

Regional Advisory Panel Meeting Western Region

Meeting No. 34	Meeting Minutes	9.00am - 11:00am
27/11/2018		UWA Trustees Level 2

Attendees			
Mike Mouritz (Chair)	CRCWSC Board		
Emma Yuen	CRCWSC, Regional Manager	Winsome MacLaurin	Dept. of Water & Environmental Regulation
Shelley Shepherd	New Water Ways Inc.	Joanne Woodbridge	EMRC
Emma Monk	Dept. of Biodiversity, Conservation & Attractions	John Savell	Dept. of Communities /CRCWSC EPRG
Tao Bourton	Yolk Property Group	Neil Burridge	City of Armadale
Max Hipkins	Mayor of Nedlands	Antonietta Torre	Water Corporation
Ryan Hunter	Peet	Maksym Polyakov	UWA (Agricultural and Resource Economics)
Apologies			
Barry Ball	CRCWSC	Allison Hailes	UDIA
Nick Deeks	GHD	Loretta van Gasselt	Dept. of Planning, Lands & Heritage
Ajay Shah	KBR	Greg Ryan	LandCorp
Su Martins	Communities		

Item No.	Agenda Topic
1.	<p>Welcome and apologies</p> <p>Maksym Polyakov was welcomed to the RAP.</p>
2.	<p>Acceptance of previous minutes</p> <p>The minutes from the last RAP meeting (#33) held 28 Sept 2018 were accepted with minor amendments.</p>
3.	<p>Actions from September minutes</p> <ul style="list-style-type: none"> Item 6 is an ongoing role for NWW and will be removed from action list Item 9 is yet to be undertaken by Shelley Item 10 was put forward to Water wise group but requires a formal proposal and is unlikely to be successful in the current economic environment and will be removed from action list <p>Actions from other previous meetings</p>

Item No.	Agenda Topic
	<ul style="list-style-type: none"> Item 7 is no longer relevant and will be removed from action list Item 8 is deferred until there is a UWA replacement for Peter Davies.
4.	<p>Correspondence Nil.</p>
CRCWSC Updates	
5.	<p>Executive Update All four executives were apologies due to board meeting and leave.</p>
6.	<p>Regional Manager Report</p> <ul style="list-style-type: none"> Attendees for Tranche 3 December 5 and 6 in Melbourne are Antoniette Torre, Geoffrey London, Mike Mouritz, Emma Yuen, in addition to John Savell and Sayed Iftekhar. Emma Yuen will be on leave for 6 weeks over the summer holidays <p>ACTION: WRAP members to feed in any ideas to inform Tranche 3 to workshop attendees</p>
Items for discussion	
7.	<p>IRP2</p> <p>Based on the IRP2 presentation, some attendees questioned the total cash benefit calculated in the case study because:</p> <ul style="list-style-type: none"> Benefit is only to those with views (the water/ open space) or are immediately next to POS not just in close proximity to it. Only relevant where the majority of blocks don't have amenity and a few lots do. First home buyers don't have the capacity to pay a premium even if they wanted to The research was on existing or retrofit and not greenfield developments Cost of construction of living streams, and time delays for approvals, weren't included <p>Tamara Harold can be contacted for access by participants to the IRP2 Beta version.</p> <p>ACTION: Maksym will consider exploring a greenfield development such as Wungong (those who put in living streams and those who didn't) with support of a master's student.</p> <p>ACTION: Emma Yuen, to follow up on "Business Case and strategy for pursuing water related economic and commercial business opportunities" and what it means</p> <p>ACTION: Emma Yuen will confirm IRP2 Beta version access for non-participants</p>
8.	<p>TOR</p> <ul style="list-style-type: none"> It was agreed that all SMEs (Alluvium, JBA, Water Technology) will be invited to join RAP in addition to all participant LGAs (if they wish).

Item No.	Agenda Topic
	<ul style="list-style-type: none"> The ToR were accepted <p>ACTION: Emma Yuen to send invite to all SME and participant councils to join. This letter will provide clarity around the difference between the WSTN and RAP.</p>
9.	<p>Policy paper</p> <ul style="list-style-type: none"> It was agreed that WRAP supports development of a “Water and Health” policy paper with associated think tank. Second preference was for alternative water supplies <p>ACTION: Emma Yuen to notify Barry Ball that Water and Health is preferred, suggest it as a think tank topic and request clarify around the level of resources available to develop.</p>
10.	<p>Capacity Building</p> <ul style="list-style-type: none"> RAP supported the concept of the interactive map for developers A key developer engagement opportunity is through the contractors federation. RAP supported replacing the leadership training with an Economics workshop should the IP issues in the leadership training be unresolved this FY RAP supported the idea of replacing the second interagency workshop (Dept of Finance on major projects/ property Council) with a WSC Index session for Armadale who is not a current water wise council but will be in 2019. Concerns were raised about automatically using Urbaqua to deliver the Armadale Index workshop without first providing an open and transparent process. Need to look into a process that will be fair perhaps through co-delivery by Urbaqua and JBA. <p>ACTION: Shelley Shepherd to present interactive map proposal at the next meeting that will consider ongoing funding and possible sources (WALGA, WC, DLGSCI etc).</p> <p>ACTION: Emma Yuen to put on April RAP agenda (after CRCWSC conference), to discuss the value of rerunning the economics workshop from the Brisbane conference in Perth.</p> <p>ACTION: Mike, Barry and Emma to discuss an appropriate process for the Index workshop.</p>
11.	<p>Priorities for Knowledge translation</p> <ul style="list-style-type: none"> RAP supported activities provided in the attachments. <p>ACTION: Emma Yuen to send endorsed list of suggested activities including IRP5 to Barry Ball</p>
18.	<p>IRP5</p> <ul style="list-style-type: none"> RAP expressed concern about the quality of editing on the IRP stage1 report, particularly that Joel Hall’s comments were not included in final version despite significant time taken for revision. RAP were concerned about lack of commitment by CRCWSC Research Portfolio to stage 2. Would like IRP5 Stage 1 to be translated into an accessible format.

Item No.	Agenda Topic
	<p>ACTION: Shelley Shepherd to write fact sheet/ summary of IRP5</p> <p>ACTION: Mike Mouritz to send letter to CRCWSC Board requesting commitment to Stage 2 and request dollar amount of available funding</p>
12.	<p>Business Plan</p> <ul style="list-style-type: none"> Agreed to only include RAP actions in the business plan table. <p>ACTION: Emma Yuen will remove the TN responsibilities from the table and circulate</p> <p>ACTION: ALL to respond by December 10 with their priorities if different to existing.</p>
13.	<p>IRP1</p> <ul style="list-style-type: none"> Part B is out for comment with WSTN and to be completed by end of year by Katie WRAP does not support investing time into pursuing additional transition strategies or TDF at city, precinct, or local government scale due to lack of resources. <p>ACTION: Emma Yuen will coordinate printing of 100 copies of Part A</p>
14.	<p>Transition Network</p> <ul style="list-style-type: none"> As above
15.	<p>TAPS</p> <ul style="list-style-type: none"> Adoption Tour presentation
16.	<p>IRP3</p> <ul style="list-style-type: none"> Decision to be made by Brabham management committee tomorrow.
17.	<p>IRP4</p> <ul style="list-style-type: none"> Planning a workshop between the city, citizens and landowners in Feb 2019.
Other business	
17.	<p>Other business</p> <ul style="list-style-type: none"> UDIA conference is at the same time as CRCWSC Conference and about 100kms away. Subsidies for member LGA travel. Tony will visit RAP and WSTN February 19 to inform Tranche 3. Agreed to hold RAP meetings in 2019 on third Tuesday of every second month <p>ACTION: Winsome to coordinate WSTN session with Tony's on Feb 19.</p> <p>ACTION: Emma to send 2019 meeting requests</p>
18.	<p>Close: The meeting closed at 11.00am and the Chair thanked everyone for their attendance.</p>

Item No.	Agenda Topic
	Date of next meeting: 9-11 Tuesday, 19 February 2019 @ Trustees Building

WESTERN Regional Advisory Panel

ACTIONS

Legend
Done
Not Done
Deferred
On Agenda

Actions	Description	Who	When
Actions from Meeting No. 34			
1	WRAP members to feed in any ideas to inform Tranche 3 to workshop attendees	ALL	
2	Maksym Polyakov will explore a greenfield development such as Wungong (those who put in living streams and those who didn't) with support of a master's student.	M Polyakov	
3	Emma Yuen, to follow up on "Business Case and strategy for pursuing water related economic and commercial business opportunities"	E Yuen	
4	Emma Yuen will confirm IRP2 Beta version access for non-participants	E Yuen	
5	Emma Yuen to send invite to all SME and participant councils to join. This letter will provide clarity around the difference between the WSTN and RAP.	E Yuen	
6	Emma Yuen to notify Barry Ball that Water and Health is preferred policy paper topic and request clarify around the level of resources available.	E Yuen	
7	Shelley Shepherd to present interactive map proposal at the February meeting that will consider ongoing funding and possible sources (WALGA, WC, DLGSCI etc).	S Shepherd	



