional cross-gulf CTD transects to be achieved and helps reduce project costs associated with the extended survey times required for mooring work using small vessels. However, due to the limited availability of RV Ngerin and uncertainties in the timing of the new equipment arrivals (which are manufactured overseas at the time of order) funding is also requested for 16 days of servicing using SARDI's small vessels. This funding will be used to replace existing with new equipment (10 days). An additional 6 days of small vessel work is requested to allow for additional servicing which may be required in the case of unexpected biofouling which may impact moorings. For example, more frequent servicing may be required at Mooring location 1 which is in the warm shallow waters of northern Spencer Gulf. Realtime data feed provided by the installation of the new equipment at this site will allow for identification of servicing requirements. For efficiency, additional mooring checks and instrument servicing will 'piggy-backed' off existing IMOS upper Spencer Gulf surveys which are undertaken quarterly to further help reduce the risk of data loss.

Raw oceanographic data will be processed by SARDI Oceanographers following IMOS QA/QC protocols. Raw and QA/QC data will be provided to Infrastructure SA. QA/QC data will be uploaded onto the IMOS Australian Ocean Data Network (<https://portal.aodn.org.au/>) to ensure data transparency and legacy.

*Table 2. Proposed Field Servicing Schedule.*

Date	Description	Vessel	Equipment	Survey time (days)
17-October-2022	deploy	RV Ngerin	Existing	5
15-January-2023	service	RV Ngerin	Existing	5
15-March-2023 or on receipt of new equipment	service	small vessel	Swap in New Equipment	10
15-May-2023	service	RV Ngerin	New	5
17-October-2023	recover	RV Ngerin	New	5

## 2.5 RISK ASSESSMENT

### (SARDI consideration from involvement in the project)

Issue (Damages)	Cause	Result	Possible Scenario	Maximum Foreseeable Loss - Mitigation
Mooring loss or damage	Theft, trawled	Loss of equipment and data	Displacement due to storm currents or accidental trawling, or removal due to premature	A wide based triangular mooring (approx. 1.5 m) frame will be used. The mooring will be weighted to the capacity of the davit on the <i>Seriola</i> (80-100 kg) and will contain a ground line for recovery in case of the

### Research Project Scope and Costing

			release of sub-surface retrieval buoy	pop-up acoustic release failure. The mooring will also be fitted with a satellite locator which can be used to track the mooring if accidentally or prematurely removed from the water.
Delay in field survey	Bad weather. Vessel or staff availability	Biofouling of sensors	Bad weather or staff sickness (COVID) constrains field surveys	Majority of field surveys undertaken using large vessel (RV Ngerin). Survey delayed and conducted at next opportunity using alternate SARDI staff/ vessel from Adelaide
Ocean Sensor damage	Biofouling/ sensor failure	Poor quality/loss of data	Equipment failure due to sensor malfunction, battery failure, or environmental causes (e.g. covered by sand, biofouling)	SARDI to provide equipment for initial deployment with rental cost provided as in-kind.  SARDI to purchase new equipment with funds from Infrastructure SA. The new equipment will ensure measurement quality and allow for swapping with existing SARDI equipment in case of sensor fouling.

## 3. DELIVERABLES

### 3.1 Service Provided:

Dr Mark Doubell, Affiliate Senior Lecturer, Flinders University and Oceanography Sub-program leader, SARDI to supervise the project including provision of the data to Infrastructure SA and IMOS/AODN.

Paul Malthouse and Ian Moody (Oceanographic technicians), SARDI to prepare moorings and sensors and lead the field surveys including the deployment and recovery and maintenance of oceanographic equipment.

Dave Delaine (marine technician), SARDI to assist in boat operations for mooring deployment and recovery.

### 3.2 Outcomes:

Oceanographic field survey implemented. Raw and processed ocean data provided to Infrastructure SA. Oceanographic data includes.

- 1) Currents (2 moorings): 1m vertical resolution average current speed and direction. Data processed using the Nortek OceanContour software and national IMOS QA/QC data processing protocols.

### Research Project Scope and Costing

- 2) Waves (1 mooring). Data analyses to provide measures of significant and maximum wave height, peak period and direction.
- 3) Temperature, salinity and sea level height (4 moorings). Timeseries and vertical profiles collected and processed following national IMOS QA/QC data processing protocols.
- 4) Additional water quality measures (2 moorings). These include timeseries of turbidity, and chlorophyll-a fluorescence on 2 moorings and dissolved oxygen on 1 mooring.

All field data generated by this project will be made publicly available through the IMOS AODN.

### 3.3 Outputs and Extension:

Extension of this work may be required at a future date including:

- i) Ongoing deployment and maintenance of the field monitoring program.
- ii) Development of a nested high resolution hydrodynamic model for upper Spencer gulf within SARDI's exiting Two Gulfs Model.
- iii) Application of SARDI's hydrodynamic models to support plant development and planning including near- to far-field scale hydrodynamic modelling of brine outfall dispersion, larval tracking studies to assess impact of seawater intake on key species and downscaling of climate change model predictions to Spencer Gulf.

Provision of these services is not implied in any way and is not covered as a part of this research contract.

## 4. FUNDING ARRANGEMENTS

### 4.1 PROJECT COST

PROJECT COST	(\$ Ex GST
SUBTOTAL	690,832.00
GST	69,083.20
TOTAL	759,915.20

### 4.2 MILESTONE AND PAYMENT SCHEDULE

Date	Milestone	Payment (\$) Ex GST
The date of signing of	On signing of the agreement	450,000

### Research Project Scope and Costing

the agreement	SARDI orders oceanographic equipment.	
17-October-2022	Mooring deployment and CTD sampling using existing SARDI equipment	0
15-January-2023	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.	0
15-March-2023 or on receipt of new equipment	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.  Includes installation of new equipment	100,000
15-May-2023	Mooring servicing and CTD sampling. Data provided to Infrastructure SA within 6 weeks of servicing date.	0
17-October-2023	Mooring retrieval	
1-November-2023	Final delivery of data to Infrastructure SA. Upload of all QA/QC data to IMOS AODN.	140,832
<b>SUBTOTAL</b>		<b>690,832.00</b>
<b>GST</b>		<b>69,083.20</b>
<b>TOTAL COST</b>		<b>759,915.20</b>

### 5. PROJECT STAFF

Staff (if identified)	Position	FTE Commitment	Funded/ In-Kind
Mark Doubell	Affiliate A/Prof, Flinders University & Oceanography sub-program leader (PO303)	0.09	Funded
Paul Malthouse	PO105 (Lead Ocean technician), SARDI	0.23	Funded
Dave Delaine	OPS403 (marine technician), SARDI	0.09	Funded

### Research Project Scope and Costing

Ian Moody	OPS303 (marine technician), SARDI	0.23	Funded
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## Research Project Scope and Costing

### SCHEDULE 2 - RESEARCH PROJECT COSTING

#### 1. PROJECT COST SUMMARY

Cost	Detail	Total (\$) Ex GST
Salaries	fte	88,636
Operating		191,099
Overhead		47,097
Capital		364,000
SARDI Inkind		136,256
<b>Total Cost</b>		<b>827,088</b>
<b>Revenue - PRICE</b>		
Infrastrucure SA		690,832
<b>Total Revenue</b>		<b>690,832</b>
<b>Net Surplus/(Deficit)</b>		<b>-136,256</b>
<b>SARDI Investment</b>		<b>136,256</b>





## RESEARCH AGREEMENT SCHEDULE

This Schedule and the terms and conditions attached comprise a binding Research Agreement between the Flinders University (**University**) and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (**PIRSA**) pursuant to the terms and conditions of the Affiliate Agreement and Strategic Alliance Agreement executed between the University and PIRSA both dated 18/01/2022 with respect to the Research Activity identified below.

<b>Item 1</b>	<b>Name of Funding Body and Funding Agreement</b>	1.1 Funding body: Infrastructure SA  1.2 Funding Agreement: Standard Goods and Services Agreement - No. B1481055 - WP12.2, executed 20 July 2023 (Annexure B)
<b>Item 2</b>	<b>Title of Research Activity</b>	Northern Water Supply Project - WP12 Marine Environmental Studies – Oceanographic Climate Modelling
<b>Item 3</b>	<b>Project Start Date</b>	On Execution of this Research Agreement Schedule
<b>Item 4</b>	<b>Project End Date</b>	01 January 2025 or when Services are completed
<b>Item 5</b>	<b>Researchers involved by institution</b>	<b>Chief Investigator/s:</b>  (a) from Flinders University: None  (b) from PIRSA: Mark Doubell – Affiliate Associate Professor, Flinders University and Oceanography subprogram Leader, SARDI
		<b>Specified Personnel:</b>  (a) from Flinders University: None  (b) from PIRSA: - Mark Doubell – Affiliate Associate Professor, Flinders University and Oceanography subprogram Leader, SARDI - Hugo Bastos de Oliveira - Affiliate Associate Lecturer, Flinders University and Oceanographic Modeller, SARDI

		<b>Responsible Officer</b> Flinders University Director, Research Development and Support Sturt Road, Bedford Park SA 5042 Phone: 08 8201 5074 Email: director.rds@flinders.edu.au  PIRSA Dr Hannah Brown A/Executive Director, South Australian Research and Development Institute Email: pirsasardiexecutiveoffice@sa.gov.au
<b>Item 6</b>	<b>Role of researchers in the Research Activity from each institution</b>	The Chief Investigator - PIRSA, agrees that the Research Activity will be conducted as outlined in the Funding Agreement - Attachment 5: Specifications - 2.3 Objectives, 2.4 Methods, and 3.1 Key Personnel and Relevant Experience
<b>Item 7</b>	<b>Project Outputs</b>	As detailed in the Funding Agreement - Attachment 5: Specifications, 3.3 Outputs and Extension and Attachment 6: Pricing and Payment - Payment Schedule
<b>Item 8</b>	<b>Premises</b>	Research work will be conducted on SARDI premises, and trial sites across South Australia in the Spencer Gulf except where work has been subcontracted.
<b>Item 9</b>	<b>Cash/in-kind Contributions</b>	PIRSA:  2023/24 - \$23,989 (in-kind) (GST Exclusive) Total - \$23,989 (in-kind) (GST Exclusive)
<b>Item 10</b>	<b>Reports</b>	To be provided in accordance with the Funding Agreement – Attachment 6: Pricing and Payment - Payment Schedule
<b>Item 11</b>	<b>Approved sub-contractor/s to PIRSA</b>	Nil

**Item 12 Background IP/material contributed to the Research Activity by each institution**

Institution	Background IP	Date made available to project	Limitations/restrictions
Funding Body	Nil		
University	Nil		
PIRSA	PIRSA will retain the sole ownership of IP of the hydrodynamic models applied in this project.	On commencement and throughout duration of project	Nil

**Item 13 Clauses from Funding Agreement that bind PIRSA**

PIRSA agrees to comply with the following clauses in the Funding Agreement as if it were a party to the Funding Agreement:

Clause reference	Title of clause
Clause 1	Contract Length
Clause 2	Contract Managers
Clause 3	Supply of Goods (if applicable)
Clause 4	Inspection and Acceptance of Goods (if applicable)
Clause 5	Warranty Period (if applicable)
Clause 6	Supply of Services (if applicable)
Clause 7	Reports and Manuals (if applicable)
Clause 8	Service Variation (if applicable)
Clause 9	Supplier's Warranties
Clause 10	Supplier's Personnel
Clause 11	Price and Payment
Clause 12	GST
Clause 13	Intellectual Property Rights
Clause 14	Not Applicable (See Item 19 Special Conditions – No.4)
Clause 15	Liability Limit
Clause 16	Confidential Information
Clause 17	Set-Off
Clause 18	Dispute Resolution
Clause 19	Ending this Contract
Clause 20	Effect of Ending this Contract
Clause 21	Subcontracting
Clause 22	Conflict of Interest
Clause 23	Compliance with Laws
Clause 24	Governing Law and Jurisdiction
Clause 25	Entire Agreement
Clause 26	No Assignment
Clause 27	Modification

Clause 28	Severance
Clause 29	Counterparts
Clause 30	Work Health and Safety
Clause 31	Acting Ethically
Clause 32	Interpretation
Clause 33	Special Conditions
Attachment 1	Agreement Details
Attachment 2	Standard Terms and Conditions (as per clauses above)
Attachment 3	Glossary of Defined Terms
Attachment 4	Special Conditions
Attachment 5	Specifications
Attachment 6	Pricing and Payment

**Item 14 Ownership of IP and licences as between PIRSA and the University**

	Select option that applies pursuant to the IP Protocol	Details of any restrictions on use
Ownership of IP	<p>PIRSA owns 100% of the developed Intellectual Property Rights.</p> <p>As per clause 17.2.1 of the Intellectual Property Protocol (Annexure A) in accordance with clause 17 of the “Intellectual Property” of the Strategic Alliance Agreement.</p>	Intellectual Property Rights in reports and manuals licensed to Infrastructure SA under clause 13.2 of the Funding Agreement.

09/10/2023

**Item 15 Grant Funds and Use of Grant Funds**

Total Funding amount is: \$110,168 (GST Exclusive)

Specified Personnel may expend the Funds as necessary to support the Research Activity provided that:

- a) Grant Funds are applied only to achieve the approved research objectives of the Grant;
- b) All expenditure is in accordance with the requirements of the Funding Agreement, noting that use of Funding for some purposes is expressly excluded in the Funding Agreement;
- c) Funding approved for specific pieces of Equipment is used for this purpose; and
- d) Funding is not used to provide infrastructure that should be provided by PIRSA.

**Approved Budget (GST Exclusive)**

Year	2023/24	2024/25	Total
Funds to be retained by the University	N/A	N/A	N/A
Funds transferred to PIRSA	\$80,168	\$30,000	\$110,168.00
Funds transferred to University on execution of Deed of Novation	N/A	N/A	N/A
<b>ANNUAL AMOUNT AWARDED</b>	\$80,168	\$30,000	\$110,168.00

*NOTE: Invoices to be raised in accordance with relevant Milestones under the Funding Agreement and will be paid by the University to PIRSA following receipt of funds from the Funding Body. Payments to the University (for the Current Account Balance) will be returned to PIRSA to undertake the research.*

**Item 16 Student Involvement**

Not applicable

**Item 17 Standard Research Terms and Conditions**

The University and PIRSA agree that the terms and conditions contained in this Research Agreement Schedule and the Standard Research Terms and Conditions shall apply to the Research Activity referred to in this document. Item 13 and Item 15 and any Special Conditions will take priority over the Standard Research Terms and Conditions to the extent of any inconsistency.

**Item 18 Research Support Funding**




In accordance with clause 9.4 of the Strategic Alliance Agreement between PIRSA and the University, the University and PIRSA may agree to vary down the level of Research Support Funding for a particular Research Agreement. This may occur where some or all of the costs associated with hosting the Research Agreement reside with the University.

Not applicable.

### Item 19 Special Conditions

1. PIRSA must ensure that the Research Activity is delivered by the Named Persons in the Funding Agreement – Attachment 1 – Agreement Details – Item 8. PIRSA may substitute a Named Person with the University's consent.
2. PIRSA will grant to the University, a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement, with a right to sublicense to Infrastructure SA and the Crown in right of the State of South Australia, so that the University can comply with its obligation in the Funding Agreement – Attachment 2 – Standard Terms and Conditions - Clause 13.2.
3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any sub-contract or other arrangement with that other party. For the avoidance of doubt, this will extend to subcontracting the additional subcontractors listed in the Funding Agreement.
4. PIRSA warrants that it is entitled to the benefits of the South Australian Government insurance and risk management arrangements administered by SAicorp in respect of this Agreement. For the purposes of this clause 'SAicorp' means the Insurance Division of the South Australian Government Financing Authority established pursuant to the Government Financing Authority Act 1982 (SA).

### Signed as an Agreement.

For and on behalf of <b>FLINDERS UNIVERSITY</b> by:	This Agreement is executed for and on behalf of the <b>MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT</b> by a person duly authorised in that regard in the presence of:
	
Signature of Authorised Person	Signature of Authorised Person Print Name: Dr Mike Steer
Simon Brennan	
Name of authorised signatory	Signature of Witness Print Name: Lisa Wright



Date: 05/10/2023	Date: 09/10/2023
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**STANDARD RESEARCH AGREEMENT TERMS AND CONDITIONS  
WITH APPROVED AFFILIATED ORGANISATIONS**

These Standard Research Agreement Terms and Conditions shall apply to all Research Activities for which the University and PIRSA have completed a Research Agreement Schedule.

**1. DEFINITIONS**

**1.1. In this Research Agreement:**

**Affiliate Agreement** means the agreement titled 'Affiliate Agreement' entered into between the Flinders University, and PIRSA, under which this Research Agreement is established.

**Background Intellectual Property** (Background IP) means any Intellectual Property which pre-exists the Research Activity or is independently developed outside of the Research Activity that is owned or controlled by a Party and which that Party chooses at its sole discretion to make available for the purpose of carrying out the Research Activity.

**Developed Intellectual Property** (Developed IP) means any Intellectual Property that is developed or created by either the University or PIRSA in the course of a Research Activity.

**Effective Date** means the date referred to in Item 3 of the Research Agreement Schedule which the Parties have agreed that this Research Agreement is deemed to have come into force.

**Ethics Committee** means an ethics or biosafety committee which has been established by any of the Parties or the Federal or a State Government, and has been properly constituted according to national and state guidelines and/or legislation to approve research activities involving human experimentation, animals, quarantine materials or dealings with genetically modified organisms.

**Grant Funds** means the monies provided by a Funding Body under a Grant.

**Funding Agreement** means the agreement forming Annexure B to this Research Agreement.

**Funding Body** means the specified funding organisation providing the Grant Funds for a Grant.

**Intellectual Property** (IP) means all rights conferred under statute, common law and in equity in relation to copyright, inventions, registered and unregistered trademarks, trade secrets and know how, design, patents, proprietary rights granted under the Plant Breeder's Rights Act 1994, semiconductor or circuit board layout rights, trade, business or company names, Confidential information or other proprietary rights, or any rights to registration of such rights, whether created before or after the date of this Agreement and whether created in Australia or elsewhere and all other intellectual property as defined in Article 2 of the Conventions establishing the World Intellectual Property Organisation of July 1967.

**Intellectual Property Protocol** means the Intellectual Property protocol referred to in clause 5 hereof and set out in Annexure A, and includes any additional or substituted

Intellectual Property protocol which may be agreed in writing between the Parties from time to time.

Type text here

**Research Agreement** means the Research Agreement Schedule and the Standard Research Agreement Terms and Conditions and all its schedules and annexures which together comprise this Research Agreement.

**Research Activity** means the research which is the subject of a Research Agreement Schedule under the Strategic Alliance Agreement.

**Report** means a document, correspondence or report in any form whatsoever that is necessary or desirable to ensure compliance with the Funding Agreement.

**Research Agreement Schedule** shall mean the completed pro-forma schedule for the specific Research Activity in the form set out in Annexure A of the Strategic Alliance Agreement.

**Research Code** has the meaning ascribed to it in the Strategic Alliance Agreement.

**Specified Personnel** means those persons specified in Item 5 of the Schedule.

**Strategic Alliance Agreement** means the Agreement of that same name entered into between the Parties pursuant to and at the same time as the Affiliate Agreement.

**Term** shall mean the period of the Funding Agreement, or such other period in the event this Research Agreement is terminated earlier under Clause 10.

**University Affiliate** has the meaning ascribed to it in the Strategic Alliance Agreement.

1.2. In this Research Agreement:

- 1.2.1. all references to clauses are references to clauses in this Research Agreement;
- 1.2.2. expressions cognate with expressions defined in clause 1.1 will be construed accordingly; and
- 1.2.3. the meaning of capitalised words not specifically defined in this Research Agreement shall take their meaning from the Affiliate Agreement and Strategic Alliance Agreement.

1.3. This Research Agreement shall be construed and read in conjunction with the terms and conditions contained in the Affiliate and Strategic Alliance Agreements entered into between the University and PIRSA which are incorporated into this Research Agreement and the Funding Agreement.

1.4. In the event of conflict or inconsistency between the terms of the Funding Agreement, the Affiliate Agreement, the Strategic Alliance Agreement, a Research Agreement and any annexure of a Research Agreement (and in this case it is in the sequence the annexure appears), the conflict or inconsistency will be resolved in the order that the documents are written above in this clause.

2. **PERFORMANCE OF RESEARCH ACTIVITY**

- 2.1. The Parties agree to complete the roles, and responsibilities, and to provide the contribution to the Research Activities as described in the Research Agreement Schedule for this Research Activity. 09/10/2023
- 2.2. PIRSA understands that the University will receive, account for and expend the Grant Funds and will direct the use of the Grant Funds in accordance with the Funding Agreement.
- 2.3. The University will transfer Grant Funds to PIRSA, and PIRSA, must:-
- 2.3.1. receive and manage those Grant Funds as a subcontractor for the University, in accordance with the budget set out in the Funding Agreement and the University's obligations under the Funding Agreement;
  - 2.3.2. comply with the terms of the Funding Agreement as directed by the University and not cause the University to be in breach of the Funding Agreement;
  - 2.3.3. comply with the terms and conditions set out in this Research Agreement; and
  - 2.3.4. ensure that its University Affiliate(s) and employees who have access to the Grant Funds comply with the requirements set out in the Funding Agreement.
- 2.4. PIRSA will acquit to the University the Grant Funds it receives pursuant to clause 2.3.
- 2.5. In the event that a Funding Body requires any financial adjustments to be made pursuant to the Funding Agreement, the University will advise PIRSA which will comply with any such requirement for financial adjustment and continue to comply with the Funding Agreement.

### **3. ETHICAL STANDARDS**

- 3.1. The Parties will maintain a close coordination in relation to ethical standards to ensure compliance with the guidelines of the Australian Health Ethics Committee and other applicable health ethics directives or guidelines.
- 3.2. For the purposes of a Research Activity, a Party will not engage in any activity that involves human experimentation, and will not permit any of its employees, students and other persons in any way associated with or sponsored by that Party to do so, unless the activity has been approved in advance by an appropriate Ethics Committee.
- 3.3. The University will accept protocol approvals granted by Ethics Committees that the University has deemed appropriate.
- 3.4. With respect to a Research Activity requiring animal ethics approval, each Party may require approval by its respective Ethics Committee.
- 3.5. Each Party acknowledges that Personnel involved in a Research Activity are to comply with the Research Code.
- 3.6. PIRSA represents that to its own knowledge that there is no conflict of interest that currently exists in relation to it or its Specified Personnel performing the Research Activities. In the event that a conflict of interest were to arise PIRSA shall immediately notify the University in writing of such conflict of interest.

#### 4. INSURANCE AND INDEMNITIES

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- 4.1. Except for the insurance cover the University meets for its University Affiliates whilst they are undertaking Academic Duties as a University Affiliate for the University, PIRSA will ensure it has insurance required and will be responsible for all liability coverage, costs, damage, loss or liability and other matters relating to the University Affiliate (unless otherwise agreed by separate agreement), PIRSA's other employees, subcontractors or consultants.
- 4.2. Each Party (the indemnitor) hereby indemnifies and agrees to keep indemnified the other Party and its respective directors, officers, employees, agents and representatives (the indemnitee) from and against any and all liability, loss, damage, cost or expense (including legal fees based on a party/party basis, but excluding any loss of profits, special, indirect or consequential losses or punitive or exemplary damages) howsoever arising that the indemnitee may suffer, incur or sustain as a result of any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitor or any of its directors, officers, employees, agents and representatives in its conduct of this Research Agreement, provided that the indemnity given by the indemnitor will be reduced proportionately to the extent that any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitee may have contributed to any such liability, loss, damage, cost or expense.

#### 5. INTELLECTUAL PROPERTY

- 5.1. The Parties agree that the ownership of Background IP contributed by a Party for the Research Activity is not affected by this Agreement and that all Background IP remains the property of the Party that makes it available for the purpose of carrying out the Research Activity. The Party providing particular Background IP may use that Background IP, or licence others to use that Background IP, for any purpose.
- 5.2. The Parties acknowledge that ownership of Developed IP will vest in accordance with the Funding Agreement and agree that as between them, they will deal with the Developed Intellectual Property in accordance with the guiding principles contained in the Strategic Alliance Agreement and with the Research Agreement Schedule and Intellectual Property Protocol in Annexure A to this Research Agreement if required.
- 5.3. If a student enrolled with the University is involved in the Research Activity involving PIRSA, the University will enter into a Student IP Agreement with the student and the Parties will deal with the Research Activity and the Developed Intellectual Property that the student may create from the Research Activity as set out in the Student IP Agreement.
- 5.4. Subject to any specific requirements set out in Schedule 2, PIRSA warrants that in undertaking a Research Activity it will ensure that:
  - 5.4.1. no infringement of the Intellectual Property rights of any third party occurs;
  - 5.4.2. no Intellectual Property rights of any third party are used or incorporated in the material and the reports provided to the University for compliance with a Funding Agreement without the third party's prior written consent; and
  - 5.4.3. it will comply with the provisions set out in the Funding Agreement which relate to Developed Intellectual Property and provide the warranties and

representations as if it were the University as set out in a Research Agreement Schedule and relevant clauses of the Funding Agreement.

## **6. PUBLICATIONS**

- 6.1. Any publications to be authored in respect of research undertaken pursuant to this Research Agreement will be in accordance with the relevant provisions of the Funding Agreement identified in the Research Agreement Schedule, the Student IP Agreement and/or the separate project agreement entered between the Parties. But in any event authorship of publications will be in accordance with the guidelines set out in the Research Code.
- 6.2. The Parties agree that where a University Affiliate of the University is an author in any publication that results from a Research Activity, whether as the sole author or a joint author, the 'by-lines' in the publication will acknowledge both the University and PIRSA's role in undertaking the Research Activity.
- 6.3. Any advertising material or other written materials produced by either Party that relate to the Research Activity shall acknowledge the Funding Body as required by the Funding Agreement. The Parties agree to comply with the Funding Body's direction in relation to the use of their logo.

## **7. SUBCONTRACTING**

- 7.1. Except where the subcontractor has been approved in the Funding Agreement, the University will not, without prior written approval of PIRSA, subcontract out any work or any part thereof relating to this Research Agreement or any Funding Agreement.
- 7.2. PIRSA may subcontract any work or part thereof relating to this Research Agreement or any Funding Agreement to the persons or entities listed in Item 11 of the Research Agreement Schedule.
- 7.3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any subcontract or other arrangement with that other party.

## **8. CONFIDENTIALITY**

- 8.1. Each Party acknowledges that all Confidential Information disclosed by one Party to the other is confidential and agrees that the other Party's Confidential Information must be kept confidential and must not be disclosed to any third party without the prior written consent of the disclosing Party except if:
  - 8.1.1. disclosed to the receiving party's contractors, or agents or the Funding Body as necessary for the performance of this Agreement provided that such contractors, or agents or Funding Body are instructed as to the requirement to keep the information confidential;
  - 8.1.2. disclosed to the receiving party's solicitors, auditors, insurers or accountants provided that such persons are instructed as to the requirement to keep the information confidential;
  - 8.1.3. disclosed pursuant to the requirement of any law or regulation or the order of any court of competent jurisdiction, and the receiving party has informed the



disclosing party, within a reasonable time after being required to make the disclosure, of the requirement to make the disclosure and the information required to be disclosed; or

- 8.1.4. approved for release in writing by an authorised representative of the disclosing party.

- 8.2 For the avoidance of doubt, this Agreement may be disclosed by the Parties in accordance with the *Freedom of Information Act 1991*.

- 8.3 The Minister may disclose Confidential Information:

8.3.1 to Parliament, the Governor, Cabinet or a Parliamentary or Cabinet committee or subcommittee; and

8.3.2 to an agency, authority, instrumentality Minister or Officer to the State of South Australia to whom it is customary for the Minister of Primary Industries and Regional Development to disclose information such as the Confidential Information for the purpose of undertaking their Ministerial duties (whether or not the Minister is legally obliged to do so);

provided that the recipient is informed of the confidential nature of the Confidential Information and the requirement to keep it confidential.

## **9. RELATIONSHIP BETWEEN THE PARTIES**

- 9.1. PIRSA agrees to undertake the Research Activity for the University set out in this Research Agreement:

9.1.1. neither Party has any authority or power to act for, or to assume any responsibility, liability or obligation on behalf of the other Party, or to bind the other Party in any manner whatsoever;

9.1.2. the Parties are independent entities and their relationship for the purposes of this Research Agreement is one of collaborative venturers and is limited to carrying out the activities in pursuit of the objectives set out in this Research Agreement; and

9.1.3. the obligations and liabilities of the Parties are several and are neither joint, nor joint and several.

## **10. TERMINATION**

- 10.1. This Research Agreement or any part thereof may be terminated by either Party by providing the other Party with thirty (30) days' written notice unless otherwise required under a Funding Agreement.

- 10.2. This Research Agreement will terminate upon termination of the Funding Agreement by the Funding Body.

- 10.3. The University must notify PIRSA in writing within 5 days of the termination of the Funding Agreement.

10.4. If this Research Agreement is terminated in accordance with this Clause 10 then:

10.4.1. it will be without prejudice to the continuing enforceability of any rights or obligations of the Parties accrued at the time of termination; and

10.4.2. the Parties will consult in good faith as to the best way to deal with and manage any Research Activity that is not finalised at the date of termination, and will reach a fair and equitable agreement regarding the Research Activity so that the University is not in breach of the Funding Agreement.

## **11. SEVERANCE**

11.1. Any provisions of this Research Agreement held to be illegal or otherwise in conflict with any applicable laws, statutes or regulations will be deemed to be severed from the remainder of the Research Agreement and the validity of the remaining provisions will not be affected.

## **12. GOVERNING LAW**

12.1. This Research Agreement is governed by the law in force in South Australia. Each Party submits to the non-exclusive jurisdiction of the courts of South Australia.

## **13. ENTIRE AGREEMENT**

13.1. This Research Agreement shall constitute the entire agreement between the Parties in relation to the subject matter referred to herein and supersedes all previous agreements negotiations or understandings on that subject matter.

## **14. ASSIGNMENT**

14.1. A Party may not assign or novate its rights under this Research Agreement without the express written consent of the other Party and any purported assignment in contravention of this provision is void.

## **15. FURTHER ASSURANCES**

15.1. Each Party will execute and deliver all deeds, documents and instruments to do all acts and things as are necessary to give full effect to all the agreement, arrangements and transactions contemplated by this Research Agreement.

## **16. INDEPENDENT CONTRACTORS**

16.1. Each Party acts under this Research Agreement as an independent contractor.

## **17. NOTICES**

17.1. In any circumstances where pursuant to the terms of this Research Agreement any demand or notice in writing is required to be given it will be sufficient for it to be given by notice in writing signed by the Party giving the notice or for and on behalf of the Party giving the notice by an authorised officer of that Party or by its solicitors and that demand or notice be served upon the Party intended to receive the demand or notice by delivering it at the following relevant address or email address:

17.1.1. If to the University:  
Director, Research Development and Support

Flinders University  
Address: Room B1, Basement Level, Union Building  
Bedford Park SA 5042  
Email: [simon.brennan@flinders.edu.au](mailto:simon.brennan@flinders.edu.au)  
Tel: + 61 8 8429 5074

17.1.2. If to PIRSA:

General Manager  
Plant Research Centre  
Waite Research Precinct  
Gate 2b, Hartley Grove  
Urrbrae, SA, 5064  
Email: [hazel.cochrane2@sa.gov.au](mailto:hazel.cochrane2@sa.gov.au)  
Tel: +61 8 8429 0259

17.2. Any communication or document received on a non-working day in the place of receipt of a Party after 5:00 pm (local time) on a working day will be effective at the commencement of business on the next working day in the place of receipt.

17.3. A Party may vary its address for service for the purpose of this clause by notifying the other Party in writing.

**18. WAIVER**

18.1. No waiver of any right under this Research Agreement or forbearance or delay in the enforcement or any other indulgence, including but not limited to an indulgence of time granted by one Party to the other, shall affect the strict rights of that Party under this Research Agreement. All the rights and powers of that Party shall remain in full force and effect notwithstanding any such waiver, forbearance, delay or other indulgence on the part of that Party. Any variation or waiver agreed between the Parties shall be ineffective unless in writing and agreed by each Party.

**19. COUNTERPARTS**

19.1. This document may be executed in any number of counterparts, and by the Parties in separate counterparts, but is not effective until each Party has executed at least one counterpart. Each counterpart of this document constitutes an original of this document but the counterparts together constitute one and the same instrument.

**20. DELAY**

20.1. No Party will be responsible for any failure or delay in carrying out any of the obligations on its part to be performed or observed under this Research Agreement due to circumstances beyond its control, but will use its best endeavours to remove the cause of such circumstances as expeditiously as possible.

**21. GST**

21.1. If any Supply made under this Research Agreement is a Taxable Supply then:

21.1.1. a tax invoice in an appropriate form shall be rendered by the supplier of the Taxable Supply; and

21.1.2. in addition to any consideration payable under this Research Agreement, the supplier of the Taxable Supply shall be entitled to recover from the recipient of the Taxable Supply an additional amount on account of GST, such amount to

be equal to the amount of the GST liability of the supplier in respect of the Taxable Supply calculated in accordance with the GST Act.

