CRC for
Water Sensitive Cities

The Water Sensitive Cities Index (V1.1)

Process, guidance and supporting materials for accredited benchmarking providers

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Purpose of this document

The Water Sensitive Cities (WSC) Index is a tool that has been developed by the CRC for Water Sensitive Cities (CRCWSC) designed to benchmark cities (at the metropolitan or municipal scale), based on performance against a range of urban water indicators that characterise a Water Sensitive City. This will allow organisations to set targets and collaborate more effectively with other industry organisations to manage water in ways that enable liveable, productive, resilient and sustainable urban communities.

The WSC Index benchmarking workshop is delivered by accredited providers who have successfully completed the WSC Index benchmarking training developed and delivered by the CRCWSC. The benchmarking process involves a number of participants from relevant organisations scoring a number of water sensitive indicators (based on their knowledge and expertise), and participating in discussion to justify those scores at a full one-day workshop. Workshops typically have a mix of participants representing different interests, functions and responsibilities from various relevant organisations, including participants from different departments within those organisations.

The purpose of this document is to outline the process and provide all the necessary information and material to support WSC Index accredited providers in preparing and delivering a WSC Index Benchmarking Workshop. This report is intended for use by CRCWSC accredited benchmarking providers only and is not to be distributed.

All WSC Index benchmarking facilitation materials and supporting documents mentioned in this document can be found on the WSC Index Accredited Providers website: https://watersensitivecities.org.au/solutions/wsc-index-accredited-providers/. Resources that are available online are **bolded** throughout this document.

Benchmarking Process

1. Engagement

Discuss Index, benchmarking process and key messages with client → Register project

2. Workshop Set Up

Send client workshop details and materials → Finalise invitee list → Organise note-takers → Organise venue, catering and IT requirements → Set up and test polling system and web interface → Prepare other workshop resources

3. Workshop

Pre-workshop set up → Introduce workshop → Score indicators → Present results → Participant feedback survey

4. Post-Workshop

Insert justification and confidence levels in web interface → Submit final report to client → Ensure participant and client web interface access
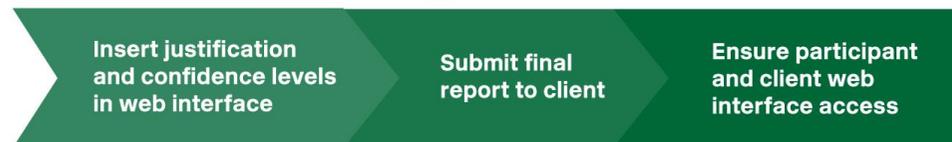
Figure 1: WSC Index benchmarking process

1. Engagement

In the first phase of the WSC Index benchmarking process, clients are formally engaged and key messages about the Index and the benchmarking process (including the methodology, deliverables, timeline, roles and responsibilities) are discussed with the client. Once the client has been formally engaged, the provider will need to register the project on the Accredited Providers website.

1.1   Initial client engagement

Initial communication with a client may include discussions about the WSC Index, key messages, the benefits of benchmarking a city/area, the requirements to undertake an accredited benchmarking process, the methodology, project deliverables and timeline, and the roles and responsibilities of both the provider and the client.

Resources to support client engagement can be found on the Accredited Providers website which articulate the key messages outlined in the section below. These resources include:

- WSC Index Promotional Video
- WSC Index Promotional Flyer
- Water Sensitive Cities Index Benchmarking brief
- Water Sensitive Cities Index value proposition

Clients may use these documents to acquire support, funding and sign-off for the project, particularly from their supervisors and executives.

1.1.1   Key messages

Key messages about the WSC Index detail information about what the Index does and how it can be used to assist in transitioning towards a water sensitive city. Key points also include the Index relationship to the City States framework, WSC outcomes of liveability, resilience, sustainability and productivity and the WSC Pillars.

What the Index does
Cities around the world are realising the fundamental importance of managing water resources and water systems services to enhance the liveability, productivity and resilience of cities. These benefits are captured in the concept of the water sensitive city, a term that originated in Australia and has diffused around the world and now defines the highest level of performance and achievement in urban water management.

The Cooperative Research Centre for Water Sensitive Cities (CRCWSC) has developed the WSC Index that offers users the ability to benchmark cities (at the metropolitan or municipal scale), based on performance against a range of urban water indicators that characterise the water sensitive city.

The WSC Index aims to:

- provide a communication tool for describing key attributes of a water sensitive city.
- articulate a shared set of goals of a water sensitive city.
- foster collaboration among stakeholders
- provide benchmarking for a city or municipality's water sensitive performance.
- measure the progress and direction towards achieving water sensitive city goals.
- assist decision-makers prioritise actions, define responsibility and foster accountability for water-related practices.

What is the WSC Index?

The WSC Index is a tool to enable decision-makers to drive change. It has been developed from a significant history of investment in multidisciplinary research and two years of testing and validation with industry partners to ensure a useful product that is functional, reliable, and scientifically robust.

The WSC Index is accessed through a **web interface** which provides visualisations of benchmarking results for a range of audiences, including policymakers, service providers, and community. The web interface includes functionality that allows organisations to set targets, model the impact of potential management actions, track progress over time, and collaborate more effectively with other industry organisations to manage water in ways that helps create more liveable, productive, resilient, and sustainable urban environments.

Using the WSC Index

Benchmarking a city using the WSC Index involves an accredited provider or CRCWSC specialists facilitating a one-day workshop with knowledgeable representatives from a range of disciplines and sectors. The results are immediately available on the Index website that aims to become a significant knowledge sharing platform for cities seeking to improve their water sensitivity.

Indicator scores are translated into several measures of city status to assist cities to understand their progress towards greater water sensitivity. The water sensitive city continuum represents a city's progress through a number of historical phases of infrastructure and institutional development (Figure 2).

Figure 2: The City State Continuum (Brown, Keith and Wong, 2009; Wong and Brown, 2009).