Actions	Description	Who	When
8	Emma Yuen include in April RAP agenda (after CRCWSC conference) a discussion on the value of an economics workshop rerun in Perth.	E Yuen	
9	Mike, Barry and Emma to discuss who should deliver the Armadale Index workshop so that the process is fair and transparent.	E Yuen, M Mouritz, B Ball	
10	Emma Yuen to send endorsed list of KAT suggested activities including IRP5 to Barry Ball	E Yuen	
11	Shelley Shepherd to write fact sheet/ summary of IRP5	S Shepherd	July 2019
12	Mike Mouritz to send letter to CRCWSC Board requesting commitment to Stage 2 and request dollar amount of available funding	M Mouritz, A Torre, E Yuen	
13	Emma Yuen will remove the TN responsibilities from the table and circulate	E Yuen	
14	ALL to respond to RAP version of the table by December 10 with their priorities if different to existing.	ALL	
15	Emma Yuen will coordinate printing of 100 copies of Part A	E Yuen	
16	Winsome to coordinate WSTN session with Tony Wong on Feb 19.	W MacLaurin	
17	Emma to send 2019 meeting requests	E Yuen	
Outstanding actions from previous meetings			
8.	EY to coordinate UWA rep once leadership of IRP 5 decided	E Yuen	
9.	Shelley to write a proposal for use of RAP funds for construction of landing page and guidance on what WSUD is for developers (not technical). Provide examples of best practice outcomes in different site and development contexts, with comment on how criteria can be demonstrated. This can also be used	S Shepherd	



Actions	Description	Who	When
	by local governments. Emma to send to Barry Ball for approval and then update the RAP for their information		
11.	Emma Yuen will circulate the finalised Business plan for comment before sending onto Barry Ball.	E Yuen	

In relation to our desired objective for progressing a constructive and achievable way forward in influencing a consistent approach to development in land subjected to high seasonal groundwater table, I offer the following:

It was evident to us, from our discussion with members of the IRP5 scoping project steering committee and consultants undertaking this study, and from our reading and interpretation of the draft report from the study that there still remains considerable contention. This has led the CRCWSC Executive Team to form/re-affirm the following views:

- The need for a no regrets way forward is urgent given urban growth forecast
- Further monitoring and modelling alone will not deliver a definitive solution given the time available and realistic cost.
- Active involvement of all three sectors (developers, government and research) is essential given the history, complexity and uncertainties associated with this issue.
- A learning-by-doing approach in collaboration with the development industry will be important to create and test the performance of novel solutions that can then support a change in policy, practice and/or regulations.

The CRCWSC's aspiration is in facilitating the formulation of an interim framework for land subjected to high seasonal groundwater table based on the considerations of the current scientific knowledge and industry experience on this topic. We want this framework to facilitate the objective of learning-by-doing and co-creation of innovative solutions amongst key stakeholder groups (industry-government-research institution), preferably centred around the Brabham development.

IRP3 now includes Brabham as a case study and we want to enquire if CRCWSC fund is best directed to support an expert panel contributing to, and strengthen the relevant IRP3 activities at Brabham. We envisage that this be used to inform subsequent targeted field-based research activities.

Cheers, tony

Western Region Manager Update

WRAP 18th March 2019

Activity title	Outcomes achieved	Priority going forward	Items for RAP to advise upon
CRCWSC executive	Tony Wong and Ben Fumage visited Perth 18 and 19 February and met with WC (Pat Donovan and Mike Hollett), Greg Cash (DoC), UDIA (Tanya Steinbeck and Darren Cooper) WAPC Chair (David Caddy) and the WSTN and WRAP. Jurg Keller and Sandra Hall appointed to AWA Board. Jurg is retiring April 30 when Briony Rogers will take over, primarily related to T3. Sam Lemons will play a key role in T2 under the guidance of Briony. Clare Beeby and Carolyn van der Cingel have resigned but we have had Mel Ling and Nicole join Melbourne office. Second contract for Andra Pradesh went to Morphum Environmental from Wellington NZ.	Barry Ball will provide details around how Capacity Building and WRAP funding can be spent.	
CRCWSC Board	Greg Cash has newly been appointed to the CRCWSC Board. The only other WA based representative is Simon Biggs from UWA. Joint Board, AC and EPRG meeting held February 27 in Melbourne where the focus was on Tranche 3		
CRCWSC AC	Meeting on February 27 in Melbourne. Emma Yuen attended on behalf of the RAP as Mike Mouritz was unable to attend.		
EPRG	EPRG held a meeting February 6 followed by the joint meeting February 27 combined with the Board and Advisory Committee. John Savell, Campbell Thomson and Tim Sparks attended.		
Research including Tranche 1 and Tranche 3	WA Livability workshop (Nov 5) helped inform Nat Tranche 3 workshop (Dec 5) that informed Perth Tranche 3 Roadshow held on February 19 following a shared meeting with WRAP and WSTN	A prospectus is also being developed and will be distributed at the March conference	Attachment: workshop handout and presentation from Ben & Tony
General operations and Regional Manager	New members to the WRAP include Richard Connell (Water Technology) Richard McManus (Alluvium) with Natalie Lees now filling in the role for Mandurah RAP Business Plan finalized	Begin Process for the 19/20 RAP Business Plan in June	Attachment: RAP survey here https://www.surveymonkey.com/r/rap-survey Attached: Final WA RAP business plan
Transition Network	Combined meeting with WRAP and Tony Wong on 19 February. Some stakeholders providing in-kind and financial support for the Nyoongar knowledge of the Swan project run by CAUL.	Progressing the Transition Network and subcommittee priorities.	On agenda
Adoption - IRP1	Transition Strategy Part A has been finalised: https://watersensitivecities.org.au/wp-content/uploads/2018/08/Transition-Report-Perth-V6.pdf	Finalise Part B within the next few weeks	Attachment: Transition Strategy Implementation Plan - part B
IRP2	Conference workshop session titled "Using the Non-market and Benefit Transfer Tool developed by the Comprehensive economic evaluation framework (IRP2) project" The updated versions of the tools will be available in May, 2019. Full day training sessions on the INFEWS tools proposed for 13 th June, 2019 for Regulators and Treasury Participant organisations can access the beta version of the INFEWS BCA and Values tool which can be downloaded via the website once logged in. Non-members can be given early access by: 1) joining the CRCWSC; OR 2) engaging one of our SMEs who already has access (WA: GHD, KBR, Urbaqua, Josh Byrne and associates, Water Technology, Alluvium etc); OR 3) contacting the Regional Manager who can consider a special case and coordinate conditions of use. Will offer some commercial opportunities for non-members. Sayed informed Joanne that city-scale scenario of benefits is possible but requires extra work	SME to deliver INFEWS mentoring in future for IRP2 outputs Exploring how to answer: 1) How to fund retrofit of WSUD? 2) How to overcome economic barriers to alternative water supplies	Discussion: Any clashes on June 13? Any interest from key groups eg participant or non-participant consultants, utilities? Discussion: anyone interested in trialing a city-scale benefits scenario?
IRP3	Brabham Management Committee meeting in January approved Brabham to be a case study for IRP3.		For Information: Stakeholders wishing to participate in context analysis or workshops to advise Sue Martins or Shelley Shepherd.
IRP4	PSC meeting held January 16. Conference workshop session titled "Quantifying water performance of residential design alternatives using the		

Activity title	Outcomes achieved	Priority going forward	Items for RAP to advise upon
	evaluation framework developed by the IRP4 project (Water Sensitive Outcomes for Infill Developments)”		
IRP5	Mike Mouritz is coordinating the project design and funding from partners. John Savell, Tim Sparks and Emma Yuen met with Tony and Jurg to discuss IRP5 on February 27. Tony has provided objectives for IRP5		On agenda under executive update including attachment
Opportunities – policy	The TN policy subcommittee held a meeting 28 November and 20 February.		On agenda
Opportunities - Projects	Jamie Ewert is looking for new subsidized (\$10k discount) Ideas projects for April –June 2019. Consider ideas for policy- based synthesis similar to flood resilient design or Vic Planning controls.		On agenda including attachment
Grants and Funding	Bid for CRC Future cities had an interview Andra Pradesh AIC grants https://dfat.gov.au/people-to-people/foundations-councils-institutes/australia-india-council/grants/Pages/grants.aspx		
TAP1 - WSC index	WaterCorp hosted a training session on the WSC Index February 7. General information session for Water Wise Councils also on February 7. Melville Index workshop was held (4 March 2019). Previous 2018 workshops include City of Vincent (July), Mundaring (June) and Victoria Park (2018). Armadale and Gosnells may be interested in Index workshops. Conference workshop session titled “I’m a champion; how about you? Exploring the CRCWSC Transition Dynamics Framework and best practice approaches to research adoption” Further WSC Index accreditation training will be through an open EOI in late April or May.	Upcoming Index workshops Bayswater 30th April Kwinana 16th May Interested consultants to look out for an EOI for Index accreditation	
TAP2 – planning scale	Kyle Wang presented on TAP2 with Department of Communities staff on December 10 2018 Conference workshop session titled “Using the CRCWSC Scenario Tool developed by the Tools and Products (TAP) project to consider urban heat impacts in urban development”		
TAP3 – detailed			
Adoption - WA Research and Adoption Plan	Generating 3 national priorities and strategies during a meeting March 24 in Brisbane		
KAT – capacity building and community engagement	Josh, Shelley, Emma meet with Gosnells on December 11 to pitch CRCWSC tools and opportunities. There was some interest in the Index and WSUD provided it didn’t add to costs. Armadale Index workshop is unable to be funded through the Capacity Building budget because this source of funding should: a) focus on participants first whilst also supporting non-members of CRCWSC/ WWC; and b) shouldn’t be used to deliver a commercial product unless there are special circumstances. National activities delivered were Adoption Tour, Developer Roadshow and accreditation Process etc.		On agenda. See attachment for update on delivery. RAP to agree on replacement activities as 2 agreed activities won’t be delivered prior to June 2019.
Analysis: Evaluation	Case studies are found here https://watersensitivecities.org.au/solutions/water-sensitive-cities-case-studies/ Kim Markwell is adding a small number of new case studies and requires feedback on the options in WA		On Agenda including attachment
Conferences	Conference program updated with following WA based presenters confirmed: Urbaqua (Shelley Shepherd), Communities (Su Martins), WaterCorp (Sergey Volotovskiy, Ashley Vincent, Paul Nolan, Antonietta Torre) UWA (Daniel Martin, Leah Beesley, and Sayed Iftekhar). Registrations closed March 15.		
Media	Spanish TV documentary will be filmed in Perth over 2 days and will include Josh’s house		
Stakeholder engagement by Regional Manager	DWER is now at Prime house and the Regional manager no longer has a city based meeting venue. Dr Nygarie Goyal is new DWER Executive Director, Science and Planning, previously from the Australian Government Department of Agriculture and Water Resources where she most recently performed the role of Principal Veterinary Officer and Director for Western Australia. Patrick Seares is the DWER Executive Director, Strategy and Engagement		Discussion: CBD meeting venue