- 21.2. For the purposes of this clause each of 'GST', 'GST Act', 'Recipient', 'Supply', 'Taxable Supply' and 'Tax Invoice' have the same meaning as those terms have in the *A New Tax System (Good and Services Tax) Act 1999*.

## **22. DISPUTE RESOLUTION**

- 22.1. The Parties will without delay and in good faith attempt to resolve any dispute or difference which may arise between them in relation to this Agreement in accordance with the succeeding provisions of this clause.

- 22.2. Any dispute or difference arising between the Parties will be resolved in accordance with the following procedure:

22.2.1. the Party claiming that a dispute exists will notify the other Party that a dispute exists;

22.2.2. a meeting will be convened forthwith between senior representatives of the Parties being the Chief Executive Officer, Vice-Chancellor & President, Chairman or equivalent positions (or nominees) for resolution of the dispute or difference; and

22.2.3. if the dispute or difference is not resolved by the persons referred to in clause 22.2.2 above within such time as they agree but not being more than sixty (60) days then the Parties will attempt to resolve the matter by mediation or other alternative dispute resolution mechanism in accordance with the rules of such alternative dispute resolution mechanism and the Parties will each contribute equally to the cost of the mediator employed or other person assisting the Parties in any other alternative dispute resolution mechanism they use.

- 22.3. Each Party acknowledges that compliance with these provisions is a condition precedent to any entitlement to a claim, relief or remedy, whether by way of proceedings in a court of competent jurisdiction pursuant to this Research Agreement or otherwise in respect of such dispute or difference. However this will not preclude a Party from seeking any urgent interlocutory relief in a court of competent jurisdiction.

## **23. SURVIVAL**

- 23.1. Clauses 1 (Definitions), 4.2 (Indemnities), 5 (Intellectual Property), 8 (Confidentiality), 12 (Governing Law), 22 (Dispute Resolution) and this Clause 23 (Survival) will survive the expiry or any termination of this Research Agreement to the extent necessary to interpret and give effect to the rights and obligations of the Parties.

## ANNEXURE A – INTELLECTUAL PROPERTY PROTOCOL

As per clause 17 — “Intellectual Property” of the Strategic Alliance Agreement executed between Flinders University and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (PIRSA);

### 17. INTELLECTUAL PROPERTY

- 17.1. The Parties acknowledge that each has its own Intellectual Property policy and clauses within its employment contracts relating to the ownership and use of Intellectual Property developed by each Party's employees.
- 17.2. Intellectual Property developed by University Affiliates in the course of Research Activities will be owned in accordance with the terms and conditions specified in the Research Agreement, having consideration to the guiding principles below:
  - 17.2.1. Where the Chief Investigator of a Grant application is an employee of PIRSA, and where there is no collaborative involvement with the University in a relevant Research Activity under the terms of a Funding Agreement, then subject to the provisions of the Funding Agreement PIRSA shall have all rights, title and interest in the ownership of any and all Intellectual Property that may arise from the Research Activity, and PIRSA shall have sole responsibility for the management of the same in accordance with PIRSA's policies and procedures relating to Intellectual Property .
  - 17.2.2. Where a Research Activity involves collaboration by researchers from the University and PIRSA in the undertaking of a Research Activity, the Parties agree that:
    - 17.2.2.1. ownership of the Intellectual Property will be determined in accordance with the relevant Research Agreement; and
    - 17.2.2.2. Intellectual Property will generally be owned in accordance with the respective financial and in-kind contributions to the relevant Research Activity; and
    - 17.2.2.3. each of them or their appointed representatives or agents shall negotiate in good faith an agreement to articulate any modifications to the rights of ownership and responsibilities for management of such Intellectual Property.
  - 17.2.3. Where the Funding Body owns 100% of the developed Intellectual Property under the Funding Agreement PIRSA will:
    - 17.2.3.1. assign all its right title and interest in the developed Intellectual Property to the University so that the University may deliver the rights to the Funding Body;
    - 17.2.3.2. PIRSA will sign any documents and require its personnel to sign any documents to perfect title to the developed Intellectual Property in the University;
    - 17.2.3.3. Where applicable, the Parties will share any commercial returns received by the University from commercialisation of the developed Intellectual Property based on the parties' respective intellectual, cash and in-kind contributions to the creation of the developed Intellectual Property.

- 17.3. Unless otherwise agreed in writing between PIRSA and the University, any Intellectual Property created by University Affiliates in teaching and educational materials in the course of undertaking Academic Duties shall be dealt with in accordance with the University's policies or the agreement between the University and a University Affiliate.
- 17.4. PIRSA acknowledges and agrees that save as may otherwise be specified by separate agreement (including in a Research Agreement), students of the University will be licensed to use the Intellectual Property in all educational and assessment materials produced by them as part of Research Activity, including for the avoidance of doubt in their thesis subject to any reasonable confidentiality obligation.

**ANNEXURE B – FUNDING AGREEMENT**

Standard Good and Services Agreement

Northern Water Supply Project - WP12 Marine Environmental Studies –  
Oceanographic Climate Modelling No.B1481055 - WP12.2, executed  
20 July 2023.



STANDARD GOODS AND SERVICES AGREEMENT

Northern Water Supply Project

WP12 Marine Environmental Studies – Oceanographic Climate Modelling

B1481055 – WP12.2



Government  
of South Australia

**AGREEMENT** made on 20 of July 2023

**BETWEEN:**

**THE GOVERNMENT PARTY NAMED IN ITEM 1 OF ATTACHMENT 1** ("the Government Party")

**AND:**

**THE PARTY NAMED IN ITEM 2 OF ATTACHMENT 1** ("the Supplier")

**IT IS AGREED** that this Execution Page, the Agreement Details (Attachment 1), the Terms and Conditions (Attachment 2), the Glossary of Defined Terms (Attachment 3), the Special Conditions (Attachment 4), the Specifications (Attachment 5) and the Pricing and Payment (Attachment 6), will together comprise the Agreement between the Parties for the provision of the Goods and/or Services specified in Attachment 1.

**EXECUTED AS AN AGREEMENT**

**SIGNED** by a duly authorised officer for and on )  
behalf of **THE GOVERNMENT PARTY NAMED** )  
**IN ITEM 1 OF ATTACHMENT 1** in the presence )  
of: )

A handwritten signature in blue ink, appearing to be "Tara Mayne".

Witness signature  
Tara Mayne

Witness name

A handwritten signature in blue ink, appearing to be "Jeremy Conway".

Authorised officer signature  
Jeremy Conway, Chief Executive, Infrastructure SA  
Authorised officer name

**EXECUTED** by **THE PARTY NAMED IN ITEM 2**

**OF ATTACHMENT 1** by a duly authorised officer

in accordance with section 126 of the )  
*Corporations Act 2001* (Cth): )

A handwritten signature in blue ink, appearing to be "Julia Parker".

Witness signature

Julia Parker

Witness name

A handwritten signature in blue ink, appearing to be "Simon Brennan".

Authorised officer signature

Simon Brennan

Authorised officer name

Attachment 1 - Agreement Details

Item 1	Government Party	<b>INFRASTRUCTURE SA</b> ABN 16 372 487 442 Level 15 Wakefield House 30 Wakefield St Adelaide, SA, 5000
Item 2	Supplier	<b>Flinders University</b> ABN 65 542 596 200 Sturt Rd Bedford Park, South Australia, 5042
Item 3	Commencement Date	The Date of the Execution of this Agreement
Item 4	Expiry Date	1 January 2025 or when Services are completed.
Item 5	Extension Period	Not applicable
Item 6	Supplier's ABN	65 542 596 200 Registered for GST: Yes
Item 7	Contract Managers	<b>Government Party:</b> Michael Morgan Project Director, Northern Water Supply Project Level 4 Wakefield House, 30 Wakefield Street, Adelaide SA 5000  <b>Supplier:</b> Erin Plews, Research Support Officer Flinders University, Sturt Road, Bedford Park, South Australia 5042 Ph: 8201 5962 Email: <a href="mailto:pirsa.partnership@flinders.edu.au">pirsa.partnership@flinders.edu.au</a>
Item 8	Named Persons	<ul style="list-style-type: none"> <li>Mark Doubell: Affiliate A/Prof, Flinders University &amp; Oceanography sub-program leader (PO303)</li> <li>Hugo Bastos de Oliveira: Affiliate Associate Lecturer, Flinders University &amp; Ocean Modeller (P0204)</li> </ul>
Item 9	Details of Services	Oceanographic Climate Modelling for the Northern Water Supply Project, as detailed in <b>Attachment 5 – Specification</b>
Item 10	Reports and Manuals	as detailed in <b>Attachment 5 – Specification</b>
Item 11	Milestone Dates	As detailed in <b>Attachment 6 – Pricing and Payment</b>
Item 12	Price and Payment (including address for invoices)	\$121,184.80 (GST Inclusive) In accordance with <b>Attachment 6 – Pricing and Payment</b> .

OFFICIAL: Sensitive

<b>Item 13</b>	<b>Insurances</b> Public Liability Insurance Professional Indemnity Insurance	Not less than \$2,000,000  Not less than \$2,000,000
<b>Item 14</b>	<b>Liability Limit</b>	1 x the aggregated value of the contract (inc. GST).
<b>Item 15</b>	<b>Other Termination Rights</b>	Not Applicable
<b>Item 16</b>	<b>Approved Subcontractors</b>	MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT (acting through the South Australian Research and Development Institute (SARDI)), a Division of the Department of Primary Industries and Regions (PIRSA) ABN: 53 763 159 658
<b>Item 17</b>	<b>Additional Personnel Checks</b>	Not Applicable
<b>Item 18</b>	<b>Notice Period for Termination for Convenience</b>	Not Applicable

## Attachment 2 - Standard Terms & Conditions

### AGREED TERMS

#### 1. CONTRACT LENGTH

- 1.1 This Agreement commences on the Commencement Date and continues until the Expiry Date, unless terminated earlier or extended under clause 1.2.
- 1.2 This Agreement may be extended by the Government Party for the Extension Period by giving reasonable notice prior to the Expiry Date.

#### 2. CONTRACT MANAGERS

The persons named in Attachment 1 as the Contract Managers are the first point of contact between the Parties and are responsible for overseeing the effective administration of the Agreement including variations and extensions.

#### 3. SUPPLY OF GOODS (IF APPLICABLE)

- 3.1 If Goods are being supplied under this Agreement then the Supplier must:
- (a) supply the Goods in accordance with this Agreement;
  - (b) sell the Goods without encumbrance;
  - (c) deliver the Goods to the Delivery Point on or before the Delivery Date;
  - (d) comply with the Government Party's reasonable directions and delivery instructions;
  - (e) if requested by the Government Party, provide the Government Party with material safety data sheets with respect to the Goods delivered;
  - (f) provide test evidence for the Goods if required; and
  - (g) if indicated in Attachment 1, install the Goods on or before the Installation Date.
- 3.2 If the Supplier cannot comply with any of its obligations under clause 3.1, the Supplier must notify the Government Party in writing immediately.

#### 4. INSPECTION AND ACCEPTANCE OF GOODS (IF APPLICABLE)

- 4.1 The Government Party may inspect the Goods to determine whether to accept or reject the Goods.
- 4.2 The Government Party must accept the Goods if they conform with the requirements of this Agreement.
- 4.3 Subject to clause 4.4, the Goods are deemed to be accepted either:
- (a) on delivery, if the Government Party notifies the Supplier that it accepts the goods; or
  - (b) if no notice is issued by the Government Party, then 5 Business Days after delivery of the Goods to the Delivery Point.
- 4.4 If the Goods are consumable products and the Goods are found to be defective when first used, then the Government Party may reject the Goods under clause 4.5.
- 4.5 If the Government Party rejects the Goods due to non-conformity with the requirements of this Agreement, then the Government Party must notify the Supplier as soon as possible and require the Supplier at its sole cost, and at the Government Party's election to either:
- (a) resupply the Goods and remove the non-conforming Goods from the Delivery Point; or
  - (b) repair the Goods.
- 4.6 Acceptance of the Goods does not relieve the Supplier of any of its obligations under this Agreement.
- 4.7 The Supplier bears the risk in the Goods until delivery to the Delivery Point. Title in the Goods will pass to the Government Party upon the Government Party's acceptance of the Goods.

#### 5. WARRANTY PERIOD (IF APPLICABLE)

- 5.1 If during the Warranty Period the Goods fail to comply with the warranties in clause 9.1 then the Government Party may in its absolute discretion require that the Supplier at its expense:
- (a) replace the Goods within 10 Business Days of notification by the Government Party (or such other time as is agreed); or

- (b) refund the Price.

#### 6. SUPPLY OF SERVICES (IF APPLICABLE)

- 6.1 If Services are being supplied under this Agreement then the Supplier must ensure that the Supplier's Personnel provide the Services described in Attachment 1 in accordance with the terms and conditions of this Agreement.
- 6.2 Where Attachment 1 specifies Named Persons then the Services must be delivered by those Named Persons.
- A. The Supplier may substitute a Named Person with the consent of the Government Party subject to the Government Party being satisfied as to the expertise, experience and suitability of the substitute.
- 6.3 The Supplier must ensure that Services are delivered:
- (a) to a standard that meets or exceeds the Service Levels;
  - (b) in accordance with the warranties in clause 9.4; and
  - (c) by any Milestone Dates.
- 6.4 The Government Party's remedies for the Supplier's failure to meet a Service Level or for a breach of a warranty, includes resupply of the Services, a reduction of the price, termination, rebates or any other remedy specified in the Special Conditions.

#### 7. REPORTS AND MANUALS (IF APPLICABLE)

The Supplier must provide those reports, manuals or other materials specified in Attachment 1.

#### 8. SERVICE VARIATION (IF APPLICABLE)

- 8.1 If the Government Party wishes to vary the scope of the Services ("Variation"), it must issue a written request to the Supplier and the Supplier must within 5 Business Days (or such other period as agreed) provide a written quote ("Quote") setting out:
- (a) any impacts on the timing of or completion of tasks;
  - (b) the varied price and payment arrangements; and
  - (c) any changes to the terms that apply to the performance of the Services.
- 8.2 The Parties must negotiate in good faith to agree on the price and other terms applicable to the Variation.
- 8.3 If the Parties agree in writing to the terms of the Variation then:
- (a) the Supplier must perform the Services as varied by the Variation;
  - (b) the Government Party must pay the varied price;
  - (c) the terms and conditions of the Agreement are varied by the terms of the Variation.

#### 9. SUPPLIER'S WARRANTIES

- 9.1 If Goods are being supplied under this Agreement then the Supplier warrants that it has good and unencumbered title to the Goods and the Goods:
- (a) conform with any description applied and any sample provided by the Supplier;
  - (b) are new (unless otherwise specified);
  - (c) are free from defects in materials, manufacture and workmanship;
  - (d) conform to any applicable Australian Standards or other standards nominated in this Agreement;
  - (e) conform to the Specifications and any technical Specifications provided by the Supplier;
  - (f) are of merchantable quality;
  - (g) are installed correctly (if the Supplier is responsible for installation);
  - (h) are fit for their intended purpose; and
  - (i) are manufactured and supplied without infringing any person's Intellectual Property Rights.
- 9.2 The Supplier must ensure that the Government Party receives the full benefit of any manufacturer's warranties in respect of the Goods.

- 9.3 During any Warranty Period any defects in the Goods must be rectified at the Supplier's expense.
- 9.4 If Services are being supplied under this Agreement then the Supplier warrants that the Services will:
- (a) comply with the description of the Services in Attachment 1;
  - (b) be provided with due care and skill;
  - (c) be provided in a timely and efficient manner;
  - (d) be provided in accordance with the best practices current in the Supplier's industry;
  - (e) be supplied without infringing any person's Intellectual Property Rights;
  - (f) be performed by the Supplier and/or the Supplier's Personnel; and
  - (g) be supplied in the most cost effective manner consistent with the required level of quality and performance.

## 10. SUPPLIER'S PERSONNEL

- 10.1 The Supplier, if required by the Government Party, must give its consent to and procure the consent of the Supplier's Personnel, to the conduct of a police check or any Additional Personnel Checks specified in Attachment 1.
- 10.2 If the Government Party gives the Supplier notice in writing requiring those persons to be withdrawn from supplying the Goods or providing the Services, and the Supplier must immediately comply with the notice and provide replacement Personnel acceptable to the Government Party.
- 10.3 The Supplier and the Supplier's Personnel must only use the Government Party's computer systems with the specific authorisation of the Government Party and only in the manner as directed by the Government Party from time to time.
- 10.4 The Government Party reserves the right to refuse entry to any of the Government Party's premises to any of the Supplier's Personnel.

## 11. PRICE AND PAYMENT

- 11.1 In consideration for the supply of the Goods and/or the Services, the Government Party will pay the Price.
- 11.2 Unless otherwise expressly stated the Price is inclusive of GST.
- 11.3 The Supplier is entitled to invoice the Government Party for payment in respect of the Goods and/or Services, when the Goods have been supplied and accepted under clause 4, and the Services have been supplied in accordance with this Agreement.

## 12. GST

- 12.1 Subject to clause 12.2 the Supplier represents that:
- (a) the ABN shown in Attachment 1 is the Supplier's ABN; and
  - (b) it is registered under the *A New Tax System (Australian Business Number) Act 1999* (Cth),
- 12.2 If the Supplier is not registered for GST, then GST must not be charged on supplies made under this Agreement.

## 13. INTELLECTUAL PROPERTY RIGHTS

- 13.1 Nothing in this Agreement affects the ownership of Intellectual Property Rights created before the Commencement Date.
- 13.2 The Supplier grants to the Government Party and the Crown in right of the State of South Australia a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement.

## 14. INSURANCE

- 14.1 The Supplier must effect and maintain the policies of insurance specified in Attachment 1 for not less than the amounts specified in Attachment 1.
- 14.2 The policies of insurance referred to in clause 14.1 must be held until the expiry of the Agreement.

## 15. LIABILITY LIMIT

- 15.1 The Supplier's liability to the Government Party under this Agreement is limited to the amount specified in Attachment 1.

## 16. CONFIDENTIAL INFORMATION

- 16.1 Subject to this clause 16, neither Party may disclose any Confidential Information belonging to the other Party except as genuinely and necessarily required for the purpose of this Agreement.
- 16.2 A Party may disclose Confidential Information belonging to the other Party:
- (a) to an employee, agent or adviser of that Party, on a "need to know" and confidential basis;
  - (b) as required by law or a court order;
  - (c) in accordance with any Parliamentary or constitutional convention;
  - (d) to the Australian Competition and Consumer Commission (ACCC) if the party reasonably suspects, or is notified by the ACCC that it reasonably suspects, that there is Cartel Conduct or unlawful collusion in connection with the supply of Goods or Services under this Agreement; or
  - (e) for the purposes of prosecuting or defending proceedings.
- 16.3 The Parties may mutually agree to disclose Confidential Information.

## 17. SET-OFF

Any claim the Government Party may have against the Supplier may be set off against monies owed to the Supplier under this Agreement.

## 18. DISPUTE RESOLUTION

- 18.1 Subject to clause 18.4 a Party may not commence legal proceedings without first referring the dispute to the other Party under this clause.
- 18.2 Either Party may give the other a notice in writing ("**dispute notice**") setting out the details of the dispute.
- 18.3 Within 5 Business Days or such other period as may be agreed by the Parties, representatives must meet and use reasonable endeavours to resolve the dispute.
- 18.4 A Party may seek immediate interlocutory relief or other interim remedy in case of genuine urgency.

## 19. ENDING THIS CONTRACT

- 19.1 The Government Party may terminate this Agreement immediately upon giving notice in writing to the Supplier if:
- (a) the Government Party reasonably forms the opinion that the Supplier will be unable to perform its obligations under this Agreement;
  - (b) the Supplier is in breach of this Agreement and has not rectified such breach within 10 Business Days of the Government Party giving notice in writing to the Supplier requiring the rectification of such breach;
  - (c) the Government Party becomes aware that the Supplier is in breach of its statutory obligations with respect to its employees;
  - (d) the Supplier fails to comply with a notice issued under clause 10.2; or
  - (e) the Supplier fails to disclose a conflict of interest;
  - (f) any Other Termination Right occurs; or
  - (g) the Supplier suffers or, in the reasonable opinion of the Government Party, is in jeopardy of becoming subject to any form of insolvency administration or bankruptcy.
- 19.2 The Government Party may terminate this Agreement without cause by giving the Supplier the period of notice specified in Attachment 1 ("**Notice Period for Termination for Convenience**").
- 19.3 If the Government Party terminates this Agreement in accordance with clause 19.2:
- (a) the Supplier has no claim against the Government Party arising out of or in relation to such termination other than the right to be paid for Goods accepted and/or Services provided before the effective termination date; and

- (b) the Supplier must comply with all reasonable directions given by the Government Party.
- 19.4 The Supplier may terminate this Agreement immediately upon giving notice in writing to the Government Party if the Government Party is in breach of this Agreement and has not rectified such breach within 14 days of the Supplier giving notice in writing to the Purchaser requiring the rectification of such breach.
- 20. EFFECT OF ENDING THIS CONTRACT**
- 20.1 Any termination of this Agreement by either Party does not affect any accrued right of either Party.
- 20.2 Despite termination or completion of this Agreement, this clause 20 and clauses 9, 13, 14, 15, 16, 17 and those Special Conditions that by their nature remain in force, shall survive.
- 21. SUBCONTRACTING**
- 21.1 With the exception of the Approved Subcontractors described in Attachment 1, the Supplier must not engage any subcontractor without the prior written permission of the Government Party.
- 21.2 The Supplier remains responsible for obligations performed by the Approved Subcontractors to the same extent as if such obligations were performed by the Supplier.
- 22. CONFLICT OF INTEREST**
- 22.1 The Supplier must disclose in writing to the Government Party all actual and potential conflicts of interest that exist, arise or may arise (either for the Supplier or the Supplier's Personnel) in the course of performing its obligations under this Agreement as soon as practical after it becomes aware of that conflict.
- 23. COMPLIANCE WITH LAWS**
- The Supplier must comply with the laws in force in the State of South Australia in performing its obligations under this Agreement.
- 24. GOVERNING LAW AND JURISDICTION**
- 24.1 This Agreement is governed by the laws in the State of South Australia.
- 24.2 The courts of the State of South Australia have exclusive jurisdiction in connection with this Agreement.
- 25. ENTIRE AGREEMENT**
- The Agreement constitutes the entire agreement between the Parties in respect of the matters dealt with in this Agreement and supersedes all prior agreements, understanding and negotiations in respect of the matters dealt with in this Agreement.
- 26. NO ASSIGNMENT**
- 26.1 The Supplier must not assign, encumber or otherwise transfer any of its rights or obligations under this Agreement without the written approval of the Government Party which approval shall not be unreasonably withheld.
- 26.2 Subject to any contrary legislative intention, the Parties agree that if there is any Machinery of Government Change, this Agreement is deemed to refer to the new entity succeeding or replacing the Government Party and all of the Government Party's rights and obligations under this Agreement will continue and will become rights and obligations of that new entity.
- 27. MODIFICATION**
- No addition to or modification of any provision of this Agreement will be binding upon the Parties unless made by written instrument signed by the Parties.

- 28. SEVERANCE**
- 28.1 Each word, phrase, sentence, paragraph and clause of this Agreement is severable.
- 28.2 Severance of any part of this Agreement will not affect any other part of this Agreement.
- 29. COUNTERPARTS**
- This Agreement may be executed in any number of counterparts each of which is taken to be an original. All of those counterparts taken together constitute one (1) instrument. An executed counterpart may be delivered by email.
- 30. WORK HEALTH & SAFETY**
- 30.1 The Supplier must comply with the *Work Health and Safety Act 2012* (SA) at all times, regardless of whether the Government Party issues direction in that regard or not.
- 30.2 If all or part of the work under this Agreement is to be provided on the premises of the Government Party and under the direction of the Government Party, the Supplier must comply with the Government Party's work health and safety policies, procedures and instructions. If the Supplier becomes aware of any potentially hazardous situation on the Government Party's premises, the Supplier must immediately bring it to the Government Party's attention.
- 31. ACTING ETHICALLY**
- The Supplier must conduct itself in a manner that does not invite, directly or indirectly, the Government Party's officers, employees or agents or any public sector employee (as defined in the *Public Sector Act 2009* (SA)) to behave unethically, to prefer private interests over the Government Party's interests or to otherwise contravene the Code of Ethics for the South Australian Public Sector.
- 32. INTERPRETATION**
- 32.1 Defined terms are set out in the Glossary of Defined Terms in Attachment 3.
- 32.2 In resolving inconsistencies in this Agreement, the documents have the following order of priority:
- (a) Special Conditions (Attachment 4);
  - (b) Standard Terms and Conditions (Attachment 2); and
  - (c) the other Attachments.
- 32.3 In this Agreement (unless the context requires otherwise):
- (a) a reference to any legislation includes:
    - (i) all legislation, regulations and other forms of statutory instrument issued under that legislation; and
    - (ii) any modification, consolidation, amendment, re-enactment or substitution of that legislation;
  - (b) a word in the singular includes the plural and a word in the plural includes the singular;
  - (c) a reference to two or more persons is a reference to those persons jointly and severally;
  - (d) a reference to dollars is to Australian dollars;
  - (e) a reference to a Party includes that party's administrators, successors and permitted assigns.
- 33. SPECIAL CONDITIONS**
- The special conditions (if any) form part of this Agreement and to the extent of any inconsistency, take precedence over the other terms of this Agreement.



## Attachment 3 - Glossary of Defined Terms

**NOTE: Not all terms may be required for a particular procurement**

In this Agreement:

- (a) **"Acceptance Date"** means the date that the Goods are accepted by the Government Party;
- (b) **"Approved Subcontractors"** means those subcontractors specified in Attachment 1;
- (c) **"Business Day"** means any day that is not a Saturday or Sunday or a public holiday in South Australia;
- (d) **"Cartel Conduct"** means conduct by two or more parties who are competitors (or would be but for the conduct) who enter into a contract, arrangement or understanding that involves price fixing, output restrictions, allocating customers, suppliers or territories, or bid-rigging, as defined in s44ZZRD of the *Competition and Consumer Act 2010* (Cth);
- (e) **"Code of Ethics for the South Australian Public Sector"** is the code of ethics for the purposes of the *Public Sector Act 2009* (SA);
- (f) **"Confidential Information"** means information which is identified either as confidential information (if disclosed by the Government Party) or proprietary information (if disclosed by the Supplier), but does not include this Agreement;
- (g) **"Consultancy Services"** means services provided by Consultants;
- (h) **"Consultant"** has the same meaning as in DPC027 *Disclosure of Government Contracts* and means a person or entity that is engaged by a public authority for a specified period to carry out a task that requires specialist skills and knowledge not available in the public authority. The objectives of the task will be achieved by the consultant free from direction by the public authority as to the way it is performed and in circumstances in which the engagement of a person under normal circumstances is not a feasible alternative;
- (i) **"Delivery Date"** means the date and time specified in Attachment 1 for delivery of the Goods;
- (j) **"Delivery Point"** means the location(s) specified in Attachment 1, where the Goods and/or Services will be delivered;
- (k) **"Extension Period"** means the period by which the Agreement is extended as specified in Attachment 1;
- (l) **"Goods"** means the goods specified in Attachment 1;
- (m) **"GST"** means the tax imposed by the GST Law;
- (n) **"GST Law"** has the meaning attributed in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth);
- (o) **"Installation Date"** means the date specified in Attachment 1 for the installation of the Goods;
- (p) **"Intellectual Property Rights"** means all intellectual property rights, including but not limited to:
  - (i) patents, copyright, registered designs, trademarks, know-how and any right to have Confidential Information kept confidential; and
  - (ii) any application or right to apply for registration of any of the rights referred to in paragraph (a), but for the avoidance of doubt excludes moral rights and performers' rights;
- (q) **"Machinery of Government Change"** means a change to the structure, function or operations of the South Australian Government or the Government Party as a result of any government reorganisation, restructuring or other organisational or functional change;
- (r) **"Measurement Period"** means the period over which the performance of a Service Level is measured;
- (s) **"Milestone Dates"** means dates by which Services must be delivered as specified in Attachment 1;
- (t) **"Named Persons"** means the persons specified in Attachment 1;
- (u) **"Notice Period for Termination for Convenience"** means the time period specified in Attachment 1;
- (v) **"Other Termination Right"** means the termination rights specified in Attachment 1;
- (w) **"Party"** means a party to this Agreement;
- (x) **"Personal Information"** means information or an opinion, whether true or not, relating to a natural person or the affairs of a natural person whose identity is apparent, or can reasonable be ascertained, from the information or opinion;
- (y) **"Purchase Order"** means an order for Goods and/or Services submitted by the Government Party to the Supplier;
- (z) **"Price"** means the price payable under this Agreement specified in Attachment 1 and includes any price varied under clause 8;
- (aa) **"Service Levels"** means the service levels (if any) specified in the Specifications;
- (bb) **"Services"** means the services specified in Attachment 1;
- (cc) **"Special Conditions"** means the conditions in Attachment 4 and where relevant includes agency specific Special Conditions;
- (dd) **"Specifications"** means the detailed description of the Goods/Services in Attachment 5;
- (ee) **"Supplier Personnel"** means any Approved Subcontractors, employees, agents and any other person employed or engaged by the Supplier to perform this Agreement and includes the Named Persons;
- (ff) **"Term"** means the period commencing on the Commencement and ending on the Expiry Date unless terminated earlier and includes any extension and;
- (gg) **"Warranty Period"** means the period specified in Attachment 1.



## Attachment 4 - Special Conditions

### 34. PURCHASE ORDERS

- 34.1 The Government Party may purchase Goods and Services under this Agreement by issuing a Purchase Order to the Supplier.
- 34.2 The Parties agree that the engagement of the Supplier by the Government Party as a preferred supplier and the offer by the Supplier to supply Goods and Services at the Price and on the terms of the Agreement, is good and sufficient legal consideration.
- 34.3 A Purchase Order must be in writing, be approved by the Government Party, and contain as a minimum:
- (a) Purchase Order Number;
  - (b) Date of Issue;
  - (c) Description of Goods and/or Services;
  - (d) Quantity of Goods (if any);
  - (e) Delivery Point for Goods (if required);
  - (f) Installation Date for Goods (if required);
  - (g) Reports and other materials (if any); and
  - (h) Unit Price and total Price.
- 34.4 The Supplier must supply the Goods and the Services ordered by the Government Party under a Purchase Order in accordance with the terms of this Agreement.
- 34.5 The terms of the Standard Goods and Services Agreement will take priority over any purchase order terms and conditions that may be included with a Purchase Order.

### 35. NO MINIMUM PURCHASE

- 35.1 The Government Party is under no obligation to purchase a minimum quantity of Goods or Services from the Supplier during the Term.

### 36. NON-EXCLUSIVITY

- 36.1 This Agreement is entered into on a non-exclusive basis.
- 36.2 The Government Party may purchase other goods and services similar to the Goods and Services from other providers.

### 37. LIABILITY

- 37.1 Where a scheme approved under the *Professional Standards Act 2004* (SA) applies, the Consultant's liability to the Government Party for any loss or causes of action arising in relation to the provision of Services is limited in the manner provided by the scheme.

### 38. CONTRACT DISCLOSURE

- 38.1 The Government Party may disclose this Agreement and/or information in relation to this Agreement in either printed or electronic form and either generally to the public or to a particular person as a result of a specific request.
- 38.2 Nothing in this clause derogates from:
- (a) the Supplier's obligations under any provisions of this Agreement; or
  - (b) the provisions of the *Freedom of Information Act 1991* (SA).

### 39. PRIVACY

- 39.1 The Supplier must:
- (a) comply with the South Australian Government Information Privacy Principles (a copy of which can be found at <http://www.dpc.sa.gov.au/documents/rendition/B17711#sthash.s76QhRX6.dpuf>) ("IPPs") as if the Supplier were an "agency" for the purposes of the IPPs, in undertaking its obligations under this Agreement including in relation to all Personal Information received, created or held by it for the purposes of this Agreement; and
  - (b) allow the Government Party to undertake, and cooperate with any audit or investigation which the Government Party deems necessary to verify that the Supplier is complying with the IPPs.
- 39.2 The Supplier must promptly notify the Government Party if it fails to comply with this clause or if it becomes aware of any actual or threatened disclosure of or unauthorised access to Personal Information.

### 40. RESPECTFUL BEHAVIOURS

- 40.1 The Supplier acknowledges the Government Party's zero tolerance towards men's violence against women in the workplace and the broader community.
- 40.2 The Supplier agrees that, in performing the Services, the Supplier's Personnel will at all times:
- (a) act in a manner that is non-threatening, courteous and respectful; and
  - (b) comply with any instructions, policies, procedures or guidelines issued by the Government Party regarding acceptable workplace behaviour.
- 40.3 If the Government Party believes that the Supplier's Personnel are failing to comply with the behavioural standards specified in this clause, then the Government Party may in its absolute discretion:
- (a) prohibit access by the relevant Supplier's Personnel to the Government Party's premises; and
  - (b) direct the Supplier to withdraw the relevant Supplier's Personnel from providing the Services.