Measures of sustainability, liveability, resilience and productivity, help a city represent the degree to which water system services are directly contributing to these outcomes. The extent of practices such as managing cities as catchments, delivering ecosystem services and encouraging water sensitive citizens are also represented in the results.

The WSC Index is one of a number of CRCWSC tools to help cities transition to a more water sensitive future. Many cities are now using the web-based Index tool to identify gaps and set targets to accelerate their WSC transition. Targets can be set for overall water sensitivity using the city continuum or for individual goal and indicator scores. The impact of actions can be modelled by manipulating indicator scores and re-running the Index tool to show results.

1.1.2   Methodology, project deliverables and timeline

The delivery of the WSC Index benchmarking process consists of four main phases outlined in Figure 1: Client engagement, workshop setup, benchmarking workshop, and post-workshop. These phases should be clearly communicated to the client, along with deliverables and timelines. Further detail on these phases is provided in Sections 2-4.

Note: Providers should seek advice and feedback from the CRCWSC (wsc-index@crcwsc.org.au) regarding any proposed variations to workshop delivery.

1.1.3   Roles and responsibilities

To ensure that the benchmarking process runs as efficiently as possible, providers should outline the roles and responsibilities of both the provider and the client.

It is suggested that *providers* will:
- provide support during the workshop set up process
- help clients work through their invitee list to ensure that the right people are invited to the workshop
- provide all the necessary documentation including email templates, WSC Index rating guides for participant preparation and the workshop, workshop participant invitee list examples, note-taking sheets, guidance notes for note-takers and the workshop agenda template
- deliver the workshop
- write up and submit a WSC benchmarking and assessment report

It is suggested that *clients* are responsible for:
- working within the appropriate timeframe as discussed during the pre-planning meeting, including sending invitations to participants 1-1.5 months prior to the workshop
- preparing the list of invitees (refer to Section 2.1.1 for more information about workshop invitees)
- organising workshop logistics, unless otherwise agreed
- providing feedback on the draft report in a timely manner
- nominating two note-takers for the workshop, unless otherwise agreed (refer to section 2.1.2 for more information about note-takers).

A summary of the information in this section can be found in the **Water Sensitive Cities Index benchmarking brief** on the Accredited Providers website.

1.2   Project registration

Once a client confirms that they wish to proceed with the application of the WSC Index, the provider will complete **the online project registration form on the provider's site.** The online registration form records important information about the project including the date of the workshop, the name of the city/area, names and emails of the certified workshop facilitators and the client's name and contact details. Once a project is registered, the CRCWSC will receive a notification to create a new project on the web interface (refer to Sections 2.3 for more information about the web interface). A confirmation email will be sent to providers to advise when the project is set up and can be accessed through the **Index web interface** (providers must be logged in to access the project).

A **checklist** for the Engagement phase is available on the provider's webpage.

2. Workshop set up

The second phase of the benchmarking process focuses largely on workshop preparations and logistics, involving planning and organisation with a client and the CRCWSC. Providers develop an understanding of how to use both the live polling system and the web interface and how to make the necessary preparations for the workshop.

2.1   Workshop preparation with client

Following the pre-planning meeting with the client and finalising the workshop date, providers should send an email to the client outlining the next steps and the material required to set up the workshop, along with the agreed timeline. The **WSC Index benchmarking workshop information email to clients** provides all the necessary information, instructions and materials to assist a client in preparing for the workshop, including developing the participant invitee list, communication with participants prior to the workshop and workshop requirements. The following supporting material should also be sent with the email and can be found on the Accredited Providers website:

- **WSC Index rating guides (for participants)** – Note: there are 7 rating guides, one for each goal. Clients send to participants to prepare for the workshop and also print copies for the workshop. Participants should be encouraged to complete the pre-work (data collection and pre-scoring indicators), though it is not essential that participants complete the work.
- **WSC Index use of client data information and acknowledgement** – clients must read the WSC Index data terms and conditions and submit their acknowledgement
- **Benchmarking workshop participant invitee list examples** – Provide information about the mix of workshop participants and their roles and organisations. Clients may use this to assist with preparing their workshop invitee list.
- **Invitee indicator assignment spreadsheet** – Clients and providers may use to help prepare the invitee list, to ensure that there are workshop participants to score each indicator.
- **WSC Index benchmarking workshop email templates** – Clients may use the templates to communicate with participants about the Index and the workshop (purpose, why attend, how to prepare, location, date and time).
- **WSC Index Benchmarking Workshop Agenda template** – Clients update highlighted sections, and send to participants to advise of workshop activities.

It is recommended that providers review the email to clients and insert their organisation and other details as required before sending the email to a client. Providers may also like to read the **WSC Index benchmarking workshop email templates** to understand what may be communicated between the client and participants.

Note: a **Benchmarking workshop agenda and runsheet** template which outlines more detail on how the workshop will run is also available (refer to Section 2.4.1), but could be sent at a later date so that the client does not receive all supporting material at the same time and has time to complete all necessary pre-workshop planning.

2.1.1   Invitee selection

Workshops typically have a mix of participants representing different interests, functions and responsibilities from various relevant organisations, including participants from different departments within those organisations. Organisations could include councils, water authorities, parks and wildlife authorities, recreation and sports authorities, relevant companies from the private sector, and relevant water organisations. Invitees could include engineers, water managers, developers, environmental officers, policy-makers, strategic planners etc. Providers can work with the client to finalise the list of invitees. Invitees should include those who are best suited to score the indicators and discuss the rating scores at the workshop. Please refer to the **Benchmarking workshop participant invitee list examples** which provides an example of an invitee list for a metro and a local government workshop. To help build the invitee list, the **Invitee indicator assignment spreadsheet**, can be used to record invitee names for specific indicators. This will also ensure that there is adequate representation from organisations for each indicator.

The goal is to ensure that there is adequate representation from organisations and/or disciplines for each indicator. Actual numbers required will depend on the scale of the area being benchmarked and the number of institutions relevant to the jurisdiction. For example one or more councils, one or more water authorities, state agencies, developers and peak bodies.