Activity title	Outcomes achieved	Priority going forward	Items for RAP to advise upon
Development sector engagement	UDIA water committee meeting held 8 February New Chair of the UDIA alternative water supplies subgroup is our own Ryan Hunter!	Look for ways to fund the developer landing page beyond the NWW 19/20 budget.	
Local Government sector engagement	Mike Mouritz and Mark Batty have discussed ways LGAs can be brought into Tranche 3 Various Index and WWC activities as already highlighted		
Water utility engagement	Katie Biggs from Busselton water issued an invitation to visit the south west to present to the Transition Margaret River (community members interested in carbon free, low impact, sustainable communities).		



CRC for
Water Sensitive Cities



Australian Government
Department of Industry,
Innovation and Science

Business
Cooperative Research
Centres Programme

The world's water
sensitive cities
starts here. ✓

watersensitivecities.org.au



Program development so far

5-6 DECEMBER TRANCHE 3 DEVELOPMENT WORKSHOP

Data inputs: IRP1 visions and transition strategies
Tranche 2 consultation
56 Executive Interviews
10 Technical Leader Interviews

WSC transition priorities organised by key enabling factors:



Broadening our outlook to new frontiers:

1. Resource constraints
2. Climate change
3. Community activation
4. Urbanisation and renewal
5. Digital technologies
6. "Other"



Emerging vision for Australian Water Sensitive Cities

Water supporting:

- Healthy people and places
- Thriving, protected ecosystems
- Sustainable efficient resource use through adaptive infrastructure
- Innovation and strong economies

Clarification of our unique selling points

Our strengths lie in our ability to:

- **Operationalise motherhood statements** by progressively engaging in detail (aided by our specific lens of water)
- **Integrate and synthesise across siloes** (e.g. sectors, organisations, disciplines and outcomes)
- **Facilitate new types of conversations** between stakeholders
- **Understand and guide transition pathways**



Key principles for T3 program design:

- Support the rapid mainstreaming of water sensitive technologies and practices
- Harness the potential of water as an enabler and an integrator to transform cities
- Use key 'accelerators' of urban intensification, climate change adaptation, digital transformation and collaborative governance to give clear thematic focus
- Connect transformative visions with operational pathways across scales
- Avoid disciplinary, sectoral and organisational silos
- Utilise action research, knowledge co-production and research synthesis approaches that bring diverse stakeholders together
- Embed research and adoption activities with each other

Proposed Tranche 3 Program

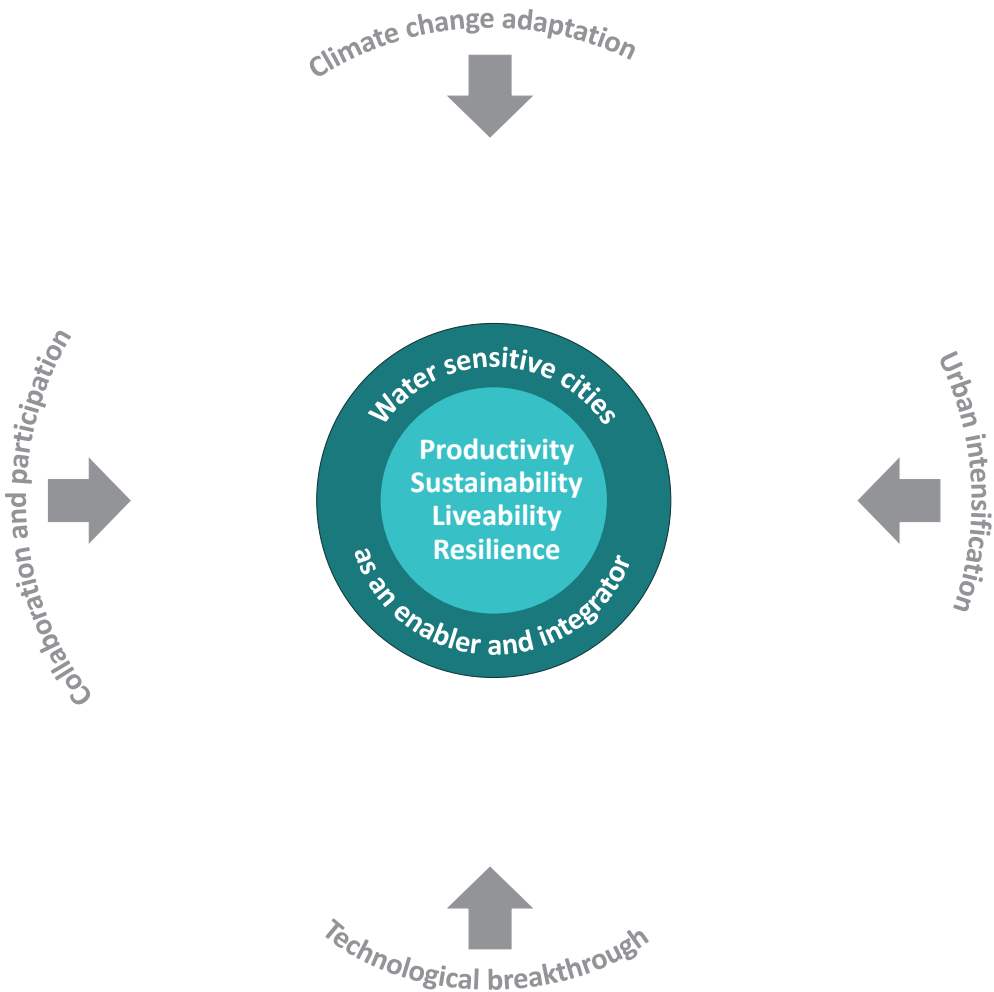
Our mission is to catalyse transformative cities

THRIVING FUTURE CITIES

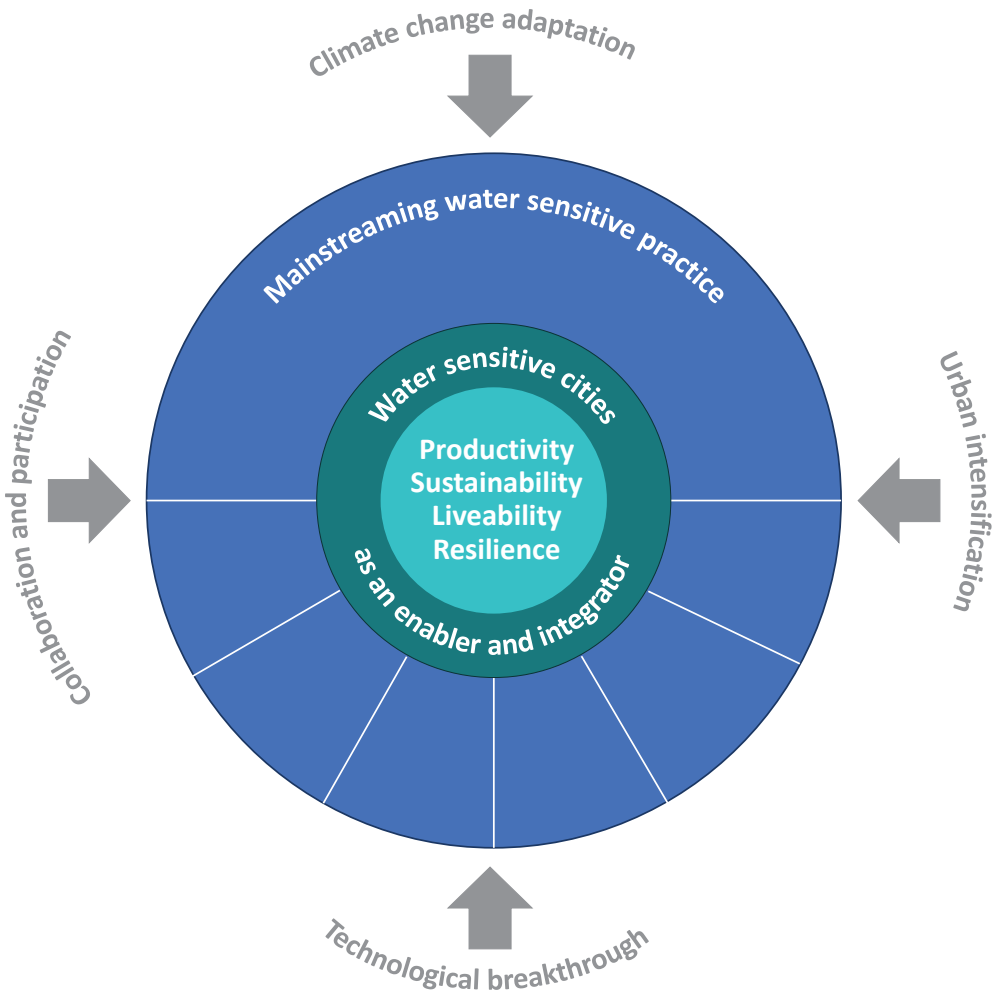
- Healthy people and places
- Thriving, protected ecosystems
- Sustainable efficient resource use through adaptive infrastructure
- Innovation and strong economies



