

CRCWSC
RESEARCH
SYNTHESIS

Program summary

CRC for Water Sensitive Cities

IDEAS FOR A WATER SENSITIVE SYDENHAM TO BANKSTOWN URBAN RENEWAL CORRIDOR



Business
Cooperative Research
Centres Programme

Summary

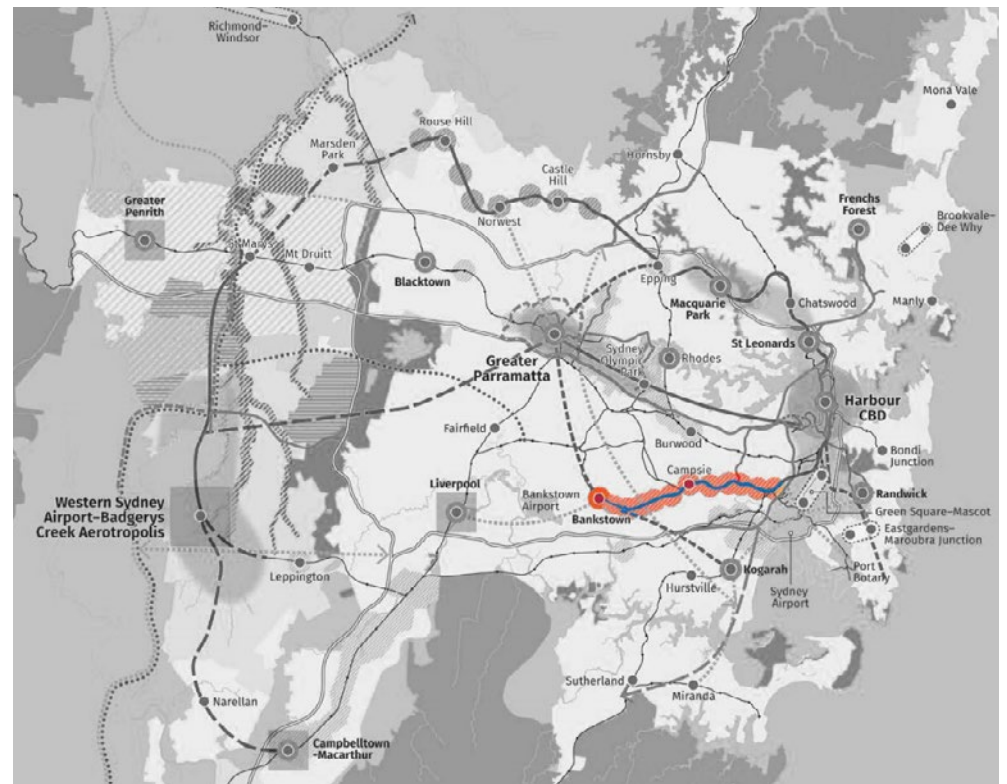
The research synthesis project was led by the CRC for Water Sensitive Cities (CRCWSC) who, in conjunction with experienced researchers and practitioners from the government and industry, undertook an innovative and collaborative co-design process to promote water sensitive outcomes for the Sydenham to Bankstown Urban Renewal Corridor (Corridor).

The Sydenham to Bankstown Corridor is identified in the Greater Sydney Commission's Greater Sydney Region Plan and Eastern City and South District Plans and includes 11 centres along the Sydney Metro Southwest Metro rail line from Sydenham to Bankstown.

The project adopted a collaborative approach to explore and co-design solutions around the role of water in delivering a sustainable, resilient, productive and liveable Sydenham to Bankstown Corridor.

The participants included urban planners, urban designers, engineers and environmental management and natural resource specialists from the City of Canterbury Bankstown and Inner West Council, Department of Planning, Industry and Environment, Greater Sydney Commission, Sydney Water, Cooks River Alliance and observers from Bayside Council, Hornsby Council, City of Sydney and Strathfield Council. Participants attended a series of scoping meetings, workshops and site visits. The independence of the CRCWSC allowed the project to focus on ideas outside of statutory processes and constraints of existing governance structures.