2.1.2   Note-takers for the workshop

Providers can either nominate two note-takers from their team or advise the client to nominate two note-takers from their organisation for the workshop. Note-takers document all comments when scoring the indicators during the workshop. If requesting the client nominate note-takers, it is recommended that providers speak with clients about the particulars including the note-taker role, prerequisites and assessment.

Note-taker responsibilities

Note-takers should be capable of capturing information relating to:
- the polling scores and final scores
- scoring justification, including supporting data
- the confidence level of the final score

Bio-physical and socio-institutional indicators are scored separately during concurrent workshop sessions (and during the introduction as a whole group). Note-taking sheets with tables, headings and space to capture notes, are available for note-takers. Note-takers also keep time during the workshop and maintain contact with each other during the concurrent sessions (via SMS or similar) to ensure that the indicators for each goal are completed within the designated time slots. This will also provide an opportunity for participants to swap rooms should they prefer to attend the session for a different goal.

Note-taker prerequisites

The following checklist may be used to consider nominated note-takers.

- Water background or similar, and/or knowledge of the water system and urban water practices.
- Ability to capture relevant notes during a fast-paced discussion
- Understand the background and purpose of the WSC Index
- Familiarity with either or both of the bio-physical and socio-institutional indicators, related terms and language, guiding questions and data sources.

Note-taker assessment

A short meeting should be conducted with the provider and the nominated note-takers to brief them on requirements and assess their ability to provide the required support at the benchmarking workshop.

Note-takers should have an understanding of the goals, indicators and ratings for which they will be recording notes, and should review them prior to the assessment and workshop.

The information above is available for providers in the **Note-taker requisites and assessment** document on the Accredited Providers website.

The following documents can be provided to note-takers:

- Note-taking sheets
    - Quality Urban Space which is scored as a group
    - Room 1 – the socio-political indicators
    - Room 2- the biophysical indicators.
- **Guidance for benchmarking workshop note-takers** document

2.1.3   Venue, workshop logistics and IT requirements

The venue and catering can be arranged by the client (or as otherwise agreed).

Requirements for venue and IT are as follows:

- Two rooms, or a room that can be divided into two rooms (this can be one main room to fit all participants and one breakout room that can fit half of the participants)
- Projector in each room to view the poll results for each indicator
- Internet access (reliable wifi for both rooms is preferred)
- Google chrome on any computer using the WSC Index web interface
- Participants will need to bring a smart phone, tablet, or computer to use the live polling program
- It is suggested participants also bring appropriate chargers to ensure battery life

The information above is detailed in the **WSC Index benchmarking workshop information email to clients.**

2.2   Polling and project set up

During the workshop, participants score indicators using a live polling system (Mentimeter). Login information for the use of Mentimeter will be provided by the CRCWSC.

2.2.1   Mentimeter set up and use

Providers will need to login to Mentimeter in both workshop rooms (using the same login information in each room). Instructions for the use of Mentimeter are outlined below:

1. Providers login to www.mentimeter.com using the login information provided by CRCWSC
2. Select the presentation for the appropriate room; "Room 1 Biophysical" or "Room 2 Socio-political"
3. Select the appropriate indicator on the left-hand side
4. Select "Present" in the top right corner
5. Ensure results are hidden by clicking on the settings wheel in the bottom left corner, then "Hide Results"
6. Participants can now go to www.menti.com (note this is different to the providers URL) and enter the code that is on the screen
7. Voting is now open and participants can select 1-5
8. Close voting by clicking the settings wheel and "Close Voting"
9. Show results by hitting "Show results" on the bottom of the screen (or going back in the settings wheel)

Further information along with screenshots can be found in the **Using Mentimeter for live polling** document on the Accredited Providers website.

2.2.2   New project set up on the web interface

For each benchmarking area, a new project is created on the Index web interface by the CRCWSC, triggered by a new project registration. Once the project is created, a confirmation email will be sent to the provider and the new project can be accessed through the WSC Index web interface - http://index.watersensitivecities.org.au/interactive_index/.

For further enquiries regarding the polling system, a new project set up, the web interface or to arrange access to the provider's site please contact wsc-index@crcwsc.com.au.

2.3   Understanding and navigating the WSC Index web interface

It is recommended that providers become familiar with the WSC Index interactive **web interface.** The web interface is an interactive and engaging platform that presents benchmarking results and allows for interpretation and use of the results. To understand how to use the tool most effectively, it is recommended that providers watch detailed **YouTube videos** that walk-through each section of the web interface. These videos are available on the Accredited Providers website under the "Instructional Videos" tab.

2.3.1   The WSC Index dashboard

The dashboard page or home page provides an overview of the benchmarking score that has been achieved for a particular city/area and is viewed in terms of its performance against the seven goals in the spider diagram, the City State Continuum in the concentric bar graph and through lenses of analysis in the WSC outcomes and practices. The dashboard also allows for comparison between cities.

The Tools panel

The "Tools" panel on the right-hand side of the dashboard contains a "My Projects" section where either the demonstration or benchmark projects may be viewed, a "Compare projects" section for comparison between different cities/areas and a "Diagnosis & actions" section to compare benchmarking results to a particular target. Benchmarked cities/areas may be viewed by deselecting "Demonstration" and selecting "Benchmark", then finding the appropriate location on the interactive map.