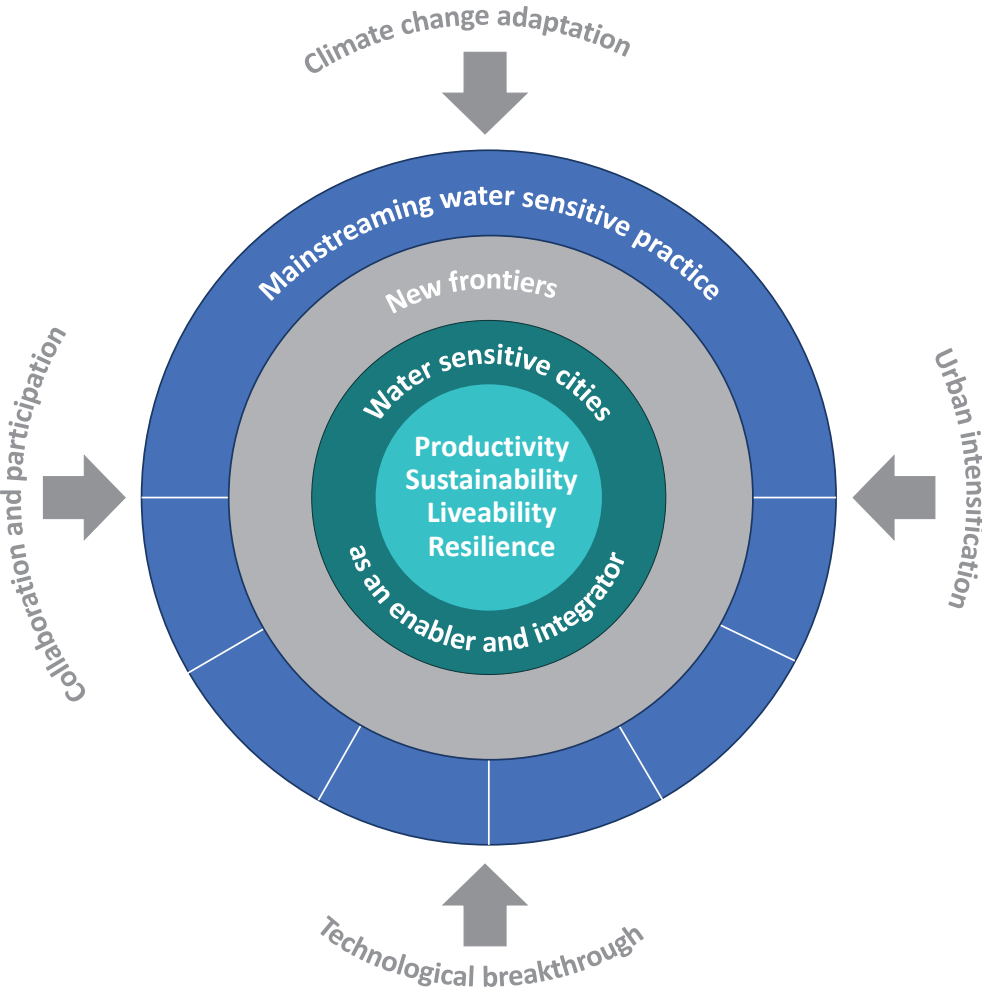
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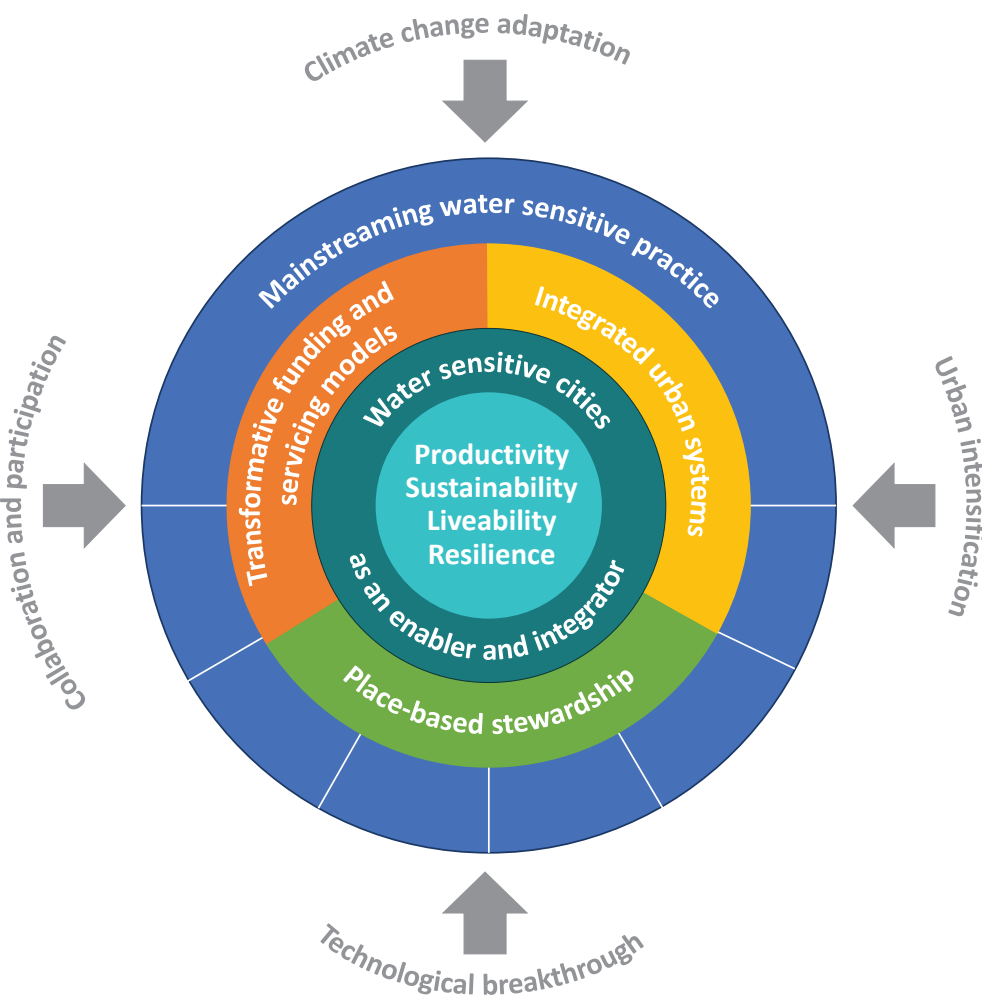
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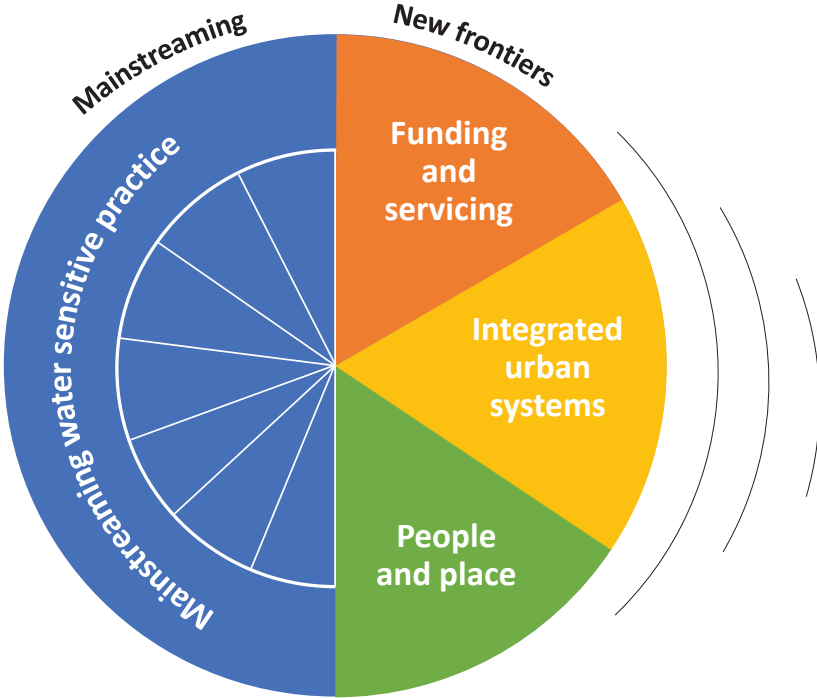