Attachment 5 - Specifications

## 1. PROJECT DETAIL

### 1.1 Title

**Northern Water Supply Project – WP12 Marine Environmental Studies – Oceanographic Climate Modelling B1481055 – WP12.2**

### 1.2 Principal Investigator

Name: Mark Doubell  
Position: Affiliate Associate Professor, Flinders University  
Address: PO Box 120  
HENLEY BEACH SA 5022  
Email: mark.doubell@sa.gov.au  
Telephone: 8429 0982 / 0437 369 045

#### 1.2.1 Administration Details

Name: Erin Plews  
Position: Research Support Officer (PIRSA), Flinders University  
Address: Sturt Road  
BEDFORD PARK SA 5042  
Email: pirsapartnership@flinders.edu.au  
Telephone: 08 8201 5962

### 1.3 Timeframe

Commencement Date: Upon Contract Execution  
Completion Date: 01 January 2025 (Modelling to be completed by 01 September 2024).

### 1.4 Summary

As a part of the Northern Water Supply Project (NWSP) development of a large 100 GL/annum desalination plant is being considered in Spencer Gulf. The Government Party has requested the Supplier undertake oceanographic far-field climate change modelling to support the plant development and approval process.

This project will build on improvements to the current hydrodynamic models developed by the Supplier through the NWSP to inform the potential impact of brine discharges in Spencer Gulf under a 'worst case' future climate change scenario.

Projections of future (2090-99) ocean conditions along the southern Australian coastline will be determined from global ocean-atmosphere climate models under the RCP8.5 scenario; the projection with the greatest increase in greenhouse gasses and global temperatures. Climate model projections will then be dynamically downscaled through a series of nested 1-way hydrodynamic models of increasing resolution to understand the future ocean conditions and circulation in Spencer Gulf. Desalination (brine) discharges

from existing and proposed plants in Spencer gulf will then be modelled under these conditions to assess the future capacity of the gulf to adequately disperse brine discharges.

## **2. PROJECT DESCRIPTION**

### **2.1 BACKGROUND**

Security of regional water supplies is a key priority for the Northern Water Supply Project. To achieve this a large 100 GL/annum desalination plant is being considered in Spencer Gulf. Due to the reduced flushing Spencer Gulf relative to the high-energy coastlines outside of the gulf, there is uncertainty in the gulfs capacity to adequately disperse the brine discharges from the proposed desalination plant. Considering the commercial and recreational importance of the Spencer Gulfs marine ecosystems for co-located fisheries and aquaculture industries, and the surrounding regional communities (Gillanders et al. 2015, Tanner et al. 2019) there is a need to accurately predict and assess the potential impacts of desalination on the marine environment.

Since 2007 SARDI has led the collection of oceanographic observations in South Australia through the implementation of the national Integrated Marine Observing System (IMOS) and other Service Level Agreement projects (e.g., Aquaculture Environmental Monitoring Program; Tanner et al., 2020). Observations have been used to develop a range of hydrodynamic models which have been used to better understand the circulation, climate and connectivity of the state's shelf, coastal and gulf regions. Model applications have been used to support the ecologically sustainable management and development of Spencer Gulf fisheries and aquaculture sectors (e.g., Middleton et al. 2013, Doubell et al. 2015, McLeay et al. 2016, Tanner et al. 2020, Rogers et al. 2021) as well as understanding the potential impacts of desalination on receiving ecosystems (Doubell and James, 2022, 2023).

In recognition of the Supplier's hydrodynamic modelling and oceanographic expertise, the Government Party has requested the Supplier undertake oceanographic modelling to support the development of a desalination plant in Spencer Gulf.

### **2.2 NEED**

Projections of future ocean conditions expected under future climate change are required to inform the long-term planning and management of marine resources in South Australia. The project scope outlined below details the far-field oceanographic modelling needed to assess the potential impact of desalination outfalls (i.e., brine discharges) under 'worst case' future climate change projections.

The developed models will be used to:

- (i) dynamically downscale coarse resolution global ocean-atmosphere ocean models to the high-resolution needed to resolve and improve climate projections of ocean conditions in South Australia's coastal zone; and
- (ii) use these projections of future ocean conditions to better understand and assess Spencer Gulfs future capacity to host desalination under a changing climate.

### **2.3 OBJECTIVES**

**2.3.1** Modify SARDI's existing suite of open-ocean, shelf and coastal hydrodynamic models to undertake climate projection modelling in Spencer Gulf.

**2.3.2** Use the models to dynamically downscale global climate projections to provide improved predictions of future ocean conditions in Spencer Gulf.

**2.3.3** Under the projected future ocean conditions (2090-2099), conduct (10 year) simulations to understand brine dispersion and flushing associated with cumulative discharges from existing and

proposed desalination plants in Spencer gulf including the 100GL/annum plant proposed by the NWSP at the preferred desalination plant location.

## 2.4 METHODS

SARDI's existing open-ocean and shelf regional ocean model for South Australia (SAROM) and higher-resolution Spencer Gulf model (SG1500) will be modified to undertake climate projection modelling.

Projections of future ocean conditions using these models will follow the dynamical downscaling 'delta' method commonly used to improve climate projections in coastal oceans (Liu et al. 2012, van Hooijdonk et al. 2015, Shin et al. 2020). In summary, this method uses higher-resolution regional ocean models to investigate climate change by forcing them with projections from coarser resolution global models. Long-term mean differences in ocean and atmosphere fields between recent past and future periods are derived from coupled climate models and then added to present day conditions. Using this approach global projections of future (2090-99) ocean conditions along the southern Australian coastline will be determined from NOAA's GFDL-EM2SM global model (Dunne et al. 2013) under the RCP8.5 emissions scenario; the projection with the greatest increase in greenhouse gasses and global temperatures. Using this approach global projections of future (2090-99) ocean conditions along the southern Australian coastline will be determined from NOAA's GFDL-EM2SM global model (Dunne et al. 2013) under the RCP8.5 emissions scenario; the projection with the greatest increase in greenhouse gasses and global temperatures.

Under the projected future ocean conditions (2090-2099), 10-year simulations to understand brine dispersion and flushing associated with cumulative discharges from all existing and proposed desalination plants in Spencer gulf including the 100 GL/annum plant proposed by the NWSP at the preferred desalination plant location.

## 2.5 Project Staff

Staff Identified	Position	FTE Commitment
Mark Doubell	Affiliate A/Prof, Flinders University & Oceanography sub-program leader, SARDI	0.1
Hugo Bastos de Oliveira	Affiliate Associate Lecturer, Flinders University & Ocean Modeller, SARDI	0.4

## 2.6 RISK ASSESSMENT

Issue (Damages)	Cause	Result	Possible Scenario	Maximum Foreseeable Loss - Mitigation
Computing hardware required to run models breakdowns	Desktop computer or PIRSA high-performance-computer (HPC) breakdowns	Delay to project delivery	Desktop computer or server breakdowns	Delay to project delivery. Mitigation: replacement desktop computer or alternative HPC (Flinders Uni or NCI) sourced
Site location or other changes required from engineers to model brine discharges to model are incorrect or keep changing	ISA project requirements change	Delay to project delivery	Brine outfall location keeps being moved	Delay to project delivery. Mitigation: milestone schedule modified

### 3. DELIVERABLES

#### 3.1 Key Personnel and Relevant Experience:

Principle Investigator

Dr Mark Doubell (Affiliate Associate Professor, Flinders University and Oceanography Sub-program leader, SARDI) to supervise the project including provision of results to SA Water and contribute to the data analysis and project reports.

Co-Investigators

Dr Hugo Bastos de Oliveira (Affiliate Associate Lecturer, Flinders University & Oceanographic Modeller, SARDI) undertake the oceanographic climate change modelling and contribute to the project reports.

#### 3.2 Outcomes:

1. Modify existing nested high-resolution shelf and coastal hydrodynamic models to undertake climate change modelling.
2. Use the models to dynamically downscale coarse resolution global ocean-atmosphere ocean models to the high-resolution needed to resolve and improve climate projections of ocean conditions in South Australia's coastal zone.
3. Under the projected future ocean conditions (2090-2099), undertake 10-year simulations to understand brine dispersion and flushing associated with the cumulative discharges from existing and proposed desalination plants in Spencer Gulf, including the 100 GL/annum plant proposed for NWSP at the preferred desalination plant location.
4. Provide detailed milestone and final reports presenting the methods, model development and study results.

#### 3.3 Outputs and Extension:

Extension of this work may be required at a future date including:

- i) Ongoing development of climate change projections in South Australia's coastal waters for application to future long-term planning and management of South Australia's marine resources, including fisheries and aquaculture.

Provision of services listed in 3.3 (i) is not implied in any way and is not covered as a part of this research contract.

### 4. Modern Slavery

The Government of South Australia is committed to the elimination of Modern Slavery.

- Guiding Principles on Business and Human Rights means the United Nations' Guiding Principles on Business and Human Rights: Implementing the United Nations "*Protect, Respect and Remedy*" Framework available at [https://www.ohchr.org/documents/publications/guidingprinciplesbusinessshr\\_en.pdf](https://www.ohchr.org/documents/publications/guidingprinciplesbusinessshr_en.pdf).
- Modern Slavery has the same meaning as it has in the Modern Slavery Act 2018 (Cth).
- The Supplier must take reasonable steps to identify, assess and address risks of Modern Slavery practices in the operations and supply chains used in the provision of the Goods and/or Services.
- If at any time the Supplier becomes aware of Modern Slavery practices in the operations and supply chains used in the performance of the Contract, the Supplier must as soon as reasonably practicable take all reasonable action to address or remove these practices, including where relevant by addressing any practices of other entities in its supply chains.

## **5. INTELLECTUAL PROPERTY RIGHTS (CLAUSE 13)**

In addition to clause 13.1 and 13.2 of the Standard Terms & Conditions, ownership of Intellectual Property Rights as defined under this Agreement will be owned by the Supplier's Approved Subcontractor the Minister for Primary Industries and Regional Development (acting through the South Australian Research and Development Institute (SARDI)).

SARDI will retain the sole ownership of Intellectual Property Rights of the hydrodynamic models previously developed and applied in this project.

## Attachment 6 – Pricing and Payment

## 1.0 Payment Schedule:

Date of Invoice	Milestone	Payment (\$ Ex GST
The date of signing of this contract	Commence evaluation of downscaling method including: <ul style="list-style-type: none"> <li>- Gathering climate model projections/data</li> <li>- evaluating global model projections and creating delta (change) functions</li> </ul>	10,168.00
30-September-2023	Present initial delta functions to be used to drive local models.  Commence dynamical downscaling. Run local model with current and future projections.	20,000.00
15-December-2023	Present results from initial dynamical downscaling runs: <ul style="list-style-type: none"> <li>- Validation of present conditions over SA region</li> <li>- Initial comparison of present versus future conditions in Spencer gulf</li> <li>- Create model forcing files for brine discharge modelling in Spencer Gulf.</li> </ul> Define next steps for model refinement/ and commence final downscaling model runs.	30,000.00
15-April-2024	Dynamical downscaling runs completed. Initial results of brine discharge modelling under future climate change scenario presented.  Send for FINAL feedback from independent review.	20,000.00
15-May-2024	Receive FINAL feedback from independent review. Commence final model runs undertaken (if required) and draft final report preparation.	Nil
1-August-2024	Draft Final Report presented.	
1-September-2024	Final report completed.	30,000.00
	<b>SUBTOTAL</b>	110,168.00
	<b>GST</b>	11,016.80
	<b>TOTAL COST</b>	121,184.80

## 2.0 Price:

The all inclusive Fixed Price for this service is \$121,184.80 (GST Inclusive), which shall be invoiced as per **Attachment 6 – Pricing and Payment, 1.0 Payment Schedule**, and **Attachment 6 – Pricing and Payment, 3.0 Invoicing**.



### 3.0 Invoicing:

All invoices should include the following detail in your invoice (1) Header, (2) Body and (3) End:

#### (1) Header Information:

Format Example

Attention: GPO Box City/State/Post Code      Infrastructure SA – Department of Premier and Cabinet

Attention: Mardi Kalika

GPO Box 11027

Adelaide SA 5001

ABN: 16 372 487 442

Email: [APInvoices@sharedservices.sa.gov.au](mailto:APInvoices@sharedservices.sa.gov.au)

Contract: B1481055 WP12.2

#### (2) Invoice Body

Include project details: Northern Water Supply Project – Oceanographic Climate Modelling

Include the month/period it relates to

#### (3) Invoice end

Ensure the invoice is dated the day it is sent and submit invoices in either the last week of the month or the first week of the next month. Attach relevant supporting information and email to 3 addresses:

- your Project Lead for their approval
- Shared Services e: [APInvoices@sharedservices.sa.gov.au](mailto:APInvoices@sharedservices.sa.gov.au)
- ISA Finance DPC:ISA Finance [ISAFinance@sa.gov.au](mailto:ISAFinance@sa.gov.au)

Ensure your invoice details:

- a. Total procurement amount
- b. the current invoice amount
- c. remaining balance available

Invoices above the value of the Purchase Order or Contract without prior consultation and approval will be rejected.



## RESEARCH AGREEMENT SCHEDULE

This Schedule and the terms and conditions attached comprise a binding Research Agreement between the Flinders University (**University**) and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (**PIRSA**) pursuant to the terms and conditions of the Affiliate Agreement and Strategic Alliance Agreement executed between the University and PIRSA both dated 18/01/2022 with respect to the Research Activity identified below.

<b>Item 1</b>	<b>Name of Funding Body and Funding Agreement</b>	1.1 Funding body: Infrastructure SA 1.2 Funding Agreement: Standard Goods and Services Agreement - No. B1481055 - WP12.1, executed 20 July 2023 (Annexure B)
<b>Item 2</b>	<b>Title of Research Activity</b>	Northern Water Supply Project - WP12 Marine Environmental Studies – Oceanographic Far Field Modelling
<b>Item 3</b>	<b>Project Start Date</b>	On Execution of this Research Agreement Schedule
<b>Item 4</b>	<b>Project End Date</b>	01 January 2025 or when Services are completed
<b>Item 5</b>	<b>Researchers involved by institution</b>	<b>Chief Investigator/s:</b>  (a) from Flinders University: None  (b) from PIRSA: Mark Doubell – Affiliate Associate Professor, Flinders University and Oceanography sub-program Leader, SARDI
		<b>Specified Personnel:</b>  (a) from Flinders University: None  (b) from PIRSA: - Mark Doubell – Affiliate Associate Professor, Flinders University and Oceanography sub-program Leader, SARDI - Charles James - Affiliate Senior Lecturer, Flinders University & Ocean Modeller, SARDI

		<b>Responsible Officer</b> Flinders University Chief Research Development Officer, Research Development and Support Sturt Road, Bedford Park SA 5042 Phone: 08 8201 5074 Email: director.rds@flinders.edu.au  PIRSA Dr Hannah Brown A/Executive Director, South Australian Research and Development Institute Email: pirsasardiexecutiveoffice@sa.gov.au
<b>Item 6</b>	<b>Role of researchers in the Research Activity from each institution</b>	The Chief Investigator - PIRSA, agrees that the Research Activity will be conducted as outlined in the Funding Agreement - Attachment 5: Specifications - 2.3 Objectives, 2.4 Methods, and 3.1 Key Personnel and Relevant Experience
<b>Item 7</b>	<b>Project Outputs</b>	As detailed in the Funding Agreement - Attachment 5: Specifications, 3.3 Outputs and Extension and Attachment 6: Pricing and Payment - Payment Schedule
<b>Item 8</b>	<b>Premises</b>	Research work will be conducted on SARDI premises, and sites across South Australia in the Spencer Gulf and Gulf Saint Vincent. except where work has been subcontracted.
<b>Item 9</b>	<b>Cash/in-kind Contributions</b>	PIRSA:  2023/24 - \$34,783 (in-kind) (GST Exclusive) Total - \$34,783 (in-kind) (GST Exclusive)
<b>Item 10</b>	<b>Reports</b>	To be provided in accordance with the Funding Agreement – Attachment 6: Pricing and Payment - Payment Schedule
<b>Item 11</b>	<b>Approved sub-contractor/s to PIRSA</b>	Nil

**Item 12 Background IP/material contributed to the Research Activity by each institution**

Institution	Background IP	Date made available to project	Limitations/restrictions
<b>Funding Body</b>	Nil		
<b>University</b>	Nil		
<b>PIRSA</b>	SARDI will retain the sole ownership of IP of the hydrodynamic and larval transport models applied in this project.	On commencement and throughout duration of project	Nil

**Item 13 Clauses from Funding Agreement that bind PIRSA**

PIRSA agrees to comply with the following clauses in the Funding Agreement as if it were a party to the Funding Agreement:

Clause reference	Title of clause
Clause 1	Contract Length
Clause 2	Contract Managers
Clause 3	Supply of Goods (if applicable)
Clause 4	Inspection and Acceptance of Goods (if applicable)
Clause 5	Warranty Period (if applicable)
Clause 6	Supply of Services (if applicable)
Clause 7	Reports and Manuals (if applicable)
Clause 8	Service Variation (if applicable)
Clause 9	Supplier's Warranties
Clause 10	Supplier's Personnel
Clause 11	Price and Payment
Clause 12	GST
Clause 13	Intellectual Property Rights
Clause 14	Not Applicable (See Item 19 Special Conditions – No.4)
Clause 15	Liability Limit
Clause 16	Confidential Information
Clause 17	Set-Off
Clause 18	Dispute Resolution
Clause 19	Ending this Contract
Clause 20	Effect of Ending this Contract
Clause 21	Subcontracting
Clause 22	Conflict of Interest
Clause 23	Compliance with Laws
Clause 24	Governing Law and Jurisdiction
Clause 25	Entire Agreement
Clause 26	No Assignment

Clause 27	Modification
Clause 28	Severance
Clause 29	Counterparts
Clause 30	Work Health and Safety
Clause 31	Acting Ethically
Clause 32	Interpretation
Clause 33	Special Conditions
Attachment 1	Agreement Details
Attachment 2	Standard Terms and Conditions (as per clauses above)
Attachment 3	Glossary of Defined Terms
Attachment 4	Special Conditions
Attachment 5	Specifications
Attachment 6	Pricing and Payment

**Item 14 Ownership of IP and licences as between PIRSA and the University**

	Select option that applies pursuant to the IP Protocol	Details of any restrictions on use
Ownership of IP	<p>PIRSA owns 100% of the developed Intellectual Property Rights.</p> <p>As per clause 17.2.1 of the Intellectual Property Protocol (Annexure A) in accordance with clause 17 of the “Intellectual Property” of the Strategic Alliance Agreement.</p>	Intellectual Property Rights in reports and manuals licensed to Infrastructure SA under clause 13.2 of the Funding Agreement.

**Item 15 Grant Funds and Use of Grant Funds**

Total Funding amount is: \$173,633.00 (GST Exclusive)

Specified Personnel may expend the Funds as necessary to support the Research Activity provided that:

- a) Grant Funds are applied only to achieve the approved research objectives of the Grant;
- b) All expenditure is in accordance with the requirements of the Funding Agreement, noting that use of Funding for some purposes is expressly excluded in the Funding Agreement;
- c) Funding approved for specific pieces of Equipment is used for this purpose; and
- d) Funding is not used to provide infrastructure that should be provided by PIRSA.

**Approved Budget (GST Exclusive)**

Year	2023/24	2024/25	Total
Funds to be retained by the University	N/A	N/A	N/A
Funds transferred to PIRSA	\$113,633	\$60,000	\$173,633.00
Funds transferred to University on execution of Deed of Novation	N/A	N/A	N/A
<b>ANNUAL AMOUNT AWARDED</b>	\$113,633	\$60,000	\$173,633.00

*NOTE: Invoices to be raised in accordance with relevant Milestones under the Funding Agreement and will be paid by the University to PIRSA following receipt of funds from the Funding Body. Payments to the University (for the Current Account Balance) will be returned to PIRSA to undertake the research.*

**Item 16 Student Involvement**

Not applicable

**Item 17 Standard Research Terms and Conditions**

The University and PIRSA agree that the terms and conditions contained in this Research Agreement Schedule and the Standard Research Terms and Conditions shall apply to the Research Activity referred to in this document. Item 13 and Item 15 and any Special Conditions will take priority over the Standard Research Terms and Conditions to the extent of any inconsistency.

**Item 18 Research Support Funding**


In accordance with clause 9.4 of the Strategic Alliance Agreement between PIRSA and the University, the University and PIRSA may agree to vary down the level of Research Support Funding for a particular Research Agreement. This may occur where some or all of the costs associated with hosting the Research Agreement reside with the University.

Not applicable.

**Item 19 Special Conditions**

1. PIRSA must ensure that the Research Activity is delivered by the Named Persons in the Funding Agreement – Attachment 1 – Agreement Details – Item 8. PIRSA may substitute a Named Person with the University's consent.
2. PIRSA will grant to the University, a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement, with a right to sublicense to the Infrastructure SA and the Crown in right of the State of South Australia, so that the University can comply with its obligation in the Funding Agreement – Attachment 2 – Standard Terms and Conditions - Clause 13.2.
3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any sub-contract or other arrangement with that other party. For the avoidance of doubt, this will extend to subcontracting the additional subcontractors listed in the Funding Agreement.
4. PIRSA warrants that it is entitled to the benefits of the South Australian Government insurance and risk management arrangements administered by SAicorp in respect of this Agreement. For the purposes of this clause 'SAicorp' means the Insurance Division of the South Australian Government Financing Authority established pursuant to the Government Financing Authority Act 1982 (SA).

**Signed as an Agreement.**

For and on behalf of <b>FLINDERS UNIVERSITY</b> by:  	This Agreement is executed for and on behalf of the <b>MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT</b> by a person duly authorised in that regard in the presence of:  
Signature of Authorised Person	Signature of Authorised Person Print Name: Dr Mike Steer
  Simon Brennan	
Name of authorised signatory	Signature of Witness Print Name: Lisa Wright
Date: 04/10/2023	Date: 09/10/2023



**STANDARD RESEARCH AGREEMENT TERMS AND CONDITIONS  
WITH APPROVED AFFILIATED ORGANISATIONS**

These Standard Research Agreement Terms and Conditions shall apply to all Research Activities for which the University and PIRSA have completed a Research Agreement Schedule.

**1. DEFINITIONS**

**1.1. In this Research Agreement:**

**Affiliate Agreement** means the agreement titled 'Affiliate Agreement' entered into between the Flinders University, and PIRSA, under which this Research Agreement is established.

**Background Intellectual Property** (Background IP) means any Intellectual Property which pre-exists the Research Activity or is independently developed outside of the Research Activity that is owned or controlled by a Party and which that Party chooses at its sole discretion to make available for the purpose of carrying out the Research Activity.

**Developed Intellectual Property** (Developed IP) means any Intellectual Property that is developed or created by either the University or PIRSA in the course of a Research Activity.

**Effective Date** means the date referred to in Item 3 of the Research Agreement Schedule which the Parties have agreed that this Research Agreement is deemed to have come into force.

**Ethics Committee** means an ethics or biosafety committee which has been established by any of the Parties or the Federal or a State Government, and has been properly constituted according to national and state guidelines and/or legislation to approve research activities involving human experimentation, animals, quarantine materials or dealings with genetically modified organisms.

**Grant Funds** means the monies provided by a Funding Body under a Grant.

**Funding Agreement** means the agreement forming Annexure B to this Research Agreement.

**Funding Body** means the specified funding organisation providing the Grant Funds for a Grant.

**Intellectual Property** (IP) means all rights conferred under statute, common law and in equity in relation to copyright, inventions, registered and unregistered trademarks, trade secrets and know how, design, patents, proprietary rights granted under the Plant Breeder's Rights Act 1994, semiconductor or circuit board layout rights, trade, business or company names, Confidential information or other proprietary rights, or any rights to registration of such rights, whether created before or after the date of this Agreement and whether created in Australia or elsewhere and all other intellectual property as defined in Article 2 of the Conventions establishing the World Intellectual Property Organisation of July 1967.

**Intellectual Property Protocol** means the Intellectual Property protocol referred to in clause 5 hereof and set out in Annexure A, and includes any additional or substituted

Intellectual Property protocol which may be agreed in writing between the Parties from time to time.

**Research Agreement** means the Research Agreement Schedule and the Standard Research Agreement Terms and Conditions and all its schedules and annexures which together comprise this Research Agreement.

**Research Activity** means the research which is the subject of a Research Agreement Schedule under the Strategic Alliance Agreement.

**Report** means a document, correspondence or report in any form whatsoever that is necessary or desirable to ensure compliance with the Funding Agreement.

**Research Agreement Schedule** shall mean the completed pro-forma schedule for the specific Research Activity in the form set out in Annexure A of the Strategic Alliance Agreement.

**Research Code** has the meaning ascribed to it in the Strategic Alliance Agreement.

**Specified Personnel** means those persons specified in Item 5 of the Schedule.

**Strategic Alliance Agreement** means the Agreement of that same name entered into between the Parties pursuant to and at the same time as the Affiliate Agreement.

**Term** shall mean the period of the Funding Agreement, or such other period in the event this Research Agreement is terminated earlier under Clause 10.

**University Affiliate** has the meaning ascribed to it in the Strategic Alliance Agreement.

- 1.2. In this Research Agreement:
    - 1.2.1. all references to clauses are references to clauses in this Research Agreement;
    - 1.2.2. expressions cognate with expressions defined in clause 1.1 will be construed accordingly; and
    - 1.2.3. the meaning of capitalised words not specifically defined in this Research Agreement shall take their meaning from the Affiliate Agreement and Strategic Alliance Agreement.
  - 1.3. This Research Agreement shall be construed and read in conjunction with the terms and conditions contained in the Affiliate and Strategic Alliance Agreements entered into between the University and PIRSA which are incorporated into this Research Agreement and the Funding Agreement.
  - 1.4. In the event of conflict or inconsistency between the terms of the Funding Agreement, the Affiliate Agreement, the Strategic Alliance Agreement, a Research Agreement and any annexure of a Research Agreement (and in this case it is in the sequence the annexure appears), the conflict or inconsistency will be resolved in the order that the documents are written above in this clause.
2. **PERFORMANCE OF RESEARCH ACTIVITY**

- 2.1. The Parties agree to complete the roles, and responsibilities, and to provide the contribution to the Research Activities as described in the Research Agreement Schedule for this Research Activity.
- 2.2. PIRSA understands that the University will receive, account for and expend the Grant Funds and will direct the use of the Grant Funds in accordance with the Funding Agreement.
- 2.3. The University will transfer Grant Funds to PIRSA, and PIRSA, must:-
  - 2.3.1. receive and manage those Grant Funds as a subcontractor for the University, in accordance with the budget set out in the Funding Agreement and the University's obligations under the Funding Agreement;
  - 2.3.2. comply with the terms of the Funding Agreement as directed by the University and not cause the University to be in breach of the Funding Agreement;
  - 2.3.3. comply with the terms and conditions set out in this Research Agreement; and
  - 2.3.4. ensure that its University Affiliate(s) and employees who have access to the Grant Funds comply with the requirements set out in the Funding Agreement.
- 2.4. PIRSA will acquit to the University the Grant Funds it receives pursuant to clause 2.3.
- 2.5. In the event that a Funding Body requires any financial adjustments to be made pursuant to the Funding Agreement, the University will advise PIRSA which will comply with any such requirement for financial adjustment and continue to comply with the Funding Agreement.

### **3. ETHICAL STANDARDS**

- 3.1. The Parties will maintain a close coordination in relation to ethical standards to ensure compliance with the guidelines of the Australian Health Ethics Committee and other applicable health ethics directives or guidelines.
- 3.2. For the purposes of a Research Activity, a Party will not engage in any activity that involves human experimentation, and will not permit any of its employees, students and other persons in any way associated with or sponsored by that Party to do so, unless the activity has been approved in advance by an appropriate Ethics Committee.
- 3.3. The University will accept protocol approvals granted by Ethics Committees that the University has deemed appropriate.
- 3.4. With respect to a Research Activity requiring animal ethics approval, each Party may require approval by its respective Ethics Committee.
- 3.5. Each Party acknowledges that Personnel involved in a Research Activity are to comply with the Research Code.
- 3.6. PIRSA represents that to its own knowledge that there is no conflict of interest that currently exists in relation to it or its Specified Personnel performing the Research Activities. In the event that a conflict of interest were to arise PIRSA shall immediately notify the University in writing of such conflict of interest.

#### **4. INSURANCE AND INDEMNITIES**

- 4.1. Except for the insurance cover the University meets for its University Affiliates whilst they are undertaking Academic Duties as a University Affiliate for the University, PIRSA will ensure it has insurance required and will be responsible for all liability coverage, costs, damage, loss or liability and other matters relating to the University Affiliate (unless otherwise agreed by separate agreement), PIRSA's other employees, subcontractors or consultants.
- 4.2. Each Party (the indemnitor) hereby indemnifies and agrees to keep indemnified the other Party and its respective directors, officers, employees, agents and representatives (the indemnitee) from and against any and all liability, loss, damage, cost or expense (including legal fees based on a party/party basis, but excluding any loss of profits, special, indirect or consequential losses or punitive or exemplary damages) howsoever arising that the indemnitee may suffer, incur or sustain as a result of any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitor or any of its directors, officers, employees, agents and representatives in its conduct of this Research Agreement, provided that the indemnity given by the indemnitor will be reduced proportionately to the extent that any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitee may have contributed to any such liability, loss, damage, cost or expense.

#### **5. INTELLECTUAL PROPERTY**

- 5.1. The Parties agree that the ownership of Background IP contributed by a Party for the Research Activity is not affected by this Agreement and that all Background IP remains the property of the Party that makes it available for the purpose of carrying out the Research Activity. The Party providing particular Background IP may use that Background IP, or licence others to use that Background IP, for any purpose.
- 5.2. The Parties acknowledge that ownership of Developed IP will vest in accordance with the Funding Agreement and agree that as between them, they will deal with the Developed Intellectual Property in accordance with the guiding principles contained in the Strategic Alliance Agreement and with the Research Agreement Schedule and Intellectual Property Protocol in Annexure A to this Research Agreement if required.
- 5.3. If a student enrolled with the University is involved in the Research Activity involving PIRSA, the University will enter into a Student IP Agreement with the student and the Parties will deal with the Research Activity and the Developed Intellectual Property that the student may create from the Research Activity as set out in the Student IP Agreement.
- 5.4. Subject to any specific requirements set out in Schedule 2, PIRSA warrants that in undertaking a Research Activity it will ensure that:
  - 5.4.1. no infringement of the Intellectual Property rights of any third party occurs;
  - 5.4.2. no Intellectual Property rights of any third party are used or incorporated in the material and the reports provided to the University for compliance with a Funding Agreement without the third party's prior written consent; and
  - 5.4.3. it will comply with the provisions set out in the Funding Agreement which relate to Developed Intellectual Property and provide the warranties and

representations as if it were the University as set out in a Research Agreement Schedule and relevant clauses of the Funding Agreement.

## **6. PUBLICATIONS**

- 6.1. Any publications to be authored in respect of research undertaken pursuant to this Research Agreement will be in accordance with the relevant provisions of the Funding Agreement identified in the Research Agreement Schedule, the Student IP Agreement and/or the separate project agreement entered between the Parties. But in any event authorship of publications will be in accordance with the guidelines set out in the Research Code.
- 6.2. The Parties agree that where a University Affiliate of the University is an author in any publication that results from a Research Activity, whether as the sole author or a joint author, the 'by-lines' in the publication will acknowledge both the University and PIRSA's role in undertaking the Research Activity.
- 6.3. Any advertising material or other written materials produced by either Party that relate to the Research Activity shall acknowledge the Funding Body as required by the Funding Agreement. The Parties agree to comply with the Funding Body's direction in relation to the use of their logo.

## **7. SUBCONTRACTING**

- 7.1. Except where the subcontractor has been approved in the Funding Agreement, the University will not, without prior written approval of PIRSA, subcontract out any work or any part thereof relating to this Research Agreement or any Funding Agreement.
- 7.2. PIRSA may subcontract any work or part thereof relating to this Research Agreement or any Funding Agreement to the persons or entities listed in Item 11 of the Research Agreement Schedule.
- 7.3. Where a Research Activity involves participation by a party other than PIRSA, PIRSA will enter into and will be responsible for any subcontract or other arrangement with that other party.

## **8. CONFIDENTIALITY**

- 8.1. Each Party acknowledges that all Confidential Information disclosed by one Party to the other is confidential and agrees that the other Party's Confidential Information must be kept confidential and must not be disclosed to any third party without the prior written consent of the disclosing Party except if:
  - 8.1.1. disclosed to the receiving party's contractors, or agents or the Funding Body as necessary for the performance of this Agreement provided that such contractors, or agents or Funding Body are instructed as to the requirement to keep the information confidential;
  - 8.1.2. disclosed to the receiving party's solicitors, auditors, insurers or accountants provided that such persons are instructed as to the requirement to keep the information confidential;
  - 8.1.3. disclosed pursuant to the requirement of any law or regulation or the order of any court of competent jurisdiction, and the receiving party has informed the

disclosing party, within a reasonable time after being required to make the disclosure, of the requirement to make the disclosure and the information required to be disclosed; or

- 8.1.4. approved for release in writing by an authorised representative of the disclosing party.

- 8.2 For the avoidance of doubt, this Agreement may be disclosed by the Parties in accordance with the *Freedom of Information Act 1991*.

- 8.3 The Minister may disclose Confidential Information:

8.3.1 to Parliament, the Governor, Cabinet or a Parliamentary or Cabinet committee or subcommittee; and

8.3.2 to an agency, authority, instrumentality Minister or Officer to the State of South Australia to whom it is customary for the Minister of Primary Industries and Regional Development to disclose information such as the Confidential Information for the purpose of undertaking their Ministerial duties (whether or not the Minister is legally obliged to do so);

provided that the recipient is informed of the confidential nature of the Confidential Information and the requirement to keep it confidential.