The interactive map

The interactive map pinpoints cities and areas that are benchmarked around the world (Figure 3). Results for particular cities can be viewed by dragging and zooming in and out of the map and clicking on a city/area.
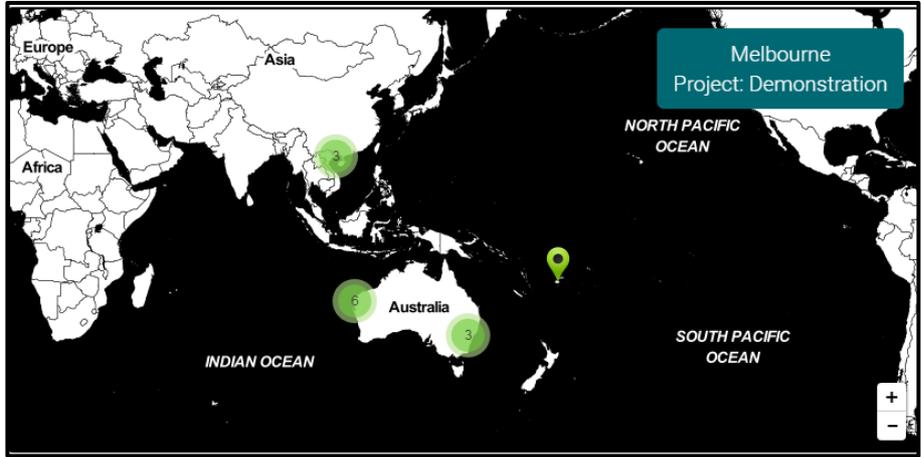
Figure 3: Interactive map on the WSC Index website dashboard

Data input – City Index

The benchmarking scores, justification and confidence levels for a city/area are recorded in the City Index data input section (Figure 4). The goals, indicators, ratings, guiding questions and suggested data sources, are also listed in this section, and accessed through the drop-down arrow to the right of each goal and then clicking on the indicator (Figure 5). The numerical score (note there can only be whole or half number scores) should be entered in the "Rating" box, along with the justification and confidence level. The rating is not saved until "Submit" is clicked.

City Index		
1. Ensure good water sensitive governance	3.6 ⌃	2. Increase community capital
1.1. Knowledge, skills and organisational capacity	3.8	
1.2. Water is key element in city planning and design	3.1	
1.3. Cross-sector institutional arrangements and processes	3.1	
1.4. Public engagement, participation and transparency	2.6	
1.5. Leadership, long-term vision and commitment	3.9	
1.6. Water resourcing and funding to deliver broad societal value	4.2	
1.7. Equitable representation of perspectives	4.5	
3. Achieve equity of essential services	3.8 ⌄	4. Improve productivity and resource efficiency
5. Improve ecological health	3.6 ⌄	6. Ensure quality urban space
7. Promote adaptive infrastructure	3.9 ⌄	

(2. Increase community capital — 3.4 ⌄; 4. Improve productivity and resource efficiency — 3.4 ⌄; 6. Ensure quality urban space — 3.7 ⌄)

Figure 4: The City Index with goals and indicators

1.1. Knowledge, skills and organisational capacity

1. **Integrated water-related skills** and knowledge are **rare** in water-related organisations in the region. **Engineering dominates** organisational skills.

2. **Integrated water-related skills** and knowledge are **available** in the key water-related organisation in the region, but limited to a few individuals. **Engineering dominates** organisational skills.

3. **Integrated water-related skills** and knowledge are **actively maintained** and updated across the key water-related organisation in the region. **Engineering skills are complemented by other disciplinary skills** (for example, landscape and ecology). Some connection(s)/alliance(s) with knowledge brokering organisation(s) is/are in place.

4. **Integrated water-related skills** and knowledge are **influenced by science,** actively maintained and updated across the key water-related organisation in the region. Regular connection(s)/alliance(s) with knowledge brokering organisation(s) is/are in place. **Multi-disciplinary skills are common** (for example, landscape and ecology, social and urban design). This extends to embedding multidisciplinary skills into key decision-making positions/groups.

5. **Integrated water-related skills** and knowledge are **influenced by science,** actively maintained across the key water-related organisation in the region. A **strong learning culture** means knowledge and skill needs are regularly reassessed and updated. **Multi- disciplinary skills are common** (for example, landscape and ecology, social and urban design, architects) **and applied** to projects and decision-making. **Organisation support** (e.g. fund) **research** and knowledge brokering programs (such as, capacity building programs).

Rating: -   3.8   +   Confidence: High   Medium   **Low**

Justification:

Submit

Guiding questions:
- **Science influence**
- Are there contacts and partnerships with research organisations, do organisations invest in research and capacity building programs to fill their gaps?
- **Capacity**
- What are the skills and knowledge required for water sensitive management and governance?
- What is the level of skill and knowledge available in the various organisations?
- How are internal skills assessed and what measures are in place to update knowledge and skills?
- **Learning culture**
- How important is keeping skills and knowledge up to date for the organisations relative to other activities (e.g. as can be judged from budget or otherwise resource allocation)?
- How do organisations deal with gaps in skills and knowledge - to what degree do they have a learning culture?

Data collection sources:

1. Interviews or surveys within organisations
2. Policy documents
3. Programs and activities for skill and knowledge development
4. Annual reports - regarding resources allocated to skill and knowledge development
5. Organisational chart - presence of people with responsibility to organise the maintenance and updating of skills and knowledge

Figure 5: The main data input section of the City Index

<u>Benchmarking results</u>

The images on the web dashboard mentioned below may be downloaded by clicking the three lines in the upper right-hand side of the figure.

Indicator results – Spider diagram

The benchmarking results are represented in blue in a spider diagram, with the seven goals at each point (Figure 6). Each point represents all indicators within that goal and the size of the blue portion is indicative of the benchmarking rating scores for that goal (as a non-weighted average) which can be viewed by hovering over each point. A rating of 2.5 is marked half way, and the full outer line represents a 5. For example, a blue portion that covers the entire spider diagram indicates a 100% water sensitive city.
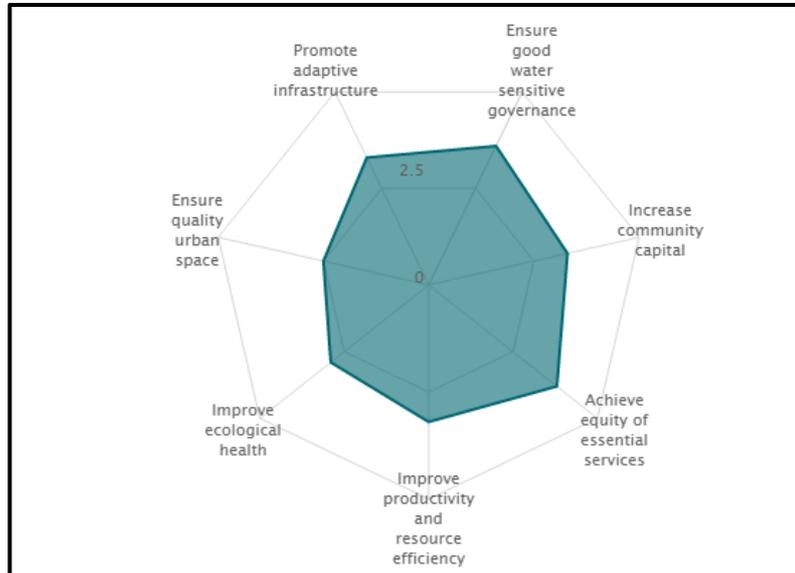
Figure 6: WSC Index benchmark results represented in the radar chart or spider diagram