Our mission is to
catalyse transformative cities
Version 1



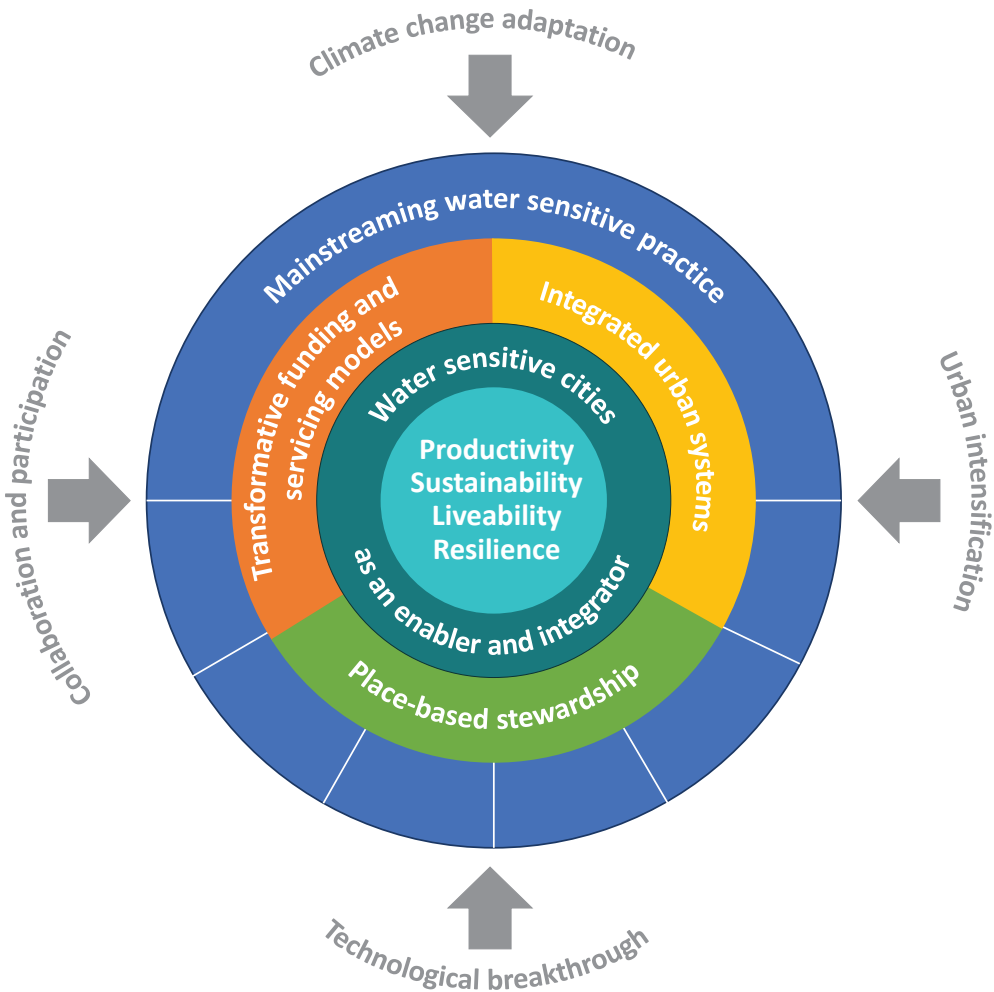
Our mission is to
catalyse transformative cities
Version 2 – as at Monday 11 March 2019

- Urban intensification
- Climate change adaptation
- Technological breakthroughs
- Collaboration and participation



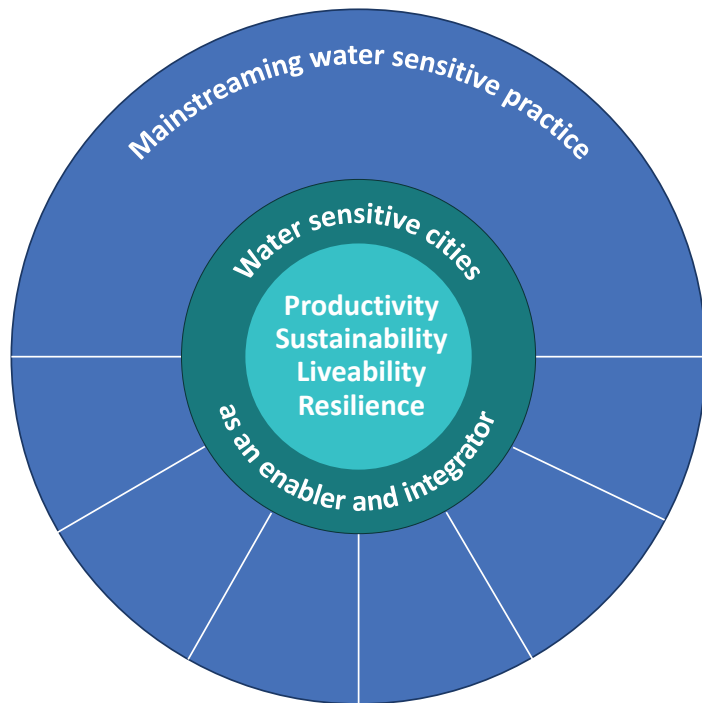
Our mission is to catalyse transformative cities

Program aim: Harness the potential of water as an enabler and an integrator to seize opportunities and proactively respond to challenges for transforming cities so they can thrive into the future



MAINSTREAMING WATER SENSITIVE PRACTICE

program aim: Increase the speed, scope, scaleability of city transformations through supporting the uptake of existing water sensitive knowledge and solutions in mainstream policy, planning, development and servicing activities



LEARNING AND SCALING

Cities can be drivers of transformations and industry is already leading significant action

Example research questions

What **solutions, strategies and actions** effectively drive city transformations?

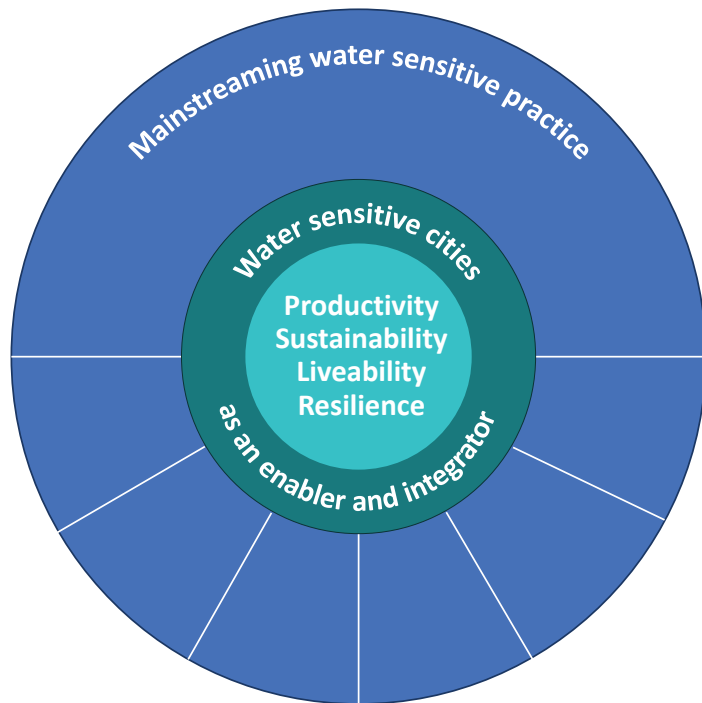
How can **innovation be rapidly scaled** to become mainstream practice?

How can **knowledge-sharing platforms** support systematic learning across city stakeholders?

What **skills will future professionals and citizens** need to drive transformative action and how can they be developed?

MAINSTREAMING WATER SENSITIVE PRACTICE

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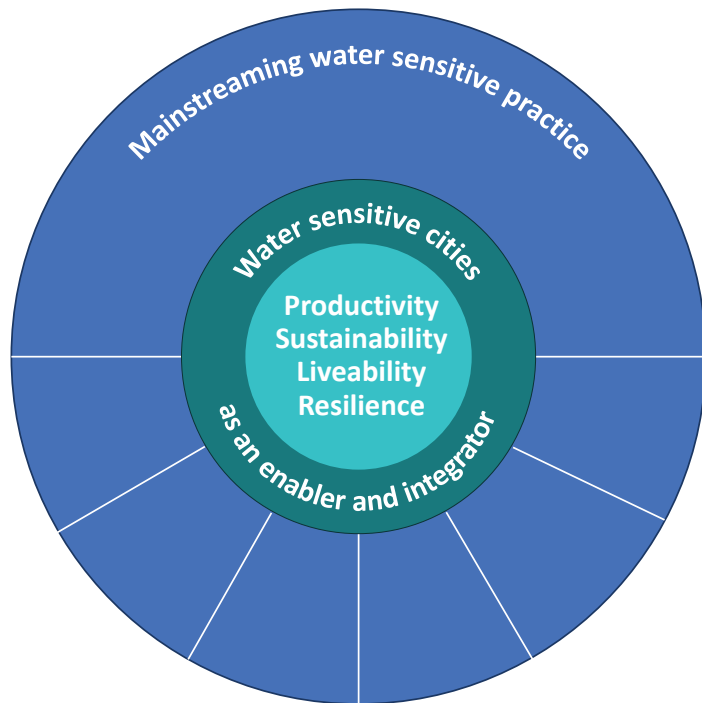
LEARNING AND SCALING

We will:

- Keep working with cities to support their continued transformation and learn from what they are doing
- Provide support through targeted investments that respond to each city's unique context to influence its speed, scope, scaleability of transformation
- Help cities and stakeholders systematically learn from their experiences and from each other as they trial novel solutions and strategies

MAINSTREAMING WATER SENSITIVE PRACTICE

program aim: Increase the speed, scope, scaleability of city transformations through supporting the uptake of existing water sensitive knowledge and solutions in mainstream policy, planning, development and servicing activities



LEARNING AND SCALING

Benefits for partners

- Investment in local priorities for mainstreaming water sensitive practice
- Guidance on transformative action and help people innovate using existing knowledge
- Access to a global database of effective water sensitive solutions and mainstreaming strategies and actions
- Increased ability to learn from the knowledge and experiences of people, organisations, sectors and cities that are implementing strategic and on-ground mainstreaming action

INTEGRATED URBAN SYSTEMS program aim:

Develop new ways of understanding, evaluating and delivering diverse benefits for people and cities through the integration of water and other urban systems and incorporation of hybrid solutions



VALUE AND EFFICIENCY

Financial and material resources are increasingly constrained so greater efficiency is needed to deliver community value through urban system services

Example research questions

What **whole-of-system performance indicators and targets** will best drive integrated outcomes across water, health, energy, waste, food, housing and environment?

