CRC for
Water Sensitive Cities

Integrated Research Project 3

Integrated Urban Planning

Purpose and Background

1. **Project title:** IRP3 Evidence-based integrated urban planning across different scales

Summary:
Aspiring water sensitive cities will have to embed water sensitive practices that influence the biophysical infrastructure and built form of the city. There are a range of integrated urban planning functions and instruments (PFIs) such as planning policy, regulation, legislation, incentives and standards that guide the form and application of such practices. Existing PFIs vary from city to city, as do the urban planning systems and processes that comprise the mechanisms for applying them and requiring compliance.

IRP3 aims to provide targeted guidance to multiple case study regions on how to effectively advance their city shaping, water sensitive practices by applying a framework for integrated urban and water planning. IRP3 project will develop this framework and supporting processes, software and guidelines through a number of industry case studies.

This guidance/framework will be designed to complement the framework and platform being developed in IRP1 to facilitate WSC transition strategies and implementation plans but will also be able to be used as a standalone support for strategies related to individual WS practices (eg WSUD standards) or WSC services for large precinct developments or municipalities.

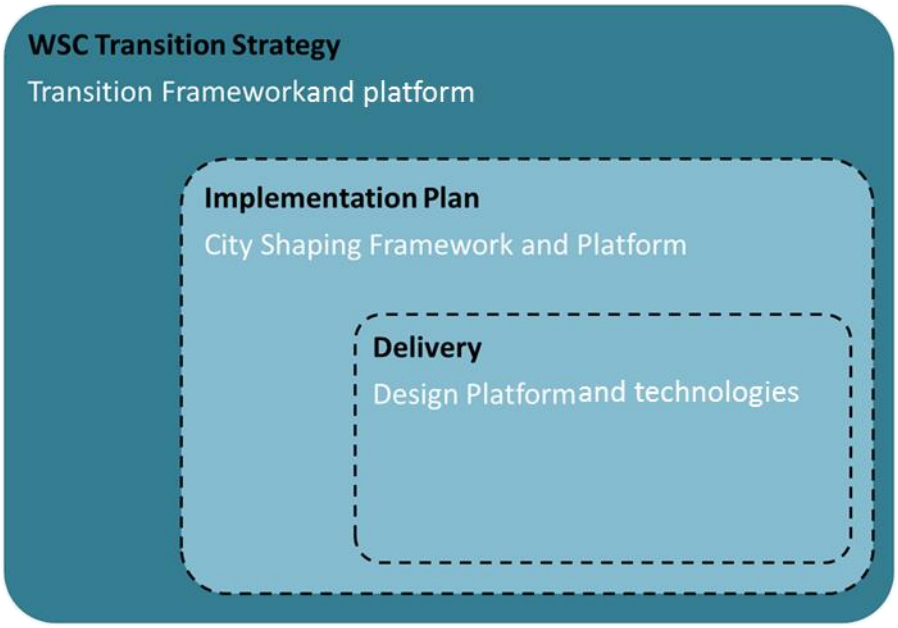

Fig. 1 Three 'Platforms' for outputs of CRCWSC research projects

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The framework will be integrated into a 'City Shaping Platform' which will include modelling capability, methodologies and participatory processes for application of the framework and templates of integrated planning functions and instruments. The modelling capability in the Platform will be designed to assist evaluation of:

- urban planning functions and instruments that would be necessary to achieving a required set of WSC practices and biophysical outcomes and
- the biophysical outcomes and WS practices that would result from a particular set of urban planning functions/instruments ie the effectiveness of a set of existing or proposed PFIs