Filtering results

Three analytical frameworks support interpretation of the indicator scores and provide insight into management responses that could be prioritised to advance water sensitive practice: (1) city states, (2) water sensitive outcomes and (3) principles of water sensitive practice. The indicator mapping that defines these three lenses can be further explored in the **Table of indicator relationships** spreadsheet on the Accredited providers website. For more information see section 2.4.5.

City States – Concentric bar graph

The concentric bar graph represents the benchmarking results with relation to the City States as defined in the City State Continuum framework (Figure 7) (Brown, Keith and Wong, 2009; Wong and Brown, 2009). Cities or areas can have elements of any city state and results show the percentage of each city state that has been achieved.
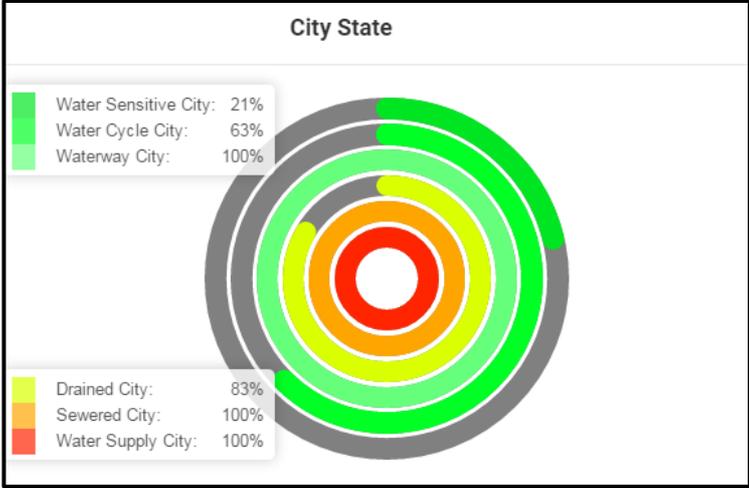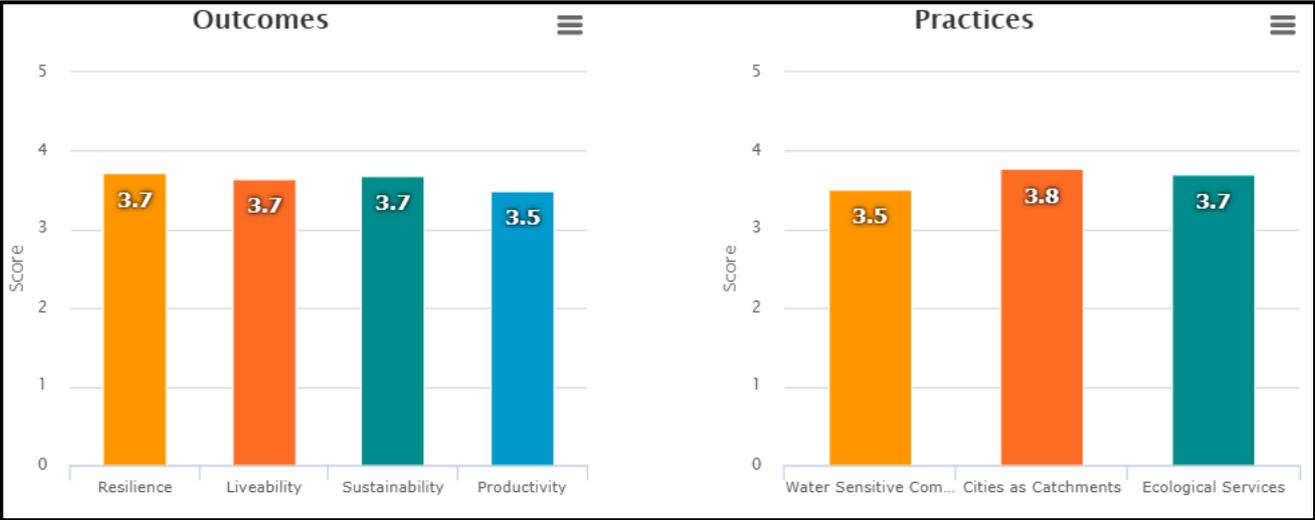
Figure 7: Concentric bar graph representing the benchmarking results with respect to the City States

