



CRC for  
Water Sensitive Cities

# Stakeholder Engagement Strategy

IRP2 – Comprehensive Economic Evaluation  
Framework (2017–2019)

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Australian Government  
Department of Industry,  
Innovation and Science

**Business**  
Cooperative Research  
Centres Programme

**Stakeholder Engagement Strategy**

IRP2 – Comprehensive Economic Evaluation Framework (2017 – 2019)  
*Integrated Research Project 2 (IRP2)*  
IRP2-1-2017

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**Publisher**

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**Date of publication:** September 2017

**An appropriate citation for this document is:**

Siebentritt, M., Iftekhar, S., Harold, T. (2017). Stakeholder Engagement Strategy: IRP2 Comprehensive Economic Evaluation Framework (2017 – 2019). Melbourne, Australia: Cooperative Research Centre for Water Sensitive Cities

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# 1 Introduction

## 1.1 Background

The CRC for Water Sensitive Cities (CRCWSC) aims to create knowledge and solutions that help communities become more water sensitive. The first four years of the CRCWSC (Tranche 1, 2012–2016) delivered 35 discrete research projects across four program areas (Society, Water Sensitive Urbanism, Future Technologies, and Adoption Pathways). Over the next five years, Tranche 2 (2016–2021) projects will work with regional stakeholders to adapt and apply new, innovative concepts and tools at a whole-of-city or metropolitan scale.

Within the CRCWSC, support is provided for Integrated Research Projects (IRP). These address priority industry needs that require ongoing research and development efforts through the integration of proposed research activities.

## 1.2 Integrated Research Project 2

Integrated Research Project 2 (IRP2) will be delivered under Tranche 2. The aim of IRP2 is to develop, test, and apply a broadly applicable framework for conducting integrated economic assessment to support business-case development for investing in water sensitive, liveable, and resilient cities. The project will build on knowledge and outputs generated in Tranche 1.

In Tranche 1 there was strong emphasis on generating non-market values for different elements of water sensitive cities to understand the scope of the opportunities and problems. Selected examples from Tranche 1 include:

- Valuing environmental services associated with local stormwater management in Melbourne and Sydney
- Valuing alternative land uses adjacent to traditional wastewater treatment facilities in Western Australia
- Valuing Australia's green infrastructure using hedonic pricing analysis for various parts of Australia
- Valuing restoring urban drains to living streams in Perth
- Estimating the capitalised value of rainwater tanks in property prices in Perth
- Valuing ecosystem services of raingardens in Sydney and Melbourne
- Valuing constructed wetlands in Australia and China
- Valuing water sensitive gardening styles in Perth

IRP2 will build on the results from these studies and draw on existing information on market and non-market values from broader (published and grey) literature sets, CRCWSC end users, and industry practitioners, particularly for the costs of implementing water sensitive urban design (WSUD) elements.

Within this broader framework the project has seven objectives:

1. Build a common understanding among stakeholders of which elements of WSUD provide the greatest benefits to the community (including benefits to the environment), clearly articulating market and non-market values, and contributing to transition toward liveable and resilient cities.
2. Understand the requirements of stakeholders in government and industry in designing and delivering economic evaluation tools and frameworks.

3. Review the currently available benefit-cost analysis tools, integrate the key elements of existing tools, and identify gaps and necessary improvements.
4. Develop an economic evaluation framework which would allow inclusion of benefits and costs, and will help users to identify who the beneficiaries are.
5. Test, refine, and apply the economic evaluation framework in selected case studies in collaboration with industry partners.
6. For selected cases, review the existing finance models and policies and recommend suitable approaches for investment in water sensitive systems and practices.
7. Develop effective adoption pathways to promote and support the use of the economic evaluation framework and tools.

The project is underpinned by a strong emphasis on stakeholder engagement (work package 1). The key deliverables of the project are:

- a benefit transfer tool (work package 2);
- a Benefit-Cost Analysis (BCA) tool (work package 3);
- finance models and policies (work package 4);
- case studies (work package 5); and
- an economic valuation of urban-climate improvement through Urban Heat Island (UHI) Mitigation (work package 6).

### 1.3 Objectives

The aim of this engagement strategy is to increase the likelihood that key stakeholders – especially end users such as local government and water utilities – will want to use the tools, evaluation framework, information, and lessons generated from the project. This will be achieved by designing an approach that involves end users with the *development, testing, and use of different tools and of the framework*.

In order to meet the project objectives, the specific objectives of this engagement strategy are to:

- understand stakeholder needs;
- raise general awareness about the existence of the framework and tools among possible future users to encourage adoption;
- identify and encourage key stakeholders – especially targeted end users in state government, local government, and water utilities – to adopt and use the framework and tools;
- guide internal, project-team communications; and
- build on existing internal-reporting mechanisms and ensure that the CRCWSC Board is aware of the project's progress and achievements.

Longer term engagement will be required to ensure ongoing use of the tools developed during this project. It is noted that the CRCWSC is exploring various options to support ongoing adoption of tools

and products. This assessment of developing a longer term more sustainable tool is beyond the scope of this strategy.

## 2 Methodology

This Engagement Strategy was developed in a collaborative manner with input from the:

- Project team;
- Project Steering Committee (PSC);
- Members of the Regional Advisory Panels (RAP); and
- CRCWSC executive and staff.