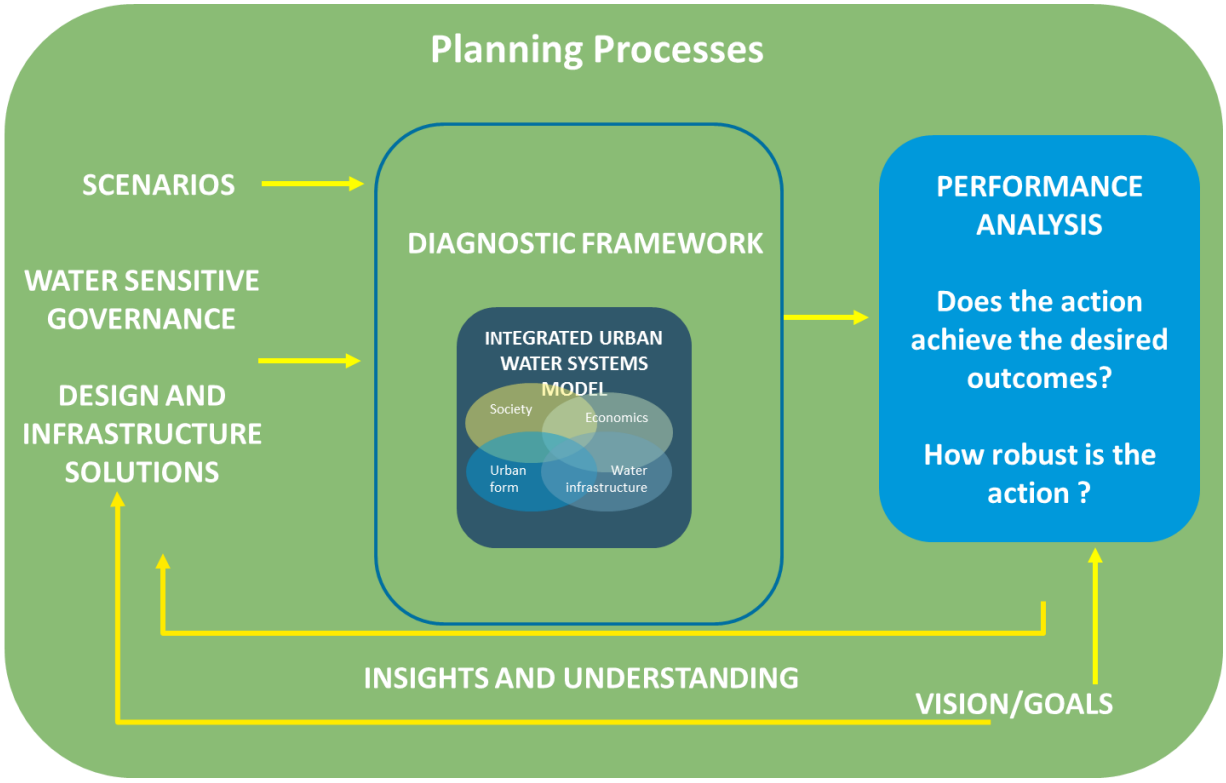

Fig.2 City Shaping Platform

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The project builds on several previous CRCWSC research outcomes in Tranche 1 and it will also draw on and integrate aspects of T2 research, particularly linking in with the IRP4 and TAP (Tools and Products) projects.

The case studies for developing, testing and validating the IRP3 framework and City Shaping Platform may also be common to these other T2 projects.

Project governance:
The Project will involve close collaboration between research and industry partners to ensure the project outcomes can directly influence the policies and activities of local stakeholder organisations to catalyse and accelerate their city's transition to its desired water sensitive future or effective implementation of proposed WS practices.

2. **Project leader:** Chris Chesterfield (Monash University)

3. **Participating organisations & team structure:** People and resourcing of the Project are yet to be determined

4. **Project aim(s) and objectives:** The project's aim is to provide strategic guidance and support to cities and towns in the application integrated urban and water planning to embed WS outcomes. Building on Tranche 1 CRCWSC projects and Tranche 2 IRPs. The project has the following objectives:

    1) Develop, refine and implement the city shaping **planning framework** in selected regions/case studies through a diversity of scales, biophysical and governance contexts and cross sector professional perspectives.
    2) Test and refine developed processes and methods for supporting application of the Framework through case studies.
    3) Develop planning and governance functions and instruments for selected regions/case studies to advance their WSC strategies and practices.
    4) Incorporate the Framework, methods, processes and templates into a City Shaping Platform together with modelling tools developed under the Tools and Products Project (TAP)
    5) Evaluate the effectiveness of the Framework and methods and processes for application and the City Shaping Platform, with a view to equipping industry partners with knowledge and tools and steering policy and practice towards the WSC outcomes.