Water sensitive Outcomes and Practices

Indicator benchmarking results are represented in the bars and show the degree to which water system services are directly contributing to the water sensitive city outcomes of liveability, resilience, sustainability and productivity (Figure 8a). The practice bars represent how current water management is contributing to the three distinct practices that underpin a water sensitive city - water sensitive communities, cities as catchments and cities providing ecological services (Figure 8b).
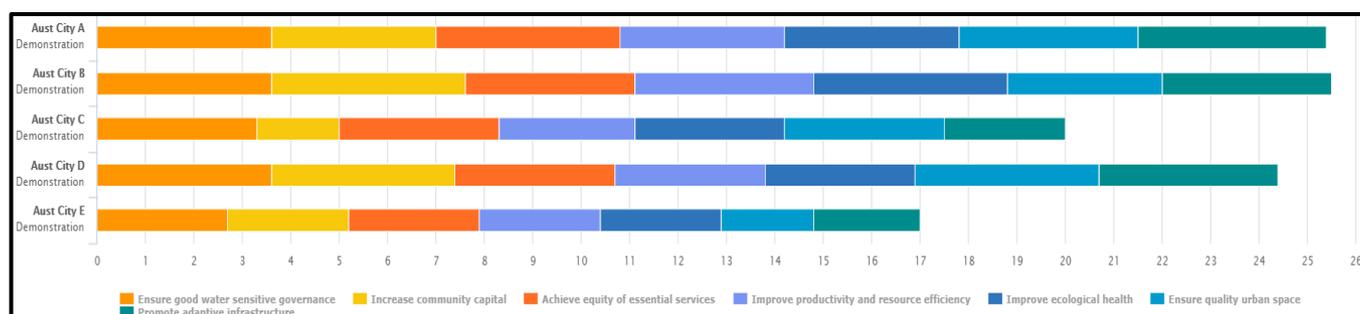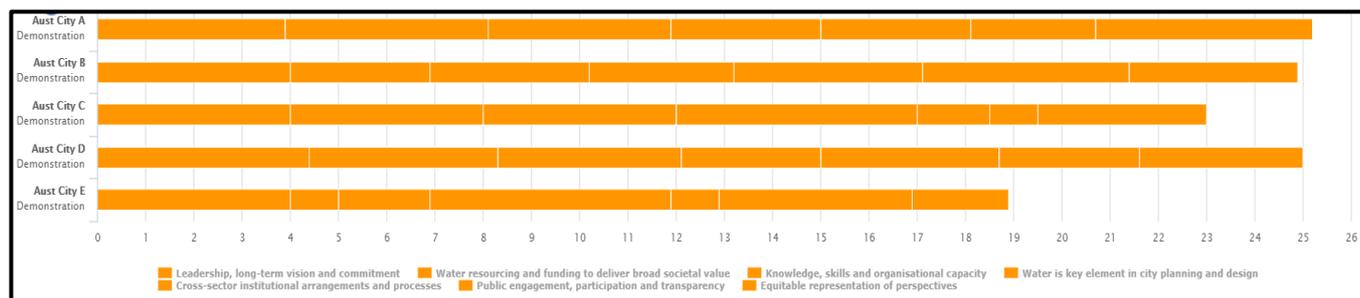

(a)

(b)

Figure 8: The WSC (a) outcomes and (b) practices

City and regional benchmarking results – Bar graph

The interactive graph shows the results of all benchmarked cities/areas (Figure 9a). Each colour represents a goal and can also be viewed separately to compare each city and indicator within each goal by clicking on the goal (Figure 9b). You can select which cities you want to view in this graph by clicking on the "Select" bar and ticking the cities you wish to compare.

(a)

(b)

Figure 9: Horizontal bar graph showing the results of benchmarked cities/areas based on (a) goal and (b) indicators within that goal

Diagnosis

To better understand the opportunities for improvement in a city/area, the tool allows comparisons of benchmarking results to a range of potential targets including other cities, ideal city states, WSC outcomes, WSC practices or a bespoke vision or short/medium term target. In the example in Figure 10, the dotted outline in the spider diagram shows the water cycle city state compared to the benchmarking results, highlighting the difference and areas that could be improved. Similarly, the concentric diagram highlights the percentage change required to fully meet particular city states, and the outcomes and practices show the rating change required to meet the targets of a water cycle city. This section of the web interface shows current performance (the benchmarking results) compared to a chosen target, to help then set targets and develop management actions. To view comparisons, click on "Compare projects" or "Diagnosis & actions" on the right-hand side of the dashboard and select the city/area and/or target.
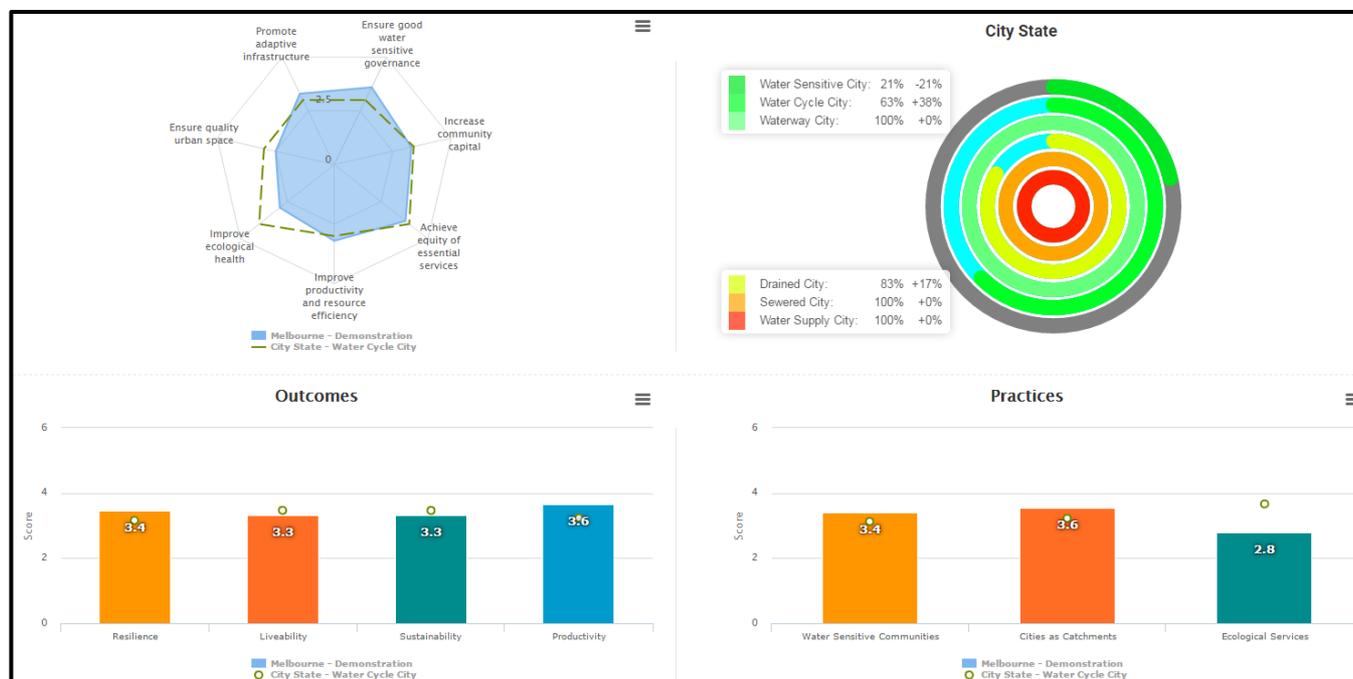
Figure 10: Target comparisons