The aim was to ensure that key stakeholders have had an opportunity to inform how they want to be engaged during the development of the project. Levels of engagement have been structured according to the IAP2 spectrum of public participation, described further in Section 3.

Key meetings and interviews conducted to obtain information to inform the development of the Strategy were as follows:

- Sayed Iftekhar, David Pannell, James Fogarty (IRP2 Project Team) – 20 February 2017;
- Mellissa Bradley (Water Sensitive SA, PSC member) – 17 March 2017;
- Mellissa Bradley, Sayed Iftekhar, David Pannell, James Fogarty, Tammie Harold – (Project team and subset of PSC) – 4 April 2017;
- Chris Tanner (QLD Regional Manager, CRCWSC) – 22 June 2017;
- Jamie Ewert (CRCWSC National Engagement Manager, Chair SA RAP) – 8 June 2017;
- Barry Ball (Research Adoption Executive, CRCWSC) – 9 June 2017;
- Grace Tjandraatmadja (Melbourne Water, PSC) – 9 June 2017;
- Greg Claydon (WA Department of Water and Environmental Regulation, Chair of the WA RAP) – 21 June 2017;
- Warren Traves (GHD Australia, Chair of the QLD RAP) – 21 June 2017;
- Briony Rogers (Project Leader Program A, Project Leader IRP1) – 23 June 2017;
- Emma Church (Research Officer, CRCWSC) – 26 June 2017;
- Rob Skinner (Monash University, CRCWSC Board member) – 26 June 2017; and
- Antonietta Torre (WA Department of Water and Environmental Regulation, representative on WA Community Engagement Subcommittee) – 26 June 2017.

The draft final engagement strategy was shared with the Project Steering Committee and additional feedback was incorporated from Grace Tjandraatmadja (Melbourne Water), Joanne Woodbridge (Eastern Metropolitan Regional Council), and Ursula Kretzer (Department of Water and Environmental Regulation).

### 3 Target audience

Stakeholders will benefit by being part of the project directly (such as through participation in the case studies or workshops) or indirectly (such as through our communication and adoption activities). The stakeholders directly engaged will gain first-hand experience from the development and testing of the economic evaluation framework. Further, participants of the case studies will benefit from the case-specific economic evaluation which will help them to devise appropriate water-management strategies for their particular problem or issue.

In order to meet the engagement objectives for this project, the target audience has been divided into groups of internal and external stakeholders.

The external stakeholders are a combination of water utilities and local government bodies (councils, agencies) that are actively seeking to make investment decisions in water sensitive cities technology, either now or in the future. External stakeholders also consist of key influencers in state and local government decision making: namely regulators and treasuries.

External stakeholders are primarily in four categories:

- Active End Users (ES1) – End users who commit to using the tool for actual decision making during the life of the project. Ideally, 2–3 active end users will emerge during the project.
- Case Study End Users (ES2) – End users who actively inform the development of the tool and test it during the life of the project, but do not necessarily use the tool to inform actual decision making. Case studies are identified in Table 1 and Case Study End Users in Table 2.
- Treasuries and Regulators (ES3) – External stakeholders who will have a major influence over whether the framework and tools can be used to support investment in water sensitive urban design technologies e.g. IPART in NSW; ERA in WA.
- Indirect End Users (ES4) – End users who have an interest in investing further in water sensitive cities technology or who want to provide support in developing the underlying business case but who are not actively involved with the project case study development and testing. This group – including water utilities, local government, state government, and consulting firms – forms part of the broader target audience that will need to be engaged if the project is to be adopted more broadly in the longer term. ES4 will provide an opportunity to engage with states outside of where the case studies are located.

Internal stakeholders are primarily in five categories:

- Senior management of the CRCWSC (IS1) – Past project experience suggests that engagement with the Board and Executive to ensure they are aware of progress and achievements is important for the overall success of the project.
- Project Steering Committee (PSC) (IS2) – This consists of representatives from a range of key stakeholder organisations, including a number involved with case studies.
- Regional Advisory Panels (IS3) – Regional Advisory Panels exist in WA, NSW, Qld, Vic, and SA; and their members include people who are also on the PSC. RAPs also provide a conduit to the broader water industry.
- Project team (IS4) – The project team is spread across Australia and involves the following entities: the University of Western Australia, Monash University, Seed Consulting Services (Adelaide), RMCG (Melbourne), and E2DesignLab (Melbourne).



- Other CRCWSC projects and researchers (IS5) – The CRCWSC has a broad range of organisations involved as participants and partners with a keen interest in the outcomes of this project.

The general approach to Project Governance is provided in Attachment A.

Engagement of the target audience will need to be cognisant of other engagement processes occurring in other CRCWSC projects. This will occur by regular communication between the Project Leader and the CRCWSC executive.

**Table 1. Classification of case studies against work packages.**

Work package	Description
<b>WP5.1</b>	Greening the Pipeline, Melbourne
<b>WP5.2</b>	Subiaco Wastewater Precinct, Perth
<b>WP5.3</b>	Residential development with WSUD, Perth
<b>WP5.4</b>	Urban renewal with flood management context, Melbourne
<b>WP5.5</b>	Break-out Creek restoration, Adelaide

Table 2. Case study end users listed alphabetically.