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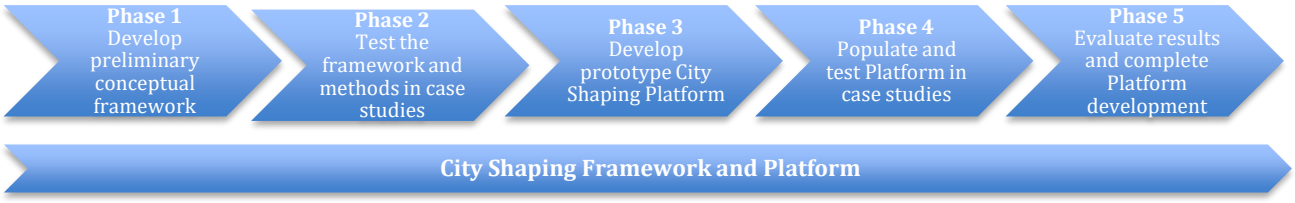
5. Project phases:



	Goal	Approach	Approximate duration
Phase 1	Develop prototype conceptual framework	Industry or university research partner	6 months
Phase 2	Prototype test framework and trial methods and processes	Project Team - Case studies with industry	6 months
Phase 3	Develop City Shaping Platform	Integrate tested Framework, method and processes with Dance4Water Integrated Urban Water Systems model	6 months (overlapping with Phase 2)
Phase 4	Test and validate Platform	Case studies with industry	12 months
Phase 5	Evaluate and complete prototype Platform	Integrated development process with other CRCWSC platforms (WSC Transitions Platform and WSC Design and Delivery Platform)	6 months (overlapping with Phase 4)

6. Intended project outcomes:

This project will deliver both content and process outcomes. Content outcomes include:

1. A thorough analysis of the urban and water planning methods and approaches relevant to shaping water sensitive cities and embedding water sensitive outcomes.
2. A Framework for integrated urban and water planning
3. Methods and processes for application of the Framework including a software platform
4. Outputs from application of the Framework as specific guidance for embedding WS outcomes in case studies
5. A City Shaping Platform that incorporates outputs of IRP3 and other T2 projects including TAP Dance4Water.

From a process perspective, project outcomes include:

1. Development of a deeper knowledge and understanding of integrated urban and water planning approaches that can advance WSC outcomes.
2. Methods and processes for applying integrated urban and water planning to advance WSC outcomes.

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3. Methods and processes for cross sector engagement of professionals in developing and evaluating alternative servicing scenarios to deliver water sensitive city outcomes.
4. Improved capacity of professional stakeholders to understand and employ integrated urban and water planning.

7. Targeted end-user group(s):

Stakeholders across a city or region's urban water management and planning sectors, and potentially community members of the city or region, will benefit from the project outcomes, by either direct participation in the project or by direct use of the Integrated Planning Framework and City Shaping Platform.

Industry stakeholders will be better equipped to employ effective integrated planning to embed WS outcomes and drive their city's water sensitive transition agenda.

8. Commercialisation and Intellectual Property (IP):

It is expected that the City Shaping Platform will have some commercial potential. This could be realised through the parallel developments in the TAPs subprogram (see separate proposal).

9. Industry/end-user participation:

Industry participants form part of the project team that will work together to develop the specific activities of each region/case study. A project steering group that will meet regularly throughout the project in order to ensure the process is tailored to suit the specific needs of each region. Industry participants have a comprehensive understanding of the unique water issues that each region faces, the physical, social, and political contexts of each region, and the resources that may be available to implement this process. Industry participants will be actively involved throughout all phases of this project. The project team will communicate regularly through emails, teleconferences, workshops in each region, and an annual face-to-face meeting.