## **9. RELATIONSHIP BETWEEN THE PARTIES**

- 9.1. PIRSA agrees to undertake the Research Activity for the University set out in this Research Agreement:

9.1.1. neither Party has any authority or power to act for, or to assume any responsibility, liability or obligation on behalf of the other Party, or to bind the other Party in any manner whatsoever;

9.1.2. the Parties are independent entities and their relationship for the purposes of this Research Agreement is one of collaborative venturers and is limited to carrying out the activities in pursuit of the objectives set out in this Research Agreement; and

9.1.3. the obligations and liabilities of the Parties are several and are neither joint, nor joint and several.

## **10. TERMINATION**

- 10.1. This Research Agreement or any part thereof may be terminated by either Party by providing the other Party with thirty (30) days' written notice unless otherwise required under a Funding Agreement.

- 10.2. This Research Agreement will terminate upon termination of the Funding Agreement by the Funding Body.

- 10.3. The University must notify PIRSA in writing within 5 days of the termination of the Funding Agreement.

10.4. If this Research Agreement is terminated in accordance with this Clause 10 then:

10.4.1. it will be without prejudice to the continuing enforceability of any rights or obligations of the Parties accrued at the time of termination; and

10.4.2. the Parties will consult in good faith as to the best way to deal with and manage any Research Activity that is not finalised at the date of termination, and will reach a fair and equitable agreement regarding the Research Activity so that the University is not in breach of the Funding Agreement.

## **11. SEVERANCE**

11.1. Any provisions of this Research Agreement held to be illegal or otherwise in conflict with any applicable laws, statutes or regulations will be deemed to be severed from the remainder of the Research Agreement and the validity of the remaining provisions will not be affected.

## **12. GOVERNING LAW**

12.1. This Research Agreement is governed by the law in force in South Australia. Each Party submits to the non-exclusive jurisdiction of the courts of South Australia.

## **13. ENTIRE AGREEMENT**

13.1. This Research Agreement shall constitute the entire agreement between the Parties in relation to the subject matter referred to herein and supersedes all previous agreements negotiations or understandings on that subject matter.

## **14. ASSIGNMENT**

14.1. A Party may not assign or novate its rights under this Research Agreement without the express written consent of the other Party and any purported assignment in contravention of this provision is void.

## **15. FURTHER ASSURANCES**

15.1. Each Party will execute and deliver all deeds, documents and instruments to do all acts and things as are necessary to give full effect to all the agreement, arrangements and transactions contemplated by this Research Agreement.

## **16. INDEPENDENT CONTRACTORS**

16.1. Each Party acts under this Research Agreement as an independent contractor.

## **17. NOTICES**

17.1. In any circumstances where pursuant to the terms of this Research Agreement any demand or notice in writing is required to be given it will be sufficient for it to be given by notice in writing signed by the Party giving the notice or for and on behalf of the Party giving the notice by an authorised officer of that Party or by its solicitors and that demand or notice be served upon the Party intended to receive the demand or notice by delivering it at the following relevant address or email address:

17.1.1. If to the University:  
Director, Research Development and Support



Flinders University  
Address: Room B1, Basement Level, Union Building  
Bedford Park SA 5042  
Email: [simon.brennan@flinders.edu.au](mailto:simon.brennan@flinders.edu.au)  
Tel: + 61 8 8429 5074

17.1.2. If to PIRSA:

General Manager  
Plant Research Centre  
Waite Research Precinct  
Gate 2b, Hartley Grove  
Urrbrae, SA, 5064  
Email: [hazel.cochrane2@sa.gov.au](mailto:hazel.cochrane2@sa.gov.au)  
Tel: +61 8 8429 0259

- 17.2. Any communication or document received on a non-working day in the place of receipt of a Party after 5:00 pm (local time) on a working day will be effective at the commencement of business on the next working day in the place of receipt.
- 17.3. A Party may vary its address for service for the purpose of this clause by notifying the other Party in writing.

**18. WAIVER**

- 18.1. No waiver of any right under this Research Agreement or forbearance or delay in the enforcement or any other indulgence, including but not limited to an indulgence of time granted by one Party to the other, shall affect the strict rights of that Party under this Research Agreement. All the rights and powers of that Party shall remain in full force and effect notwithstanding any such waiver, forbearance, delay or other indulgence on the part of that Party. Any variation or waiver agreed between the Parties shall be ineffective unless in writing and agreed by each Party.

**19. COUNTERPARTS**

- 19.1. This document may be executed in any number of counterparts, and by the Parties in separate counterparts, but is not effective until each Party has executed at least one counterpart. Each counterpart of this document constitutes an original of this document but the counterparts together constitute one and the same instrument.

**20. DELAY**

- 20.1. No Party will be responsible for any failure or delay in carrying out any of the obligations on its part to be performed or observed under this Research Agreement due to circumstances beyond its control, but will use its best endeavours to remove the cause of such circumstances as expeditiously as possible.

**21. GST**

- 21.1. If any Supply made under this Research Agreement is a Taxable Supply then:
- 21.1.1. a tax invoice in an appropriate form shall be rendered by the supplier of the Taxable Supply; and
- 21.1.2. in addition to any consideration payable under this Research Agreement, the supplier of the Taxable Supply shall be entitled to recover from the recipient of the Taxable Supply an additional amount on account of GST, such amount to

be equal to the amount of the GST liability of the supplier in respect of the Taxable Supply calculated in accordance with the GST Act.

- 21.2. For the purposes of this clause each of 'GST', 'GST Act', 'Recipient', 'Supply', 'Taxable Supply' and 'Tax Invoice' have the same meaning as those terms have in the *A New Tax System (Good and Services Tax) Act 1999*.

## **22. DISPUTE RESOLUTION**

- 22.1. The Parties will without delay and in good faith attempt to resolve any dispute or difference which may arise between them in relation to this Agreement in accordance with the succeeding provisions of this clause.

- 22.2. Any dispute or difference arising between the Parties will be resolved in accordance with the following procedure:

22.2.1. the Party claiming that a dispute exists will notify the other Party that a dispute exists;

22.2.2. a meeting will be convened forthwith between senior representatives of the Parties being the Chief Executive Officer, Vice-Chancellor & President, Chairman or equivalent positions (or nominees) for resolution of the dispute or difference; and

22.2.3. if the dispute or difference is not resolved by the persons referred to in clause 22.2.2 above within such time as they agree but not being more than sixty (60) days then the Parties will attempt to resolve the matter by mediation or other alternative dispute resolution mechanism in accordance with the rules of such alternative dispute resolution mechanism and the Parties will each contribute equally to the cost of the mediator employed or other person assisting the Parties in any other alternative dispute resolution mechanism they use.

- 22.3. Each Party acknowledges that compliance with these provisions is a condition precedent to any entitlement to a claim, relief or remedy, whether by way of proceedings in a court of competent jurisdiction pursuant to this Research Agreement or otherwise in respect of such dispute or difference. However this will not preclude a Party from seeking any urgent interlocutory relief in a court of competent jurisdiction.

## **23. SURVIVAL**

- 23.1. Clauses 1 (Definitions), 4.2 (Indemnities), 5 (Intellectual Property), 8 (Confidentiality), 12 (Governing Law), 22 (Dispute Resolution) and this Clause 23 (Survival) will survive the expiry or any termination of this Research Agreement to the extent necessary to interpret and give effect to the rights and obligations of the Parties.

## ANNEXURE A – INTELLECTUAL PROPERTY PROTOCOL

As per clause 17 — “Intellectual Property” of the Strategic Alliance Agreement executed between Flinders University and the Minister for Primary Industries and Regional Development acting through the Department of Primary Industries and Regions (PIRSA);

### 17. INTELLECTUAL PROPERTY

- 17.1. The Parties acknowledge that each has its own Intellectual Property policy and clauses within its employment contracts relating to the ownership and use of Intellectual Property developed by each Party's employees.
- 17.2. Intellectual Property developed by University Affiliates in the course of Research Activities will be owned in accordance with the terms and conditions specified in the Research Agreement, having consideration to the guiding principles below:
  - 17.2.1. Where the Chief Investigator of a Grant application is an employee of PIRSA, and where there is no collaborative involvement with the University in a relevant Research Activity under the terms of a Funding Agreement, then subject to the provisions of the Funding Agreement PIRSA shall have all rights, title and interest in the ownership of any and all Intellectual Property that may arise from the Research Activity, and PIRSA shall have sole responsibility for the management of the same in accordance with PIRSA's policies and procedures relating to Intellectual Property .
  - 17.2.2. Where a Research Activity involves collaboration by researchers from the University and PIRSA in the undertaking of a Research Activity, the Parties agree that:
    - 17.2.2.1. ownership of the Intellectual Property will be determined in accordance with the relevant Research Agreement; and
    - 17.2.2.2. Intellectual Property will generally be owned in accordance with the respective financial and in-kind contributions to the relevant Research Activity; and
    - 17.2.2.3. each of them or their appointed representatives or agents shall negotiate in good faith an agreement to articulate any modifications to the rights of ownership and responsibilities for management of such Intellectual Property.
  - 17.2.3. Where the Funding Body owns 100% of the developed Intellectual Property under the Funding Agreement PIRSA will:
    - 17.2.3.1. assign all its right title and interest in the developed Intellectual Property to the University so that the University may deliver the rights to the Funding Body;
    - 17.2.3.2. PIRSA will sign any documents and require its personnel to sign any documents to perfect title to the developed Intellectual Property in the University;
    - 17.2.3.3. Where applicable, the Parties will share any commercial returns received by the University from commercialisation of the developed Intellectual Property based on the parties' respective intellectual, cash and in-kind contributions to the creation of the developed Intellectual Property.

- 17.3. Unless otherwise agreed in writing between PIRSA and the University, any Intellectual Property created by University Affiliates in teaching and educational materials in the course of undertaking Academic Duties shall be dealt with in accordance with the University's policies or the agreement between the University and a University Affiliate.
- 17.4. PIRSA acknowledges and agrees that save as may otherwise be specified by separate agreement (including in a Research Agreement), students of the University will be licensed to use the Intellectual Property in all educational and assessment materials produced by them as part of Research Activity, including for the avoidance of doubt in their thesis subject to any reasonable confidentiality obligation.

**ANNEXURE B – FUNDING AGREEMENT**

Standard Good and Services Agreement

Northern Water Supply Project - WP12 Marine Environmental Studies –  
Oceanographic Far Field Modelling No.B1481055 WP12.1, executed 20  
July 2023.

STANDARD GOODS AND SERVICES AGREEMENT

Northern Water Supply Project

WP12 Marine Environmental Studies – Oceanographic Far Field Modelling

B1481055 – WP12.1



Government  
of South Australia

**AGREEMENT** made on 20 of July 2023

**BETWEEN:**

**THE GOVERNMENT PARTY NAMED IN ITEM 1 OF ATTACHMENT 1** ("the Government Party")

**AND:**

**THE PARTY NAMED IN ITEM 2 OF ATTACHMENT 1** ("the Supplier")

**IT IS AGREED** that this Execution Page, the Agreement Details (Attachment 1), the Terms and Conditions (Attachment 2), the Glossary of Defined Terms (Attachment 3), the Special Conditions (Attachment 4), the Specifications (Attachment 5) and the Pricing and Payment (Attachment 6), will together comprise the Agreement between the Parties for the provision of the Goods and/or Services specified in Attachment 1.

**EXECUTED AS AN AGREEMENT**

**SIGNED** by a duly authorised officer for and on )  
behalf of **THE GOVERNMENT PARTY NAMED** )  
**IN ITEM 1 OF ATTACHMENT 1** in the presence )  
of: )

A handwritten signature in black ink, appearing to be "Tara Mayne".

Witness signature  
Tara Mayne

Witness name

A handwritten signature in blue ink, appearing to be "Jeremy Conway".

Authorised officer signature  
Jeremy Conway, Chief Executive, Infrastructure SA  
Authorised officer name

**EXECUTED** by **THE PARTY NAMED IN ITEM 2**

**OF ATTACHMENT 1** by a duly authorised officer

in accordance with section 126 of the )  
*Corporations Act 2001* (Cth): )

A handwritten signature in black ink, appearing to be "Julia Parker".

Witness signature

Julia Parker

Witness name

A handwritten signature in black ink, appearing to be "Simon Brennan".

Authorised officer signature

Simon Brennan

Authorised officer name

## Attachment 1 - Agreement Details

Item 1	Government Party	<b>INFRASTRUCTURE SA</b> ABN 16 372 487 442 Level 15 Wakefield House 30 Wakefield St Adelaide, SA, 5000
Item 2	Supplier	<b>Flinders University</b> ABN 65 542 596 200 Sturt Rd Bedford Park, South Australia, 5042
Item 3	Commencement Date	The Date of the Execution of this Agreement
Item 4	Expiry Date	1 January 2025 or when Services are completed.
Item 5	Extension Period	Not applicable
Item 6	Supplier's ABN	65 542 596 200 Registered for GST: Yes
Item 7	Contract Managers	<b>Government Party:</b> Michael Morgan Project Director, Northern Water Supply Project Level 4 Wakefield House, 30 Wakefield Street, Adelaide SA 5000  <b>Supplier:</b> Erin Plews, Research Support Officer Flinders University, Sturt Road, Bedford Park, South Australia 5042 Ph: 8201 5962 Email: <a href="mailto:pirsa.partnership@flinders.edu.au">pirsa.partnership@flinders.edu.au</a>
Item 8	Named Persons	<ul style="list-style-type: none"> <li>Mark Doubell: Affiliate A/Prof, Flinders University &amp; Oceanography sub-program leader, SARDI</li> <li>Charles James: Affiliate Senior Lecturer, Flinders University &amp; Ocean Modeller, SARDI</li> </ul>
Item 9	Details of Services	Oceanographic Far Field Modelling for the Northern Water Supply Project, as detailed in <b>Attachment 5 – Specification</b>
Item 10	Reports and Manuals	as detailed in <b>Attachment 5 – Specification</b>
Item 11	Milestone Dates	As detailed in <b>Attachment 6 – Pricing and Payment</b>
Item 12	Price and Payment (including address for invoices)	\$190,996.30 (GST Inclusive) In accordance with <b>Attachment 6 – Pricing and Payment</b> .



OFFICIAL: Sensitive

<b>Item 13</b>	<b>Insurances</b>	
	Public Liability Insurance	Not less than \$2,000,000
	Professional Indemnity Insurance	Not less than \$2,000,000
<b>Item 14</b>	<b>Liability Limit</b>	1 x the aggregated value of the contract (inc. GST).
<b>Item 15</b>	<b>Other Termination Rights</b>	Not Applicable
<b>Item 16</b>	<b>Approved Subcontractors</b>	MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT (acting through the South Australian Research and Development Institute (SARDI)), a Division of the Department of Primary Industries and Regions (PIRSA) ABN: 53 763 159 658
<b>Item 17</b>	<b>Additional Personnel Checks</b>	Not Applicable
<b>Item 18</b>	<b>Notice Period for Termination for Convenience</b>	Not Applicable

## Attachment 2 - Standard Terms & Conditions

### AGREED TERMS

#### 1. CONTRACT LENGTH

- 1.1 This Agreement commences on the Commencement Date and continues until the Expiry Date, unless terminated earlier or extended under clause 1.2.
- 1.2 This Agreement may be extended by the Government Party for the Extension Period by giving reasonable notice prior to the Expiry Date.

#### 2. CONTRACT MANAGERS

The persons named in Attachment 1 as the Contract Managers are the first point of contact between the Parties and are responsible for overseeing the effective administration of the Agreement including variations and extensions.

#### 3. SUPPLY OF GOODS (IF APPLICABLE)

- 3.1 If Goods are being supplied under this Agreement then the Supplier must:
- (a) supply the Goods in accordance with this Agreement;
  - (b) sell the Goods without encumbrance;
  - (c) deliver the Goods to the Delivery Point on or before the Delivery Date;
  - (d) comply with the Government Party's reasonable directions and delivery instructions;
  - (e) if requested by the Government Party, provide the Government Party with material safety data sheets with respect to the Goods delivered;
  - (f) provide test evidence for the Goods if required; and
  - (g) if indicated in Attachment 1, install the Goods on or before the Installation Date.
- 3.2 If the Supplier cannot comply with any of its obligations under clause 3.1, the Supplier must notify the Government Party in writing immediately.

#### 4. INSPECTION AND ACCEPTANCE OF GOODS (IF APPLICABLE)

- 4.1 The Government Party may inspect the Goods to determine whether to accept or reject the Goods.
- 4.2 The Government Party must accept the Goods if they conform with the requirements of this Agreement.
- 4.3 Subject to clause 4.4, the Goods are deemed to be accepted either:
- (a) on delivery, if the Government Party notifies the Supplier that it accepts the goods; or
  - (b) if no notice is issued by the Government Party, then 5 Business Days after delivery of the Goods to the Delivery Point.
- 4.4 If the Goods are consumable products and the Goods are found to be defective when first used, then the Government Party may reject the Goods under clause 4.5.
- 4.5 If the Government Party rejects the Goods due to non-conformity with the requirements of this Agreement, then the Government Party must notify the Supplier as soon as possible and require the Supplier at its sole cost, and at the Government Party's election to either:
- (a) resupply the Goods and remove the non-conforming Goods from the Delivery Point; or
  - (b) repair the Goods.
- 4.6 Acceptance of the Goods does not relieve the Supplier of any of its obligations under this Agreement.
- 4.7 The Supplier bears the risk in the Goods until delivery to the Delivery Point. Title in the Goods will pass to the Government Party upon the Government Party's acceptance of the Goods.

#### 5. WARRANTY PERIOD (IF APPLICABLE)

- 5.1 If during the Warranty Period the Goods fail to comply with the warranties in clause 9.1 then the Government Party may in its absolute discretion require that the Supplier at its expense:
- (a) replace the Goods within 10 Business Days of notification by the Government Party (or such other time as is agreed); or

- (b) refund the Price.

#### 6. SUPPLY OF SERVICES (IF APPLICABLE)

- 6.1 If Services are being supplied under this Agreement then the Supplier must ensure that the Supplier's Personnel provide the Services described in Attachment 1 in accordance with the terms and conditions of this Agreement.
- 6.2 Where Attachment 1 specifies Named Persons then the Services must be delivered by those Named Persons.
- A. The Supplier may substitute a Named Person with the consent of the Government Party subject to the Government Party being satisfied as to the expertise, experience and suitability of the substitute.
- 6.3 The Supplier must ensure that Services are delivered:
- (a) to a standard that meets or exceeds the Service Levels;
  - (b) in accordance with the warranties in clause 9.4; and
  - (c) by any Milestone Dates.
- 6.4 The Government Party's remedies for the Supplier's failure to meet a Service Level or for a breach of a warranty, includes resupply of the Services, a reduction of the price, termination, rebates or any other remedy specified in the Special Conditions.

#### 7. REPORTS AND MANUALS (IF APPLICABLE)

The Supplier must provide those reports, manuals or other materials specified in Attachment 1.

#### 8. SERVICE VARIATION (IF APPLICABLE)

- 8.1 If the Government Party wishes to vary the scope of the Services ("Variation"), it must issue a written request to the Supplier and the Supplier must within 5 Business Days (or such other period as agreed) provide a written quote ("Quote") setting out:
- (a) any impacts on the timing of or completion of tasks;
  - (b) the varied price and payment arrangements; and
  - (c) any changes to the terms that apply to the performance of the Services.
- 8.2 The Parties must negotiate in good faith to agree on the price and other terms applicable to the Variation.
- 8.3 If the Parties agree in writing to the terms of the Variation then:
- (a) the Supplier must perform the Services as varied by the Variation;
  - (b) the Government Party must pay the varied price;
  - (c) the terms and conditions of the Agreement are varied by the terms of the Variation.

#### 9. SUPPLIER'S WARRANTIES

- 9.1 If Goods are being supplied under this Agreement then the Supplier warrants that it has good and unencumbered title to the Goods and the Goods:
- (a) conform with any description applied and any sample provided by the Supplier;
  - (b) are new (unless otherwise specified);
  - (c) are free from defects in materials, manufacture and workmanship;
  - (d) conform to any applicable Australian Standards or other standards nominated in this Agreement;
  - (e) conform to the Specifications and any technical Specifications provided by the Supplier;
  - (f) are of merchantable quality;
  - (g) are installed correctly (if the Supplier is responsible for installation);
  - (h) are fit for their intended purpose; and
  - (i) are manufactured and supplied without infringing any person's Intellectual Property Rights.
- 9.2 The Supplier must ensure that the Government Party receives the full benefit of any manufacturer's warranties in respect of the Goods.

- 9.3 During any Warranty Period any defects in the Goods must be rectified at the Supplier's expense.
- 9.4 If Services are being supplied under this Agreement then the Supplier warrants that the Services will:
- (a) comply with the description of the Services in Attachment 1;
  - (b) be provided with due care and skill;
  - (c) be provided in a timely and efficient manner;
  - (d) be provided in accordance with the best practices current in the Supplier's industry;
  - (e) be supplied without infringing any person's Intellectual Property Rights;
  - (f) be performed by the Supplier and/or the Supplier's Personnel; and
  - (g) be supplied in the most cost effective manner consistent with the required level of quality and performance.

#### 10. SUPPLIER'S PERSONNEL

- 10.1 The Supplier, if required by the Government Party, must give its consent to and procure the consent of the Supplier's Personnel, to the conduct of a police check or any Additional Personnel Checks specified in Attachment 1.
- 10.2 If the Government Party gives the Supplier notice in writing requiring those persons to be withdrawn from supplying the Goods or providing the Services, and the Supplier must immediately comply with the notice and provide replacement Personnel acceptable to the Government Party.
- 10.3 The Supplier and the Supplier's Personnel must only use the Government Party's computer systems with the specific authorisation of the Government Party and only in the manner as directed by the Government Party from time to time.
- 10.4 The Government Party reserves the right to refuse entry to any of the Government Party's premises to any of the Supplier's Personnel.

#### 11. PRICE AND PAYMENT

- 11.1 In consideration for the supply of the Goods and/or the Services, the Government Party will pay the Price.
- 11.2 Unless otherwise expressly stated the Price is inclusive of GST.
- 11.3 The Supplier is entitled to invoice the Government Party for payment in respect of the Goods and/or Services, when the Goods have been supplied and accepted under clause 4, and the Services have been supplied in accordance with this Agreement.

#### 12. GST

- 12.1 Subject to clause 12.2 the Supplier represents that:
- (a) the ABN shown in Attachment 1 is the Supplier's ABN; and
  - (b) it is registered under the *A New Tax System (Australian Business Number) Act 1999* (Cth),
- 12.2 If the Supplier is not registered for GST, then GST must not be charged on supplies made under this Agreement.

#### 13. INTELLECTUAL PROPERTY RIGHTS

- 13.1 Nothing in this Agreement affects the ownership of Intellectual Property Rights created before the Commencement Date.
- 13.2 The Supplier grants to the Government Party and the Crown in right of the State of South Australia a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any Intellectual Property Rights in any reports or manuals required to be supplied under this Agreement.

#### 14. INSURANCE

- 14.1 The Supplier must effect and maintain the policies of insurance specified in Attachment 1 for not less than the amounts specified in Attachment 1.
- 14.2 The policies of insurance referred to in clause 14.1 must be held until the expiry of the Agreement.

#### 15. LIABILITY LIMIT

- 15.1 The Supplier's liability to the Government Party under this Agreement is limited to the amount specified in Attachment 1.

#### 16. CONFIDENTIAL INFORMATION

- 16.1 Subject to this clause 16, neither Party may disclose any Confidential Information belonging to the other Party except as genuinely and necessarily required for the purpose of this Agreement.
- 16.2 A Party may disclose Confidential Information belonging to the other Party:
- (a) to an employee, agent or adviser of that Party, on a "need to know" and confidential basis;
  - (b) as required by law or a court order;
  - (c) in accordance with any Parliamentary or constitutional convention;
  - (d) to the Australian Competition and Consumer Commission (ACCC) if the party reasonably suspects, or is notified by the ACCC that it reasonably suspects, that there is Cartel Conduct or unlawful collusion in connection with the supply of Goods or Services under this Agreement; or
  - (e) for the purposes of prosecuting or defending proceedings.
- 16.3 The Parties may mutually agree to disclose Confidential Information.

#### 17. SET-OFF

Any claim the Government Party may have against the Supplier may be set off against monies owed to the Supplier under this Agreement.

#### 18. DISPUTE RESOLUTION

- 18.1 Subject to clause 18.4 a Party may not commence legal proceedings without first referring the dispute to the other Party under this clause.
- 18.2 Either Party may give the other a notice in writing ("**dispute notice**") setting out the details of the dispute.
- 18.3 Within 5 Business Days or such other period as may be agreed by the Parties, representatives must meet and use reasonable endeavours to resolve the dispute.
- 18.4 A Party may seek immediate interlocutory relief or other interim remedy in case of genuine urgency.

#### 19. ENDING THIS CONTRACT

- 19.1 The Government Party may terminate this Agreement immediately upon giving notice in writing to the Supplier if:
- (a) the Government Party reasonably forms the opinion that the Supplier will be unable to perform its obligations under this Agreement;
  - (b) the Supplier is in breach of this Agreement and has not rectified such breach within 10 Business Days of the Government Party giving notice in writing to the Supplier requiring the rectification of such breach;
  - (c) the Government Party becomes aware that the Supplier is in breach of its statutory obligations with respect to its employees;
  - (d) the Supplier fails to comply with a notice issued under clause 10.2; or
  - (e) the Supplier fails to disclose a conflict of interest;
  - (f) any Other Termination Right occurs; or
  - (g) the Supplier suffers or, in the reasonable opinion of the Government Party, is in jeopardy of becoming subject to any form of insolvency administration or bankruptcy.
- 19.2 The Government Party may terminate this Agreement without cause by giving the Supplier the period of notice specified in Attachment 1 ("**Notice Period for Termination for Convenience**").
- 19.3 If the Government Party terminates this Agreement in accordance with clause 19.2:
- (a) the Supplier has no claim against the Government Party arising out of or in relation to such termination other than the right to be paid for Goods accepted and/or Services provided before the effective termination date; and

- (b) the Supplier must comply with all reasonable directions given by the Government Party.
- 19.4 The Supplier may terminate this Agreement immediately upon giving notice in writing to the Government Party if the Government Party is in breach of this Agreement and has not rectified such breach within 14 days of the Supplier giving notice in writing to the Purchaser requiring the rectification of such breach.
- 20. EFFECT OF ENDING THIS CONTRACT**
- 20.1 Any termination of this Agreement by either Party does not affect any accrued right of either Party.
- 20.2 Despite termination or completion of this Agreement, this clause 20 and clauses 9, 13, 14, 15, 16, 17 and those Special Conditions that by their nature remain in force, shall survive.
- 21. SUBCONTRACTING**
- 21.1 With the exception of the Approved Subcontractors described in Attachment 1, the Supplier must not engage any subcontractor without the prior written permission of the Government Party.
- 21.2 The Supplier remains responsible for obligations performed by the Approved Subcontractors to the same extent as if such obligations were performed by the Supplier.
- 22. CONFLICT OF INTEREST**
- 22.1 The Supplier must disclose in writing to the Government Party all actual and potential conflicts of interest that exist, arise or may arise (either for the Supplier or the Supplier's Personnel) in the course of performing its obligations under this Agreement as soon as practical after it becomes aware of that conflict.
- 23. COMPLIANCE WITH LAWS**
- The Supplier must comply with the laws in force in the State of South Australia in performing its obligations under this Agreement.
- 24. GOVERNING LAW AND JURISDICTION**
- 24.1 This Agreement is governed by the laws in the State of South Australia.
- 24.2 The courts of the State of South Australia have exclusive jurisdiction in connection with this Agreement.
- 25. ENTIRE AGREEMENT**
- The Agreement constitutes the entire agreement between the Parties in respect of the matters dealt with in this Agreement and supersedes all prior agreements, understanding and negotiations in respect of the matters dealt with in this Agreement.
- 26. NO ASSIGNMENT**
- 26.1 The Supplier must not assign, encumber or otherwise transfer any of its rights or obligations under this Agreement without the written approval of the Government Party which approval shall not be unreasonably withheld.
- 26.2 Subject to any contrary legislative intention, the Parties agree that if there is any Machinery of Government Change, this Agreement is deemed to refer to the new entity succeeding or replacing the Government Party and all of the Government Party's rights and obligations under this Agreement will continue and will become rights and obligations of that new entity.
- 27. MODIFICATION**
- No addition to or modification of any provision of this Agreement will be binding upon the Parties unless made by written instrument signed by the Parties.

- 28. SEVERANCE**
- 28.1 Each word, phrase, sentence, paragraph and clause of this Agreement is severable.
- 28.2 Severance of any part of this Agreement will not affect any other part of this Agreement.
- 29. COUNTERPARTS**
- This Agreement may be executed in any number of counterparts each of which is taken to be an original. All of those counterparts taken together constitute one (1) instrument. An executed counterpart may be delivered by email.
- 30. WORK HEALTH & SAFETY**
- 30.1 The Supplier must comply with the *Work Health and Safety Act 2012* (SA) at all times, regardless of whether the Government Party issues direction in that regard or not.
- 30.2 If all or part of the work under this Agreement is to be provided on the premises of the Government Party and under the direction of the Government Party, the Supplier must comply with the Government Party's work health and safety policies, procedures and instructions. If the Supplier becomes aware of any potentially hazardous situation on the Government Party's premises, the Supplier must immediately bring it to the Government Party's attention.
- 31. ACTING ETHICALLY**
- The Supplier must conduct itself in a manner that does not invite, directly or indirectly, the Government Party's officers, employees or agents or any public sector employee (as defined in the *Public Sector Act 2009* (SA)) to behave unethically, to prefer private interests over the Government Party's interests or to otherwise contravene the Code of Ethics for the South Australian Public Sector.
- 32. INTERPRETATION**
- 32.1 Defined terms are set out in the Glossary of Defined Terms in Attachment 3.
- 32.2 In resolving inconsistencies in this Agreement, the documents have the following order of priority:
- (a) Special Conditions (Attachment 4);
  - (b) Standard Terms and Conditions (Attachment 2); and
  - (c) the other Attachments.
- 32.3 In this Agreement (unless the context requires otherwise):
- (a) a reference to any legislation includes:
    - (i) all legislation, regulations and other forms of statutory instrument issued under that legislation; and
    - (ii) any modification, consolidation, amendment, re-enactment or substitution of that legislation;
  - (b) a word in the singular includes the plural and a word in the plural includes the singular;
  - (c) a reference to two or more persons is a reference to those persons jointly and severally;
  - (d) a reference to dollars is to Australian dollars;
  - (e) a reference to a Party includes that party's administrators, successors and permitted assigns.
- 33. SPECIAL CONDITIONS**
- The special conditions (if any) form part of this Agreement and to the extent of any inconsistency, take precedence over the other terms of this Agreement.

## Attachment 3 - Glossary of Defined Terms

**NOTE: Not all terms may be required for a particular procurement**

In this Agreement:

- (a) **"Acceptance Date"** means the date that the Goods are accepted by the Government Party;
- (b) **"Approved Subcontractors"** means those subcontractors specified in Attachment 1;
- (c) **"Business Day"** means any day that is not a Saturday or Sunday or a public holiday in South Australia;
- (d) **"Cartel Conduct"** means conduct by two or more parties who are competitors (or would be but for the conduct) who enter into a contract, arrangement or understanding that involves price fixing, output restrictions, allocating customers, suppliers or territories, or bid-rigging, as defined in s44ZZRD of the *Competition and Consumer Act 2010* (Cth);
- (e) **"Code of Ethics for the South Australian Public Sector"** is the code of ethics for the purposes of the *Public Sector Act 2009* (SA);
- (f) **"Confidential Information"** means information which is identified either as confidential information (if disclosed by the Government Party) or proprietary information (if disclosed by the Supplier), but does not include this Agreement;
- (g) **"Consultancy Services"** means services provided by Consultants;
- (h) **"Consultant"** has the same meaning as in DPC027 *Disclosure of Government Contracts* and means a person or entity that is engaged by a public authority for a specified period to carry out a task that requires specialist skills and knowledge not available in the public authority. The objectives of the task will be achieved by the consultant free from direction by the public authority as to the way it is performed and in circumstances in which the engagement of a person under normal circumstances is not a feasible alternative;
- (i) **"Delivery Date"** means the date and time specified in Attachment 1 for delivery of the Goods;
- (j) **"Delivery Point"** means the location(s) specified in Attachment 1, where the Goods and/or Services will be delivered;
- (k) **"Extension Period"** means the period by which the Agreement is extended as specified in Attachment 1;
- (l) **"Goods"** means the goods specified in Attachment 1;
- (m) **"GST"** means the tax imposed by the GST Law;
- (n) **"GST Law"** has the meaning attributed in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth);
- (o) **"Installation Date"** means the date specified in Attachment 1 for the installation of the Goods;
- (p) **"Intellectual Property Rights"** means all intellectual property rights, including but not limited to:
  - (i) patents, copyright, registered designs, trademarks, know-how and any right to have Confidential Information kept confidential; and
  - (ii) any application or right to apply for registration of any of the rights referred to in paragraph (a), but for the avoidance of doubt excludes moral rights and performers' rights;
- (q) **"Machinery of Government Change"** means a change to the structure, function or operations of the South Australian Government or the Government Party as a result of any government reorganisation, restructuring or other organisational or functional change;
- (r) **"Measurement Period"** means the period over which the performance of a Service Level is measured;
- (s) **"Milestone Dates"** means dates by which Services must be delivered as specified in Attachment 1;
- (t) **"Named Persons"** means the persons specified in Attachment 1;
- (u) **"Notice Period for Termination for Convenience"** means the time period specified in Attachment 1;
- (v) **"Other Termination Right"** means the termination rights specified in Attachment 1;
- (w) **"Party"** means a party to this Agreement;
- (x) **"Personal Information"** means information or an opinion, whether true or not, relating to a natural person or the affairs of a natural person whose identity is apparent, or can reasonable be ascertained, from the information or opinion;
- (y) **"Purchase Order"** means an order for Goods and/or Services submitted by the Government Party to the Supplier;
- (z) **"Price"** means the price payable under this Agreement specified in Attachment 1 and includes any price varied under clause 8;
- (aa) **"Service Levels"** means the service levels (if any) specified in the Specifications;
- (bb) **"Services"** means the services specified in Attachment 1;
- (cc) **"Special Conditions"** means the conditions in Attachment 4 and where relevant includes agency specific Special Conditions;
- (dd) **"Specifications"** means the detailed description of the Goods/Services in Attachment 5;
- (ee) **"Supplier Personnel"** means any Approved Subcontractors, employees, agents and any other person employed or engaged by the Supplier to perform this Agreement and includes the Named Persons;
- (ff) **"Term"** means the period commencing on the Commencement and ending on the Expiry Date unless terminated earlier and includes any extension and;
- (gg) **"Warranty Period"** means the period specified in Attachment 1.