Stakeholder	Type	Case study*	Case study location
<b>Adelaide and Mt Lofty Ranges NRM</b>	State Government	WP5.5	SA
<b>City of Charles Sturt</b>	Local Government	WP5.5	SA
<b>City of Melbourne</b>	Local Government	WP5.4	VIC
<b>City of Moonee Valley</b>	Local Government	WP5.4	VIC
<b>City of Nedlands</b>	Local Government	WP5.2	WA
<b>City of Swan</b>	Local Government	WP5.3	WA
<b>City of West Torrens</b>	Local Government	WP5.5	SA
<b>City West Water</b>	Water utility	WP5.1, WP5.4	VIC
<b>Department of Environment, Land and Water Planning</b>	State Government	WP5.4	VIC
<b>Department of Parks and Wildlife (Rivers and Estuaries Division)</b>	State Government	WP5.3	WA
<b>Department of Water and Environmental Regulation</b>	State Government	WP5.2, WP5.3	WA
<b>Developer – Taliska Securities Pty Ltd</b>	Industry	WP5.3	WA
<b>Melbourne Metro Rail Authority</b>	State Government	WP5.4	VIC
<b>Melbourne Water</b>	Water utility	WP5.1, WP5.4	VIC
<b>SA Water</b>	Water utility	WP5.5	SA
<b>Shire of Mundaring</b>	Local Government	WP5.3	WA
<b>South East Water</b>	Water utility	WP5.4	VIC
<b>VicRoads</b>	State Government	WP5.1	VIC
<b>Victorian Government (via Victorian Planning Authority)</b>	State Government	WP5.4	VIC
<b>WA Planning Commission/Department of Planning</b>	State Government	WP5.2	WA

<b>Water Corporation</b>	Water utility	WP5.2, WP5.3	WA
<b>WESROC group of local governments (Municipalities of Nedlands, Subiaco, Cottesloe, Peppermint Grove, Claremont, Mosman Park)</b>	Local Government	WP5.2	WA
<b>Wyndham City Council</b>	Local Government	WP5.1	VIC
<b>Yarra Valley Water</b>	Water utility	WP5.4	VIC

\* As the case studies evolve the list of end users would be updated

# 4 Approach

The engagement approach followed for this project is that developed by the International Association for Public Participation (IAP2) and summarised in the IAP2’s Public Participation Spectrum (Figure 1). “Adoption” of the project results is not listed in this diagram because it is an outcome of the engagement process rather than a level in the Spectrum.

The Spectrum is designed to assist with the selection of the level of participation (engagement) that defines a stakeholder’s role in an engagement program (International Association for Public Participation, 2017). It shows that differing levels of participation are legitimate depending on the goals, time frames, resources, and levels of concern in the decision to be made. The Spectrum also sets out the “promise” being made to stakeholders at each participation level.

The Spectrum has been used in this project as a framework for deciding what level of engagement is appropriate for each target-audience segment, based on the notion that not all stakeholders will be engaged equally.

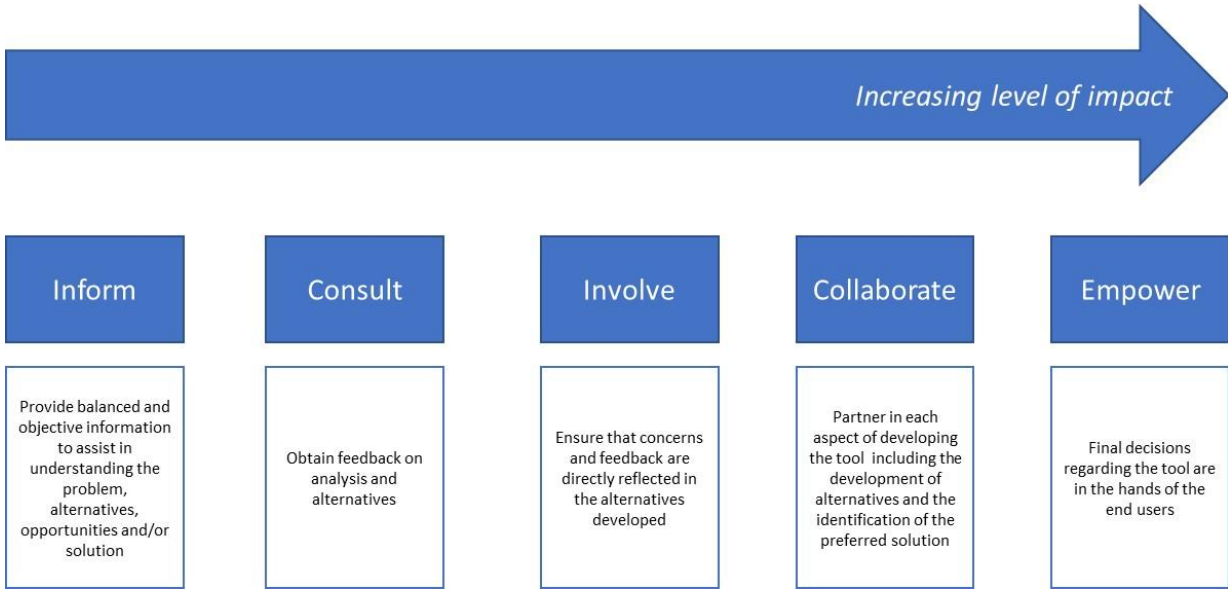


Figure 1. IAP2’s Public Participation Spectrum, outlining the five levels of participation and the broad goal for each relevant to this project. Source: International Association for Public Participation – IAP2 Federation.