How can **advanced system modelling and analytics** be used to take advantage of big data, machine learning and Internet of Things capacities to improve integrated performance and support decision-making under deep uncertainties?

How can **new technologies at the water-energy-food-waste nexus** increase resource efficiency and climate resilience at different scales?

How can **innovation in housing, transport and ecological corridor design** support the integration of green and grey infrastructure solutions?

INTEGRATED URBAN SYSTEMS program aim:

Develop new ways of understanding, evaluating and delivering diverse benefits for people and cities through the integration of water and other urban systems and incorporation of hybrid solutions



VALUE AND EFFICIENCY

We will:

- Examine and quantify the interfaces between water and other urban sectors, particularly health, energy, food, waste, housing and transport
- Develop systems-based tools that support evaluation and prioritisation of solutions across time, scales and competing objectives, rather than minimising the cost of individual components
- Develop new hybrid solutions that integrate centralised-decentralised, grey-green and social-technical approaches to achieve transformative outcomes for cities

INTEGRATED URBAN SYSTEMS program aim:

Develop new ways of understanding, evaluating and delivering diverse benefits for people and cities through the integration of water and other urban systems and incorporation of hybrid solutions

Benefits for partners

- Ability to plan, design and manage urban systems that deliver maximum community value across urban sectors
- Expanded portfolio of solutions available with new hybrid options to deliver integrated performance outcomes



VALUE AND EFFICIENCY

PLACE-BASED STEWARDSHIP program aim:

Strengthen the bottom-up foundations for transformative action through diverse knowledges, inclusive processes and strong partnerships, grounded in local community values

KNOWLEDGE, VALUES AND COLLABORATION



Broad community understanding, involvement and leadership is needed to drive grassroots action for transformative cities

Example research questions

How can the water sensitive city vision be expanded to establish **strategic alignment for transformative action** across diverse urban system stakeholders

What are **Aboriginal cultural values** of local water and place and how can **traditional custodian knowledge and ways of thinking** support transformative cities?

What **perspectives, values and knowledge** on water and place do **Australia's diverse communities** have and how can they support transformative cities?

How can **community water literacy** be increased, and **community participation, personal action and grassroots leadership** be mobilised, through novel engagement processes and tools?

How can the **social licence and local capabilities for community-based resilience** initiatives be developed?

PLACE-BASED STEWARDSHIP program aim:

Strengthen the bottom-up foundations for transformative action through diverse knowledges, inclusive processes and strong partnerships, grounded in local community values

KNOWLEDGE, VALUES AND COLLABORATION

We will:

- Work with stakeholders in urban sectors beyond water (health, energy, food, waste, transport and housing) to drive collective action for transforming cities
- Engage with local Traditional Owners to understand their water perspectives, knowledge, values and stories
- Develop and trial solutions for encouraging and empowering the community to participate as active partners



PLACE-BASED STEWARDSHIP program aim:

Strengthen the bottom-up foundations for transformative action through diverse knowledges, inclusive processes and strong partnerships, grounded in community values

KNOWLEDGE, VALUES AND COLLABORATION

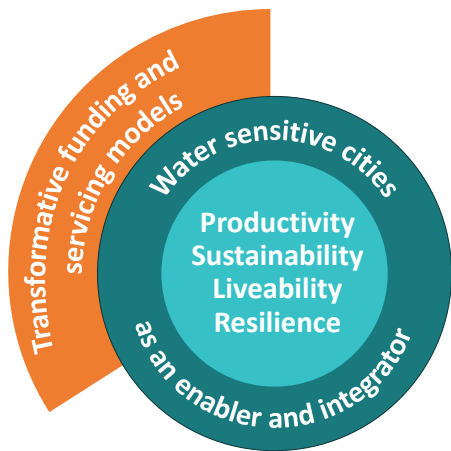


Benefits for partners

- Strengthened interpersonal relationships with diverse communities, urban sectors and traditional custodians
- Increased ability to integrate diverse community knowledge and values in place-based planning and decision-making
- Increased community capability for grassroots leadership, solution development and co-governance participation

TRANSFORMATIVE FUNDING AND SERVICING MODELS

program aim: Enable and promote the on-ground delivery of transformative systems, solutions and stewardship through supportive governance structures and mechanisms



OPERATIONALISATION AND DELIVERY

New governance arrangements, servicing models and business models are needed to overcome barriers to the delivery of non-traditional urban system services

Example research questions

What is the **true distribution of costs, benefits and risks** of water system services and climate impacts across the urban system?

How can **governance frameworks, processes and mechanisms** best support innovation, inclusion and partnerships while effectively managing risk?

What **new business models** and associated governance frameworks can support co-investment and market-based solutions, including the involvement of the private sector and citizens in the funding and delivering urban system services

How can **innovation in financing** support the delivery of multiple benefits across urban services?

How can **long-term uncertainties, risks, challenges and opportunities of distributed and nature-based solutions** managed?

TRANSFORMATIVE FUNDING AND SERVICING

MODELS program aim: Enable and promote the on-ground delivery of transformative systems, solutions and stewardship through supportive governance structures and mechanisms

We will:

- Examine and quantify the city-scale economic metabolism (stocks and flows of costs and benefits) through the urban system across time, locations, scales and stakeholders
- Work with city stakeholders to develop and trial new governance frameworks and processes that enable coherent planning, innovation and risk management
- Develop and trial servicing models that support market-based solutions and new financing partnerships



OPERATIONALISATION AND DELIVERY

TRANSFORMATIVE FUNDING AND SERVICING

MODELS program aim: Enable and promote the on-ground delivery of transformative systems, solutions and stewardship through supportive governance structures and mechanisms

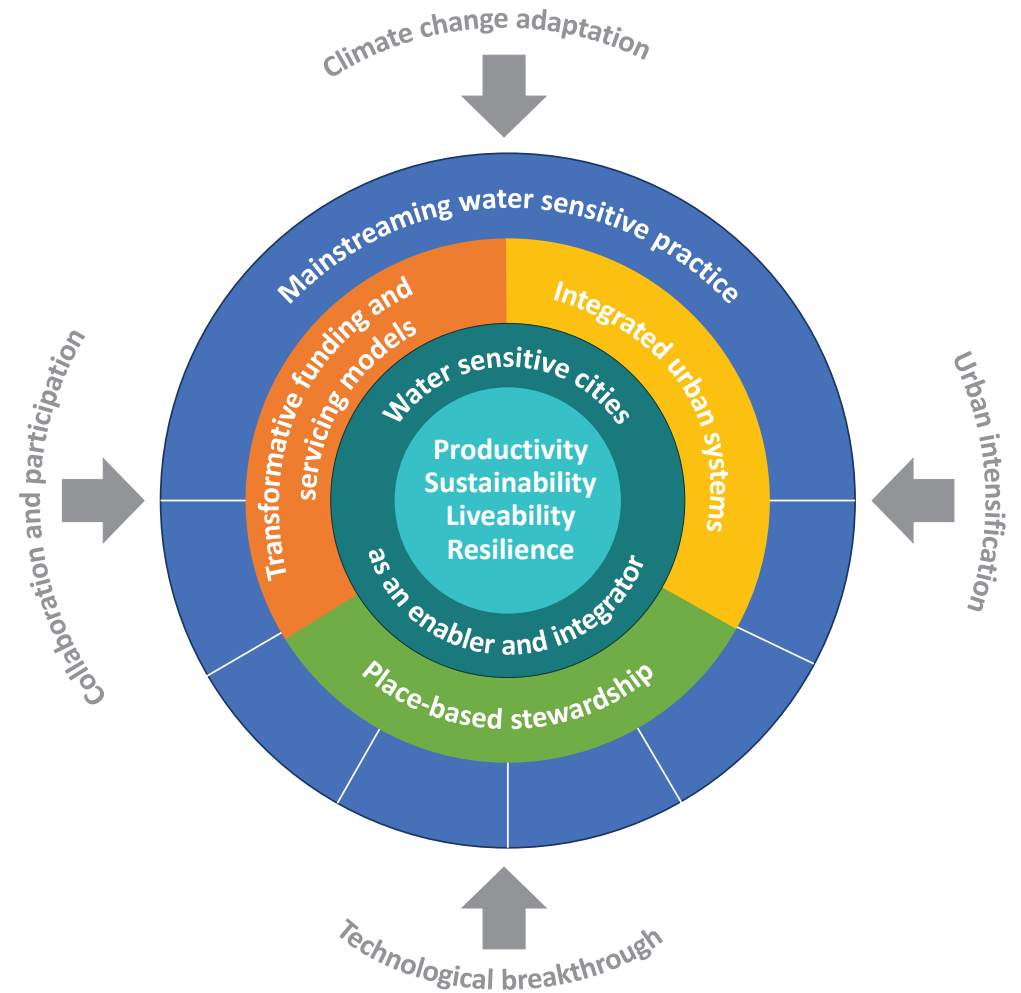
Benefits for partners

- Increased ability to identify opportunities and build business cases for solutions that will maximise overall value
- Insight, experience and practical guidance on the design and adoption of transformative governance arrangements
- Increased capacity to unlock the potential of public–private cooperation and co-investment to leverage capital and enhance community value