The project delivered high-level, corridor-wide water sensitive cities principles and context-specific typologies for water-sensitive urban design (WSUD) solutions. Two case studies based on the Marrickville and Campsie precincts detailed how locally appropriate water sensitive initiatives can be applied at the precinct, street and building scales.



Greater Sydney Region Plan shows the broader context to the Sydenham to Bankstown corridor.

The location and drivers

The Sydenham to Bankstown Urban Renewal Corridor spans Inner West and Canterbury Bankstown Local Government Areas. The new Sydney Metro infrastructure will provide a catalyst for renewal in the area. The Corridor is also part of Sydney Water's eastern district for water servicing.

The Corridor is almost entirely located in the catchment of Cooks River, a locally significant and highly urbanised waterway. Land use across the catchment has potentially 89% impermeable surfaces with 68% of rainfall entering the river channel shortly after a storm event (Cooks River Alliance Management Plan 2014). This brings significant pollutants into the river, and along with waste water overflows, makes the river unsuitable for recreational use. However riparian areas that frame the river are highly valued by the community and used for passive and active recreation. Additionally much of the catchment population is vulnerable to heat waves (South District Plan Greater Sydney Commission).

The Cooks River Corridor is identified as a Priority Green Grid Corridor in the Sydney District Plans. This recognises that the river and its green places provides significant liveability benefits for the growing catchment population.



The process

The CRCWSC Research Synthesis is a facilitated design process that combines the latest research with local expertise to collaboratively develop practical ideas for addressing urban challenges.

Over a series of workshops, problems are explored and the shared parameters and language agreed by the participants. Together the participants arrive at solid, tangible propositions for solving the problem, with benefits clearly defined. The collaborative nature of research synthesis helps to break down barriers between disciplines, organisations and gets results quickly. New insights are developed that can be applied in a practical way.

The Sydenham to Bankstown project had a series of five workshops:



1.

July 2018 – The Scoping Workshop

This drew ideas from Councils, government agencies and stakeholders about the Corridor and outlined the key issues and challenges. A Project Steering Group was established and the general approach and intended outcomes of the project were agreed upon.

2.

September 2018 - The Corridor Workshop

This built upon the research of the CRCWSC with the experience of the participants and applied this collective knowledge to the context of urban development and renewal. Participants were asked to consider what a water sensitive city would look like at this Corridor scale. The workshop was a two-day design charette, including a site tour with 40 people, which formed the foundation for high-level WSC principles and conceptual design ideas (typologies) for the whole corridor.

3.

November 2018 – The Precinct and On Ground Opportunities Workshop

This was a two-day Precinct Case Studies workshop, consisting of two full-day design charettes, that led to the development of more detailed precinct scale WSC ideas for the Campsie and Marrickville precincts. The workshop approach included problem identification and solution generation using an interdisciplinary approach. This allowed the participating professionals from various disciplines and policy makers to work together to co-create ideas.

4.

May 2019 – The Planning Principles Workshop

This refined the principles developed in the Scoping Workshop to relate specifically to the Sydenham to Bankstown corridor and developed direct input into Councils' Local Strategic Planning Statements.

5.

Post May 2019 – Using the Outputs

Stakeholders continued working together on the principles to address specific government and organisational requirements. Over the next 18 months (and 10 months for accelerated Councils) we will be developing Local Strategic Planning Statements that give effect to the relevant District Plans and spatialise Community Strategic Plans. It is critical that a sustainability focused, and innovative suite of water-sensitive planning principles is available to inform planning controls and decision-making to drive better water outcomes across Greater Sydney.

The big ideas generated

Each workshop generated innovative ideas that were specifically related to the Corridor.

Nine Point framework

An output of the first workshop on the Sydenham to Bankstown Corridor was a nine-point framework to guide urban planning, water servicing and catchment management across the Corridor.