Our engagement approach differs across the external stakeholder group as follows:

- Active End Users (ES1) – **Collaborate**
- Case Study End Users (ES2) – **Involve**
- Treasuries and Regulators (ES3) – **Involve**
- Indirect End Users (ES4) – **Inform**

Our engagement approach across the internal stakeholder group as follows:

- Senior management of the CRCWSC (IS1) – **Inform**

- Project Steering Committee (IS2) – **Collaborate**
- Regional Advisory Panels (IS3) – **Involve**
- Project team (IS4) – **Collaborate**
- Other CRCWSC projects and researchers (IS5) – **Inform**

These levels of engagement determine the subsequent nature of all engagement activities for each segment of the target audience.

The different levels of engagement across stakeholder groups is reflected through our tiered engagement approach, with the amount of effort and resources dedicated to engagement increasing from Indirect End Users through to Active End Users (Figure 2).

We will use a range of communication approaches to provide information, seek feedback, and involve stakeholders in the project, including:

- Digital
  - WaterSENSE e-newsletter;
  - CRCWSC webpage;
  - webinars;
  - e-fact sheets (IRP2 overview eFlier);
  - email correspondence (e.g. project update emails);
  - teleconferences;
  - synthesis and profile reports;
  - feature articles;
  - audio-visual materials (videos, CD-ROMs, DVDs);
  - presentation materials;
  - social media platforms e.g. LinkedIn;
- Face-to-face
  - interviews;
  - workshops;
  - meetings;
  - conferences and mini-symposiums;
  - industry events.

No print material (e.g. hard copy fact sheets) is proposed for communication activities.

Communication channels will include existing CRCWSC platforms as well as working in partnership with existing forums, networks, associations, industry bodies, and programs.

Across all states, organisations such as the Australian Water Association, Planning Institute of Australia, Stormwater Industry Association, Urban Development Institute of Australia, Water Services Association of Australia, and the respective state Local Government Associations will be considered.

State-specific entities could include the Brisbane Economic Development Association (Qld), Clearwater (VIC), New WAterWays (WA), Water Industry Alliance (SA), Water Sensitive SA (SA), and the Western Suburbs Regional Organisation of Councils (WA).

As an extension to this, the project will also engage with the Capacity Building Network established by the CRCWSC Adoption Team.

The project leader will determine on a case-by-case basis which groups to work with in the delivery of engagement activities.

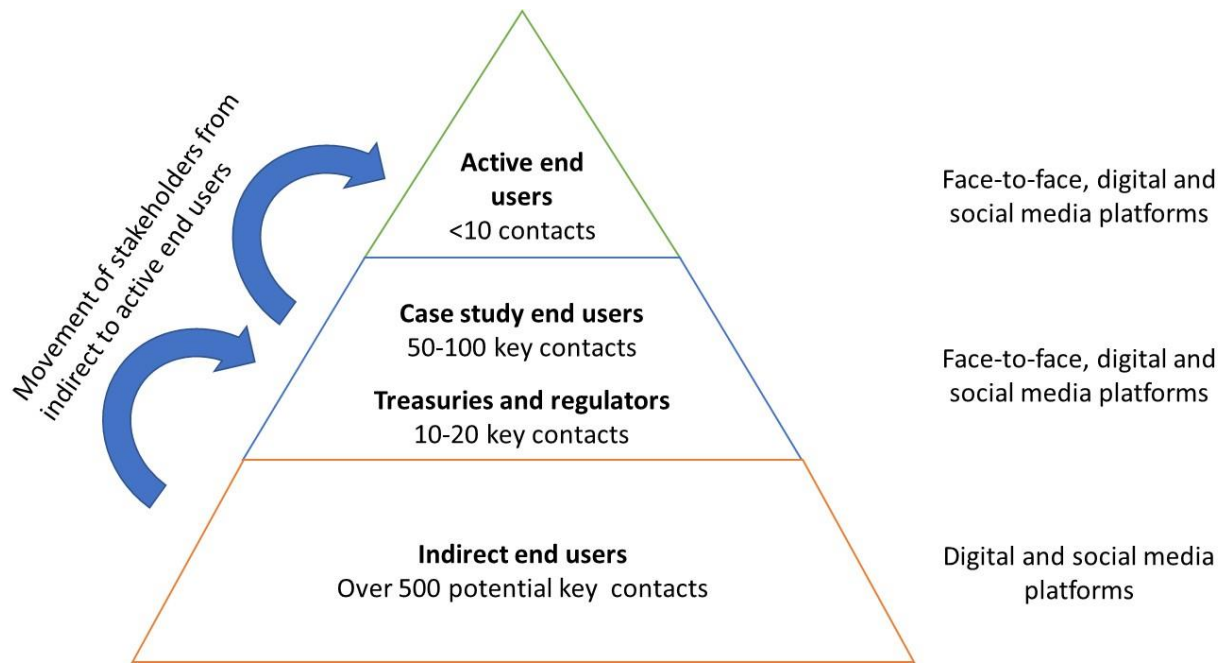


Figure 2. Tiered approach to engaging the four external stakeholder groups.

## 5 Engagement process

A summary of engagement activities for each external stakeholder group is provided at Attachment B. Further detail is provided in the following sections. Only those work packages deemed relevant to a stakeholder group are described.