## Attachment 4 - Special Conditions

### 34. PURCHASE ORDERS

- 34.1 The Government Party may purchase Goods and Services under this Agreement by issuing a Purchase Order to the Supplier.
- 34.2 The Parties agree that the engagement of the Supplier by the Government Party as a preferred supplier and the offer by the Supplier to supply Goods and Services at the Price and on the terms of the Agreement, is good and sufficient legal consideration.
- 34.3 A Purchase Order must be in writing, be approved by the Government Party, and contain as a minimum:
- (a) Purchase Order Number;
  - (b) Date of Issue;
  - (c) Description of Goods and/or Services;
  - (d) Quantity of Goods (if any);
  - (e) Delivery Point for Goods (if required);
  - (f) Installation Date for Goods (if required);
  - (g) Reports and other materials (if any); and
  - (h) Unit Price and total Price.
- 34.4 The Supplier must supply the Goods and the Services ordered by the Government Party under a Purchase Order in accordance with the terms of this Agreement.
- 34.5 The terms of the Standard Goods and Services Agreement will take priority over any purchase order terms and conditions that may be included with a Purchase Order.

### 35. NO MINIMUM PURCHASE

- 35.1 The Government Party is under no obligation to purchase a minimum quantity of Goods or Services from the Supplier during the Term.

### 36. NON-EXCLUSIVITY

- 36.1 This Agreement is entered into on a non-exclusive basis.
- 36.2 The Government Party may purchase other goods and services similar to the Goods and Services from other providers.

### 37. LIABILITY

- 37.1 Where a scheme approved under the *Professional Standards Act 2004 (SA)* applies, the Consultant's liability to the Government Party for any loss or causes of action arising in relation to the provision of Services is limited in the manner provided by the scheme.

### 38. CONTRACT DISCLOSURE

- 38.1 The Government Party may disclose this Agreement and/or information in relation to this Agreement in either printed or electronic form and either generally to the public or to a particular person as a result of a specific request.
- 38.2 Nothing in this clause derogates from:
- (a) the Supplier's obligations under any provisions of this Agreement; or
  - (b) the provisions of the *Freedom of Information Act 1991 (SA)*.

### 39. PRIVACY

- 39.1 The Supplier must:
- (a) comply with the South Australian Government Information Privacy Principles (a copy of which can be found at <http://www.dpc.sa.gov.au/documents/rendition/B17711#sthash.s76QhRX6.dpuf>) ("IPPs") as if the Supplier were an "agency" for the purposes of the IPPs, in undertaking its obligations under this Agreement including in relation to all Personal Information received, created or held by it for the purposes of this Agreement; and
  - (b) allow the Government Party to undertake, and cooperate with any audit or investigation which the Government Party deems necessary to verify that the Supplier is complying with the IPPs.
- 39.2 The Supplier must promptly notify the Government Party if it fails to comply with this clause or if it becomes aware of any actual or threatened disclosure of or unauthorised access to Personal Information.

### 40. RESPECTFUL BEHAVIOURS

- 40.1 The Supplier acknowledges the Government Party's zero tolerance towards men's violence against women in the workplace and the broader community.
- 40.2 The Supplier agrees that, in performing the Services, the Supplier's Personnel will at all times:
- (a) act in a manner that is non-threatening, courteous and respectful; and
  - (b) comply with any instructions, policies, procedures or guidelines issued by the Government Party regarding acceptable workplace behaviour.
- 40.3 If the Government Party believes that the Supplier's Personnel are failing to comply with the behavioural standards specified in this clause, then the Government Party may in its absolute discretion:
- (a) prohibit access by the relevant Supplier's Personnel to the Government Party's premises; and
  - (b) direct the Supplier to withdraw the relevant Supplier's Personnel from providing the Services.

Attachment 5 - Specifications

## 1. PROJECT DETAIL

### 1.1 Title

**Northern Water Supply Project – WP12 Marine Environmental Studies – Oceanographic Far Field Modelling B1481055 – WP12.1**

### 1.2 Principal Investigator

Name: Mark Doubell  
Position: Affiliate Associate Professor, Flinders University  
Address: PO Box 120  
HENLEY BEACH SA 5022  
Email: mark.doubell@sa.gov.au  
Telephone: 8429 0982 / 0437 369 045

#### 1.2.1 Administration Details

Name: Erin Plews  
Position: Research Support Officer (PIRSA), Flinders University  
Address: Sturt Road  
BEDFORD PARK SA 5042  
Email: pirsapartnership@flinders.edu.au  
Telephone: 08 8201 5962

### 1.3 Timeframe

Commencement Date: Upon Contract Execution  
Completion Date: 01 January 2025 (Modelling to be completed by 01 October 2024)

### 1.4 Summary

Development of a large 100 GL/annum desalination plant is being considered at two sites in Spencer Gulf (Cape Hardy and Mullaquana) as part of the Northern Water Supply Project (NWSP). The Government Party has commissioned the Supplier to undertake oceanographic far-field modelling to support the plant development and approval process.

This project will undertake improvements to the current SARDI 1500 m resolution hydrodynamic model for Spencer Gulf necessary to assess the potential cumulative impacts of current and proposed desalination brine discharges in Spencer Gulf.

To achieve this, oceanographic data collected by the Supplier through the NWSP oceanographic monitoring project and Integrated Marine Observing System (IMOS) will be used to develop, improve and validate interactive a 1km-resolution hydrodynamic model for Spencer Gulf (SGM1000). Long-term (ten-year) model hindcast simulations, with and without current and proposed desalination brine outfalls, will be assessed to understand the long-term dispersal and flushing of brine discharges from Spencer Gulf.



Model results will also be used to support near-field modelling studies needed to: (i) optimise the design of brine diffusers and (ii) particle tracking studies to understand the far-field larval connectivity of two key commercial fisheries species (prawns and snapper) with the proposed desalination intake locations.

## **2. PROJECT DESCRIPTION**

### **2.1 BACKGROUND**

Security of regional water supplies is a key priority for the Northern Water Supply Project. To achieve this a large 100 GL/annum desalination plant is being considered in Spencer Gulf. Due to the reduced flushing Spencer Gulf relative to the high-energy coastlines outside of the gulf, there is uncertainty in the gulfs capacity to adequately disperse the brine discharges from the proposed desalination plant. Considering the commercial and recreational importance of the Spencer Gulfs marine ecosystems for co-located fisheries and aquaculture industries, and the surrounding regional communities (Gillanders et al. 2015, Tanner et al. 2019) there is a need to accurately predict and assess the potential impacts of desalination on the marine environment.

Since 2007 SARDI has led the collection of oceanographic observations in South Australia through the implementation of the national Integrated Marine Observing System (IMOS) and other Service Level Agreement projects (e.g., Aquaculture Environmental Monitoring Program; Tanner et al., 2020). Observations have been used to develop a range of hydrodynamic models which have been used to better understand the circulation, climate and connectivity of the state's shelf, coastal and gulf regions. Model applications have been used to support the ecologically sustainable management and development of Spencer Gulf fisheries and aquaculture sectors (e.g., Middleton et al. 2013, Doubell et al. 2015, McLeay et al. 2016, Tanner et al. 2020, Rogers et al. 2021) as well as understanding the potential impacts of desalination on receiving ecosystems (Doubell and James, 2022, 2023).

In recognition of the Supplier's hydrodynamic modelling and oceanographic expertise, the Government Party has requested the Supplier, on behalf of Flinders University, undertake far-field oceanographic modelling to support the development of a desalination plant in Spencer Gulf. The following project scope details the far-field oceanographic modelling needed to assess the potential impact of desalination outfalls (i.e., brine discharges) and intakes (i.e., larval entrainment) in Spencer Gulf.

### **2.2 NEED**

The project scope outlined below is based on the recommendations for model improvement necessary for more accurately predicting the fate of brine discharges in Spencer Gulf made by Doubell and James (2022). The proposed work builds on the oceanographic observations currently being collected by SARDI through the NWSP oceanographic monitoring project and IMOS.

Observations of temperature, salinity, sea level and ocean currents will be used to refine and validate a 1 km resolution hydrodynamic model for Spencer Gulf (SGM1000). The model domain will be designed to incorporate the annual exchange of the gulf with shelf waters and will incorporate improved bathymetry which has recently been acquired from the Australian Hydrographic Office resolution to better simulate the effect of coastal processes (e.g., coastline morphology, bathymetry) on brine dispersal and flushing from outfalls

The developed models will be used to:

- (i) more accurately predict any long-term increases in salinity associated with desalination brine discharges in Spencer Gulf;
- (ii) support supplementary larval transport studies necessary to understand the far-field connectivity of key species (prawns and snapper) with proposed desalination intake locations; and
- (iii) support near-field hydrodynamic modelling provided by external consultants.

## 2.3 OBJECTIVES

**2.3.1** Using field observations refine the current 1500 m resolution hydrodynamic model for Spencer Gulf and Gulf Saint Vincent (TGM1500) by developing an improved 1 km resolution model for Spencer Gulf (SGM1000).

**2.3.2** Using the model, conduct long-term (5-10 year) hindcast simulations to understand brine dispersion and flushing associated with current and proposed desalination brine discharges, including the 100 GL/annum NSWSP desalination plant proposed for Spencer Gulf (at Cape Hardy or alternative location if need be).

**2.3.3** Using the models (TGM1500 or SGM1000), undertake larval transport modelling studies to assess the level of far-field connectivity of prawn and snapper larvae with proposed desalination intakes.

**2.3.4** Generate model outputs for, and work with, near-field modellers to support brine diffuser design and larval entrainment studies undertaken at smaller spatial scales spanning metres to several kilometres.

## 2.4 METHODS

Field data will be used to develop and validate an improved hydrodynamic model for Spencer Gulf necessary for undertaking long-term simulations of brine dispersal. This includes the development of 1km resolution model of Spencer Gulf (SGM1000) necessary to model the annual exchange between shelf and gulf waters. Improved bathymetry recently sourced from the Australian Hydrographic Office (AHO) will be used to improve the SGM1000 grids over previous models developed by SARDI.

Consistent with previous hydrodynamic models developed by SARDI (McLeay et al. 2016, Tanner et al. 2020, Rogers et al. 2021, Doubell and James, 2022, 2023), the models will be forced with pressure, wind, humidity, heat, and precipitation fluxes from global models provided NCEP Climate Forecast System v2 reanalysis. Lateral boundary conditions and initial fields will be provided by 10km resolution CSIRO's Blue Link Reanalysis 2020 and tidal forcing using the TPOX9 model.

Long-term (five to ten-year) model hindcast simulations with and without desalination brine outfalls will be used to assess the dispersive capacity of the proposed desalination site. Brine discharges from other existing or proposed desalination plants will be included to understand the cumulative impacts of all desalination brine discharges in Spencer Gulf.

Model development and scenarios studies will proceed in the following steps:

1. Develop new model grid for the SGM1000 model using the AHO bathymetry.
2. Define and run preliminary scenario studies for the maximum brine discharge for the two scenarios (or sites) over a 5-year period to provide an initial comparison of the brine dispersion and flushing. Present initial/preliminary model scenario study results.
3. Produce a 10-year (2012-2022) hydrodynamic model hindcast with the SGM1000 model for model validation. Validation incorporating current desalination site discharges will require outfall data to be provided by ISA. Results will be used to compare with the proposed brine discharge scenario model runs. Commence model validation and calibration using IMOS and other available data.
4. Use the 10-year hindcast to conduct an initial scenario study for the maximum brine discharge rate at the preferred proposed outfall location.
5. Use a subsection of the model results to undertake the larval transport studies for the preferred proposed intake location.
6. Complete model validation and development using 12 months of field data from IMOS and NWSP oceanographic monitoring. Complete final brine outfall and larval transport simulations and reporting.

## 2.5 Project Staff

Staff Identified	Position	FTE Commitment
Mark Doubell	Affiliate A/Prof, Flinders University & Oceanography sub-program leader, SARDI (PO303)	0.24
Charles James	Affiliate Senior Lecturer, Flinders University & Ocean Modeller, SARDI (P0303)	0.39
Hugo Bastos de Oliveira	Affiliate Associate Lecturer, Flinders University & Ocean Modeller, SARDI (P0204)	0.1

## 2.6 RISK ASSESSMENT

Issue (Damages)	Cause	Result	Possible Scenario	Maximum Foreseeable Loss - Mitigation
Computing hardware required to run models breakdowns	Desktop computer or PIRSA high-performance-computer (HPC) breakdowns	Delay to project delivery	Desktop computer or server breakdowns	Delay to project delivery. Mitigation: replacement desktop computer or alternative HPC (Flinders Uni or NCI) sourced
Site location or other changes required from engineers to model brine discharges to model are incorrect or keep changing	ISA project requirements change	Delay to project delivery	Brine outfall location keeps being moved	Delay to project delivery. Mitigation: milestone schedule modified

## 3. DELIVERABLES

### 3.1 Key Personnel and Relevant Experience:

#### Principle Investigator

Dr Mark Doubell (Affiliate Associate Professor, Flinders University & Oceanography Sub-program leader, SARDI) to supervise the project including provision of results to SA Water and contribute to the data analysis and project reports.

#### Co-Investigators

Dr Charles James (Affiliate Senior Lecturer, Flinders University & Oceanographic Modeller, SARDI) and Dr Hugo Bastos de Oliveira (Affiliate Senior Lecturer, Flinders University & Oceanographic Modeller SARDI) undertake the oceanographic modelling and validation and contribute to the project reports.

### 3.2 Outcomes:

1. Develop and validate 1 km resolution Spencer Gulf model (SGM1000 model. Produce a 10-year hydrodynamic model hindcast (2012-2022).
2. Use the model to undertake scenario studies of brine discharge for 2 scenarios or outfall locations to understand brine dispersion and flushing, associated salinity increases and to assess the suitability of the gulf to host a large desalination plant.
3. Use the model to support near-field modelling studies to support brine diffuser design
4. Use the model to undertake larval transport and dispersal modelling studies to quantify the potential influence of the region's oceanographic circulation on prawn and snapper larval connectivity with the proposed desalination intake location.
5. Provide detailed milestone and final reports presenting the methods, model development and validation and scenario study results.

### 3.3 Outputs and Extension:

Extension of this work may be required at a future date including:

- i) Ongoing deployment and maintenance of the field monitoring program to improve models.
- ii) Ongoing development of a nested high resolution hydrodynamic models for Spencer gulf within SARDI's exiting operational nowcast/forecast eSA-Marine modelling system.
- iii) Application of SARDI's hydrodynamic models to support plant development and planning including near- to far-field hydrodynamic modelling of brine outfall dispersion, larval tracking studies to assess impact of seawater intake on key species and the downscaling of climate change model predictions to Spencer Gulf.

Provision of the services in 3.3 (i), (ii) & (iii) is not implied in any way and is not covered as a part of this research contract.

## 4.0 Modern Slavery

The Government of South Australia is committed to the elimination of Modern Slavery.

- Guiding Principles on Business and Human Rights means the United Nations' Guiding Principles on Business and Human Rights: Implementing the United Nations "*Protect, Respect and Remedy*" Framework available at [https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr\\_en.pdf](https://www.ohchr.org/documents/publications/guidingprinciplesbusinesshr_en.pdf).
- Modern Slavery has the same meaning as it has in the Modern Slavery Act 2018 (Cth).
- The Supplier must take reasonable steps to identify, assess and address risks of Modern Slavery practices in the operations and supply chains used in the provision of the Goods and/or Services.
- If at any time the Supplier becomes aware of Modern Slavery practices in the operations and supply chains used in the performance of the Contract, the Supplier must as soon as reasonably practicable take all reasonable action to address or remove these practices, including where relevant by addressing any practices of other entities in its supply chains.

## 5. INTELLECTUAL PROPERTY RIGHTS (CLAUSE 13)

In addition to clause 13.1 and 13.2 of the Standard Terms & Conditions, ownership of Intellectual Property Rights as defined under this Agreement will be owned by the Supplier's Approved Subcontractor the Minister for Primary Industries and Regional Development (acting through the South Australian Research and Development Institute (SARDI).

SARDI will retain the sole ownership of Intellectual Property Rights of the hydrodynamic and larval transport models previously developed and applied in this project.

## Attachment 6 – Pricing and Payment

## 1.0 Payment Schedule:

Date of Invoice	Milestone	Payment (\$ Ex GST
On Contract Execution	Commence model development. Provide previous Spencer Gulf 1500m resolution model results to near-field modelers.	13,633.00
1-September-2023	Model grid bathymetry updated. 5- year hindcast with and without brine discharges completed on SGM1000 completed. Preliminary site assessment results provided for up to two scenarios or sites. Observational data for model validation collated and prepared for the period 2012-2022. Model validation commences. Larval tracking intake entrainment studies defined with Industry consultation and commenced (pending Industry consultation).	40,000.00
1-January-2024	Initial 10-year hindcast completed in SGM1000 model for the period 2012- 2022.  Validation against historical IMOS and other available data including the first 3-6 months (Oct 22-Dec 22) of the NWP monitoring data commenced & presented.  Initial results for 10 year hindcast with and without brine discharges presented for the proposed scenarios/sites.  Initial results for larval tracking intake entrainment presented (if required & pending stakeholder engagement outcomes).	40,000.00
15-April-2024	Model validation continued including validation against NWP monitoring including Cape Hardy (winter/spring 2022 observations).  Updated results for 10 year hindcast with and without brine discharges presented for proposed sites/scenarios.  Model validation and refinements continue. Includes feedback from near field modellers on how to improve discharge implementation in our far-field model/s.  Includes feedback from independent review.  Updated results for larval tracking intake entrainment presented (if required).	20,000.00
1-May-2024	Provide project results to support EIS Submission.	Nil
15-July -2024	Model validation continued including validation against NWP Cape Hardy observations (including summer observations from 2023).  Update results for 10 year hindcast with and without brine discharges presented for proposed sites/scenarios (if required).  Model validation and refinements continue. Includes FINAL feedback from independent review.  Updated results for larval tracking intake entrainment presented (if required).	20,000.00

1-September-2024	Draft Final Report including validation against all available data presented	Nil
1-October-2024	Final report completed.	40,000.00
	<b>SUBTOTAL</b>	173,633.00
	<b>GST</b>	17,363.30
	<b>TOTAL COST</b>	190,996.30

## 2.0 Price:

The all-inclusive Fixed Price for this service is \$190,996.30 (GST Inclusive), which shall be invoiced as per **Attachment 6 – Pricing and Payment, 1.0 Payment Schedule**, and **Attachment 6 – Pricing and Payment, 3.0 Invoicing**.

## 3.0 Invoicing:

All invoices should include the following detail in your invoice (1) Header, (2) Body and (3) End:

### (1) Header Information:

Format Example

Attention: GPO Box City/State/Post Code    Infrastructure SA – Department of Premier and Cabinet  
 Attention: Mardi Kalika  
 GPO Box 11027  
 Adelaide SA 5001  
 ABN: 16 372 487 442  
 Email: [APInvoices@sharedservices.sa.gov.au](mailto:APInvoices@sharedservices.sa.gov.au)  
 Contract: B1481055 WP12.1

### (2) Invoice Body

Include project details: Northern Water Supply Project – Oceanographic Far Field Modelling

Include the month/period it relates to

### (3) Invoice end

Ensure the invoice is dated the day it is sent and submit invoices in either the last week of the month or the first week of the next month. Attach relevant supporting information and email to 3 addresses:

- your Project Lead for their approval
- Shared Services e: [APInvoices@sharedservices.sa.gov.au](mailto:APInvoices@sharedservices.sa.gov.au)
- ISA Finance DPC:ISA Finance [ISAFinance@sa.gov.au](mailto:ISAFinance@sa.gov.au)

Ensure your invoice details:

#### a. Total procurement amount

- b. the current invoice amount
- c. remaining balance available

Invoices above the value of the Purchase Order or Contract without prior consultation and approval will be rejected.



CONFIDENTIAL

SARDI



SOUTH AUSTRALIAN  
RESEARCH AND  
DEVELOPMENT  
INSTITUTE



Government  
of South Australia  
Department of Primary  
Industries and Regions



THE UNIVERSITY  
of ADELAIDE

### RESEARCH AGREEMENT SCHEDULE

This Schedule and the terms and conditions attached comprise a binding Research Agreement between the University of Adelaide (**University**) and the Minister for Primary Industries and Regional Development acting through the South Australian Research and Development Institute (**SARDI**) pursuant to the terms and conditions of the Affiliate Agreement executed between the University and SARDI dated 2 October 2018 with respect to the Research Activity identified below.

Item 1	<b>Name of Funding Body and Funding Agreement</b>	Government of South Australia: South Australian Water Corporation ( <b>SA Water</b> ), Simplified Contract Conditions for Services (Contract No. CS9399), dated 7 July 2021, a copy of which is attached as Annexure B ( <b>Funding Agreement</b> ).
Item 2	<b>Title of Research Activity</b>	Oceanographic Modelling and Monitoring Boston Bay
Item 3	<b>Project Start Date</b>	On Execution of this Research Agreement Schedule
Item 4	<b>Project End Date</b>	31 October 2022
Item 5	<b>Researchers involved by institution</b>	<b>Chief Investigator/s:</b> (a) from University of Adelaide: None  (b) from SARDI: Dr Mark Doubell (Affiliate – The University of Adelaide)
		<b>Specified Personnel:</b> (a) from University of Adelaide: None  (b) from SARDI: Dr Mark Doubell (Affiliate – The University of Adelaide) Dr Charles James (Affiliate – The University of Adelaide)
		<b>Responsible Officer</b> University Contract Manager: Executive Director, Research Services The University of Adelaide Level 4/Rundle Mall Plaza

		50 Rundle Mall, Adelaide, SA 5000 Phone: 08 8313 5551 Email: <a href="mailto:rbmajorprograms@adelaide.edu.au">rbmajorprograms@adelaide.edu.au</a>
<b>Item 6</b>	<b>Role of researchers in the Research Activity from each institution</b>	The Chief Investigator agrees that the Research Activity will be conducted as outlined in the Funding Agreement Schedule – Item 3 → Details of Services to be provided (including Deliverables) and The University of Adelaide RFQ response dated 30 June 2021.
<b>Item 7</b>	<b>Project Outputs</b>	As detailed in the Funding Agreement Schedule – Item 3 → Details of Services to be provided (including Deliverables)
<b>Item 8</b>	<b>Premises</b>	Research work to be conducted on SARDI premises and Boston Bay.
<b>Item 9</b>	<b>Cash/in-kind Contributions</b>	SARDI:  2021/22 - \$42,167 in-kind (GST Exclusive) Total - \$42,167 in-kind (GST Exclusive)
<b>Item 10</b>	<b>Reports</b>	To be provided in accordance with the Funding Agreement Schedule – Item 3 → Details of Services to be provided (including Deliverables).
<b>Item 11</b>	<b>Approved sub-contractors managed by SARDI</b>	None

**Item 12 Background IP/material contributed to the Research Activity by each institution**

<b>Institution</b>	<b>Background IP</b>	<b>Date made available to project</b>	<b>Limitations/restrictions</b>
<b>SA Water</b>	None		
<b>University</b>	None		
<b>SARDI</b>	Ocean models [South Australian Regional Ocean Model (SAROM), Two Gulfs Model (TGM) and High-Resolution Boston Bay model (HRBBM)]	7 July 2021	N/A

**Item 13 Clauses from Funding Agreement that bind SARDI**

SARDI agrees to comply with the following clauses in the Funding Agreement as if it were the Research Organisation named in the Funding Agreement:

Clause reference	Title of clause
Clause 1	Definitions
Clause 2	Interpretation
Clause 3	Term
Clause 4	Contract Administration
Clause 5	Services
Clause 6	The Deliverables
Clause 7	Warranty
Clause 8	Contractor Personnel
Clause 9	Intellectual Property Rights
Clause 10	Confidential Information
Clause 11	Price and Payment
Clause 12	GST
Clause 13	Not applicable (See Item 19 Special Conditions – No. 7)
Clause 14	Indemnity
Clause 15	Termination
Clause 16	Effect of Expiry or Termination of this Agreement
Clause 17	Subcontracting
Clause 18	Remedies
Clause 19	No Representations
Clause 20	Notices
Clause 21	General
Clause 22	Occupational Health, Safety and Welfare
Clause 23	No Collusive Arrangements
Clause 24	Branding
Clause 25	Contracting and Official Records Standard and Personal Information
Clause 26	Not applicable
Schedule	Schedule

**Item 14 Ownership of IP and licences as between SARDI and the University**

	Select option that applies pursuant to the IP Protocol	Details of any restrictions on use
Ownership of Intellectual Property Rights (including in Deliverables)	SARDI 100%  Option A of the IP Protocol will apply.	Intellectual Property Rights as described in clause 9.2.4 of the Funding Agreement.

**Item 15 Grant Funds and Use of Grant Funds**

Total Funding amount is: \$297,314 (GST Exclusive)

Specified Personnel may expend the Funds as necessary to support the Research Activity provided that:

- a) Grant Funds are applied only to achieve the approved research objectives of the Grant;

- b) All expenditure is in accordance with the requirements of the Funding Agreement, noting that use of Funding for some purposes is expressly excluded in the Funding Agreement;
- c) Funding approved for specific pieces of Equipment is used for this purpose; and
- d) Funding is not used to provide infrastructure that should be provided by SARDI.

**Approved Budget (GST Exclusive):**

Year	Current Account Balance	2021/22	2022/23	Total
Funds to be retained by the University	\$0	\$0	\$0	\$0
Funds transferred to SARDI *	\$0	\$215,485.50	\$81,828.50	\$297,314
Funds transferred to University on execution of Deed of Novation	N/A	N/A	N/A	N/A
<b>ANNUAL AMOUNT AWARDED</b>	\$0	\$215,485.50	\$81,828.50	\$297,314

*NOTE: Invoices to be raised in accordance with relevant Milestones under the Funding Agreement and will be paid by the University to SARDI following receipt of funds from the Funding Body. Payments to the University (for the Current Account Balance) will be returned to SARDI to undertake the research.*

**Item 16 Student Involvement**

None

**Item 17 Standard Research Terms and Conditions**

The University and SARDI agree that the terms and conditions contained in this Research Agreement Schedule and the Standard Research Terms and Conditions shall apply to the Research Activity referred to in this document. Item 13 and Item 15 and any Special Conditions will take priority over the Standard Research Terms and Conditions to the extent of any inconsistency.

**Item 18 Research Support Funding**

In accordance with clause 4.5 of the Affiliate Agreement between SARDI and the University, the University and SARDI may agree to vary down the level of Research Support Funding for a particular Research Agreement. This may occur where some or all of the costs associated with hosting the Research Agreement reside with the University.

Not applicable.

**Item 19 Special Conditions**

1. SARDI will conduct the Research Activity pursuant to and in accordance with the terms and conditions of the Funding Agreement set out above.
2. The University assigns to SARDI any right title and interest it has in the Project Outputs, in accordance with Option A of the IP Protocol of the Affiliate Agreement, attached as **Annexure A**.
3. To enable the University to comply with the Funding Agreement Clause 9.2.5, SARDI will grant to the University, a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt the Intellectual Property Rights described in clause 9.2.4 and Background IP provided by SARDI for the Research Activity, with the right to sublicense it to the Funding Body.
4. To enable the University to comply with its obligation to the Funding Body under clause 8.2 of the Funding Agreement, where applicable and if required by the Funding Body and/or the University, SARDI must obtain or procure any police checks for Specified Personnel involved in performing the Research Activity.
5. SARDI must not make any representation to a third party about any aspect of the Funding Agreement without prior written consent from the University and the Funding Body and will do all things necessary to enable the University to comply with its obligations to the Funding Body under the Funding Agreement clause 21.12 – Publicity.
6. SARDI will not use the Funding Body's brand without express written permission and approval from the Funding Body and the University, per clause 24 of the Funding Agreement.
7. SARDI warrants that it is entitled to the benefits of the South Australian Government Insurance and Risk Management arrangements administered by SAICORP in respect to this Agreement. For the purposes of this clause, "SAICORP" means the Insurance Division of the South Australian Government Financing Authority established pursuant to the *Government Financing Authority Act 1982* (South Australia).

**Signed as an Agreement.**

For and on behalf of <b>THE UNIVERSITY OF ADELAIDE</b> by:	This Agreement is executed for and on behalf of the <b>MINISTER FOR PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT</b> by a person duly authorised in that regard in the presence of:
	
Signature of Authorised Person	Signature of Authorised Person Print Name: Dr Peter Appleford
<b>Simon Brennan, Executive Director, Research Services</b>	
Name of authorised signatory	Signature of Witness Print Name: Naomi Bailey
Date: 27 August 2021	Date: 07 September 2021



**STANDARD RESEARCH AGREEMENT TERMS AND CONDITIONS  
WITH APPROVED AFFILIATED ORGANISATIONS**

These Standard Research Agreement Terms and Conditions shall apply to all Research Activities for which the University and SARDI have completed a Research Agreement Schedule.

**1. DEFINITIONS**

**1.1. In this Research Agreement:**

**Affiliate Agreement** means the agreement titled 'Affiliate Agreement' entered into between the University of Adelaide, and SARDI, under which this Research Agreement is established.

**Background Intellectual Property** (Background IP) means any Intellectual Property which pre-exists the Research Activity or is independently developed outside of the Research Activity that is owned or controlled by a Party and which that Party chooses at its sole discretion to make available for the purpose of carrying out the Research Activity.

**Developed Intellectual Property** (Developed IP) means any Intellectual Property that is developed or created by either the University or SARDI in the course of a Research Activity.

**Effective Date** means the date referred to in Item 3 of the Research Agreement Schedule which the Parties have agreed that this Research Agreement is deemed to have come into force.

**Ethics Committee** means an ethics or biosafety committee which has been established by any of the Parties or the Federal or a State Government, and has been properly constituted according to national and state guidelines and/or legislation to approve research activities involving human experimentation, animals, quarantine materials or dealings with genetically modified organisms.

**Grant Funds** means the monies provided by a Funding Body under a Grant.

**Funding Body** means the specified funding organisation providing the Grant Funds for a Grant.

**Intellectual Property** (IP) means all rights conferred under statute, common law and in equity in relation to copyright, inventions, registered and unregistered trademarks, trade secrets and know how, design, patents, proprietary rights granted under the Plant Breeder's Rights Act 1994, semiconductor or circuit board layout rights, trade, business or company names, Confidential information or other proprietary rights, or any rights to registration of such rights, whether created before or after the date of this Agreement and whether created in Australia or elsewhere and all other intellectual property as defined in Article 2 of the Conventions establishing the World Intellectual Property Organisation of July 1967.

**Intellectual Property Protocol** means the Intellectual Property protocol referred to in clause 5 hereof and set out in Annexure A, and includes any additional or substituted Intellectual Property protocol which may be agreed in writing between the Parties from time to time.

**Research Agreement** means the Research Agreement Schedule and the Standard Research Agreement Terms and Conditions and all its schedules and annexures which together comprise this Research Agreement.

**Research Activity** means the research which is the subject of a Research Agreement Schedule under the Affiliate Agreement.

**Report** means a document, correspondence or report in any form whatsoever that is necessary or desirable to ensure compliance with the Funding Agreement.

**Research Agreement Schedule** shall mean the completed pro-forma schedule for the specific Research Activity in the form set out in Schedule 2 of the Affiliate Agreement.

**Term** shall mean the period of the Funding Agreement, or such other period in the event this Research Agreement is terminated earlier under Clause 10.