Element	Description
Circular economy	A circular economy is regenerative and offers an alternative to the linear pattern of consuming and disposing resources. This approach can be applied to water and energy to measure a city's performance and its impacts on waterway health, pollution and urban heat.
Water servicing	Managing the different parts of the urban water cycle – drainage, water and waste water – as an integrated service, and seeking opportunities to use local systems within the corridor.
Green lines	Developing a network of major and minor 'green lines' that deliver ecological as well as community outcomes.
Waterway health	The waterway is a critical element of the green corridor. It must perform well to deliver these functions and meet the needs of the community.
Flooding	Responding to flooding by retreating, adapting or defending land uses and infrastructure through the process of redevelopment.
Activating town centre and public realm	Harnessing the roles of water and greening to enhance the activation of streets and open spaces.
Building design	Water outcomes at the lot/building scale through better design.
Communities	Creating engaged and empowered water sensitive citizens.
Governance	This concerns the way we collectively plan, deliver and manage development and infrastructure.

Case studies

The second workshop generated ideas for two precincts – part of the Campsie CBD centre and the suburb of Marrickville.

Ideas generated for Campsie focused on:

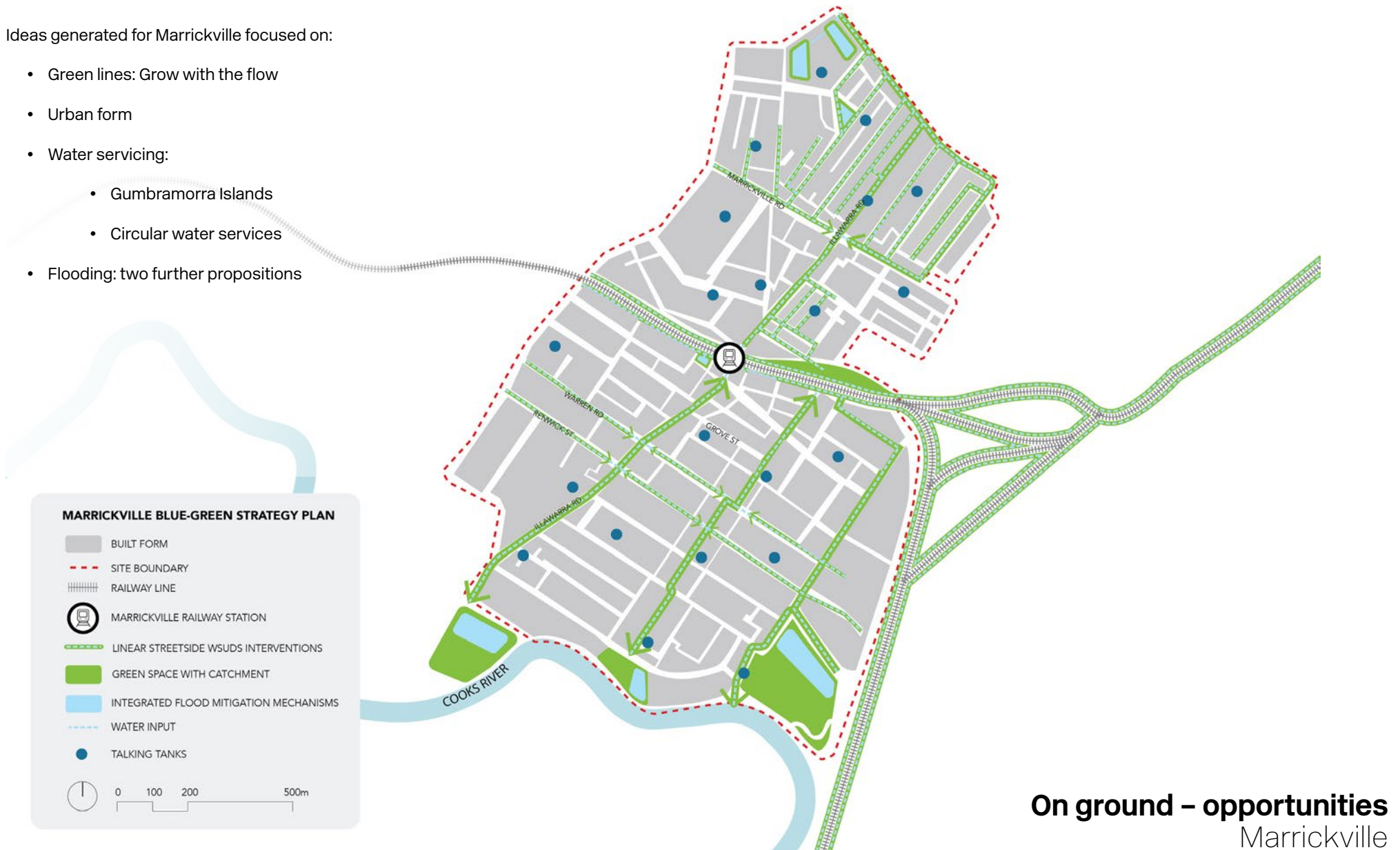
- Water servicing
- Green lines
- Activating the public realm
- Flooding and waterway health