The specific engagement activities described aim to:

- review and validate existing identified benefits – rather than starting from zero base;
- clarify the nature and scale of projects for which industry would be seeking either benefit valuations (for their own tool) or an entire cost-benefit tool;
- use the above to prioritise benefits for valuation;
- concentrate efforts on what data local government, state government, utilities, and the consulting industry can bring to the project; and
- streamline the collation of data.

### 5.1 External stakeholders

#### 5.1.1 Active Case Study End Users (ES1) – Collaborate

*Active End Users will be identified later in the project and engagement will initially follow the same approach as for Case Study End Users. In general, there will be a stronger emphasis to **Collaborate** with active end users.*

#### 5.1.2 Case Study End Users (ES2) – Involve

*Engagement activities will be conducted with the aim of achieving an **Involve** level of engagement to ensure that concerns and feedback are directly reflected in the alternatives developed.*

Case study end users will be involved through a combination of digital social-media platforms, and face-to-face engagement. There will be at least two face-to-face sessions per state over the life of the project.

#### WP1: Stakeholder engagement

Notification about project commencement – A formal letter will be sent from the Project Leader to the nominated contact to notify them that the project has commenced, outlining how engagement with them will occur and what we expect them to contribute.

*Activities – Distribute letter and conduct follow up phone calls*

WP1.1 Inform the stakeholders about current knowledge on the economics of water sensitive urban designs – We will expand and update the collection and update the review, adding new published studies (from CRCWSC and others), grey literature, and existing relevant economic tools.

*Activities – Distribute e-document to end-users; Webinar provided to all external stakeholders*

WP1.3 Stakeholder consultations for needs assessment – A thorough stakeholder-needs assessment will be carried out to determine needs as well as agreed types of values/benefits and costs that need to be incorporated into the tools. To understand industry needs or gaps, there will be a selected number of issue-based or thematic workshops. The workshops will be held in several states to



capture variation in local contexts in different parts of Australia. Where possible, some of these workshops will be organised in collaboration with IRP1 (and other CRCWSC researchers) to incorporate a wider community viewpoint. At the completion of this activity, a summary of the needs assessment will be prepared and made available for distribution.

*Activities – Thematic workshops; Interviews; Distribute report to end-users*

WP1.4 Training and capacity building – Building on the outputs (such as manuals, tools, and learnings) produced by other parts of the project, we will develop a training module and deliver training in the application of the economic framework and tools. To deliver the training, the team will work closely with industry partners.

*Activities – Training module; Deliver training in the application of economic framework and tools; Promote training through digital platforms*

## **WP2: Updated collation of existing non-market valuation information and development of a benefit transfer tool**

WP2.2 Development of benefit-transfer guidelines – We will develop accessible guidelines for end users on how to conduct benefit-transfer for water sensitive practices, including choosing appropriate methods for the particular context. The guidelines will be tested with the stakeholders and adapted accordingly.

*Activities: Stakeholder testing of benefit-transfer guidelines*

## **WP3: Development of a user-friendly benefit-cost analysis (BCA) tool tailored to water sensitive cities investments**

WP3.1 Review of existing benefit-cost analysis tools relevant to water-sensitive cities – Existing literature and relevant stakeholders will be consulted to understand what tools are already being used (and by whom) and the extent of their use in decision-making processes. Existing tools for benefit-cost analysis will be reviewed to determine their suitability for assessing water sensitive systems and practices at different scales and for users of varying capacity.

Suitability of tools will be determined with respect to quantifying benefits for a range of possible factors: e.g. ecosystem health, human health/well-being, economic prosperity, climate change adaptation/mitigation, ease of use, and data availability.

*Activities: Stakeholder interviews used to establish type of tool required by the sector*

WP3.3 Develop a BCA tool – Based on the review of existing tools and approaches – We will decide whether to adapt an existing tool or develop a new tool to meet the specific needs of Australian end users.

*Activities: Advise stakeholders of the decision as to which tool will be developed through the use of a range of digital platforms.*

WP3.4 Guidelines for benefit-cost analysis tool – Develop a guideline document to support the application of the BCA tool. This will provide guidance on critical concepts and approaches that underpin the tool, step-by-step guidance on how to apply it, and information about its assumptions and limitations. It will also provide several examples of how to apply the framework in practice based on the case studies under WP5. This would include a discussion on alternatives for assisting decision-making when some elements (such as monetised benefits) are not available.

*Activities: Stakeholder interviews used to inform development of the guidelines.*

**WP4: Finance models and policies to foster investment in water sensitive cities**

WP4.1 Review existing finance models and policies – Work with end users to identify existing finance model, policies, and mechanisms (such as financial incentives) used to foster public and private investment in water sensitive cities.

*Activities: Stakeholder interviews.*

WP4.2 Engage with regulators and agencies to design new approaches – Building on findings from WP4.1 and WP1.2, design a small number of alternative approaches to investment financing and policy that appear likely to be effective in the context of water sensitive cities. We will workshop these approaches with CRCWSC end users, policy makers, and experts in financing projects to evaluate their likely success.

If we can identify approaches that are judged likely to succeed, then we can work with policy agencies to explore the legal, practical, political, and financial feasibility of implementing the approach.

*Activities: Stakeholder workshops.*

**WP5: Testing the integrated economic evaluation framework in selected case studies**

WP5.1–5.5 Case studies – Engage with end users to understand the feasibility of implementing various options and generate a set of recommendations for the implementing organisations. The case studies will be conducted in such a way that the intermediate results are continually disseminated to allow for transferability and quick uptake.