The information in this section about the web interface, can also be found in the **Understanding and navigating the WSC Index web interface** document. Additionally, to understand how to use the website and further functionalities, detailed **videos** that walk-through each section of the web interface are available on the **provider's site**. It is highly recommended that providers watch these to gain a thorough understanding of how to navigate and use the website to its full potential.

2.4   Other workshop preparation and resources

A number of other tasks may be completed and resources downloaded prior to the workshop.
It is suggested that providers may like to:

- download and send the **WSC Index benchmarking workshop agenda and run sheet** to the client
- download and update the **workshop slide pack** (for providers only) which can be edited to suit the provider
- print the **city comparison documents** (for providers only) for reference during the workshop to compare scores with other cities and councils
- print the **WSC Index rating guides for facilitators** (for providers only) for use during the workshop
- download and review **table of indicator relationships** (for provider reference only)

A **checklist** for the Workshop set up phase is available on the provider's webpage.

3. Workshop delivery

The workshop has four main stages: 1) the pre-workshop set up and introduction, 2) indicator scoring, 3) presentation and discussion of results and 4) participant feedback survey. It is recommended that the **workshop slide pack** and the **workshop run sheet** are downloaded and reviewed for this section.

3.1 Pre-workshop set up and introduction

3.1.1. Before the workshop

On the day of the workshop, providers may like to arrive at the venue about half an hour earlier to:

- connect and set up computers, including Wi-Fi
- log into the web platform
- log into Mentimeter
- load the workshop slide pack
- place Quality Urban Space rating guides on tables
- discuss workshop details with the client

Please refer to the **Benchmarking workshop agenda and runsheet for clients and providers** for specific details about workshop logistics.

3.1.2. Workshop introduction

The client organisation may have a representative opening the workshop. During the introduction, providers could use the introduction slides in the **workshop slide pack** and it recommended that providers:

- acknowledge traditional owners (confirm with the client)
- provide a safety briefing if required
- advise restroom location
- provide information about the CRCWSC
- outline the purpose and background of the WSC Index
- provide some information in the client city/area context

Please refer to the **WSC Index workshop slide pack** for further information.

3.1.3. Poll testing, workshop agenda, and scoring indicators

It is a good idea to test the poll by asking participants to log on to the polling site and ask a question, providing 5 answers e.g. favourite colour, highlighting how the results are presented. Discuss the objectives for the day and the scoring process so participants are clear about the aims of the workshop and process. To run through the process of scoring an indicator, the three indicators for goal Quality Urban Space are scored as a whole group. Review the indicator wording to ensure participants understand the objective of the indicator and its ratings, ask participants to vote, view and discuss the results and confirm the final score. The justification, data availability, polling scores, final scores and confidence level for each indicator should be recorded by a note-taker.

During morning tea providers should:
- set up two rooms for the concurrent sessions
- enter the final indicator scores for Quality Urban Space to the **web interface**
- place rating guides on tables ready for the sessions – biophysical indicators in room 1 and socio-political indicators for room 2
- log into the polling system on the computers in each room
- note-takers prepare note-taking documents on their laptops

Please refer to the **Benchmarking workshop agenda and run sheet** for further information.

3.2 Indicator scoring

Biophysical indicators are scored in Room 1 while socio-political indicators are scored in Room 2. The process for scoring indicators as mentioned in section 3.1.3 should be applied to all indicators. The **WSC Index rating guides with facilitator notes** provides leading notes and questions, and is available for providers to facilitate the discussion for each indicator. Note-takers capture notes in these sessions as outlined in the previous section. Note-takers should also keep time and maintain contact with each other when in session (via SMS or similar) to ensure that the indicators for each goal are completed within the designated time slots. This will also provide an opportunity for participants to swap rooms should they prefer to attend the session for a different goal.

During the lunch break and during afternoon tea providers should:
- update the web interface with the final scores and take screenshots to include in the workshop slide pack for the presentation of results (slide template available in the side pack) or providers may use the web interface live to present results
- Reconfigure the room to accommodate the entire group again for the results presentation

Please refer to the **Benchmarking workshop agenda and run sheet** and **workshop slide pack** for further information.

3.3   Results presentation

The **workshop slide pack** has a number a figures available to discuss benchmarking results, before presenting the final results for the area. Providers may prefer to use the **web interface** to present and discuss results, though care should be taken when displaying the results for other cities/councils. The **city comparison** documents list indicator results for a number of cities and areas and can be used as a reference for providers (only) to identify differences, similarities and to stimulate discussion.

3.4   Participant feedback survey

Time has been allocated at the end of the workshop for participants to complete the online **workshop participant survey** (www.surveymonkey.com/r/wscisurvey) of which the link is in the slide pack. The purpose of this survey is to gather feedback from participants about the workshop preparation, facilitation and results. The CRCWSC uses this information to inform future refinements to the WSC Index tool and process, and workshop facilitation.

A **checklist** for the workshop delivery phase is available on the provider's webpage.

4. Post-workshop

In the final phase of the benchmarking process tasks are completed to finalise a project, including entering all project data on the web interface, submitting the final report to the client, submitting the online project close out form and arranging web interface access for clients and participants.