On ground – opportunities
Campsie

Ideas generated for Marrickville focused on:

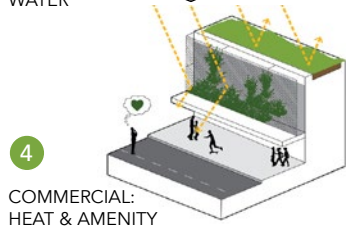
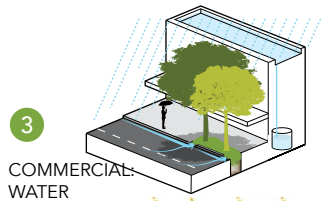
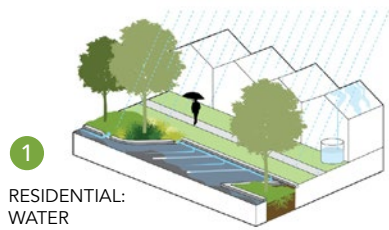
- Green lines: Grow with the flow
- Urban form
- Water servicing:
 - Gumbramorra Islands
 - Circular water services
- Flooding: two further propositions



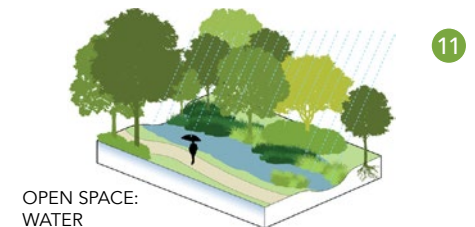
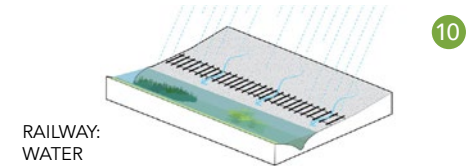
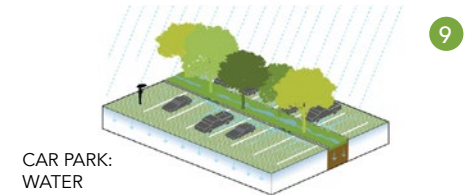
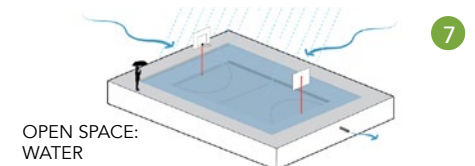