*Activities: Case study development and testing; Use of digital platforms and face-to-face communication*

**WP6: Economic value of urban climate improvement: urban heat island (UHI) mitigation**

This work package will explore the UHI mitigation produced from different scales of investment in urban greening. It will also quantify in dollar terms the value of this UHI mitigation arising from, for example, reduced mortality/morbidity, reduced energy demand, and increased productivity.

*Activities: Use of digital platforms to promote the results of the economic analysis.*

**5.1.3 Treasuries and Regulators (ES3) – Involve**

*Engagement activities will be conducted with Treasuries and Regulators with the aim of achieving an **Involve** level of engagement to ensure that their concerns and feedback are directly reflected in the alternatives developed and that the tool(s) can help regulators achieve their outcomes.*

**WP1: Stakeholder engagement**

WP1.1 Inform the stakeholders about the current knowledge on economics of water sensitive urban designs – Inform stakeholders about the current knowledge on economics of water sensitive urban design. We will expand and update the collection and update the review, adding new published studies (from CRCWSC and others), grey literature, and relevant existing economic tools.

*Activities: Digital platforms; Presentations at industry events and conferences*

WP1.3 Stakeholder consultations for needs assessment – The needs assessment will include interviews with Treasury and Regulator representatives to determine needs and agreed types of values/benefits and costs that need to be incorporated into the tools.

*Activities: Interviews*

### **WP3: Development of a user-friendly benefit-cost analysis (BCA) tool tailored to water sensitive cities investments**

WP3.1 Review of existing benefit-cost analysis tools relevant to water-sensitive cities – Existing literature and relevant stakeholders will be consulted to understand what tools are already being used (and by whom) and the extent of their use in decision-making processes.

*Activities: Interviews*

WP3.4: Guidelines for benefit-cost analysis tool – Develop a guideline document to support the application of the BCA tool. This will provide guidance on critical concepts and approaches that underpin the tool, step-by-step guidance on how to apply it, and information about its assumptions and limitations.

*Activities: Promote the BCA tool using digital platforms*

### **WP4: Finance models and policies to foster investment in water sensitive cities**

WP4.1 Review existing finance models and policies – Work with Treasury and Regulator contacts to identify existing finance model, policies, and mechanisms used to foster public and private investment in water sensitive cities.

*Activities: Interviews, meetings*

WP4.2 Engage with regulators and agencies to design new approaches – Building on findings from WP4.1 and WP1.2, a small number of alternative approaches to investment financing and policy will be designed. These approaches could include beneficiary identification methods, risk sharing, and cost-sharing principles, as well as payment mechanisms such as value capture.

*Activities: Workshops, meetings*

### **WP5: Testing the integrated economic evaluation framework in selected case studies**

Case studies will be developed with Case Study End Users and the results communicated to Treasury and Regulator contacts via digital platforms.

*Activity: Communication via digital platforms.*

#### **5.1.4 Indirect end users (ES4) – Inform**

*Engagement activities are conducted with Indirect End Users with the aim of achieving an **Inform** level of engagement to provide balanced and objective information to assist in understanding the problems, alternatives, opportunities, and/or solutions.*

#### **WP1: Engagement initiation**

WP1.1 Inform the stakeholders about the current knowledge on economics of water sensitive urban design – We will expand and update the collection and update the review, adding new published studies (from CRCWSC and others), grey literature, and relevant existing economic tools.

*Activities – Distribute e-document to end-users; Webinar provided to all external stakeholders; Social media posts informed by a quarterly progress report.*

WP1.4 Training and capacity building – Building on the outputs (such as manuals, tools, and learnings) produced by other parts of the project, we will develop a training module and deliver training in the application of the economic framework and tools. In addition to training for case-study end users, we will also provide limited training for indirect end users, targeting practitioners from a

range of sectors such as utilities, local councils, agencies, state governments, and peak bodies (such as WSAA). To deliver the training, the team will work closely with industry partners, of which many will be key members on our Steering Committee across Australia.

*Activities – Training module; Deliver training in the application of economic tools and framework*

### **WP2: Updated collation of existing non-market valuation information and development of a benefit transfer tool**

General information sharing on collation of non-market valuation information and development of a benefit transfer tool.

*Activities – Distribute e-document to end-users; Webinar provided to all external stakeholders; Social media posts informed by a quarterly progress report*

### **WP3: Development of a user-friendly benefit-cost analysis (BCA) tool tailored to water sensitive cities investments**

WP3.4 Guidelines for BCA tool – Develop a guideline document to support the application of the BCA tool. This will provide guidance on critical concepts and approaches that underpin the tool, step-by-step guidance on how to apply it, and information about its assumptions and limitations. It will also provide several examples of how to apply the framework in practice, based on the case studies under WP5. This would include a discussion on alternatives for assisting decision-making when some elements (such as monetised benefits) are not available.

*Activities: Webinar to inform external stakeholders on how to use and access the tool; social media posts*

### **WP4: Finance models and policies to foster investment in water sensitive cities**

General information sharing on collation of non-market valuation information and development of a benefit transfer tool.

*Activities - Distribute e-document to end-users; Webinar provided to all external stakeholders; social media posts informed by a quarterly progress report*

### **WP5: Testing the integrated economic evaluation framework in selected case studies**

Case studies – Following completion of the case studies, content will be developed to upload to the CRCWSC website promoting the case study findings. This will be complemented by webinars and social-media postings.