OPERATIONALISATION AND DELIVERY

T3 program aim: Harness the potential of water as an enabler and an integrator to seize opportunities and proactively respond to challenges for transforming cities so they can thrive into the future





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Proposed new CRCWSC short case studies – 2018/19

The development of 5 new short studies is planned for inclusion on the CRCWSC case study webpage in 2018/19 - <https://watersensitivecities.org.au/solutions/water-sensitive-cities-case-studies/>. The following is a summary of existing case studies, their location, category as well as a number of proposed new case studies. We request the RAPs to review these proposed new case studies and provide feedback before they are drafted. Input that we are requesting includes:

- Sending through information on the project including relevant project stakeholders
- Suggesting alternative project if you think there is one that is better suited (this suggestion should also be accompanied with information on the project / stakeholders etc).

Please note: At the moment we have put forward 3 potential projects/locations for the synthesis project but it is likely only 1 of these will be developed at this time.

Thanks in advance for your time and input.

Kind regards,

Kim Markwell and Celeste Morgan

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CASE STUDY SUMMARY

Location	Number of existing case studies	Proposed new case studies
International	2	International case studies (Kunshan, China)
NSW	4	Central Park Green Wall
Queensland	5	Gold Coast Transition Strategy
South Australia	4	Potential Synthesis project (Tonsley)
Western Australia	6	Potential Synthesis project
Victoria	11	Mooney Valley WSC Index
NT		Potential Synthesis project (Darwin)
TOTAL	32	

	Category	Number of existing case studies	Proposed new case studies
Solutions	Rainwater and stormwater harvesting	10	New international case studies showcasing CRCWSC work (e.g. Kunshan Ring Road and Kunshan Jiangnan Residential Estate)
	Stormwater treatment	8	
	Wastewater management and recycling	4	
	Managed aquifer recharge	3	
	Waterway naturalisation	5	
	Green walls and roofs	0	Central park green wall (need stakeholder for review and sign-off for this one) <i>Others? Green wall?</i>
	Water sensitive streets and carparks	2	
	Water sensitive parks and open spaces	7	
	Water sensitive homes and buildings	4	
	Water sensitive precincts	8	
Benefits	Urban heat mitigation	1	<i>Are there any additional projects which have measured heat mitigation benefits?</i>
	Flood resilience	4	
	Ecosystem health	7	
	Amenity and urban greening	5	
	Alternative water supplies	10	
	Water literacy and behaviour change	6	
Enabling structures	Community engagement	5	
	Leadership and influence	6	CRCWSC research synthesis process e.g. Tonsley, WA project or Darwin
	Governance and policy	7	
	Vision and narrative	NEW	Transitioning to a water sensitive city process e.g. Gold Coast
	Evaluation frameworks	NEW	WSC index process e.g. Mooney Valley



Purpose

To identify potential Research Synthesis projects to be delivered in 2018/19 as part of the CRCWSC's partnership offering.

Background

- Since 2014 the CRCWSC has been delivering research synthesis projects to apply its research to case study projects identified by water utilities, councils and departments.
- These projects speed up the process of research adoption by 'bringing the research to you' and translating it in context for immediate use.
- Research synthesis projects use a workshop based process and generate innovative ideas for water sensitive projects. These ideas can be further developed by the host partners.
- These workshops allow industry participants to interact direct with researchers and other CRCWSC experts and provide a forum to bring parties together to share perspectives and develop shared *Ideas*.
- Research synthesis project involve a one or two day design workshop and deliver an *Ideas for ...* report on the workshop outcomes.
- To date more than 20 research synthesis projects have been delivered covering most Australian cities and a variety of development, policy and climatic contexts.

Partnership offerings

- Whilst most Research Synthesis projects are delivered as a fee-for-service activity, five (5) are available annually as a partnership offering.
- There is no charge for CRCWSC experts' time in a partnership offering, provided the host organisation(s) covers the travel costs to enable researchers to attend.
- Travel typically involves interstate flights and accommodation for 2-3 people. The make up of the research team is discussed with host organisation during workshop planning.
- Research synthesis projects are often hosted by multiple organisations, who share these costs.

Which case studies are suitable?

- Past research synthesis projects have been based on urban development projects, strategic plans for cities, government policies, and policy implementation tools such as business cases.
- Each project requires a host organisation(s) to assist with workshop planning.
- Preference will be given to projects that:
 - Can demonstrate how the ideas might be implemented. i.e. a pending investment/planning decision that can be influenced.
 - Are supported by each RAP as having strategic relevance.
 - Apply research and tools being developed in the IRPs and TAPs.
- The CRCWSC may call for specific case studies to apply aspects of its research.

Next steps

- Each RAP is invited to nominate research synthesis projects as a partnership offering.
- Selected projects will be delivered by 30 June 2019.
- A consolidated list of 2018/19 partnership offering projects will be finalised in September 2018. The list may be reviewed during the year if the status of individual projects changes.



Region by Region Research Synthesis Activity

Region	Projects In Previous Years	FY 18/19 Projects completed	FY18/19 – Planned projects
ADL	Tonsley Economic evaluation of WSUD	Nil	Nil
BRI	Ripley Valley Norman Creek Cannery Creek Flood Resilient Design South Bank UQ St Lucia Campus	Nil	<ul style="list-style-type: none"> Flagstone
CNB	Nil	Nil	Nil
DAR	Darwin	Nil	Nil
HOB	Nil	Nil	Nil
MEL	Fishermans Bend I and II Aquarevo I and II Vic Planning Controls	<ul style="list-style-type: none"> Fishermans Bend Permissible Uses (Q2) 	<ul style="list-style-type: none"> Boxhill
PER	Bentley Canning City Centre Subiaco Waste Water Plant Buffer Brabham	Nil	<ul style="list-style-type: none"> Nil
SYD	Strategy for Business Cases Metro North West	<ul style="list-style-type: none"> Sydenham to Bankstown Workshop 1 and 2 of 3 (Q1) Liverpool Collaboration Area (Q3) 	<ul style="list-style-type: none"> Sydenham to Bankstown Workshop 3 of 3 (Q3) Hunter Water (Q4)
Regional	Batavia Coastal Marina (WA) Beverly and Kojonup (WA)		
INT	Amaravati	Nil	Nil

CRCWSC knowledge broker and capacity building activities in WA – update March 2019

At its meeting on 27 July 2018, the Western Region Advisory Panel (WRAP) agreed to the following knowledge broker and capacity building activities to be delivered by New Water Ways through funding provided by the CRCWSC during 2018/19.

- Two (2) researcher presentations (with YouTube)
- Leadership course (delivered by Andre Taylor)
- Two (2) Industry practice note/ guidance (eg fact sheets/case study)
- Two (2) WSC inter/intra agency workshops
- Present at one conference
- Delivery of Clearwater Masterclasses
- Time for participation in the National capacity building network
- e-newsletters and links to resources on NWW website
- Community messages on three (3) WSC images
- Operational fund for researcher/presenter travel

The following table provides a summary of activities to date.

Table 1: CRCWSC communications and adoption (knowledge brokering) activities July 2018 to Feb 2019

Agreed activities	Topic/ stakeholder	Date completed
Researcher presentations (with YouTube)	WSCSS 1 – IRP4 - Geoffrey London and Danial Jan Martin - Understanding Perth's Deep Structure and the need for housing density	18 October 2018
	WSCSS 2 - Myths and facts of Development in High Groundwater, Nick Deeks	Scheduled for 22 March 2019
Leadership course (delivered by Andre Taylor. Charge fees to cover costs)	Andre Taylor unavailable until after July 2019	
Industry practice note/ guidance (eg fact sheets/case study)	1 – Community messaging – see attached for comment	1 - Draft attached for comment
	2 – Summary of IRP5 and a FAQ sheet on development in high groundwater	2 – in preparation
WSC inter/intra agency workshop	1 – Property Council activity currently being scoped	Proposed for early May 2019
	2 – Department of Finance strategic projects	Proposed for late May 2019
Present at conferences	Presenting at the Young Engineers Summit on sustainable cities and Future Perth	Scheduled 3 April 2019
Delivery of Clearwater Masterclasses	CRCWSC still working with Clearwater to obtain access to these courses. Unlikely to be delivered before June 2019	
National capacity building network	Teleconferences 21 Nov & 4 Feb and meeting in late March	Developing a national priorities list. See below

Agreed activities	Topic/ stakeholder	Date completed
e-newsletters and links to resources on NWW website	As required.	Completed each month
Community messages on WSC images	Need access to the images (DWER) and agree messages	
Operational fund for researcher/presenter travel	Likely to be used to support UDIA breakfast showcasing Aquarevo and Lightsview	

As two of the agreed activities are unlikely to be delivered before June, it is necessary for the WRAP to agree to some replacement activities. The approved budget for the activities is \$6,760 or 35 to 40 hours. The following activities are recommended for consideration by the WRAP. Please note that the CRCWSC does not support the delivery of a WSC Index workshop for the City of Armadale.