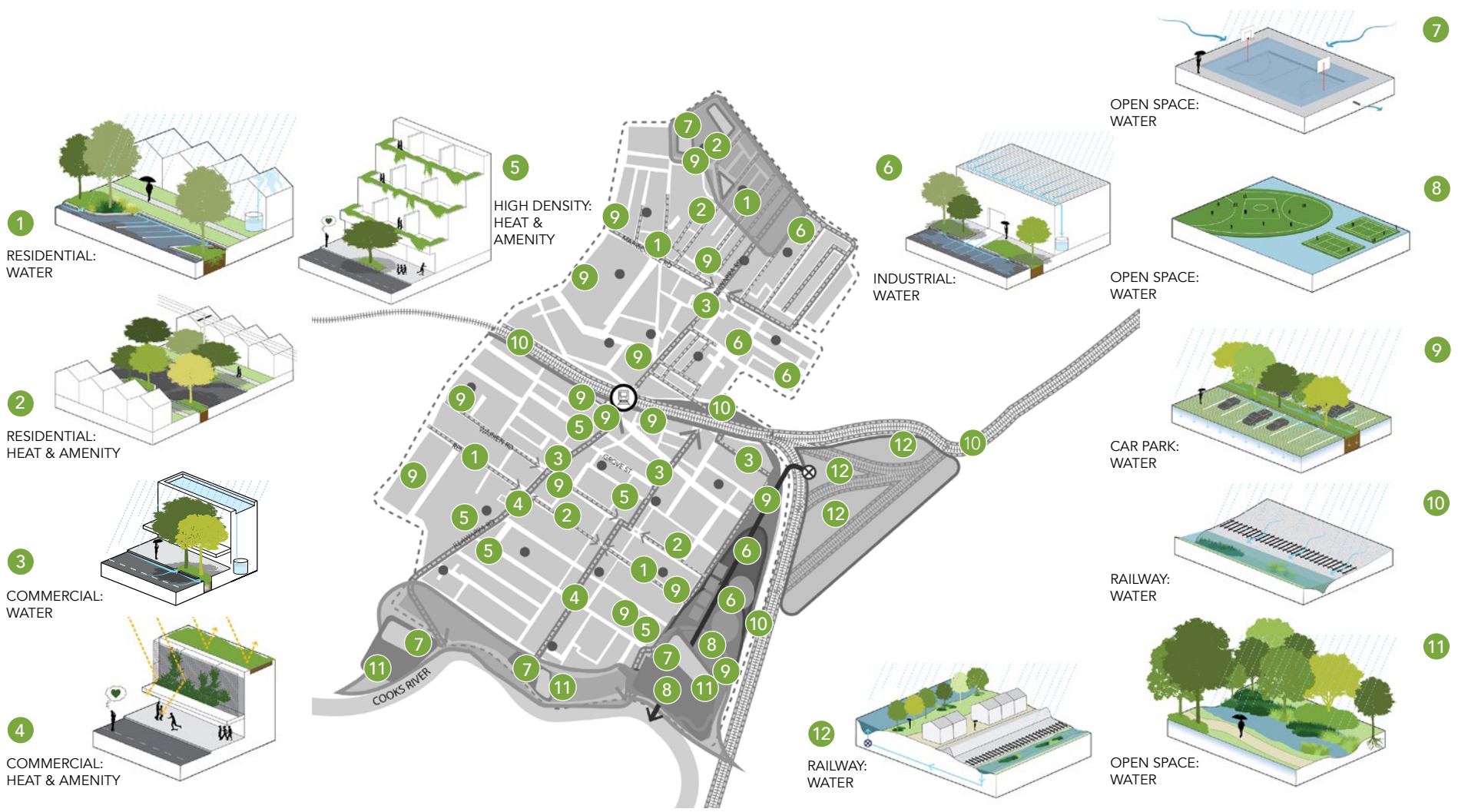
Typologies

The second workshop also generated ideas for development typologies for residential, mixed use, industrial, commercial and utility land uses. These typologies were applied to the case studies to support green/blue structure plans showing how the WSC principles could be applied to the case study precincts.



Campsie typologies





Marrickville typologies

The planning principles

The planning principles workshop asked participants to reflect upon the two precinct case studies and how the urban planning typologies developed for each might be implemented in practice.

There is an ongoing discussion around the adoption of the planning principles by all organisations involved and also how the principles can be promoted widely to others.

<p>1. Water (blue lines) is the base layer of urban planning</p>	<p>2. Make water visible in the urban landscape</p>
<p>3. Community participates in planning, design and creation of their valued places</p>	<p>4. Land use and infrastructure support the mobilisation of resources in a circular economy</p>
<p>5. Water servicing strategy maximises community benefit before deciding on scale (centralised or local solutions)</p>	<p>6. A functioning ecosystem is a prerequisite for liveability of place.</p>
<p>7. Plan for engineering and social resilience.</p>	<p>8. Streets are community spaces. Communities want more from these spaces than providing for cars.</p>
<p>9. Buildings are part of the catchment topography – providing opportunities to treat, slow, store or harvest water.</p>	<p>10. Community just sees the solution. Integrated governance ensures this solution is holistic and community focused.</p>

Further information

For more information click the link below:

[Find out more about the CRCWSC](#)



CRCWSC RESEARCH SYNTHESIS

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