*Activities: Webinar provided to all external stakeholders; Social-media posts informed by a quarterly progress report*

### **WP6: Economic value of urban climate improvement: urban heat island (UHI) mitigation**

This work package will explore the UHI mitigation produced from different scales of investment in urban greening. It will also quantify in dollar terms the value of this UHI mitigation arising from, for example, reduced mortality/morbidity, reduced energy demand, and increased productivity.

*Activities: Use of digital platforms to promote the results of the economic analysis.*

## 5.2 Internal stakeholders

### 5.2.1 Senior management of the CRCWSC (IS1) – Inform

Senior management of the CRCWSC will be regularly contacted to ensure project progress is communicated, especially following delivery of major work packages. This will be the responsibility of the Project Leader to coordinate. Senior management could also be invited to support social-media posts (e.g. through likes and comments) and contribute to webinars by introducing speakers and content.

*Activities: Focus on digital platforms, with periodic meetings to update senior management on progress.*

### 5.2.2 Project Steering Committee (IS2) – Collaborate

The PSC will be regularly updated on project progress through teleconferences, CRCWSC reporting mechanisms, and meetings. They will also receive general digital communications distributed to all other stakeholder groups. The PSC members need to be champions for the product in their organisation and/or associations as well as through their networks of practitioners.

*Activities: Teleconferences, meetings, e-newsletters, email correspondence*

### 5.2.3 Regional Advisory Panels (IS3) – Involve

The RAPs will be updated on project progress through a quarterly project report provided by the Project Leader. PSC members who sit on the RAPs are expected to provide a thorough update of the Project. PSC members also need to ensure that the needs of the RAPs are understood and passed back to the Project Team.

The IRP2 Project Leader will endeavour to deliver a face-to-face workshop/meeting with the RAPs. This may be as part of a workshop/meeting with other stakeholders as well.

*Activities: Quarterly update report, PSC member updates, face-to-face workshop/meeting*

### 5.2.4 Project team (IS4) – Collaborate

The project team is spread across four organisations in WA, SA, and Victoria. Ensuring consistent delivery of key messages to project team members – and then on to key stakeholders – will be essential for project success.

Following completion of the draft-engagement strategy, a presentation will be given to all team members on its structure and the proposed implementation approach. This will provide an opportunity to confirm the approach and key messages.

Following this initial briefing, the Project Leader will provide quarterly project progress reports to the project team.

In addition to delivering workshops and conducting interviews, team members will be expected to provide content for engagement activities such as social media posts and webinars. It should be noted that all promotional content must acknowledge the CRCWSC.

*Activities: Teleconferences, meetings, e-newsletters, email correspondence*

### **5.2.5 Other CRCWSC projects and researchers (IS4) – Inform**

Other CRCWSC project participants and researchers will receive the same level of engagement as Indirect End Users, with a focus on digital platforms and presentations at conferences and industry events. There will be a focus on ensuring that other IRP Project Leaders are aware of the progress of this project and can act as advocates for it (and vice versa). This can be facilitated by regular meetings/teleconference calls between project leaders.

*Activities – Distribute e-documents; Webinars; Social-media posts; project-leader meetings*

## 6 Engagement schedule

Table 3 provides a description of the proposed engagement activities, the intended target audience, and when delivery is required. In a number of instances a single engagement activity will be designed for multiple stakeholder groups.

Implementation of this engagement schedule should be monitored on a monthly basis and amended based on feedback from the stakeholder groups. This may result in changes to the type of engagement activity and/or its timing.









# 7 Risk management

A risk-rating matrix is provided in Table 4, which is used to generate risk scores in Table 5.

Table 4. Risk-rating matrix.

	Likelihood				
Consequence	1	2	3	4	5
	Rare	Unlikely	Possible	Likely	Almost certain
5 Catastrophic	5	10	15	20	25
4 Major	4	8	12	16	20
3 Moderate	3	6	9	12	15
2 Minor	2	4	6	8	10
1 Negligible	1	2	3	4	5

Table 5. Stakeholder engagement risk-assessment matrix. L – Likelihood, C – Consequence, R – Rating.

Potential risk	Potential impact	Risk assessment			Action required to mitigate risk	Residual risk		
		L	C	R		L	C	R
Project outputs seen as being largely academic	<p>May prevent the adoption of the tool in the short and longer term</p> <p>Would require additional post-project engagement</p>	3	4	12	<p>Ensure communication activities emphasise the practical nature of project outputs.</p> <p>Close engagement with stakeholders to identify output requirements.</p>	2	3	6
Project team members become advocates for technologies that are not viable for some end users	Leads to disengaged end users who believe the business case for selected technologies is not relevant to their organisation	4	2	8	Project-team management ensures that individual team members communicate agreed key messages	2	2	4
Unrealistic expectations about how the project will address existing stakeholder needs	Project outputs do not meet user needs, and adoption rates of tool during and following the completion of the project are low.	2	4	8	Use the engagement strategy to understand and manage stakeholder expectations. Re-enforce the types of project outputs at regular intervals	1	3	3
Project is seen as a series of independent case studies rather than a single tool	Following completion of the project, adoption of the tool as an industry is limited	3	2	6	<p>Project Steering Committee to emphasise integration of project outputs.</p> <p>Ensure communication activities also emphasise the integrated nature of the project outputs.</p>	2	2	4