1.2. In this Research Agreement:

- 1.2.1. all references to clauses are references to clauses in this Research Agreement;
- 1.2.2. expressions cognate with expressions defined in clause 1.1 will be construed accordingly; and
- 1.2.3. the meaning of capitalised words not specifically defined in this Research Agreement shall take their meaning from the Affiliate Agreement.

1.3. This Research Agreement shall be construed and read in conjunction with the terms and conditions contained in the Affiliate Agreement entered into between the University and SARDI which are incorporated into this Research Agreement and the Funding Agreement.

1.4. In the event of conflict or inconsistency between the terms of the Funding Agreement, a Research Agreement, the Affiliate Agreement, and any other annexure of a Research Agreement (and in this case it is in the sequence the annexure appears), the conflict or inconsistency will be resolved in the order that the documents are written above in this clause.

**2. PERFORMANCE OF RESEARCH ACTIVITY**

2.1. The Parties agree to complete the roles, and responsibilities, and to provide the contribution to the Research Activities as described in the Research Agreement Schedule for this Research Activity.

2.2. SARDI understands that the University will receive, account for and expend the Grant Funds and will direct the use of the Grant Funds in accordance with the Funding Agreement.

2.3. The University will transfer Grant Funds to SARDI, and SARDI, must:-



- 2.3.1. receive and manage those Grant Funds as a subcontractor for the University, in accordance with the budget set out in the Funding Agreement and the University's obligations under the Funding Agreement;
  - 2.3.2. comply with the terms of the Funding Agreement as directed by the University and not cause the University to be in breach of the Funding Agreement;
  - 2.3.3. comply with the terms and conditions set out in this Research Agreement; and
  - 2.3.4. ensure that its University Affiliate(s) and employees who have access to the Grant Funds comply with the requirements set out in the Funding Agreement.
- 2.4. SARDI will acquit to the University the Grant Funds it receives pursuant to clause 2.3.
- 2.5. In the event that a Funding Body requires any financial adjustments to be made pursuant to the Funding Agreement, the University will advise SARDI which will comply with any such requirement for financial adjustment and continue to comply with the Funding Agreement.

### **3. ETHICAL STANDARDS**

- 3.1. The Parties will maintain a close coordination in relation to ethical standards to ensure compliance with the directives of the Australian Health Ethics Committee and other applicable health ethics directives or guidelines.
- 3.2. For the purposes of a Research Activity, a Party will not engage in any activity that involves human experimentation, and will not permit any of its employees, students and other persons in any way associated with or sponsored by that Party to do so, unless the activity has been approved in advance by an appropriate Ethics Committee.
- 3.3. The University will accept protocol approvals granted by Ethics Committees that the University has deemed appropriate.
- 3.4. With respect to a Research Activity requiring animal ethics approval, each Party may require approval by its respective Ethics Committee.
- 3.5. Each Party acknowledges that Personnel involved in a Research Activity are to comply with the Research Code.
- 3.6. SARDI represents that to its own knowledge that there is no conflict of interest that currently exists in relation to it or its Specified Personnel performing the Research Activities. In the event that a conflict of interest were to arise SARDI shall immediately notify the University in writing of such conflict of interest.

### **4. INSURANCE AND INDEMNITIES**

- 4.1. Except for the insurance cover the University meets for its University Affiliates whilst they are undertaking Academic Duties as a University Affiliate for the University, SARDI will ensure it has insurance required and will be responsible for all liability coverage, costs, damage, loss or liability and other matters relating to the University Affiliate (unless otherwise agreed by separate agreement), SARDI's other employees, subcontractors or consultants.

- 4.2. Each Party (the indemnitor) hereby indemnifies and agrees to keep indemnified the other Party and its respective directors, officers, employees, agents and representatives (the indemnitee) from and against any and all liability, loss, damage, cost or expense (including legal fees based on a party/party basis, but excluding any loss of profits, special, indirect or consequential losses or punitive or exemplary damages) howsoever arising that the indemnitee may suffer, incur or sustain as a result of any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitor or any of its directors, officers, employees, agents and representatives in its conduct of this Research Agreement, provided that the indemnity given by the indemnitor will be reduced proportionately to the extent that any breach of the terms of this Research Agreement or any unlawful or negligent act or omission by the indemnitee may have contributed to any such liability, loss, damage, cost or expense.

## **5. INTELLECTUAL PROPERTY**

- 5.1. The Parties agree that the ownership of Background IP contributed by a Party for the Research Activity is not affected by this Agreement and that all Background IP remains the property of the Party that makes it available for the purpose of carrying out the Research Activity. The Party providing particular Background IP may use that Background IP, or licence others to use that Background IP, for any purpose.
- 5.2. The Parties acknowledge that ownership of Developed IP will vest in accordance with the Funding Agreement and agree that as between them, they will deal with the Developed Intellectual Property in accordance with the Research Agreement Schedule and Intellectual Property Protocol in Annexure A to this Research Agreement if required.
- 5.3. If a student enrolled with the University is involved in the Research Activity involving SARDI, the University will enter into a Student IP Agreement with the student and the Parties will deal with the Research Activity and the Developed Intellectual Property that the student may create from the Research Activity as set out in the Student IP Agreement.
- 5.4. Subject to any specific requirements set out in Schedule 2, SARDI warrants that in undertaking a Research Activity it will ensure that:
- 5.4.1. no infringement of the Intellectual Property rights of any third party occurs;
  - 5.4.2. no Intellectual Property rights of any third party are used or incorporated in the material and the reports provided to the University for compliance with a Funding Agreement without the third party's prior written consent; and
  - 5.4.3. it will comply with the provisions set out in the Funding Agreement which relate to Developed Intellectual Property and provide the warranties and representations as if it were the University as set out in a Research Agreement Schedule and relevant clauses of the Funding Agreement.

## **6. PUBLICATIONS**

- 6.1. Any publications to be authored in respect of research undertaken pursuant to this Research Agreement will be in accordance with the relevant provisions of the Funding Agreement identified in the Research Agreement Schedule, the Student IP Agreement and/or the separate project agreement entered between the Parties. But in any event

authorship of publications will be in accordance with the guidelines set out in the Research Code.

- 6.2. The Parties agree that where a University Affiliate of the University is an author in any publication that results from a Research Activity, whether as the sole author or a joint author, the 'by-lines' in the publication will acknowledge both the University and SARDI's role in undertaking the Research Activity.
- 6.3. Any advertising material or other written materials produced by either Party that relate to the Research Activity shall acknowledge the Funding Body as required by the Funding Agreement. The Parties agree to comply with the Funding Body's direction in relation to the use of their logo.

## **7. SUBCONTRACTING**

- 7.1. Except where the subcontractor has been approved in the Funding Agreement, the University will not, without prior written approval of SARDI, subcontract out any work or any part thereof relating to this Research Agreement or any Funding Agreement.
- 7.2. SARDI may subcontract any work or part thereof relating to this Research Agreement or any Funding Agreement to the persons or entities listed in Item 11 of the Research Agreement Schedule.
- 7.3. Where a Research Activity involves participation by a party other than SARDI, SARDI will enter into and will be responsible for any subcontract or other arrangement with that other party.

## **8. CONFIDENTIALITY**

- 8.1. Each Party acknowledges that all Confidential Information disclosed by one Party to the other is confidential and agrees that the other Party's Confidential Information must be kept confidential and must not be disclosed to any third party without the prior written consent of the disclosing Party except if:
  - 8.1.1. disclosed to the receiving party's contractors, or agents or the Funding Body as necessary for the performance of this Agreement provided that such contractors, or agents or Funding Body are instructed as to the requirement to keep the information confidential;
  - 8.1.2. disclosed to the receiving party's solicitors, auditors, insurers or accountants provided that such persons are instructed as to the requirement to keep the information confidential;
  - 8.1.3. disclosed pursuant to the requirement of any law or regulation or the order of any court of competent jurisdiction, and the receiving party has informed the disclosing party, within a reasonable time after being required to make the disclosure, of the requirement to make the disclosure and the information required to be disclosed; or
  - 8.1.4. approved for release in writing by an authorised representative of the disclosing party.
- 8.2. For the avoidance of doubt, this Agreement may be disclosed by the Parties in accordance with the *Freedom of Information Act 1991*.
- 8.3. The Minister may disclose Confidential Information:
  - 8.3.1 to Parliament, the Governor, Cabinet or a Parliamentary or Cabinet committee or subcommittee; and

8.3.2 to an agency, authority, instrumentality Minister or Officer to the State of South Australia to whom it is customary for the Minister of Primary Industries and Regional Development to disclose information such as the Confidential Information for the purpose of undertaking their Ministerial duties (whether or not the Minister is legally obliged to do so)

provided that the recipient is informed of the confidential nature of the Confidential Information and the requirement to keep it confidential.

## **9. RELATIONSHIP BETWEEN THE PARTIES**

9.1. SARDI agrees to undertake the Research Activity for the University set out in this Research Agreement:

9.1.1. neither Party has any authority or power to act for, or to assume any responsibility, liability or obligation on behalf of the other Party, or to bind the other Party in any manner whatsoever;

9.1.2. the Parties are independent entities and their relationship for the purposes of this Research Agreement is one of collaborative venturers and is limited to carrying out the activities in pursuit of the objectives set out in this Research Agreement; and

9.1.3. the obligations and liabilities of the Parties are several and are neither joint, nor joint and several.

## **10. TERMINATION**

10.1. This Research Agreement or any part thereof may be terminated by either Party by providing the other Party with thirty (30) days' written notice unless otherwise required under a Funding Agreement.

10.2. This Research Agreement will terminate upon termination of the Funding Agreement by the Funding Body.

10.3. The University must notify SARDI in writing within 5 days of the termination of the Funding Agreement.

10.4. If this Research Agreement is terminated in accordance with this Clause 10 then:

10.4.1. it will be without prejudice to the continuing enforceability of any rights or obligations of the Parties accrued at the time of termination; and

10.4.2. the Parties will consult in good faith as to the best way to deal with and manage any Research Activity that is not finalised at the date of termination, and will reach a fair and equitable agreement regarding the Research Activity so that the University is not in breach of the Funding Agreement.

## **11. SEVERANCE**

11.1. Any provisions of this Research Agreement held to be illegal or otherwise in conflict with any applicable laws, statutes or regulations will be deemed to be severed from the remainder of the Research Agreement and the validity of the remaining provisions will not be affected.

## **12. GOVERNING LAW**



- 12.1. This Research Agreement is governed by the law in force in South Australia. Each Party submits to the non-exclusive jurisdiction of the courts of South Australia.

**13. ENTIRE AGREEMENT**

- 13.1. This Research Agreement shall constitute the entire agreement between the Parties in relation to the subject matter referred to herein and supersedes all previous agreements negotiations or understandings on that subject matter.

**14. ASSIGNMENT**

- 14.1. A Party may not assign or novate its rights under this Research Agreement without the express written consent of the other Party and any purported assignment in contravention of this provision is void.

**15. FURTHER ASSURANCES**

- 15.1. Each Party will execute and deliver all deeds, documents and instruments to do all acts and things as are necessary to give full effect to all the agreement, arrangements and transactions contemplated by this Research Agreement.

**16. INDEPENDENT CONTRACTORS**

- 16.1. Each Party acts under this Research Agreement as an independent contractor.

**17. NOTICES**

- 17.1. In any circumstances where pursuant to the terms of this Research Agreement any demand or notice in writing is required to be given it will be sufficient for it to be given by notice in writing signed by the Party giving the notice or for and on behalf of the Party giving the notice by an authorised officer of that Party or by its solicitors and that demand or notice be served upon the Party intended to receive the demand or notice by delivering it at the following relevant address or email address:

17.1.1. If to the University:

Simon Brennan  
Executive Director  
Research Services  
The University of Adelaide  
Level 4 Rundle Mall Plaza  
50 Rundle Mall, Adelaide, SA 5000  
Email: rbmajorprograms@adelaide.edu.au  
Tel: +61 8 8313 5551

17.1.2. If to SARDI:

General Manager, Business Support  
Plant Research Centre  
Waite Research Precinct  
Gate 2b, Hartley Grove  
Urrbrae, SA, 5064  
Email: hazel.cochrane2@sa.gov.au  
Tel: +61 8 8429 0259

- 17.2. Any communication or document received on a non-working day in the place of receipt of a Party after 5:00 pm (local time) on a working day will be effective at the commencement of business on the next working day in the place of receipt.
- 17.3. A Party may vary its address for service for the purpose of this clause by notifying the other Party in writing.

**18. WAIVER**

- 18.1. No waiver of any right under this Research Agreement or forbearance or delay in the enforcement or any other indulgence, including but not limited to an indulgence of time granted by one Party to the other, shall affect the strict rights of that Party under this Research Agreement. All the rights and powers of that Party shall remain in full force and effect notwithstanding any such waiver, forbearance, delay or other indulgence on the part of that Party. Any variation or waiver agreed between the Parties shall be ineffective unless in writing and agreed by each Party.

**19. COUNTERPARTS**

- 19.1. This document may be executed in any number of counterparts, and by the Parties in separate counterparts, but is not effective until each Party has executed at least one counterpart. Each counterpart of this document constitutes an original of this document but the counterparts together constitute one and the same instrument.

**20. DELAY**

- 20.1. No Party will be responsible for any failure or delay in carrying out any of the obligations on its part to be performed or observed under this Research Agreement due to circumstances beyond its control, but will use its best endeavours to remove the cause of such circumstances as expeditiously as possible.

**21. GST**

- 21.1. If any Supply made under this Research Agreement is a Taxable Supply then:
- 21.1.1. a tax invoice in an appropriate form shall be rendered by the supplier of the Taxable Supply; and
- 21.1.2. in addition to any consideration payable under this Research Agreement, the supplier of the Taxable Supply shall be entitled to recover from the recipient of the Taxable Supply an additional amount on account of GST, such amount to be equal to the amount of the GST liability of the supplier in respect of the Taxable Supply calculated in accordance with the GST Act.
- 21.2. For the purposes of this clause each of 'GST', 'GST Act', 'Recipient', 'Supply', 'Taxable Supply' and 'Tax Invoice' have the same meaning as those terms have in the *A New Tax System (Good and Services Tax) Act 1999*.

**22. DISPUTE RESOLUTION**

- 22.1. The Parties will without delay and in good faith attempt to resolve any dispute or difference which may arise between them in relation to this Agreement in accordance with the succeeding provisions of this clause.

- 22.2. Any dispute or difference arising between the Parties will be resolved in accordance with the following procedure:
- 22.2.1. the Party claiming that a dispute exists will notify the other Party that a dispute exists;
  - 22.2.2. a meeting will be convened forthwith between senior representatives of the Parties being the Chief Executive Officer, Vice-Chancellor & President, Chairman or equivalent positions (or nominees) for resolution of the dispute or difference; and
  - 22.2.3. if the dispute or difference is not resolved by the persons referred to in clause 22.2.2 above within such time as they agree but not being more than sixty (60) days then the Parties will attempt to resolve the matter by mediation or other alternative dispute resolution mechanism in accordance with the rules of such alternative dispute resolution mechanism and the Parties will each contribute equally to the cost of the mediator employed or other person assisting the Parties in any other alternative dispute resolution mechanism they use.
- 22.3. Each Party acknowledges that compliance with these provisions is a condition precedent to any entitlement to a claim, relief or remedy, whether by way of proceedings in a court of competent jurisdiction pursuant to this Research Agreement or otherwise in respect of such dispute or difference. However this will not preclude a Party from seeking any urgent interlocutory relief in a court of competent jurisdiction.

## **23. SURVIVAL**

- 23.1. Clauses 1 (Definitions), 4.2 (Indemnities), 5 (Intellectual Property), 8 (Confidentiality), 12 (Governing Law), 22 (Dispute Resolution) and this Clause 23 (Survival) will survive the expiry or any termination of this Research Agreement to the extent necessary to interpret and give effect to the rights and obligations of the Parties.



## **ANNEXURE A – INTELLECTUAL PROPERTY PROTOCOL**

As per Annexure A — Intellectual Property Protocol of the Affiliate Agreement executed between The University of Adelaide and the Minister for Primary Industries and Regional Development acting through the South Australian Research and Development Institute (SARDI) dated 2 October 2018.

**ANNEXURE A****INTELLECTUAL PROPERTY PROTOCOL**

This Intellectual Property Protocol ("Protocol") shall only apply to successful Grant applications submitted through the University's Research Services Branch to a Funding Body in accordance with the terms of the Research Agreement between the University and the Participating Institution.

The purpose of this Protocol is to establish decisive rights with respect to ownership, and the administrative arrangements relating to the management, use and commercialisation of Developed IP. In this Intellectual Property Protocol capitalised terms will have the same meaning as defined in the Affiliate Agreement or the Research Agreement, unless otherwise stated.

The Participating Institution and the University agree on the following options that may apply to IP under a Research Agreement:-

**Option A Where the Funding Agreement vests Developed IP solely in the University**

Where the University owns 100% of the Developed IP created under a Grant; and

- a. SARDI Specified Personnel are sole contributors to the Developed IP:
  - i. the University agrees that SARDI will own the Developed IP;
  - ii. the University will assign to SARDI all its right title and interest in the Developed IP;
  - iii. SARDI grants to the University a licence to use such Developed IP for research and teaching;
  - iv. SARDI grants to the University a licence (with the right to sub-licence to the Funding Body) in such terms that will enable the University to comply with the requirements of the Funding Agreement as specified in the Individual Grant Schedule.
- b. both SARDI Specified Personnel and University staff contribute to Developed IP:
  - i. the Parties agree that they will jointly own the IP based on their respective intellectual, cash and in-kind contributions to the creation of the Developed IP;
  - ii. the Parties agree that within 3 months of the end of the Research Agreement they will:
    - a. identify and document what Developed IP was created during the term of the Research Agreement; and
    - b. negotiate a separate IP and commercialisation agreement setting out the rights of use, protection and commercialisation of the Developed IP including the sharing of commercialisation returns.

**Option B Where the Funding Body owns the Developed IP**

Where the Funding Body owns 100% of the Developed IP under the Funding Agreement SARDI will:

- i. assign all its right title and interest in the Developed IP to the University so that the University may deliver the rights to the Funding Body;
- ii. SARDI will sign any documents and require its Specified Personnel to sign any documents to perfect title to the Developed IP in the University;
- iii. Where applicable, the Parties will share any commercial returns received by the University from commercialisation of the IP based on the parties' respective intellectual, cash and in-kind contributions to the creation of the Developed IP.

**Option C - Where the Funding Body and the University jointly own Developed IP**

Where the University jointly owns the Developed IP with the Funding Body under the Funding Agreement as specified in an Individual Grant Schedule, and:

- a. The Developed IP is created solely by Specified Personnel of SARDI,
  - i. the University will use its best endeavours to obtain consent from the Funding Body to assign the University's legal interest in the IP to SARDI and where such consent has been secured will assign to SARDI all its right title and interest in the Developed IP and comply with any other conditions of the consent; and
  - ii. Where the Funding Body does not provide its consent to assign the Developed IP to SARDI the parties will comply with paragraph (b) (i)-(iii) inclusive.
- b. The Developed IP is created jointly by Specified Personnel of SARDI and the University:
  - i. as between the University and SARDI, the University shall retain ownership of the Developed IP;
  - ii. SARDI will assign all its right title and interest in the Developed IP to the University and will sign any documents and require its Specified Personnel to sign any documents to perfect the University's title to the Developed IP;
  - iii. the Parties will negotiate a separate agreement setting out the rights of use, sharing of any commercialisation returns based on the parties' respective intellectual, cash and in-kind contributions to the creation of the Developed IP from the University's entitlement to such returns and any other related matters.

**ANNEXURE B – FUNDING AGREEMENT**

Simplified Contract Conditions for Services (Contract No. CS9399)

Oceanographic Modelling and Monitoring Boston Bay, dated 7 July 2021.

6 July 2021

Simon Brennan  
Executive Director, Research Services  
The University of Adelaide

Dear Simon

**Oceanographic Modelling and Monitoring Boston Bay**

**Contract: CS9399**

I wish to formally advise that SA Water would like to award you a contract based on your RFQ submission 30 June 2021 for the sum of **\$297,314** (excluding GST).

Your acceptance of the offer set out in this letter will establish a legally enforceable contract. The terms and conditions of the contract are set out in this letter and in the following documents:

- SA Water Conditions for the provision Services (including Adelaide Uni amendments); and
- The University of Adelaide RFQ response 30 June 2021

**All invoices should be sent to SA Water Corporation Accounts payable [accpay@sawater.com.au](mailto:accpay@sawater.com.au) clearly noting the reference: SA Water Contract No. CS9399.**

If the above terms and conditions are acceptable to you, please arrange for this letter to be signed by, or on behalf of, The University of Adelaide.

Yours sincerely



Grant Fisher  
Category Specialist

**Oceanographic Modelling and Monitoring Boston Bay**

Contract: CS9399

Signed for and on behalf of the  
**University of Adelaide** by a  
person duly authorised to do so



Simon Brennan, Executive Director, Research Services

The University of Adelaide

Jul 7, 2021

[simon.brennan@adelaide.edu.au](mailto:simon.brennan@adelaide.edu.au)

Signed for and on behalf of the  
**South Australian Water Corporation**  
by a person duly authorised  
to do so



Category Specialist

SA Water Corporation

Jul 7, 2021

[grant.fisher@sawater.com.au](mailto:grant.fisher@sawater.com.au)

## **Simplified Contract Conditions for Services**



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## **PARTIES**

**SOUTH AUSTRALIAN WATER CORPORATION** of 250 Victoria Square,  
Adelaide, South Australia, 5000

## **And**

**THE UNIVERSITY OF ADELAIDE**, (ABN 61 249 878 937), a body corporate  
established by the *University of Adelaide Act 1971*, with its principal  
offices at North Tce, Adelaide, SA 5005

## **IT IS AGREED**

### 1. Definitions

- 1.1 **"Agreement"** means this Agreement comprising the documents described in clause 2.11.14 and made between the parties described in Item 1 and Item 2 of the Schedule;
- 1.2 **"Background Intellectual Property" (Background IP)** means any Intellectual Property that exists prior to or is created independently of this Agreement that a party has agreed to provide for the Services and includes but is not limited to the Background IP described in Item 9 of the Schedule.
- 1.3 **"Business Day"** means any day that is not a Saturday or Sunday or a public holiday in South Australia;
- 1.4 **"Cartel Conduct"** means conduct by two or more parties who are competitors (or would be but for the conduct) who enter into a contract, arrangement or understanding that involves price fixing, output restrictions, allocating customers, suppliers or territories, or bid-rigging, as defined in S44ZZRD of the *Competition and Consumer Act 2010*;
- 1.5 **"Commencement Date"** means the date specified in Item 4 of the Schedule;
- 1.6 **"Completion Date"** means the date specified in Item 5 of the Schedule;
- 1.7 **"Confidential Information"** means any information which is identified either as confidential information or which by its nature is confidential or which is disclosed in circumstances importing an obligation of confidence, which is disclosed by the disclosing party to the receiving party for the purposes of this Agreement, but does not include this Agreement;
- 1.8 **"Contracting and Official Records Standard"** means the standard relating to record management amended by the Manager (Director), State Records pursuant to section 14(1) of the *State Records Act 1997* and which can be found at <http://www.archives.sa.gov.au>.

- 1.9 **"Declaration in Relation to Unlawful Collusion"** means a declaration in relation to unlawful collusion submitted by the Contractor to the Principal in the procurement process preceding this Agreement;
- 1.10 **"Deliverables"** means the reports and any data or other material specified in the Schedule required to be delivered throughout the performance of the Services;
- 1.11 **"GST Law"** has the meaning attributed in the *A New Tax System (Goods and Services Tax) Act 1999* (Cth);
- 1.12 **"GST Rate"** has the meaning attributed in the GST Law;
- 1.13 **"Information Privacy Principles"** means the Cabinet Administrative Instruction No 1 of 1989, which can be found at <http://www.archives.sa.gov.au>;
- 1.14 **"Intellectual Property Rights"** means all intellectual property rights, including:
  - 1.14.1 patents, plant breeders' rights, copyright, rights in circuit layouts, registered designs, trademarks, know-how and any right to have Confidential Information kept confidential; and
  - 1.14.2 any application or right to apply for registration of any of the rights referred to in subclause 1.14.1,
  - 1.14.3 but for the avoidance of doubt excludes moral rights and performers' rights;
- 1.15 **"Personnel"** means any subcontractors, employees, agents and any other person employed or engaged by the Contractor to perform this Agreement, and includes the Contractor's Representative;
- 1.16 **"Prices"** means the prices set out in or determined in accordance with Item 6 of the Schedule;
- 1.17 **"record-subject"** means a person to whom Personal Information relates;
- 1.18 **"Services"** means the services specified in the Schedule and includes the Deliverables;
- 1.19 **"Taxable Supply"** has the meaning attributed in the GST Law; and
- 1.20 **"Tax Invoice"** has the meaning attributed in the GST Law,

## 2. Interpretation

- 2.11 In this Agreement (unless the context requires otherwise):
  - 2.11.1 A reference to any legislation includes:
    - a) All legislation, regulations, proclamations, ordinances, by-laws and instruments issued under that legislation; and
    - b) Any modification, consolidation, amendment, re-enactment or substitution of that legislation;
  - 2.11.2 the clause headings are for convenient reference only and do not form part of this Agreement;
  - 2.11.3 a reference to a clause number is a reference to all its subclauses;

- 2.11.4 a reference to a clause, subclause, schedule or attachment is a reference to a clause, subclause, schedule or attachment of this Agreement;
- 2.11.5 a word in the singular includes the plural and a word in the plural includes the singular;
- 2.11.6 a word importing a gender includes any other gender;
- 2.11.7 a reference to two or more persons means all of them together;
- 2.11.8 a reference to persons includes corporations, unincorporated associations, partnerships, trusts and joint ventures;
- 2.11.9 a reference to legislation includes legislation repealing, replacing or amending that legislation;
- 2.11.10 a reference to dollars is a reference to Australian dollars;
- 2.11.11 where a word or phrase is given a particular meaning other parts of speech or grammatical forms of that word or phrase have corresponding meanings;
- 2.11.12 a reference to a party includes that party's administrators, successors and permitted assigns;
- 2.11.13 where the day on or by which something is to be done is not a Business Day, that thing may be done on or by the next Business Day;
- 2.11.14 This Agreement between the parties comprises these standard terms and conditions and all the documents comprised in, and incorporated by reference to, the Annexure. If any of the documents comprising this Agreement are inconsistent, they shall take priority in the following order:
  - a) the "special" terms and conditions (if any) in the Annexure;
  - b) these standard terms and conditions (excluding the Schedule); and
  - c) the Schedule.

### 3. Term

- 3.1 The Contractor must commence the Services by the Commencement Date and complete the Services by the Completion Date ("Term") as outlined in Item 4 and Item 5 of the Schedule. The Completion Date may only be extended by written agreement between the parties.

### 4. Contract Administration

- 4.1 Each party nominates as its Representative the person designated in the Schedule, and confirms that its Representative has authority to:
  - 4.1.1 exercise all of the powers and functions of his or her party under this Agreement other than the power to amend this Agreement; and
  - 4.1.2 bind his or her party in relation to any matter arising out of or in connection with this Agreement.

- 4.2 Either party may change its Representative, by giving written notice to the other party.

## 5. Services

- 5.1 The Contractor must provide the Services described in Item 3 of the Schedule ("Services") in accordance with the terms and conditions of this Agreement.
- 5.2 The Principal may at any time give written notice to the Contractor proposing a variation ("Variation Proposal") to the scope of the Services ("Varied Services").
- 5.3 The Principal and the Contractor must negotiate in good faith to agree in writing the price for the Varied Services as contained in the Principal's Variation Proposal.
- 5.4 The Variation Proposal does not take effect unless and until the parties reach a written agreement as contemplated in clause 5.3, and the Contractor must still perform the Services as required under this Agreement.
- 5.5 The Contractor must use its best efforts to perform the Services in the most cost effective manner consistent with the required level of quality and performance.

## 6. The Deliverables

- 6.1 If the Contractor is to provide Deliverables then the details of the Deliverables (if any) set out in the Schedule including the delivery dates and the form and content requirements, must be complied with by the Contractor.
- 6.2 Title in the Deliverables will vest in the Principal on their delivery to the Principal.

## 7. Warranty

The Contractor warrants that the Services will:

- 7.1 comply with the description of the Services in the Schedule;
- 7.2 be provided with due care and skill;
- 7.3 be supplied without infringing any person's Intellectual Property Rights (excluding patent rights); and
- 7.4 be performed by the Contractor and/or its nominated Personnel.

## 8. Contractor Personnel

- 8.1 The Contractor must ensure that when supplying the Services:
  - 8.1.1 it will use adequate numbers of qualified individuals with suitable training, education, experience and skill to perform the Services;
  - 8.1.2 Personnel observe and comply with the provisions of this Agreement.



- 8.2 The Contractor, where applicable and if required by the Principal, must obtain or procure from its subcontractor(s) any police checks for Personnel involved in performing the Services.
- 8.3 If the Principal gives the Contractor notice in writing requiring any one or more of the Personnel to be withdrawn from providing the Services, the Contractor must immediately comply with the notice and provide replacements acceptable to the Principal. If the Contractor fails to comply with that notice then the Principal may terminate this Agreement immediately by written notice to the Contractor.
- 8.4 The Principal reserves the right to refuse entry onto any of the Principal's premises to any Personnel.
- 8.5 The Contractor represents that it:
  - 8.5.1 enters into this Agreement after having carried out its own diligent investigations into all matters relating to the provision of the Services, not relying on any representations made by the Principal, its agents or employees; and
  - 8.5.2 is fully informed in respect of its obligations under this Agreement,

## 9. Intellectual Property Rights

- 9.1 Nothing in this Agreement affects ownership of, or transfers any rights in, Background IP used in the performance of the Services.

### 9.2

This clause 9.1 contains two options; (A) and (B); only the option that is selected in Item 8 of the Schedule applies to this Agreement. Where no option is selected in Item 8 of the Schedule, only option (A) applies to this Agreement.

#### (A)

- 9.2.2 The Principal will own all Intellectual Property Rights in anything that is delivered to the Principal or otherwise produced in the course of the provision of the Services (including without limitation, Deliverables specified in Item 3 of the Schedule).
- 9.2.3 The Principal does not own the Contractor's Intellectual Property Rights existing at, or prior to, the date of this Agreement, however, to the extent necessary for the provision of the Services, the Contractor grants the Principal a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt any such Intellectual Property Rights in relation to the provision of the Services

#### (B)

- 9.2.4 All Intellectual Property Rights created in anything that is delivered to the Principal or otherwise produced in the course of the provision of the Services (including without limitation, Deliverables specified in Item 3 of the Schedule) vests in and remains with the Contractor.
- 9.2.5 The Contractor grants to the Principal and will procure from any subcontractors, a perpetual, irrevocable, royalty free, fee free licence to use, copy, modify and adapt the Intellectual Property Rights described in clause 9.2.4its Background IP.

## 10. Confidential Information

- 10.1 Subject to this clause 10, neither party may disclose any Confidential Information of the other party except as genuinely and necessarily required for the purpose of this Agreement.
- 10.2 Neither party may disclose any Confidential Information of the other party except:
  - 10.2.1 to an employee, agent or adviser of that party, on a "need to know" and confidential basis;
  - 10.2.2 to the Australian Competition and Consumer Commission (ACCC) if the Principal reasonably suspects, or is notified by the ACCC that it reasonably suspects, that there is Cartel Conduct or unlawful collusion in connection with the supply of Goods or Services under this Agreement;
  - 10.2.3 as required by law, applicable legal process or a court order;
  - 10.2.4 in accordance with any parliamentary or constitutional convention, or
  - 10.2.5 for the purposes of prosecuting or defending proceedings.

## 11. Price and Payment

- 11.1 In consideration of the supply of Services, the Principal will pay the Prices.
- 11.2 Subject to clause 12, the Prices include all taxes, duties or government charges imposed or levied in Australia or overseas in connection with this Agreement.
- 11.3 The Prices include all costs of compliance with the Contractor's obligations under this Agreement. No other costs or expenses are payable by the Principal.
- 11.4 The Contractor is entitled to invoice the Principal for payment in respect of a Service, upon achievement of each Milestone, and in accordance with the Payment Schedule set out under Item 6 of the Schedule to this Agreement.
- 11.5 The Principal must pay on a Contractor's invoice if the invoice is properly rendered, but not otherwise. An invoice is properly rendered if it:
  - 11.5.1 is issued in respect of Services for which the Contractor is entitled to invoice under this Agreement;
  - 11.5.2 reflects the correct price for the Services under this Agreement;
  - 11.5.3 is a valid Tax Invoice within the meaning of the GST Law;
  - 11.5.4 references the applicable Contract or Purchase Order ;
  - 11.5.5 is delivered to Accounts Payable ([accountspayable@sawater.com.au](mailto:accountspayable@sawater.com.au)) or GPO Box 1751, Adelaide 5001; and
  - 11.5.6 complies with any other requirements stipulated in the "Item 6 of the Schedule.



## 12. GST

- 12.1 The Contractor represents that:
  - 12.1.1 it is registered under the A New Tax System (Australian Business Number) Act 1999 (Cth), and that the ABN shown in Item 2 of the Schedule is the Contractor's ABN; and
  - 12.1.2 it is registered under the GST Law.
- 12.2 If the Prices in Item 6 of the Schedule are expressed as being GST exclusive and the supply for which payment is claimed is a Taxable Supply then, in addition to any amount payable by the Principal by reference to the price (the "base consideration"), the Principal must pay to the Contractor, an additional amount of consideration ("GST consideration") for the Taxable Supply calculated by multiplying the GST Rate by the base consideration. The GST consideration is payable at the same time and subject to the same conditions as the base consideration. In this Agreement, "Taxable Supply", and "GST Rate" have the meaning attributed to it in the GST Law.

