



# Expression of Interest

Provision of Services

The Value of Research



Collaborate Innovate Impact



## Project

### The Value of Research

**Expression of Interest to become a member of the Delivery Team for Phase 2 of The Value of Research Project. Successful applicants will be notified and asked to provide a detailed proposal by early June 2019.**

## Introduction

WaterRA leads and facilitates high quality, valued research with and for our members, to stimulate innovation and collaboratively address urban and regional water issues. Vital steps in driving our Members' ability to undertake/fund research are the measurement and demonstration of the value that research generates, and confidence that the maximum value is extracted from any research investment. Establishing the value of research is critical to ensuring Australian utilities can demonstrate their return on investment and universities can determine the impact of their research.

To support our members in taking these steps, WaterRA has identified the need to:

- Establish a common framework that identifies how and when value is created from research in the water sector;
- Identify approaches to undertaking research that maximise rigour and efficiency in value creation at every stage, but especially during knowledge transfer and adoption; and
- Establish methods to measure the value of research across tangible and intangible benefits.

Research is defined as the creation of new knowledge and/or the use of existing knowledge in a new and creative way so as to generate new concepts, methodologies and understandings. This could include synthesis and analysis of previous research to the extent that it leads to new and creative outcomes.

Research is inherently valuable but hard to value. In previous iterations of determining value, WaterRA and others have tried to measure it using a variety of approaches including case studies, metrics around usage such as citations, and Impact studies on themes. While results have been accepted within some parts of water businesses and for some purposes, they have not consistently gained traction to enable confidence in research investment.

This project has been designed to learn from what has been done before and establish a new approach that is recognised as Good Practice by the industry and hence achieves credibility and consistency of application.

## Expression of Interest Background

Phase 1 of the project (undertaken in-house by WaterRA during 2018) reviewed numerous existing methods for assessing the value of research and considered their suitability for use by water utilities. A key finding of this Phase was that there are clearly recognisable common factors - hereafter termed Research Management Framework Elements, which contribute to maximising the value generated by a research program or project. The full report of the work undertaken in Phase 1 will be made available to the Delivery Team for Phase 2, however to inform this EOI process the Research Management Framework Elements are listed below and summarised in Appendix 1 to this EOI.

1. Governance
2. Capability
3. Strategic Alignment
4. Problem / Opportunity Definition
5. Project Development and Execution
6. Knowledge Transfer and Adoption

## 7. Tangible and Intangible Value Assessment

### Objectives and Deliverables [Phase 2]

The objective of Phase 2 of the project is to utilise the Research Management Framework Elements and other findings from Phase 1 to inform development of:

A **Good Practice Guide to Value Creation from Research in the Water Industry** that defines the unique requirements for managing research so as to maximise and unquestionably demonstrate the benefits and value achieved across the full research life-cycle from issue /opportunity identification through to benefits realisation. The Guide will be written in a manner that allows every organisation to determine how each element will be achieved but will aim to standardise methods to enable maturity assessment within a single organisation or benchmarking between organisations to be undertaken.

It is proposed that the Guide will incorporate:

#### Value Metrics

A toolbox of ways to assess tangible and intangible benefits /impacts and value, that can be used as standard methods by the water industry.

#### Research Value Framework

A framework that clearly articulates where and how value can be created and measured across the research life cycle especially at the knowledge transfer and adoption stages through e.g. innovation, evidence-based decision making, risk reduction.

#### Good Practice Guidance

Guidelines to support management of research by utilities and universities so that the value generated is maximised, and can be measured and transparently reported.

### Delivery Approach

The water industry and its Research Providers require methods and techniques to assess the value of research that provide consistent, sound, defensible values, and an understanding of the methods when there is uncertainty of its value. There is also the realisation that in some cases a monetary value may not be possible, so consistent qualitative assessment methods are also needed. Ideally the approach developed will be accepted at all levels within water utilities as well as by economic regulators.

### Deliverables

We are inviting applicants with relevant expertise to co-design and co-produce the deliverables of this project with the Project Partners, and are seeking expressions of interest to deliver the following work packages:

1. Identification and quantification of metrics for tangible research benefits (economic assessments).
2. Identification and quantification of metrics for intangible research benefits (e.g. socio-economic, environmental, reputational)
3. Creation of multi-benefit assessments tailored to i) water utilities and ii) research organisations to demonstrate impact using outcomes from 1 and 2. Each multi-benefit assessment should be able to be conducted at a range of scales to meet the needs of small, medium and large organisations.

4. A Good Practice Guide to Value Creation from Research in the Water Industry, comprising a framework of processes and templates to apply the Research Management Framework Elements identified in Phase 1.
5. Construction of tools, reporting templates and visualisation dashboards that demonstrate the impact of research as determined in items 3 and 4 using a case study from each utility partner and their supporting university(s).

NOTE: Participants may register for one or more work packages and will be required to collaborate with any other successful parties for each work package.

## Schedule

Broadly, the project will be conducted in the manner below however this is open to refinement following discussion with project partners and the selected Delivery Team.

Task	Who	Date
Release EoI seeking consultants/researchers to work on the project. Select Delivery Team	WaterRA and PAC	Apr/May 19
Project Partners provide in-kind material for review	Partners	May 19
Stakeholder Workshop #1 – determine assessment requirements	WaterRA Partners Delivery Team	June 19
Develop 1 <sup>st</sup> draft of deliverables	Delivery Team	Sept 19
Stakeholder review of deliverables and Workshop #2	WaterRA Partners Delivery Team	Oct 19
Trial deliverables within partner organisations and test acceptance by economic regulators and the ARC.	Partners Delivery Team	Oct 19
Incorporate findings into final version of deliverables	Delivery Teams	Nov 19
Release deliverables and final report	WaterRA	Dec 19

## Budget

Total project budget is approximately \$150k. This is for the engagement of the combined team to deliver the total work packages. The actual amount for each contributing team will be dependent upon agreed workshare.