Replacement actions (\$6760)	SS/HB hours	Admin hours	hours/mth or session	total/mth or session	Disbursements	# sessions	total cost	Running total
Maintenance workshop for LG (incl Brett Kuhlmann)	8	6	14	\$ 2,560	\$ 600.00	1	\$ 3,160	\$ 1,720
WSUD module for local government Councillors (WALGA developing a new training package now)	8		8	\$ 1,600		1	\$ 1,600	\$ 5,160
Showcasing WSUD assets – map-based database as discussed by WRAP at last meeting (4 LGs)	2	3	5	\$ 880		4	\$ 3,520	\$ 6,920

In addition, the Water Corporation has committed some additional funding for New Water Ways for this financial year. Some of the activities being considered by the NWW Board include:

- Training session with DPLH statutory planners
- Showcasing WSUD assets – map-based database (2 additional LGs)
- WSUD asset risk - work with one LG to go through the process and prepare a case study for LGIS magazine
- Transition Network portal
- Update the Stormwater management training session to include training on the decision process
- Update the groundwater management training session to include outcomes of IRP5
- Forum to discuss industry identified gaps in policy & guidance - updates to technical information

The National Capacity Building Network is also currently considering priorities for (national) delivery. These will be discussed and agreed at a meeting in late March. Items being considered include:

- Influencing growth council sustainability plans
- Non market values being counted - Make case for how INFEWS aligns with microeconomic reform
- Making the case for sustainability, liveability and resilience in infill and greenfield development.
- A set of model planning provisions needed to achieve minimum and exemplar standards.
- What does collaboration done well look like?
- Support for the Victorian IWM Forums and their projects

- Water Sensitive Design Catalogue and Mass Balance Tool
- Developing a business case for looking after a water sensitive city – aimed at LGs
- How water and WSC principles enable better waste, transport and energy outcomes (individually)
- Sharing practices to retain canopy on private land.

All comments welcome.

Introducing water sensitive urban design

Community engagement in water sensitive urban design

Summary

Engagement is ‘a personal state of connection with an issue’.

Community engagement is increasingly undertaken as it improves project outcomes, builds trust in organisations or reform processes, and supports transition to water sensitive cities.

Effective engagement can help communities learn and change behaviours; obtain input from people about what they want; and help build an involved and connected community.

Engagement programs should be designed specifically for the target audience, reflecting their level of knowledge, values and behaviours. Programs should incorporate a variety of engagement platforms to optimise connections within diverse communities.

Longer term engagement is often more effective than short-term programs, as trusted relationships are built and maintained.

Why is community engagement important in WSUD?

Engagement can inform, educate, and raise awareness about water management issues. Water-related knowledge is significantly and positively associated with:

- support for alternative water sources;
- support for raingardens;
- use of everyday water-saving strategies;
- uptake of water-saving devices; and
- pollution-reduction behaviours.

It is therefore a critical component of transitioning to a water sensitive city.

What can community engagement achieve?

- Behaviour change programs focussed on water conservation have been generally successful in Australia, although their effectiveness is dependent on social and environmental context.
- Education campaigns can be successful at improving attitudes to more sustainable water practices, but their long-term effectiveness is not well documented.
- Support for new policies can be achieved through effective communication techniques that combine good information and suitable message framing. More complex issues are likely to require face-to-face or social mobilisation initiatives rather than advertising alone.
- Intensive consultation has the power to generate new ideas, although it is important not to ‘over-promise’ and to be

transparent about how the feedback may (or may not) influence project outcomes.

- Community engagement and participation in water-related projects can:
 - improve outcomes of redevelopment and built form retrofitting;
 - support local government financial planning;
 - integrate scientific information and community preferences into water resource planning; and
 - build long term relationships and trust.
- The effectiveness of engagement initiatives may depend more on how the initiative is implemented, rather than the choice of method used.

Methods of community engagement

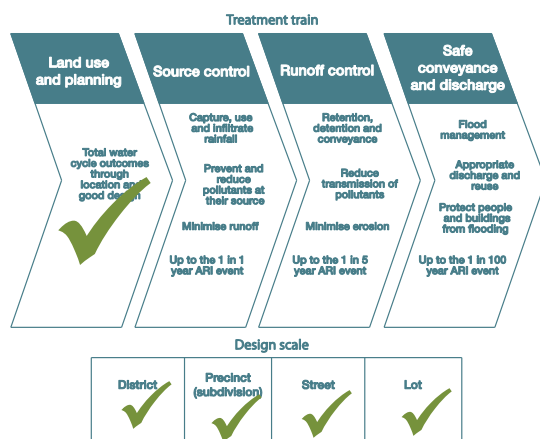
- Methods to obtain information about community opinion include surveys, polls, online discussions, focus groups, workshops or public meetings.
- Recruiting community champions is an effective method to connect with local communities and support achievement of long term outcomes, even after the engagement process ceases. Social media and on-line content are becoming increasingly important and effective, allowing messages to be targeted to suit a diversity of audiences.

Key tips

- **Know your community:** be clear about the audience you are targeting and understand relevant current issues, constraints, knowledge and behaviours.

Engagement is more effective when targeted to existing knowledge levels in the community.

- **Use a variety of engagement techniques:** Communities are made up of diverse groups that vary in their ability to engage and participate, so provide different outreach pathways to maximise reach.
- Frame the issue carefully: messages need to be tailored to effectively engage different audiences, because messages intended for “everyone” are unlikely to appeal to everyone.
 - Messages that appeal to closely held values usually have more traction.
 - Using a sustainability message frame can increase support for water sensitive cities among the ‘disengaged’.
 - Information presented using community-friendly terminology can lead to higher levels of engagement (trust) with the message and members of the community are more likely to share the information.
 - Appealing images with local content and containing people are generally perceived as being personally relevant. Images that elicit disgust (like stormwater drains and degraded waterways) should be avoided.
- Although the cost of participatory engagement processes can be substantial, the benefits from such processes can also be significant.



Introducing water sensitive urban design

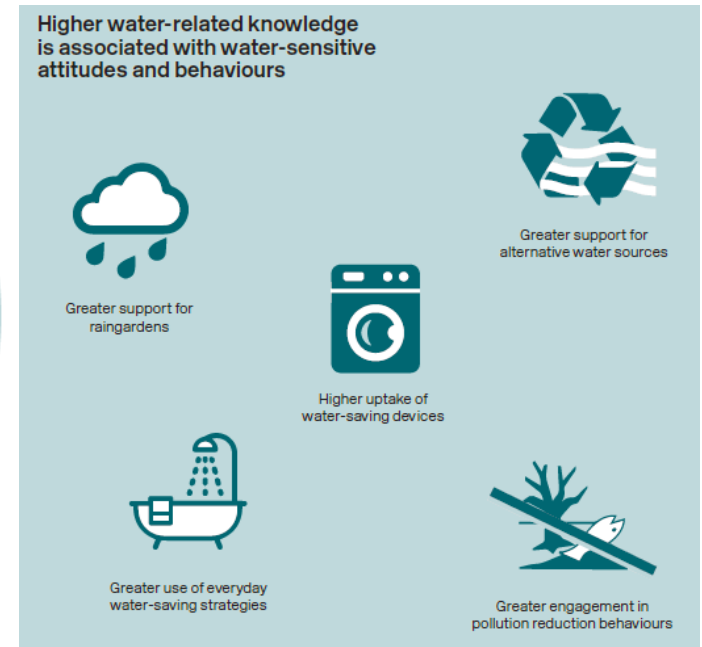
Community engagement in water sensitive urban design

Principles for engaging communities in Water Sensitive City transitions

1. Engage community through local place
2. Grow a network of community champions
3. Ensure there is safe space for community ideas and contributions
4. Allow time for iteration, reflection and refinement
5. Engage diverse representatives
6. Create opportunities for social learning
7. Develop a shared narrative that people can connect with
8. Establish a clear and compelling long-term vision
9. Use imagery to bring ideas to life
10. Establish pathways for tangible and meaningful action



Framework for assessing engagement in water-related issues



Suggested reading:

Church, E., Rogers, B.C., Gunn, A., Lindsay, J., Fielding, K., Dean, A., and Hammer, K., (2018). Principles for Engaging Citizens in Water Sensitive City Transitions, Cooperative Research Centre for Water Sensitive Cities, Melbourne, Australia.

Dean A, Fielding K, Newton F & Ross, H. (2015) Community knowledge about water: Who has better water-related knowledge and is this important? Cooperative Research Centre for Water Sensitive Cities, Melbourne, Australia. ([link](#))

Dean AJ, Fielding KS, Ross H and Newton F. (2016) *Community Engagement in the Water Sector: An outcome-focused review of different engagement approaches*, Cooperative Research Centre for Water Sensitive Cities, Melbourne, Australia. ([link](#))

International Association of Public Participation (IAP2) website: <https://www.iap2.org.au/Home>

Schultz, T., Dean, A., Newton, F., Ross, H., and Fielding, K. (2017). Getting the message right: the use of frames, community-friendly terminology and visuals, Cooperative Research Centre for Water Sensitive Cities, Melbourne, Australia. ([link](#))