## 13. Insurance

- 13.1 The Contractor must effect and maintain all insurance policies set out in Item 7 of the Schedule.
- 13.2 The policies referred to in Item 7 of the Schedule must be in the name of the Contractor and must cover the Contractor for its respective rights, interests and liabilities. The Contractor will ensure that any subcontractors have insurance consistent with the terms of this Agreement.
- 13.3 Before supplying Services under this Agreement, the Contractor must provide the Principal with insurance certificates of currency for the insurances required under this clause. At any time during the Term, the Principal may require the Contractor to provide proof that the policies of insurance have been effected and maintained.
- 13.4 The Principal, in specifying levels of insurance in this Agreement accepts no liability for the completeness of their listing, the adequacy of the sum insured, limit of liability, scope of coverage, conditions or exclusions of those insurances in respect of how they may or may not respond to any loss, damage or liability.
- 13.5 The Contractor acknowledges and agrees that it is the Contractor's responsibility to assess and consider the risks and scope of insurances required under this Agreement.

## 14. Indemnity

- 14.1 The Contractor indemnifies and must keep indemnified the Principal and its employees from and against all costs, losses, damages, expenses (including reasonable legal expenses) or other liabilities suffered or incurred by the Principal or its employees arising out of or in respect of this Agreement as a consequence of:
  - 14.1.1 any negligence, wrongful act or omission or breach of duty of or by the Contractor;

- 14.1.2 any breach by the Contractor of any of the provisions of this Agreement; or
- 14.1.3 any breach of a warranty given by the Contractor under this Agreement.
- 14.2 The Contractor's liability to indemnify the Principal under clause 14.1 will be reduced proportionately to the extent that the loss or liability indemnified was contributed to by negligence or default by the Principal.
- 14.3 This clause will survive the termination of this Agreement.

## 15. Termination

- 15.1 The Principal may terminate this Agreement immediately upon giving notice in writing to the Contractor if:
  - 15.1.1 the Principal reasonably forms the opinion that the Contractor will be unable to perform its obligations pursuant to this Agreement;
  - 15.1.2 the Contractor is in breach of this Agreement and has not rectified such breach within 30 days of the Principal giving notice in writing to the Contractor requiring the rectification of such breach;
  - 15.1.3 the Principal becomes aware that the Contractor or its subcontractor is in breach of its statutory obligations with respect to its employees engaged as Personnel to perform the Services under this Agreement;
  - 15.1.4 the Contractor has submitted a Declaration in Relation to Unlawful Collusion which is found to be false in any particular;
  - 15.1.5 clause 8.3 applies; or
  - 15.1.6 the Contractor suffers or, in the reasonable opinion of the Principal, is in jeopardy of becoming subject to any form of insolvency administration or bankruptcy.

## 16. Effect of Expiry or Termination of this Agreement

- 16.1 Any termination of this Agreement by the Principal does not affect any accrued right of either party.
- 16.2 Despite termination or completion of this Agreement, clauses 7, 9, 10, 14, 15, 16, 18, 19 and 21 survive.

## 17. Subcontracting

- 17.1 The Contractor must not engage any subcontractor other than the Approved Subcontractor(s) specified under Item 10 of the Schedule, without approval of the Principal, which approval may be given at the Principal's entire discretion and subject to any conditions.
- 17.2 The Contractor remains responsible for obligations performed by subcontractors to the same extent as if such obligations were performed by the Contractor.

## 18. Remedies

- 18.1 Any claim the Principal may have against the Contractor may be set off against monies owed to the Contractor under this Agreement.
- 18.2 The rights and remedies provided under this Agreement are cumulative and not exclusive of any remedies provide by law or any other right or remedy.

## 19. No Representations

To the maximum extent permitted by law, the Contactor acknowledges and agrees that no representation, warranty, guarantee or other statement, express or implied, was made or given to the Contractor by the Principal prior to entering into this Agreement as to any benefits which the Contractor might enjoy as a result of entering into this Agreement.

## 20. Notices

Any notice relating to this Agreement must be:

- 20.1 in writing;
- 20.2 signed by the Representative of the sender or directly from their email address; and
- 20.3 given to the other party:
  - 20.3.1 by hand delivery;
  - 20.3.2 by prepaid mail; or
  - 20.3.3 by email transmission.
- 20.4 For the purposes of delivery of notice:
  - 20.4.1 mail must be sent to the address of the recipient party set out in the Schedule; and
  - 20.4.2 email messages must be marked for the attention of the person specified in the Schedule.
- 20.5 If a party changes its contact details, then it must provide written notice to the other party within 10 Business Days.
- 20.6 A notice sent for the purposes of this clause will be considered received:
  - 20.6.1 if delivered before 5.00pm on a Business Day, otherwise on the next Business Day;
  - 20.6.2 if sent by pre-paid mail, on the third Business Day after posting; or
  - 20.6.3 if transmitted by email, at the time that is one hour after the time shown in a delivery confirmation report generated by the sender's email system.

## 21. General

- 21.1 **Compliance with Laws**

The Contractor must comply with the laws in force in the State in performing its obligations under this Agreement. The Contractor undertakes to comply with all South Australian Government policies of which the Principal informs the Contractor which relate to the performance of the Contractor's obligations under this Agreement.

**21.2 Governing Law**

21.2.1 This Agreement is governed by the laws in the State of South Australia.

21.2.2 The courts of the State of South Australia have exclusive jurisdiction in connection with this Agreement.

**21.3 Relationship Between the Parties**

21.3.1 The parties acknowledge and agree that nothing in this Agreement:

- a) constitutes a partnership or joint venture of any kind between the parties; or
- b) constitutes any relationship of employer and employee or principal and agent between the Principal and the Contractor or between the Principal and any employees, agents, subcontractors, members or volunteers of the Contractor.

21.3.2 No party has any authority to bind the other Party in any manner whatever except with the express approval by notice in writing of the other party.

**21.4 No Waivers by the Principal**

21.4.1 The Principal waives a right under this Agreement only by written notice to that effect.

21.4.2 Nothing else done or omitted to be done by the Principal in relation to the Principal's rights under the Agreement will have the effect of a waiver.

**21.5 Entire Agreement**

This Agreement constitutes the entire agreement between the parties in respect of the matters dealt with in this Agreement and supersedes all prior agreements, understandings and negotiations in respect of the matters dealt with in this Agreement.

**21.6 No assignment**

The Contractor must not assign or encumber any of its rights under this Agreement, except that it may assign to its Approved Subcontractor(s) any Intellectual Property Rights described in clause 9.2.4 and will procure from its Approved Subcontractor(s) the licence described in clause 9.2.5, sublicensable to the Principal.

**21.7 Modification**

No addition to or modification of any provision of this Agreement will be binding upon the parties unless made by written instrument signed by the parties.

**21.8 Severance**

- 21.8.1 Each word, phrase, sentence, paragraph and clause of this Agreement is severable.
- 21.8.2 If a court determines that a part of this Agreement is unenforceable, invalid, illegal, void or voidable that court may sever that part.
- 21.8.3 Severance of a part of this Agreement will not affect any other part of this Agreement.

**21.9 Reading Down**

Where a word, phrase, sentence, paragraph, clause or other provision of this Agreement would otherwise be unenforceable, illegal, void or voidable the effect of that provision shall so far as possible, be limited and read down so that it is not unenforceable, illegal, void or voidable.

**21.10 Auditor-General**

Nothing in this Agreement derogates from the powers of the Auditor-General under the *Public Finance and Audit Act 1987 (SA)*.

**21.11 Disclosure of Government Contracts**

The Contractor acknowledges that the Principal may disclose this Agreement either generally to the public, or to a particular person as a result of a specific request. Nothing in this clause derogates from the Contractor's obligations under any other provision of this Agreement or the provisions of the *Freedom of Information Act 1991 (SA)*.

**21.12 Publicity**

Except as required by law, applicable legal process or otherwise agreed between the parties from time to time, the Contractor must obtain the Principal's written consent before making any representation to a third party about any aspect of this Agreement, the Goods or Services or SA Water. The term '*making any representation*' includes, but is not limited to, issuing or causing to be issued publications in any form whether print, radio, social media or otherwise, promotional and advertising materials, public announcements, media releases, media interviews, answering of any third party enquiries (including local, state and federal government representatives and elected members or the media), award nominations, and/or referee reports. If the Contractor is contacted by a third party about any aspect of this Agreement, the Goods or Services or SA Water, the Contractor must record the person's name and contact details and advise the Principal in writing immediately. The Contractor must also provide written notice to the Principal at least three weeks prior to an expected milestone or associated event to enable planning and successful promotion of these outcomes. As instructed by the Principal, the Contractor will facilitate the practical requirements for promotion of attained project outcomes including information updates and supporting resources, facilitating site access for professional photography/videography and/or events.

**21.13 Gifts, Benefits and Incentives**



In this clause "public sector employee" has the meaning given in the *Public Sector Act 2009*.

The Contractor agrees to conduct itself in a manner that does not invite, directly or indirectly, SA Water's officers, employees or agents or any public sector employee to behave unethically, to prefer private interests over SA Water's interests or to otherwise contravene the Code of Ethics for the South Australian Public Sector. If the Contractor fails to comply with this requirement SA Water may terminate this Agreement and refuse further payment.

If the arrangements related to this Agreement include the intentional promise or delivery of any goods or benefits (whether to SA Water or any of its officers, employees or agents or any public sector employee) not specified in the Schedule and SA Water is reasonably satisfied that promise or delivery is not the result of a genuine mistake, then SA Water may terminate this agreement, recover all moneys paid under this agreement, refuse further payment, and (at its discretion) return unused goods.

Nothing in this clause derogates from SA Water's other rights under this Agreement.

## 22. Occupational Health, Safety and Welfare

- 22.1 If requested by the Principal, the Contractor must:
  - 22.1.1 provide evidence satisfactory to the Principal of its capacity to comply with the "*Work Health and Safety Act 2012 (SA)*".
  - 22.1.2 provide evidence that its employees, agents and subcontractors have received appropriate training in and are aware of their legal obligations and responsibilities in relation to occupational health, safety and welfare; and
  - 22.1.3 provide the Contractor's WorkCover Registration Number.
- 22.2 The Contractor must permit the Principal to carry out any inspections the Principal deems necessary to ensure that the Contractor is complying with the occupational health and safety practices referred to in this Agreement.
- 22.3 If all or part of the work under this Agreement is to be provided on the premises of the Principal and under the direction of the Principal, the Contractor must comply with the Principal's "work health and safety" policies, procedures and instructions. If the Contractor becomes aware of any potentially hazardous situation on the premises of the Principal, the Contractor must immediately bring it to the Principal's attention.
- 22.4 The Contractor shall report immediately to SA Water by telephone any incident or event where:
  - 22.4.1 there was or could reasonably have been an injury to any person that led to lost time or medical treatment by a registered medical practitioner;
  - 22.4.2 Safe Work SA were required to be notified.

The Contractor must provide written notification to SA Water of the incident within 24 hours (or at least 1 working day). The Contractor shall provide copies of all investigations and reports to SA Water within five working days of the incident. SA Water may request further information or may undertake its own investigation into any incident.

- 22.5 If the Principal has additional requirements regarding the preparation and implementation of "work health and safety" systems and plans, these will be detailed in the description of services in the Schedule.
- 22.6 The Contractor must comply with the "Work Health and Safety Act 2012 (SA)", at all times, regardless of whether the Principal issues direction in that regard or not.

### 23. No Collusive Arrangements

The Contractor warrants that, prior to the close of tenders, the Contractor had no knowledge of the tender price of any other tenderer and had not directly or indirectly communicated the Contractor's tender price to any other tenderer.

The Contractor warrants that, except as disclosed and as agreed with the Principal in writing, the Contractor:

- (a) has not made any arrangement or arrived at any understanding to pay money to, or confer any benefit upon, any other tenderer or any trade or industry association (above the published standard fee) in respect of this Contract;
- (b) has not made any allowance in the Contractor's tender price on account of a contract, arrangement or understanding of a kind referred to in this Clause;
- (c) will not pay any money or confer any benefit on any other tenderer or any trade or industry association of the kind referred to in this Clause; and
- (d) has not offered any incentive to, or otherwise attempted to influence, any employee of the Principal or any member of an evaluation committee in relation to the evaluation of tenders and the letting of this Contract.

The Contractor acknowledges that it is aware that the Principal entered this Contract in reliance upon the warranties in this Clause. If any matter warranted in this Clause is found not to be true or not to be correct, in addition to any other rights that the Principal may have, the Contractor will be in fundamental breach of this Contract (such breach going to the root of this Contract).

### 24. Branding

Neither party may use the other party's brand including its logo, brand architecture (including sub-brands), graphic devised and visual identity (including colour, language tone, photography and typography) without the express written permission and approval by the relevant party.



## 25. Contracting and Official Records Standard and Personal Information

- 25.1 The Contractor agrees that in performing its obligations under this Agreement it will act in a manner that ensures that the Principal is able to comply with the Contracting and Official Records Standard.
- 25.2 The Contractor acknowledges that the Information Privacy Principles as they relate to the collection, storage, access to, correction, use and disclosure, of personal information, apply to the Principal. The Contractor agrees that in performing its obligations under this Agreement it will act in a manner that ensures that the Principal is able to comply with the Information Privacy Principles. The Service Provider must only collect, use and disclose Personal Information for the purpose of fulfilling its obligations under this Agreement unless otherwise permitted under this Agreement or the Information Privacy Principles.

## 26. Industry Participation Plan

N/A

- 48.1 ~~The Contractor must implement the Contractor's Industry Participation Plan ("IPP") approved by the Industry Advocate ("IA").~~
- 48.2 ~~The Contractor must provide an Industry Participation Report ("IPP Report") in respect of each Industry Participation Reporting Period within two weeks of the end of each period.~~
- 48.3 ~~An Industry Participation Reporting Period is:~~
  - ~~48.3.1. the period between the Commencement Date and the date six (6) months after the Commencement Date;~~
  - ~~48.3.2. each subsequent six (6) month period during the Term;~~
  - ~~48.3.3. if the Agreement ends on a date that is not an anniversary of the Commencement Date or an anniversary of the date in Special Condition **Error! Reference source not found.**, the period from the conclusion of the preceding Industry Participation Reporting Period until the date of termination or expiry of the Agreement;~~
  - ~~48.3.4. for short term projects of strategic importance to the State the period notified by the IA to the Contractor in writing; and~~
  - ~~48.3.5. where the Term is for a period less than six (6) months, the entire Term.~~
- 48.4 ~~The Contractor must attend any meeting scheduled by the IA during the Term to review how the IPP is being implemented and advanced, and for this purpose, the Contractor must provide all information reasonably requested by the IA. The IA must give the Contractor not less than ten (10) Business Days' notice of any such meeting.~~
- 48.5 ~~The IA may, by written notice require that the Contractor within a reasonable time specified in the notice, provide information or documents to enable the Industry Advocate to assess the Contractor's compliance with this special condition.~~

- ~~48.6 — If the IA reasonably believes that the Contractor is not complying with the requirements of this special condition, the IA may by notice in writing direct that the supply comply with those requirements.~~
- ~~48.7 — Upon receipt of the notice, if the Contractor is of the opinion that its noncompliance is reasonable and justified, the Contractor may provide a response to the Industry Advocate outlining that opinion and the reasons for it.~~
- ~~48.8 — The Contractor's failure to comply, in whole or in part, with the commitments contained within the IPP will be a factor taken into account in the award of future contracts for the Government of South Australia.~~
- ~~48.9 — In this clause, "Industry Advocate" or "IA" means the person from time to time appointed to the position of Industry Advocate under s. 5 of the Industry Advocate Act 2017.~~

## SCHEDULE

### Item 1

#### Principal

South Australian Water Corporation (SA Water)

ABN 69 336 525 019

GPO Box 1751

Adelaide SA 5001

#### Principal's representative

[Tim Kildea]

### Item 2

#### Contractor's Name

(Contractor's Name, ABN, ACN (if any) & Business Address)

The University of Adelaide (UoA)

ABN 61 249 878 937

Level 4, Rundle Mall Plaza, 50 Rundle Mall, Adelaide SA 5000

#### Contractor's representative

[Simon Brennan]

### Item 3

#### Details of Services to be provided (including Deliverables)

Date	Milestones/Deliverables
The date of signing of the Agreement by both parties	On signing of the Agreement by both parties Project starts SA Water provides equipment to SARDI. Instrument preparation and calibrations performed. Mooring frames ordered.
15-Jul-21	First moorings (3) deployed Submission of Milestone report 1 includes: - Develop HRBBM model - Test salt discharge implementation methods into model. Define and run initial scenario studies for maximum saline discharge and 2-3 discharge locations. Present initial model scenario study results. - Analysis of model results to provide identification of oceanographic features and recommendations for future mooring placement/ model validation.
15-Sep-21	3 Moorings turned over

15-Nov-21	<p>3 Moorings turned over</p> <p>Submission of Milestone report 2:</p> <ul style="list-style-type: none"> <li>- Preliminary model validation/calibration using first 2 months of data completed.</li> <li>- Run 5-year hindcast (2016-2020)</li> <li>- Scenario studies of discharge refined and re-run over 5-year period.</li> <li>- Recommendation for further model refinements made and model refinements commence.</li> <li>- All field data provided to SA Water.</li> </ul>
30-Nov-21	SA Water provides SARDI HR bathymetry survey results to SARDI (if needed). SARDI commences model grid refinements using provided data.
15-Jan-22	3 Moorings turned over
15-Mar-22	3 Moorings turned over
01-April-22	<p>Submission of Milestone report 3:</p> <ul style="list-style-type: none"> <li>- Model refinement including SA Water bathymetry incorporation into grid completed.</li> <li>- Model validation using first 6 months of data completed. Refined model scenario results completed and final scenario studies defined.</li> <li>- All field data provided to SA Water.</li> </ul>
15-May-22	3 Moorings turned over.
15-Jul-22	3 Moorings recovered. (12 months of Field data completed).
15-Sep-22	Submission of Draft Final report: Includes reporting on model validation using 12 months of fields data, present final scenario studies results. All field data provided to SA Water.
5-Oct-22	Submission of Final report: provided to SA Water.

**Item 4            Commencement Date**  
Upon signing of this Agreement

**Item 5            Completion Date**  
31 October 2022

**Item 6 Price and Payment**

Price: \$327,045.40 (GST Inclusive)

GST Exclusive: \$297,314.00

Address for invoices: Accounts Payable (accountspayable@sawater.com.au)  
or GPO Box 1751, Adelaide 5001

Invoice Requirements

Other requirements: N/A

**Payment Schedule**

Date	Milestone	Payment (\$) Ex GST
The date of signing of the Agreement by both parties	On signing of the agreement by both parties	71,828.50
15-Nov-21	Submission of Milestone report 2	71,828.50
01-April-22	Submission of Milestone report 3	71,828.50
15-Sep-22	Submission of Draft Final report	40,914.25
5-Oct-22	Submission of Final report	40,914.25
<b>SUBTOTAL</b>		<b>297,314.00</b>
<b>GST</b>		<b>29,731.40</b>
<b>TOTAL COST</b>		<b>327,045.40</b>

**Item 7 Insurances**

Public Liability Insurance - [\$20 million]

Professional Indemnity Insurance - [\$5 million]

Required to note the interests of the Principal?: - No

**Item 8 Intellectual Property Rights**

Option B

**Item 9      Background IP**

Ocean models [South Australian Regional Ocean Model (SAROM), Two Gulfs Model (TGM) and High-Resolution Boston Bay model (HRBBM)]

Owner: SARDI

**Item 10      Approved Subcontractor(s)**

The Minister for Primary Industries and Regional Development (the Minister) acting through the South Australian Research and Development Institute (SARDI), a Division of the Department of Primary Industries and Regions (PIRSA) (ABN 53 763 159 658)



**Contract or Project Name:****QUOTE REF NUMBER – Contract No. CS9399 Oceanographic Modelling and Monitoring Boston Bay**

SA Water Corporation invites quotations for the supply of the above mentioned services. Please complete all fields of the required information section in this form and return it by email to:

<b>Email:</b>	<a href="mailto:Grant.Fisher@sawater.com.au">Grant.Fisher@sawater.com.au</a>
---------------	--

**Enquiries should be directed to**

<b>Name:</b>	Grant Fisher
<b>Position:</b>	Category Specialist
<b>Phone:</b>	0422 414 535
<b>Email:</b>	<a href="mailto:grant.fisher@sawater.com.au">grant.fisher@sawater.com.au</a>

**Specification of Requirements****1. BACKGROUND**

To help secure regional water supplies on the Eyre Peninsula, Port Lincoln's Boston Bay has been selected by SA Water as potential site for the development of a desalinisation plant. Field observations of the hydrodynamic and hydrographic conditions in Boston Bay and adjacent coastal waters are required to establish a baseline, as well as support ocean modelling and dispersion studies required to underpin plant design, development and the approval process. SA Water has requested SARDI undertake measurements of currents, waves, temperature, and salinity in the vicinity of the proposed intake and outfall locations. To achieve this, SARDI will deploy (and recover) several bottom moorings with equipment to be provided by SA Water and SARDI. Collected data will be analysed by SARDI oceanographers and will be used to develop and validate a high-resolution hydrodynamic model for the region. The model will be nested within SARDI's 2.5 km resolution SAROM model and 1.5 km resolution Two Gulfs Model to achieve a spatial resolution of 300m. Model scenario studies for different desalinisation plant discharge volumes, rates and locations will be undertaken in order to assess the suitability and capacity of the region to host a desalinisation plant. All field data will be provided to SA Water along with a report summarising the observations, model development, model validation, scenario study results and recommendations.

**2. SCOPE & DELIVERABLES****2.1 SCOPE**

This study will make measurements of relevant oceanographic variables using bottom moorings at three locations. The moorings will be maintained for a period of 12 months to develop a baseline timeseries of observations and to support the development and validation of a high-resolution hydrodynamic model for the region. Measures ocean currents (speed and direction throughout the water column) and hydrographic variables (salinity, temperature) will be collected at two locations in the Boston Bay region. A third mooring will provide measures of hydrographic variables (salinity, temperature). Where sensors permit, additional measures of dissolved oxygen, chlorophyll and turbidity and surface waves (significant and maximum wave height and direction and peak period) will be made at one or more mooring sites. SA Water will provide oceanographic sensors to maintain two moorings and SARDI the sensors to maintain one mooring. All observations will be QA/QC'ed following national IMOS protocols and raw and processed data provided to SA Water.



The observations will also be used to develop and validate a high-resolution (300 m) hydrodynamic model for the Boston Bay region. The model will be used to undertake scenario studies of desalination plant discharge into Boston Bay necessary to assess the suitability and capacity of the region to host a desalination plant.

The project has 3 clearly defined Objectives:

1. Implement a field survey to collect baseline hydrographic and hydrodynamic data for a period of one-year by maintaining three ocean moorings for a period of 12 months.
2. Using the field observations, develop and validate a nested high-resolution (300m) hydrodynamic model for the region and produce a 5 year hindcast simulation.
3. Using the model conduct modelling scenario studies to understand brine dispersion from saline discharges for different fluxes and locations.

## 2.2 DELIVERABLES

Oceanographic field survey implemented, and raw and processed ocean data provided to SA Water. Oceanographic data includes.

1. Currents (2 moorings): 1m vertical resolution average current speed and direction. Data processed using the Nortek OceanContour software and national IMOS qa/qc data processing protocols.
2. Waves (1 mooring). Data analyses to provide measures of significant and maximum wave height, peak period and direction.
3. Temperature salinity and depth (3 moorings). Timeseries and vertical profiles collected and processed following national IMOS qa/qc data processing protocols. Where available data for additional variables (e.g. dissolved oxygen, turbidity, chlorophyll, pH) will be provided.

Model development.

1. Development of a high-resolution Boston Bay model (HRBBM) nested within SARDI Two Gulf Model (TGM). Produce a 5-year hydrodynamic model hindcast (2016-2020). Initial model grid developed using the current best available bathymetric data for region. SA Water to provide high-resolution bathymetric data for the region by the 6-month mark of the project to complete the model development.
2. Undertake scenario studies of different saline discharge rates (planned operational and max) and for up to 3 discharge locations to understand the dispersion of brine and assess the suitability of the region to host a desalination plant.
3. Detailed milestone and Final reports presenting the methods, field survey results, model development and validation and scenario study results. Provide recommendations on; future areas of model improvement, long-term monitoring program design and an assessment of scenario study results with regard to the suitability of the region to host a desalination plant.

All field data generated by this project is publicly available on the proviso that permission is obtained from South Australian Water Corporation.

## 3. SUB - CONTRACTORS

If applicable, the tenderer will identify sub-contractors and provide a brief outline of their skills, capabilities and responsibilities in context of this engagement.

The University of Adelaide (UoA) will subcontract the Minister for Primary Industries and Regional Development (the Minister) acting through the South Australian Research and Development Institute (SARDI), a Division of the Department of Primary Industries and Regions (PIRSA) to undertake the Services. SARDI will undertake the Services as described in this RFQ.

## 4. TERMS AND CONDITIONS

The terms and conditions as attached (SA Water Services – Simplified)

## 5. TIMEFRAME

The project is required to be delivered by 5-October-2022

### Reconciliation

SA Water is committed to supporting Reconciliation Australia's vision for an Australia that respects the special place and culture of Aboriginal and Torres Strait Islander peoples as the first Australians. We recognise that strong and positive relationships between Aboriginal and Torres Strait Islander peoples and other Australians is the foundation for success and our national wellbeing.

SA Water's Reconciliation Action Plan <https://www.sawater.com.au/about-us/reconciliation> provides a public statement of SA Water's commitment to reconciliation and outlines actions including the provision of opportunities for Aboriginal and Torres Strait Islander people in the work that SA Water and its contractors undertake.

Respondents are encouraged to develop strategies to ensure that meaningful opportunities for Aboriginal and Torres Strait Islander people and businesses are maximised as part of this engagement.

Not Applicable

### Information Required in Response

Supplier to complete all parts of this section and pricing/expense details on page 3.

1. Provide a clear high level understanding around how you will approach the engagement and the methodology used.

#### Methods - Field Surveys

Three bottom moorings will be deployed in July 2021 and maintained for a period of one calendar year. The location of moorings in Boston Bay and surrounding waters will be determined by SA Water and informed by the hydrodynamic model outcomes. It is recommended all SA Water sensors that have not been calibrated by a certified laboratory within the last 12 months be sent to CSIRO Hobart for calibration before deployment. Two moorings will be assembled and maintained in waters less than 20 m depth using SA Water equipment. SA Water Mooring 1 (SAWM1) will be assembled with a Nortek ADCP current meter and YSI EXO2sonde CTD with additional sensors for dissolved oxygen, turbidity and chlorophyll. The sensors will be mounted on a mooring frame fitted with an acoustic release buoy for recovery. An additional





assembly mirroring that mentioned above will be used to 'hot swap' the SAWM1 mooring every two months. SA Water Mooring 2 (SAWM2) will consist of a EXO2sonde CTD with additional sensors for dissolved oxygen, turbidity and chlorophyll. The sensors will be mounted on a mooring frame fitted with an acoustic release buoy for recovery. An additional assembly mirroring that mentioned above will be used to 'hot swap' the SAWM2 mooring every two months. The third mooring will be assembled using SARDI equipment (SARDIM1) and maintained in waters up to a depth maximum of 35 m. This will be assembled with a Nortek ADCP current meter with wave and turbulence measurement capabilities and Seabird 16plus CTD. SARDI has enough equipment to enable hot swapping of this mooring at 2-4 monthly intervals as shown in Schedule below (Figure 1). Note that for a period of three to four months (Jan-May) the mooring will need to be deployed as part of our commitment to the Aquaculture Environmental Monitoring Program (AEMP) at a location that mutually benefits the model development, validation and outcomes needed by the AEMP. SARDI has 2 Seabird 16plus CTDs with chlorophyll fluorescence and turbidity sensor but only one has an additional sensor for dissolved oxygen.

Mooring	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21	Jan-22	Feb-22	Mar-22	Apr-22	May-22	Jun-22
SAWM1	IN	IN	Service	Service	IN	IN	Service	Service	IN	IN	Service	Service
	Service	Service	IN	IN	Service	Service	IN	IN	Service	Service	IN	IN
SAWM2	IN	IN	Service	Service	IN	IN	Service	Service	IN	IN	Service	Service
	Service	Service	IN	IN	Service	Service	IN	IN	Service	Service	IN	IN
SARDIM3	Service	Service	IN	IN	Service	Service	AEMP	AEMP	AEMP	AEMP	Service	Service
	IN	IN	Service	Service	IN	IN	Service	Service	Service	Service	IN	IN

**Figure 1. Schedule of planned mooring deployment/recovery and servicing.**

The 'hot' swapping of the mooring will allow for efficient use field staff time and resources and will help minimise instrument failure (e.g. due to fouling) and subsequent data loss. Recovered moorings will be returned to SARDI for data download, servicing, and reconfiguration before being 'hot swapped' back into the field. Two days of vessel time using the RV Seriola and three SARDI staff have been allocated for the mooring deployment/recovery. This will allow enough time to service the moorings and collect additional water samples for SA Water if required. Vertical CTD profiles using a Seabird 19 plus profiler with additional sensors for dissolved oxygen, turbidity and chlorophyll will be conducted at each of the mooring locations during the deployment/retrieval of the moorings to understand the extent of stratification.

#### Methods- Model Development and Scenario Studies

Field data will be used to develop and validate a nested high-resolution hydrodynamic model for the region inshore of Boston Bay and the surrounding bays including the area from approximately Cape Donington to Point Bollingbroke. The model will be nested within SARDI's validated 2.5 km resolution South Australian Regional Ocean Model (SAROM) model and 1.5 km resolution Two Gulfs Model (TGM) to achieve a spatial resolution of 300m with model boundary conditions derived from the TGM. Lateral boundary conditions and initial fields for the SAROM model will be provided by 10km versions of the Ocean Forecast Australia Model (OFAM); the CSIRO's Blue Link Reanalysis 2015 will be used for 2016-2018 and the CSIRO/Bureau of Meteorology's OceanMAPS v3.1-v3.3 for 2019-2020. The surface atmospheric forcing will be provided by the NCEP Climate Forecast System v2 for all model runs.

Model scenario studies for different desalination plant discharge volumes, rates and locations will be defined in discussion with SA Water and undertaken to assess the suitability and capacity of the region to host a desalination plant.

Model development and scenarios studies will proceed in the following steps:

1. Develop a high-resolution Boston Bay model (HRBBM) grid using the currently available best available bathymetry for the region. Test salt discharge implementation methods into model. Define and run initial scenario studies for maximum saline discharge and 2-3 discharge locations. Present initial/preliminary model scenario study results.
2. Produce a 5-year (2016-2020) hydrodynamic model hindcast with the HRBBM nested within the TGM.



3. Use the 5-year HRBBM hindcast to conduct two scenario studies for the maximum saline discharge rate and limited (i.e. up to three) different discharge locations. Scenario study results used to inform mooring placement for model validation and baseline data collection.
4. Validation of model against first 2 months of field data. Results used to recommend model refinements and model development continued. Scenario studies re-run.
5. Validation of model against first 6 months of data. Model refinements recommended in (3) completed and model grid improvements using improved bathymetry data provided by SA Water completed. Scenario studies re-run.
6. Validation of model against 12 months of data. Final model refinements completed, and revised scenario studies completed.

2. Provide the names of nominated personnel and their credentials in the context of the engagement.

<<Insert text here>>

#### Investigators

Dr Mark Doubell – Principal Investigator, Affiliate Senior Lecturer, The University of Adelaide | SARDI, Oceanography Sub-Program Leader | [mark.doubell@sa.gov.au](mailto:mark.doubell@sa.gov.au)

Dr Charles James– Affiliate Senior Lecturer, The University of Adelaide | SARDI, Senior Research scientist –Ocean Modeller – Co Investigator

#### Administration

Sanjee Peiris - Senior Research Development Officer | The University of Adelaide | 08 8313 3641 | [sanjee.peiris@adelaide.edu.au](mailto:sanjee.peiris@adelaide.edu.au) or [rbmajorprograms@adelaide.edu.au](mailto:rbmajorprograms@adelaide.edu.au)

3. Availability of the proposed personnel to meet the required timeframe.

As per the pricing, the project (science and technical) staff have been funded the following FTE in order to meet the project requirements:

Science (Doubell, James) 0.33 FTE total

Technical (3 -staff) – 0.52 FTE total

The delivery of services is outlined in the Milestone Schedule below:

Date	Milestone
The date of signing of the Agreement by both parties	On signing of the Agreement by both parties  Project starts SA Water provides equipment to SARDI. Instrument preparation and calibrations performed. Mooring frames ordered.
15-Jul-21	First moorings (3) deployed  Submission of Milestone report 1 includes:  - Develop HRBBM model

	<ul style="list-style-type: none"> <li>- Test salt discharge implementation methods into model. Define and run initial scenario studies for maximum saline discharge and 2-3 discharge locations. Present initial model scenario study results.</li> <li>- Analysis of model results to provide identification of oceanographic features and recommendations for future mooring placement/ model validation.</li> </ul>
15-Sep-21	3 Moorings turned over
15-Nov-21	3 Moorings turned over  Submission of Milestone report 2: <ul style="list-style-type: none"> <li>- Preliminary model validation/calibration using first 2 months of data completed.</li> <li>- Run 5-year hindcast (2016-2020)</li> <li>- Scenario studies of discharge refined and re-run over 5-year period.</li> <li>-Recommendation for further model refinements made and model refinements commence.</li> <li>- All field data provided to SA Water.</li> </ul>
30-Nov-21	SA Water provides SARDI HR bathymetry survey results to SARDI (if needed). SARDI commences model grid refinements using provided data.
15-Jan-22	3 Moorings turned over
15-Mar-22	3 Moorings turned over
01-April-22	Submission of Milestone report 3: <ul style="list-style-type: none"> <li>- Model refinement including SA Water bathymetry incorporation into grid completed.</li> <li>- Model validation using first 6 months of data completed. Refined model scenario results completed and final scenario studies defined.</li> <li>-All field data provided to SA Water.</li> </ul>
15-May-22	3 Moorings turned over.
15-Jul-22	3 Moorings recovered. (12 months of Field data completed).
15-Sep-22	Submission of Draft Final report: Includes reporting on model validation using 12 months of fields data, present final scenario studies results. All field data provided to SA Water.
5-Oct-22	Submission of Final report: provided to SA Water.