## What we are seeking

Expertise sought includes:

- Environmental and engineering economics and accounting
- Qualitative assessment methodologies
- Tangible and intangible metrics
- Research management and/or governance
- Water sector and/or research experience
- Data analytics, visualisation and reporting
- Economic regulation of the water sector.



## Selection Criteria

Expressions of interest will be assessed using the following criteria:

- Experience and demonstrated skills in delivering appropriate work package/s, which could including: economics, analysis of intangible benefits (socio-economic, environmental, reputational etc); integration of tangible and intangible benefits; developing guide practice guides; and research management
- Demonstrated experience in co-creation and co-delivery of outcomes for water, economic and/or research projects
- Understanding of decision making within water utilities
- Knowledge of economically regulated business environments
- Capability to generate practical tools for assessment and reporting research information
- Willingness to collaborate as part of a multidisciplinary Delivery Team

Please read **Research Management Framework Elements** and **Requirements, Standards and Conditions** for additional requirements essential for this project.

## Submission

Expressions of Interest shall be submitted by email to the WaterRA Research Manager no later than

**5.00pm (AEST)**  
**Friday 24 May 2019**

**Christobel Ferguson** | WaterRA Research Manager

**M** 0402 232 097

**E** [info@waterra.com.au](mailto:info@waterra.com.au)

For the purpose of the respondent's submission, all technical queries and correspondence relating to the proposal must be directed to the WaterRA Research Manager, whereby they'll be forwarded to the appropriate project member for reply.

## APPENDIX 1 - Research Management Framework Elements

### Introduction

The results of stakeholder engagement, and a review of different methods and approaches by WaterRA, revealed common elements that contribute to maximising value in a research program or project. These are outlined below.

### Governance

Governance relates to the overarching control that the research is performed under. It includes:

- Governance structures and organisation – policy; hiring practices
- Culture, motivation and reward
- Research partnerships and relationships
- Succession and long-term planning
- Maintaining corporate knowledge of research programs and outcomes
- Support systems – procedures to manage research program and projects; document control, auditing; management reviews; continuous improvement; contracting; risk management

### Capability

Capability considers the ability of the organisation to engage in research, and the staff or researchers that participate on research projects, and include:

- Resources – funding; dedicated personnel; project resources
- Researcher skills
- Project partners' skills
- Support systems – processes to enable research partnerships and projects to be instigated, contracted and maintained

### Alignment with Corporate Strategy or Business Goals

Alignment with Corporate Strategy or Business Goals is the target that the research program, and therefore the research projects, should be aiming for and includes:

- Corporate strategy that guides the research program
- Research that delivers business needs – over the short, medium and long term—thematic strategy within a corporate strategy
- Research establishes clear aims and objectives
- Intended impact from research is clearly defined – adoption and implementation

### Defining the Problem (or Opportunity)

Defining the problem recognises that understanding what the problem really is, is vital to know before embarking on any research undertaking, otherwise the outcomes will provide reduced value to the organisation; factors include:

- Critical thinking – knowledge gaps, policy context, regulatory requirements, challenges, business needs
- Key stakeholders that need to be involved
- Determine adoption and implementation pathways
- Customer / citizen engagement and expectations

### Project Development

Project development considers the steps involved once a problem is properly understood, in order to create a research project and includes:

- Selection process to guide investment – options analysis; assessing projects
- Information for decision makers



- Determine project delivery method – team; contracting approach; risks (staged approach); funding; schedule
- Determine the project methodology – evidence-based; scientific method; ethics

## Project Execution

Project execution involves the ongoing management of a research project including:

- Requiring all projects to adhere to common Project management methodologies e.g. PMBOK Communication and Stakeholder management
- Reporting – responsibilities; timelines; performance; risks
- Deliverables management – schedule; review and acceptance; creating a PAC
- Scale

## Knowledge Transfer

Knowledge transfer is the creation and translation of project outputs into material more suitable for update including:

- Formal outputs – publications; reports; identified outputs; policy and government submissions
- Communication – success; storytelling; lesson learned; identified stakeholders; media

## Knowledge Adoption

Knowledge adoption considers how the project outcomes that have been transferred to the end users are utilised within an organisation and includes:

- Communication and stakeholder management – trusted relationships; outputs available to users; user advocates for change; variation between stakeholders; stakeholder culture
- Implementation pathways and plans – decision process; support policy (new/existing); information for decision makers; further research
- Adoption delivery method – timeframe; Scale – full or partial adoption;

## Tangible Value Assessment

Tangible value defines the benefits that are quantifiable and measurable, and should include consideration of:

- Common monetisation methods
- Non-market valuation methods
- Sensitivity analysis
- Benefits assessment range
- Cost savings
- Cost avoidance
- Attribution
- Thematic

## Intangible Value Assessment

Intangible value results from outcomes that provide benefit, but are difficult to measure and may include methods that provide a monetary value or qualitative assessment, such as these below:

- Assessment of meeting research objectives
- Benefits Assessment
- Impact Domains
- Case study
- Engagement indicators
- Impact indicators
- Attribution
- Counterfactual
- Thematic