Potential risk	Potential impact	Risk assessment			Action required to mitigate risk	Residual risk		
		L	C	R		L	C	R
Inconsistent key messages from across the team	Stakeholders become confused about how outputs will address their needs. This will result in low adoption rates.	4	4	16	Project-team management ensures that individual team members communicate agreed key messages	2	4	8
Changing priorities/staff within stakeholder organisations	Initial needs identification becomes irrelevant and tool no longer addresses user needs	4	4	16	Key project staff maintain regular communication with key contacts	3	3	9
Changing staff within case study organisations	Disengagement with individual work packages impacts the success of case studies	4	4	16	Suitable knowledge management within the project team to build capacity in new staff and ensure handover	4	2	8

## Attachment A – Project governance

The Project Leader is responsible for overall coordination and reporting. The Project Steering Committee provide overall guidance to the Project, whose members are as follows:

- Ben Fallowfield;
- David Pannell;
- Fiona Chandler;
- Grace Tjandraatma;
- Greg Finlayson;
- Joanne Woodbridge;
- Karen Campisano;
- Kym Whiteoak;
- Mellissa Bradley;
- Nick Morgan;
- Nigel Tapper;
- Sadeq Zaman;
- Sayed Iftekhar; and
- Ursula Kretzer.

The main purpose of the Project Steering Committee (PSC) is to provide a joint leadership forum between industry and research partners with direct interests in the project outputs and subsequent outcomes. The PSC is therefore a resource that is a critical part of the overall project-delivery team, and it should provide valuable, constructive, and active input into the project to help maximise the value and benefits of the project's work and the adoption of project outputs.

The PSC members will need to be champions for the product in their organisation or association and throughout their networks of practitioners.

Although the PSC is not formally contracted to provide the project deliveries, it should still take an overall guiding role and joint ownership in all phases of the project lifetime. Hence, the PSC should provide direct input into the development of the project proposal, actively contribute to the ongoing progress and delivery of the planned outputs, and provide support for the uptake/adoption of the project outputs and deliverables.

In particular, the PSC (with support from local/regional steering groups, if existing) should help to ensure that:

- the project scope, activities, and outputs are both technically/scientifically achievable and practically relevant;

- the ongoing directions and progress of the project remains on track to generate the expected outputs;
- the project activities and deliverables are regularly reviewed and revised if necessary;
- any proposed or additional inputs and/or resources are available to enable or improve the project outputs;
- the Research Case Studies within the project are effective and suitable to help deliver industry-ready project outputs; and
- the outputs from the project are actively being tested, implemented, promoted and, if necessary, modified or expanded during the lifetime of the project.

# Attachment B – Summary of engagement activities

Codes relate to work packages (WP) and external stakeholder (ES) groups: ES1 – Active Case Study End Users, ES2 – Case Study End Users, ES3 – Treasuries and Regulators, ES4 – Indirect End Users.

	Digital								Face-to-face					
	WaterSENSE e-newsletter	Webinars	Webpage	e-fact sheets	Email correspondence	Teleconferences	Reports and tools	Social media platforms	Interviews	Workshops	Meetings	Conferences	Industry events	Training
WP1.1		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2,		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4						
WP1.2			ES1, E2, ES3, ES4	ES1, E2, ES3, ES4		ES1, ES2	ES1, E2, ES3, ES4							
WP1.3			ES1, E2, ES3, ES4				ES1, E2, ES3, ES4		ES1, ES2	ES1, ES2				
WP1.4		ES1, E2, ES3, ES4			ES1, E2, ES3, ES4			ES1, E2, ES3, ES4					ES1, E2, ES3, ES4	ES1, E2, ES3, ES4
WP2.2	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4				ES1, E2, ES3, ES4		ES1, ES2	ES1, ES2	ES1, ES2	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4



	Digital								Face-to-face					
	WaterSENSE e-newsletter	Webinars	Webpage	e-fact sheets	Email correspondence	Teleconferences	Reports and tools	Social media platforms	Interviews	Workshops	Meetings	Conferences	Industry events	Training
WP3.1			ES1, E2, ES3, ES4		ES1, E2, ES4	ES1, ES2	ES1, E2, ES3, ES4		ES1, E2, ES4					
WP3.3	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4				ES1, E2, ES3, ES4		ES1, E2, ES3, ES4
WP3.4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, ES2			ES1, E2, ES3, ES4		ES1, E2, ES3, ES4
WP4.1			ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			ES1, E2, ES3, ES4		ES1, ES2, ES3		ES1, ES2, ES3			
WP4.2	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3		ES1, E2, ES3, ES4		ES1, ES2, ES3		ES1, ES2, ES3			
WP5.1	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			
WP5.2	ES1, E2,		ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,	ES1, E2,			

	Digital								Face-to-face					
	WaterSENSE e-newsletter	Webinars	Webpage	e-fact sheets	Email correspondence	Teleconferences	Reports and tools	Social media platforms	Interviews	Workshops	Meetings	Conferences	Industry events	Training
	ES3, ES4		ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4	ES3, ES4			
WP5.3	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			
WP5.4	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			
WP5.5	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			
WP6.1	ES1, E2, ES3, ES4		ES1, E2, ES3, ES4	ES1, E2, ES3, ES4			ES1, E2, ES3, ES4	ES1, E2, ES3, ES4				ES1, E2, ES3, ES4		



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