4. Acknowledgement of Terms and Conditions (or reference the Panel Terms and Conditions previously agreed where applicable to this engagement) – Completed on Page 4.

Yes, subject to the proposed amendments to the Simplified Contract Conditions for Services.

5. Pricing per below table.

Pricing is provided in the below **Table 1**.

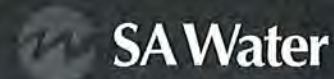
6. Please attach any additional information.

Yes – Proposed Milestone Payment Schedule. See **Table 2**

**Table 2**

Date	Milestone	Payment (\$) Ex GST
The date of signing of the Agreement by both parties	On signing of the agreement by both parties	71,828.50
15-Jul-21	<p>First moorings (3) deployed</p> <p>Submission of Milestone report 1 includes:</p> <ul style="list-style-type: none"> <li>- Develop HRBBM model</li> <li>- Test salt discharge implementation methods into model. Define and run initial scenario studies for maximum saline discharge and 2-3 discharge locations. Present initial model scenario study results.</li> <li>- Analysis of model results to provide identification of oceanographic features and recommendations for future mooring placement/ model validation.</li> </ul>	0
15-Sep-21	3 Moorings turned over	0
15-Nov-21	<p>3 Moorings turned over</p> <p>Submission of Milestone report 2:</p> <ul style="list-style-type: none"> <li>- Preliminary model validation/calibration using first 2 months of data completed.</li> <li>- Run 5-year hindcast (2016-2020)</li> <li>- Scenario studies of discharge refined and re-run over 5-year period.</li> <li>-Recommendation for further model refinements made and model refinements commence.</li> </ul>	71,828.50

# Request for Quotation - Services



	- All field data provided to SA Water.	
30-Nov-21	SA Water provides SARDI HR bathymetry survey results to SARDI (if needed). SARDI commences model grid refinements using provided data.	0
15-Jan-22	3 Moorings turned over	0
15-Mar-22	3 Moorings turned over	0
01-April-22	Submission of Milestone report 3:  - Model refinement including SA Water bathymetry incorporation into grid completed.  - Model validation using first 6 months of data completed. Refined model scenario results completed and final scenario studies defined.  -All field data provided to SA Water.	71,828.50
15-May-22	3 Moorings turned over.	0
15-Jul-22	3 Moorings recovered. (12 months of Field data completed).	0
15-Sep-22	Submission of Draft Final report: Includes reporting on model validation using 12 months of fields data, present final scenario studies results. All field data provided to SA Water.	40,914.25
5-Oct-22	Submission of Final report: provided to SA Water.	40,914.25
SUBTOTAL		297,314.00
GST		29,731.40
<b>TOTAL COST</b>		<b>327,045.40</b>



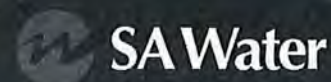


Table 1

Pricing Details			
Description	Amount\$	GST\$	Total Price\$
Salaries	107,871		
Operating	122,794		
Overhead	66,649		
Capital	0		
<b>Total</b>	<b>\$297,314</b>	<b>\$29,731.40</b>	<b>\$327,045.40</b>
SARDI in-Kind	42,717		

General Expenses / Disbursements		
Description	Basis for Calculation	Fees / Rates/ Charges
N/A		

# Request for Quotation - Services



<b>Company Name</b>	<b>THE UNIVERSITY OF ADELAIDE</b> (UoA), a body corporate established pursuant to the University of Adelaide Act 1971 and having its principal offices at North Terrace, Adelaide, South Australia 5005		
<b>Aust. Business Number</b>	ABN 61 249 878 937		
<b>Company Address (including postcode)</b>	Level 4, Rundle Mall Plaza, 50 Rundle Mall, Adelaide SA 5000		
<b>Contact Details</b>	Sanjee Peiris		
<b>Phone</b>	08 8313 3641		
<b>Fax</b>	N/A		
<b>Email</b>	sanjee.peiris@adelaide.edu.au or rbmajorprograms@adelaide.edu.au		
<b>Declaration in Relation to Unlawful Collusion</b>	<p><b>I hereby declare as follows:</b></p> <p>I am authorised to provide this declaration on behalf of The University of Adelaide.</p> <p>I confirm that the quotation submitted by the Bidder is independent and that there has not been any unlawful collusion with any other bidder or party in connection with this quotation process. This clause does not apply to any formal joint venture contractual arrangement entered into between the Bidder and any other person(s), the details of which have been provided to SA Water as part of the quote submitted by the Bidder.</p> <p>I confirm that the total value of the goods and/or services to be provided by sub-contractors, to the extent known at the time of making this declaration, is \$327,045.40 (incl. GST) [where that value exceeds either of \$1,000,000 (GST inc) or 25% of the total value of the quote] Attached hereto is a complete list of all sub-contractors, the value, and the nature of the work to be provided under each sub-contract, to the extent known at the time of making this declaration.</p> <p>I understand that if any part of this declaration is found to be false, SA Water reserves the right (regardless of any subsequent dealings) to:</p> <p>Terminate negotiations with the Bidder;</p> <p>Terminate consideration of the Bidder's bid; and</p> <p>Terminate any contract between the Bidder and SA Water in relation to the engagement without any obligation on SA Water to make any payment to the Bidder.</p>		
	The University of Adelaide hereby offers to supply the services set out above, under the terms and conditions, subject to the proposed amendments attached to this Request for Quotation (SA Water Services – Simplified).		
	 <hr/> <p>Signature</p> <p><b>Simon Brennan</b>                      <b>Executive Director, Research Services</b>                      <b>30 June 2021</b></p> <p>Name    Position    Date</p> <p>Note: If your quote is submitted jointly with another party or parties then each joint bidder must provide a signed declaration in the form set out above.</p>		
<b>This offer remains valid for acceptance for a period of:</b>	30 days		



## Larval transport modelling to inform the SA Water Desalination Project

### Background

Security of regional water supplies is a key priority for SA Water and existing supplies for the regional communities on Eyre Peninsula need to be supplemented to ensure future proofing. To achieve this, SA Water proposes to build a desalination plant at a site to be determined near Port Lincoln.

The SA mussel aquaculture industry (Industry) has farms in lower Spencer Gulf with most farms located in the Port Lincoln region. Due to its proximity to the planned desalination plant, Industry has raised concerns regarding the potential impact of the desalination plant on its current annual production of ~1,800 tonnes valued at ~\$4 million (direct on-farm) (EconSearch, 2020).

To assess the potential impact of a desalinisation plant intake on pelagic larvae (such as mussels), SA water has requested SARDI undertake larval transport modelling studies using the new high-resolution model being developed for the Port Lincoln region. The model will be used to understand the potential connectivity of spawning larvae in the region with the proposed desalination plant intake site.

### Methods

Biophysical modelling of mussel larval transport will use SARDI's high-resolution hydrodynamic model for Boston Bay (HRBBM) and the LTRANS particle tracking model (North et al. 2006, 2008).

The HRBBM has a spatial resolution of 300m and provides the best available predictions of the oceanographic circulation including currents driven by tides, wind and thermohaline forcing. Hourly predictions of current speed and direction from HRBBM model will be used to drive the LTRANS model.

The biological characteristics adopted to represent spawning mussel larvae in LTRANS have been developed through consultation with Industry and are summarized hereafter.

Mussel larvae are assumed to be passive. For each year simulated, the spawning season will include five monthly spawning events, with the first event beginning on the first day of May and last event commencing on the first day of September. For each monthly spawning event, ten particles (representing larvae) will be released daily at each model grid cell over a period of 5 days, with approximately 3,500,000 particles released per month. Particles will be tracked until the end of the month and will have the capability to settle at mussel lease sites from days 21-28 after release. Any particle crossing within 300m of the desalination intake pipe location will be removed from the system.

To better understand and account for effect of interannual differences in the regional circulation on transport and connectivity, scenario studies will be undertaken for three representative years within the period 2016-2020.

Results for the three annual spawning seasons will be collated to understand the potential impact of the intake pipe on larval recruitment in the region.

### Mussel Industry Feedback Request

To optimise the outcomes delivered by this study, Industry feedback is requested in relation to the above methodology. Suggestions for potential refinement may include:

1. - adjustment of the start date for each of the monthly spawning events (currently assumed above to be the 1<sup>st</sup> of each month across the period May to September). SARDI previously provided model results for temperature to Industry for consideration.
2. - selection of the three representative years in the range 2016-2021 (at this point assumed to be 2019, 2020, 2021) to be included in the study.

We are happy to receive Industry input by Friday 27-May COB so that the modelling can commence.

### References

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# An evaluation of proposed larval transport modelling to inform the SA Water Desalination Project

A report prepared for Eyre Peninsula Seafoods Pty. Ltd.

May 2022

**Dr Paul McShane**

*Global Marine Resource Management Pty Ltd.*



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**Dr Paul McShane**

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**An evaluation of proposed larval transport modelling to inform the SA Water Desalination Project.** May 2022, 8pp.

[www.globalmarineresourcemanagement.com.au](http://www.globalmarineresourcemanagement.com.au)





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## EXECUTIVE SUMMARY

A biophysical model of mussel transport within Boston and Proper Bays is being developed to assess the vulnerability of mussel larvae to entrainment in the seawater intake pipe of a proposed desalination plant at Billy Lights Point, Port Lincoln. The prospective volume of seawater taken in (up 20 giga litres/year) suggests certain impact on nearby mussel farms given a pelagic mussel larval stage of ~ 4 weeks and the close proximity of the intake to mussel populations. The model formulation considers wind, tide and thermohaline forcing to predict the trajectory of particles released at various locations in Boston and Proper Bays. Very little is known of mussel dispersal patterns including spawning periodicity, duration and location. Mussel farmers have detailed knowledge of spatfall (mussel settlement) but not of pelagic larval duration or of source populations. Thus, reliable predictions of larval source and concentrations cannot be made for model input. Furthermore, the model should allow for vertical movement of mussel larvae which is influenced by larval stage and tidal stage. This, and frictional forces arising from bottom topography and surface waves, will considerably modify relative exposure to flow velocities and therefore larval transport and retention near the intake site. Unless these inputs are included in the model, dispersal trajectories based on hydrodynamics alone are unlikely to be accurate. Thus, the model as presented will be unable to adequately characterise the risk of entrainment of mussel larvae in the desalination intake pipe. This uncertainty and other likely impacts warrant exclusion of a desalination plant from Boston and Proper Bays.



## INTRODUCTION

Potential locations considered by SA Water for a desalination plant to supply freshwater to the Eyre Peninsula include Proper and Boston Bays, Port Lincoln, South Australia. This location is demonstrably inappropriate given world's best practice for siting desalination plants on high-energy coastlines and away from valuable biological resources (Lattermann and Hopner 2008, Roberts 2010, Missimer and Maliva 2018).

Proper and Boston Bays are relatively sheltered embayments within Spencer Gulf (Middleton and Doubell 2014, Middleton et al. 2014) and support licenced aquaculture leases (PIRSA 2014) collectively supporting Australia's largest mussel culture industry (production of ~1,800 tonnes p.a. valued at \$4 million) (EconSearch 2020). Potential adverse impacts of an operational desalination plant on the mussel industry have been summarised by McShane (2021). Even so, SA Water has requested that SARDI Aquatic Sciences undertake hydrodynamic modelling to evaluate the potential connectivity of mussel larvae linked to a proposed desalination plant water intake site at Billy Lights Point, Port Lincoln.

The proposed modelling addresses concerns that mussel (*Mytilus galloprovincialis*) larvae will be entrained in the water intake of the desalination plant (McShane 2021). At peak production, the proposed desalination plant is forecast to produce 8 giga litres of freshwater each year. This production will require the intake of at least 20 giga litres of seawater from near-shore waters. Extraction of such volumes will include those mussel larvae which would otherwise contribute to natural spatfall at nearby harvest sites. The proportion of available mussel larvae potentially affected is currently unknown hence the need for modelling of larval transport.

SA Water has requested industry feedback in relation to the proposed larval transport modelling. This feedback is presented here.

## THE SARDI MODEL

Biophysical modelling of mussel larval transport will use SARDI's high-resolution (300 m grid) hydrodynamic model for Boston Bay and the LTRANS particle tracking model. Thus, the SARDI model links derived water movement (influenced by wind, tide, and thermohaline forcing) to the dispersal trajectory of mussel larvae. Parameter estimates for the hydrodynamic model include wind velocity, tidal stage, salinity, temperature. Scenarios include extremes of these estimates including "dodge" tides which regularly occur in Spencer Gulf. Model input also includes current meter data which have previously been used to evaluate flushing time for aquaculture leases situated in Spencer Gulf so as to determine the carrying capacity of tuna and kingfish farms (Middleton and Doubell 2014, Middleton et al. 2014).

An unusual characteristic of the circulation of Spencer Gulf (including Boston and Proper Bays) is the phenomena of "dodge" tides, an extreme form of neap tide where current speeds are zero every 15 days or so (Middleton and Doubell 2014). Middleton and Doubell (2014) and Middleton et al. (2014) used a validated hydrodynamic model at a 600 m grid resolution to determine nutrient flushing rates from aquaculture leases. Middleton and Doubell (2014) noted that a similar approach could be used to estimate dilution rates of hypersaline effluent from desalination plants. A more recent approach, evaluated here, nests a high-resolution spatial model (300 m grid) within the two gulfs model for Spencer Gulf and Gulf St Vincent (TGM model). SARDI proposes situating 3 mooring buoys collectively within the waters of Boston Bay and Proper Bay to obtain relevant input data (Industry Reference Group EP Desalination Plant 2021).

There is not a lot of detail presented in the proposed methods to model mussel larval transport. Accordingly, this response reflects available information including the minutes of meetings convened to evaluate the proposed Eyre Peninsula desalination plant. Hourly predictions of current speed and direction will be used as inputs to the LTRANS particle tracking model (presumably including real time measurements from current meters). Mussel larvae are assumed to be passive (i.e., they behave as neutrally-buoyant particles passively



dispersed with prevailing currents). Spawning seasons will include five monthly spawning events (from May until September). Particles (i.e., simulated larvae) will be released across Boston and Proper Bays at a 300 m grid resolution. Particles will be tracked up to 28 days after “release” according to nominal larval duration periods. Interannual variation in water circulation patterns will be evaluated given scenarios from 2016-2020. Such scenarios would include extremes of wind and tide. Seasonal variation in water temperature and salinity will also contribute to variation in water movement and therefore particle transport. Thus, presumably, water circulation patterns (driven by wind, tide and thermohaline forcing) will be included in scenario evaluation (derived from larger scale hydrodynamic models applicable to the region). Results will be collated to evaluate the potential impact of the intake of the proposed desalination plant on larval recruitment to nearby mussel leases. Suggestions by SARDI for potential refinement of model inputs include:

- Adjustments of the start date for each of the monthly spawning events;
- Selection of three representative years in the range 2016-2021.

However, further clarification is required on model inputs and assumptions as presented below.

## MODEL INPUTS AND ASSUMPTIONS

The LTRANS particle tracking model (North et al. 2008) uses Lagrangian algorithms to simulate larval transport (Laurent et al. 2020). This approach considers the trajectory of individual particles (i.e. simulated larvae) and calculates the movement of each particle separately compared with Eulerian models which consider the movement of a concentration of particles and calculates diffusion and convection in the water body. However, the Lagrangian model still requires input of vertical movement (advection) to update the particle position. This is usually computed by a Eulerian hydrodynamic model (Laurent et al. 2020). In the preliminary description of the SARDI model, vertical movement of larvae is not discussed but this is implicit in the LTRANS model (North et al. 2008). Furthermore, in a relatively shallow and sheltered embayment, depth and basin topography is important. Benthic boundary layers produce friction and reduce flow velocity through the development of turbulence at the seafloor interface affecting larval dispersal trajectories (Black and McShane 1990, Roegner 2000, Reidenbach et al. 2021). In shallow embayments such as Boston and Proper Bays, boundary layers at the seafloor are thinner but shear stresses and turbulence are higher influencing the trajectory of larval transport (Reidenbach et al. 2021). Similarly, the influence of surface gravity waves acts to reduce the velocity of wind-driven longshore currents thereby reducing the dispersal of larvae (McShane et al. 1988, Black and McShane 1990).

The SARDI particle tracking model explains 50 to 80% of hydrodynamic variability (currents and circulation)<sup>1</sup>. However, this model applies to the general circulation of water within Boston and Proper Bays. As noted above, closer to the shore where the intake of the proposed desalination plant is located, flows will be considerably modified from values from general circulation patterns. The following issues are germane to modelling mussel larval transport:

- How is vertical movement of mussel larvae considered in the model?
- What is the influence of bed friction and bottom topography on particle transport and how is it considered in the model?
- Are surface waves considered and how is the influence of bathymetry, waves, and flow velocity treated in the model?

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<sup>1</sup> Minutes of Eyre Peninsula Desalination project – particle tracking modelling (5/10/2021).



## MUSSEL LARVAL ECOLOGY

The pelagic phase of mussel larvae is generally assumed to be of 2 to 4 weeks duration but larvae may take up to 10 weeks to settle following a transition from the veliger to pediveliger stage (Demmer et al. 2022). The early life history of mussels is poorly understood as mussel larvae are difficult to measure in situ (Knights et al. 2006, Demmer et al. 2022). Source populations of mussel larvae are generally unknown. Most information on mussel larval ecology comes from aquarium studies. For example, mussel larvae are known to move vertically in response to food availability or in response to salinity gradients in the water column (Sameoto and Metaxas 2008). Although mussel larvae have weak swimming ability and may be considered passive in response to horizontal flows, they can vary their position in the water column (Dobretsov and Miron 2001, Demmer et al. 2022). Mussel larvae evidently prefer surface waters during early their early veliger stage before moving deeper in the water column nearer settlement (Knights et al. 2006). In particular, tides can influence the vertical position of mussel larvae with larvae concentrated near the seafloor during ebb tides and uniformly distributed during flood tides (Knights et al. 2006). Thus, the dispersal trajectories of mussel larvae will be governed by biophysical processes including larval behaviour (which will influence position in the water column) and flow velocity (which will be influenced by bottom topography and water currents) (see also North et al. 2008).

The vulnerability of mussel larvae to entrainment in the seawater intake of the proposed desalination plant at Billy Lights point will depend on the timing, frequency and location of spawning; the duration of the pelagic larval stage; vertical migration behaviour; and physical transport mechanisms. Mussel farmers in Boston and Proper Bay have good knowledge and records of mussel settlement but not of spawning or of larval duration. This information is relevant to model inputs for spawning timing and periodicity. However, given the considerable uncertainty in mussel dispersal behaviour, predictions of dispersal (and therefore vulnerability of larvae to entrainment) based only on general hydrodynamic and particle tracking models are unlikely to be accurate (Demmer et al. 2022).

## CONCLUSIONS

The biophysical model developed by SARDI is unlikely to adequately characterise the risk of entrainment of mussel larvae in the seawater intake of a proposed desalination plant at Port Lincoln. This is because the dispersal behaviour of mussel larvae is poorly understood. The magnitude and location of spawning, the duration of the pelagic larval stage, and the behaviour of larvae that influences their vertical position in the water column are generally unknown. Further to this, predictions of larval transport trajectories stem largely from hydrodynamic modelling of flow velocities influenced by wind, tide and thermohaline forcing. Such model input explains 50 to 80% of flows in Boston and Proper Bays. However, flow velocities will be considerably modified by bottom topography, associated bed frictional forces and surface gravity waves. Such influences can attenuate flows such that larvae are retained near the intake longer than would be predicted by the base model. This uncertainty (and other potential impacts) should preclude siting a desalination plant near commercially-viable mussel farms.

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

Ref: eA200096

For	<b>Noting</b>
Critical Date	Nil
Subject	<b>Proposed desalination plant at Billy Lights Point – SARDI Report</b>

### Synopsis

The Minister has been copied into a letter from the lawyers for Clause 6(1) purporting to describe the outcomes of the recent Aquaculture Marine Science Forum held to discuss issues raised by local industry about a proposed desalination plant at Billy Lights Point on the Eyre Peninsula. The issues discussed related to four scientific reports provided to a Marine Science Review Panel overseen by SA Water, which included a SARDI report “Oceanographic monitoring and far-field modelling to inform desalination in Boston Bay”. Information is provided about the outcomes of the forum as understood by PIRSA.

### Recommendations

That you:

1. Note the brief.

**NOTED**

.....

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

/ / 2023

### Ministerial Comments

## Background

- The Minister has received a copy of correspondence from Clause 6(1), on behalf of a client, to David Ryan, the Chief Executive Officer of SA Water, regarding the Aquaculture Marine Science Forum (Forum) held in Adelaide on 21 September 2023.
- The Forum was convened to facilitate a discussion, between industry marine scientists, SA Water, the Marine Science Review Panel and report authors, of issues raised by industry about four scientific reports commissioned by SA Water to inform a decision about the location of a desalination plant on the Eyre Peninsula.
- One of the scientific reports under discussion at the Forum was a SARDI report entitled “Oceanographic monitoring and far-field modelling to inform desalination in Boston Bay”. The authors of this report, SARDI scientists Mark Doubell and Charles James, attended the Forum along with Peter Appleford, ED Major Programs and Regions, to address issues specific to the SARDI report.
- At the conclusion of the Forum, a summary of the next phase of the process was provided, including the continuation of investigations by SA Water in support of the development application, and the opportunity for industry to make further representation during the public consultation stage of the development application assessment.
- The letter purports to describe the outcomes of the Forum. Information about the outcomes of the Forum, as understood by PIRSA, with particular reference to the claims made in the correspondence, is provided below.

## Discussion

- In the correspondence from Clause 6(1) it is claimed that the Forum discussion highlighted a number of fundamental flaws in the process and, therefore, the conclusions being used to address issues relating to the proposed desalination plant. The points raised in the letter are provided below with the PIRSA response.
- *“It is clear that the foundation of this whole process is the evaluation of far-field hydrodynamics of the broad embayment including Proper Bay and Boston Bay.”*  
Response: This is incorrect. The foundation of the evaluation has been four completed studies and several studies in progress. The purpose of the far field modelling was to provide an assessment of the ability of Boston Bay and surrounding embayments to assimilate the brine discharge without having an accumulation over time. SARDI clearly demonstrated in the forum the model was fit for purpose for this work. The forum did not identify an issue of significance with the model.
- *“A hydrodynamic model (with 300 m-grid spacing) built on the two gulfs model developed by SARDI has been utilised to predict large scale variation in current velocity and salinity. What that model has failed to address is the near-field\* (within 100 m) and the mid-field\* (within 1,000 m) characteristics of the discharge plume”*

\*Generally near field modelling looks at changes within 500-1000 m of the inlet/outlet and informs the structure of the diffuser and regulatory requirements/compliance, midfield modelling looks at 500 – 1500 m from the inlet/outlet and informs potential local impacts, and far field models changes greater than 1000m from the inlet/outlet and informs the assimilation of the brine into the broader embayments and gulfs.

Response: SARDI was not requested to model the near or mid field characteristics of the discharge. This is presently being modelled through contractors engaged by SA Water. It was clearly explained at the forum and in previous presentations that this work is underway and would be included in the development application.

- *“The model utilised simply has no capacity to assess or evaluate near shore water movements, which are so vital in assessing localised impacts of both water intake and effluent discharge from the proposed desalination plant”*

Response: This statement is incorrect, and it was not demonstrated or agreed in the forum. The model has been validated to assess/evaluate water movements commensurate with modelling the ‘far-field’ circulation. It was noted during the forum that the near shore waters of concern to the marine scientists were not the proposed location of the intake and discharge points. The model effectively predicted movements in the far-field in the vicinity of the proposed intake and discharge points.

- *“The SARDI report therefore does not address fundamental matters, which are critical criteria in this decision-making process”*

Response: The SARDI report is fit for purpose for the scope of work SARDI was requested to undertake. Other aspects of the decision-making process are being addressed by other published reports or work currently being undertaken by SA Water.

- *“These matters have particular relevance to mussel larval ecology and its effect and impact upon the location, timing and duration of larval production”*

Response: The SARDI work accurately demonstrates the connectivity of particles released at various locations across Louth, Proper and Boston Bays with potential intake and discharge points. It was acknowledged in the forum that improved information on the timing and location of spawning would allow the accuracy of the connectivity modelling to be improved. However, this was not seen as likely to substantially change the risk of mussel entrapment.

- *“The lack of such additional scientific knowledge applies particularly to Proper Bay which, as you well know, is a shallow water body with relatively low water circulation (primarily driven by wind and channelling). This exacerbates the high risk of detrimental effects on mussel larvae”*

Response: The basic premise of this point is incorrect. The water circulation of Proper Bay is primarily driven by tidal currents. Although the contribution of wind currents is much weaker than tidal currents, they are important to the circulation over periods of weeks to months. This was demonstrated in the SARDI report by SARDI during the forum. It was also demonstrated that the model accurately predicted the magnitude of wind driven currents. SARDI also demonstrated that Stokes Drift – the movement of surface particles by wind generated waves – was not a significant contributing factor to connectivity of particles with the proposed desalination intakes.

- *“It appeared to be that acknowledged that the far-field modelling summarised in the SARDI report was inadequate to provide a full assessment and characterisation of the impact of the desalination operation, particularly in the near shore environment”*

Response: At all forums and presentations to date, it has been clearly articulated that there are a number of studies completed and ongoing that will inform the development application. It is this suite of work that will provide a full assessment and characterisation of the impact of the desalination operation.

- Meeting notes from the Aquaculture Marine Science Forum summarising the issues and discussion have been distributed to all attendees (refer Attachment A).

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

- SA Water will continue to work with stakeholders to respond to the issues and concerns raised.
- PIRSA through SARDI will continue to support SA Water in regard to the relevant science.

**Management of key risks**

- Nil

**Legislative and/or financial implications**

- None

**Attachments**

A. Meeting notes from the Aquaculture Marine Science Forum.



for  
**CHIEF EXECUTIVE**  
Department of Primary Industries and Regions

9/10/2023

<b>CONTACT</b>	Dr Peter Appleford
<b>POSITION</b>	Executive Director
<b>DIVISION</b>	Major Programs and Regions
<b>MOBILE and LANDLINE</b>	0412 797 720
<b>Cleared by</b>	Dr Peter Appleford

**Buxton, Cristina (PIRSA)**

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**From:** Beeke, Vanessa (PIRSA-SARDI)  
**Sent:** Monday, 5 June 2023 12:51 PM  
**To:** Doubell, Mark (PIRSA-SARDI)  
**Subject:** FW: SA Water - larval modelling updated research scope and costing- Proposed variation to current contract

## OFFICIAL

**From:** Beeke, Vanessa (PIRSA-SARDI)  
**Sent:** Friday, 6 May 2022 2:02 PM  
**To:** 'Abou-Hamdan, Sami' <Sami.Abou-Hamdan@sawater.com.au>; Anderson, Sally-Ann (PIRSA-SARDI) <Sally-Ann.Anderson@sa.gov.au>  
**Cc:** Barone, Sandra <Sandra.Barone@sawater.com.au>; Vandeleur, Hazel <Hazel.Vandeleur@sawater.com.au>; Doubell, Mark (PIRSA-SARDI) <Mark.Doubell@sa.gov.au>; 'majorprograms' <rbmajorprograms@adelaide.edu.au>  
**Subject:** RE: SA Water - larval modelling updated research scope and costing- Proposed variation to current contract

## OFFICIAL

Hello Sami

Your request has been reviewed and SARDI agree to administer this as a Variation to the current Oceanographic Modelling Agreement (CS9399).

Please note that the Variation will need to be issued through The University of Adelaide.

I have cc'd UA into this email.

If you wish to discuss the paperwork, please contact Anne Wrzeszczynski, Senior Research Grants Officer, UA.  
 T: +61 8 8313 5418 | M: +61 [REDACTED] Clause 6(1)

Thanks  
 Vanessa

Working days in office: Monday, Thursday, Friday  
 Working at home: Tuesday PM

**Vanessa Beeke** | Contracts Manager  
 South Australian Research and Development Institute – SARDI Aquatic Sciences  
**Department of Primary Industries and Regions** | Government of South Australia  
 2 Hamra Avenue West Beach SA 5024 | PO Box 120 Henley Beach SA 5022 | DX number 66760  
**P:** +61 8 8429 3756 | **E:** [Vanessa.beeke@sa.gov.au](mailto:Vanessa.beeke@sa.gov.au)  
[pir.sa.gov.au/research](http://pir.sa.gov.au/research)





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**From:** Abou-Hamdan, Sami <Sami.Abou-Hamdan@sawater.com.au>  
**Sent:** Friday, 1 April 2022 5:53 PM  
**To:** Anderson, Sally-Ann (PIRSA-SARDI) <Sally-Ann.Anderson@sa.gov.au>; Beeke, Vanessa (PIRSA-SARDI) <Vanessa.Beeke@sa.gov.au>  
**Cc:** Barone, Sandra <Sandra.Barone@sawater.com.au>; Vandeleur, Hazel <Hazel.Vandeleur@sawater.com.au>; Doubell, Mark (PIRSA-SARDI) <Mark.Doubell@sa.gov.au>  
**Subject:** RE: SA Water - larval modelling updated research scope and costing- Proposed variation to current contract  
**Importance:** High

Greetings Vanessa and Sally-Ann,

With reference to the emails below, in order to expedite the engagement process, I suggest that we include this additional work (namely the larval modelling, for the amount of \$44,379.00 (excl GST)) as a variation to the current Oceanographic modelling agreement (CS9399).

Please advise if you agree with the above suggestion so I can process the variation accordingly.

Your early reply is very much appreciated.

Thanks

*Have a great and safe weekend All.*

Kind Regards,

**Sami**

**Mob.** Clause 6(1)

**From:** Vandeleur, Hazel <Hazel.Vandeleur@sawater.com.au>  
**Sent:** Wednesday, 30 March 2022 4:05 PM  
**To:** Doubell, Mark (PIRSA-SARDI) <Mark.Doubell@sa.gov.au>  
**Cc:** Abou-Hamdan, Sami <Sami.Abou-Hamdan@sawater.com.au>; Beeke, Vanessa (PIRSA-SARDI) <Vanessa.Beeke@sa.gov.au>; Anderson, Sally-Ann (PIRSA-SARDI) <Sally-Ann.Anderson@sa.gov.au>; Barone, Sandra <Sandra.Barone@sawater.com.au>  
**Subject:** RE: SA Water - larval modelling updated research scope and costing

Hi

I can confirm that SA Water would like to proceed with the contracting for this work element.

Thanks

Hazel

**From:** Doubell, Mark (PIRSA-SARDI) <Mark.Doubell@sa.gov.au>  
**Sent:** Wednesday, 30 March 2022 3:56 PM  
**To:** Vandeleur, Hazel <Hazel.Vandeleur@sawater.com.au>  
**Cc:** Abou-Hamdan, Sami <Sami.Abou-Hamdan@sawater.com.au>; Beeke, Vanessa (PIRSA-SARDI) <Vanessa.Beeke@sa.gov.au>; Anderson, Sally-Ann (PIRSA-SARDI) <Sally-Ann.Anderson@sa.gov.au>  
**Subject:** SA Water - larval modelling updated research scope and costing



## External sender

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OFFICIAL

Hi Hazel,

Thanks for working with me on the revisions (scope, costing and timeline) to the larval modelling project.

Attached is the revised and updated Research Scope.

Can you please confirm that you would like to proceed with contracting.

To the SARDI contracting team (Vanessa and Sally-Ann):

I will put the attached Research Scope and cost model into Objective.

Can you please work with Sami (SA Water) to finalise the contract. This will be done under the University of Adelaide Affiliate model.

Please contact myself or Hazel with any further questions.

Regards,

Mark

**Dr Mark Doubell** | Marine Ecosystems – Oceanography Sub-program Leader

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

Government of South Australia | Street Address



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Government  
of South Australia

Department of Primary  
Industries and Regions

SARDI



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