4.1   Web interface data entry

Following the workshop, justification notes and confidence levels may be added to the project city/area on the web interface. For further information about how to enter data on the web platform, please refer to section 2.3.1 or resource **Understanding and navigating the WSC Index web platform**. Note: Care should be taken when entering notes, as clients and participants are able to view the results.

4.2   Final report submission

A WSC Index benchmarking and assessment report is submitted to the client following the benchmarking workshop. This report describes the WSC Index and presents the comprehensive results of the benchmarking process. The report may also summarise the workshop discussion and the evidence to support the ratings. Providers may use their own report template, but each report must include some compulsory elements. These are listed and explained below. A suggested report outline is also described below.

4.2.1.   Compulsory requirements
Each report must include the follow features:

Logos
Each report must include the CRCWSC and WSC Index logo (in one) on the front cover. The logo is available on the provider's site under the post workshop section.

Disclaimer
Each report must include a disclaimer, absolving the CRCWSC for any liability for each report. Please include the following disclaimer on the inside cover of each report.

XXXX [insert provider name] is accredited by the CRC for Water Sensitive Cities to use the Water Sensitive Cities Index, including facilitating workshops and preparing benchmarking and assessment reports. The CRC for Water Sensitive Cities makes no warranty with regard to the accuracy of information XXXX [insert provider name] creates using the Water Sensitive Cities Index. The CRC for Water Sensitive Cities will not be liable if the information is inaccurate, incomplete or out of date, nor be liable for any direct or indirect damages arising from its use.

Description of WSC Index

Each report should describe the WSC Index tool and explain the benchmarking process. Providers may use the wording contained in Appendix 1, or create their own description. The description must:

- acknowledge the CRCWSC's role in developing the Index
- explain the Index relates to 7 goals for a water sensitive city:
  - Ensure good water sensitive governance
  - Increase community capital
  - Achieve equity of essential services
  - Improve productivity and resource efficiency
  - Promote adaptive infrastructure
  - Improve ecological health
  - Ensure quality urban space
- explain performance is benchmarked against 34 indicators
- describe the process for scoring the indicators.

References for CRC for Water Sensitive Cities intellectual property

Each report must include references acknowledging the CRCWSC for:

- tables/figures/images/video captured from the web interface or from the CRCWSC website
- tables/figures/images/video that list the goals and indicators
- CRCWSC materials.

Appendix 2 provides examples of the types of elements that must be referenced, and includes suggested wording for referencing.

4.2.2. Proposed outline

Providers may use the suggested following report outline, but this is not compulsory:

- Introduction—describing the project and identifying the client, and acknowledging the CRCWSC's role in developing the Index
- Explaining the WSC Index—describing the Index (including the goals and the indicators.
  - Providers may use the text in Appendix 1 to describe the Index. Alternatively, providers may create their own text to describe the tool.
- Evaluating XXXX's performance—explaining the three analytical frameworks that form the Index and then presenting the results for the client:

- o Water sensitive goals
- o City state benchmarking
- o Water sensitive practices and outcomes
- Presenting an action plan for XXXX—identifying and explaining the actions agreed at the workshop
  - o Action 1— (who, what, when, how etc.)
  - o Action 2— (who, what, when, how etc.)
  - o Action 3— (who, what, when, how etc.)
  - o etc.
- Appendix 1—List of workshop participants
- Appendix 2—Summary of ratings for each indicator in table format
- Appendix 3—Workshop notes for each indicator

Past reports are also available for reference on the Accredited Provider's site (care should be taken when accessing the reports as they may contain sensitive information).

4.3   Client web interface access

Providers may arrange access for clients and participants by contacting the CRCWSC via email (wsc-index@crcwsc.com.au) with details about who requires access an d their emails. Providers should work with the clients to communicate how to use the website for viewing benchmarking results.

A **checklist** for the post-workshop phase is available on the provider's webpage.

References

Brown, R., Keath, N. and Wong, T. (2009). Urban water management in cities: Historical, current and future regimes. *Water Science & Technology*, 59(5), 847-55.

Wong, T. H. F. and Brown, R. R. (2009). The water sensitive city: principles for practice. *Water Science & Technology*, 60(3), 673-682.

Appendix 1 – Suggested Report Text

Many cities and towns face pressures of climate change, population growth and rising urbanisation. Water Sensitive Cities recognise the fundamental importance of managing water resources and water systems services to enhance a city's liveability, resilience, sustainability and productivity. Less clear is how an individual city or municipality can understand its current performance, and how water can contribute to these outcomes.
To address this gap, the CRC for Water Sensitive Cities developed the Water Sensitive Cities (WSC) Index, to help urban areas measure their performance and identify where they may improve their water sensitive practices. The Index is a functional, reliable and scientifically robust tool for benchmarking urban areas against 34 indicators that characterise a water sensitive city. It has undergone two years of testing and validation with industry partners, supplying reliable evidence to use in seeking project funding or approval, and to track progress over time.
The indicators relate to 7 goals:

- Ensure good water sensitive governance
- Increase community capital
- Achieve equity of essential services
- Improve productivity and resource efficiency
- Promote adaptive infrastructure
- Improve ecological health
- Ensure quality urban space.

An accredited provider presents and explains the index during workshops, bringing together experts, professionals and other interested groups. Workshop participants typically include representatives from councils, water authorities, state government agencies, developers and peak bodies. The workshops allow participants to start developing the collaborative relationships necessary to bring about real change.
These workshops ensure that participants think about WSC concepts and principles in the same way. Participants start by scoring the indicators individually, and then they discuss their scores, allowing participants to present their perspectives and ask questions of each other. All participants then agree on a final score for each indicator. The index then translates these final scores into several measures of city status, to show the city's progress towards greater water sensitivity. In this way, the index helps participants identify what the city needs to improve. The provider prepares a benchmarking and assessment report, which presents comprehensive results. This report also summarises the workshop discussions and the evidence supporting the ratings. The benchmarking results are also available on a web interface.

Appendix 2 – Suggested Report Figures

The following examples demonstrate the types of elements that providers must reference and includes some suggested wording.
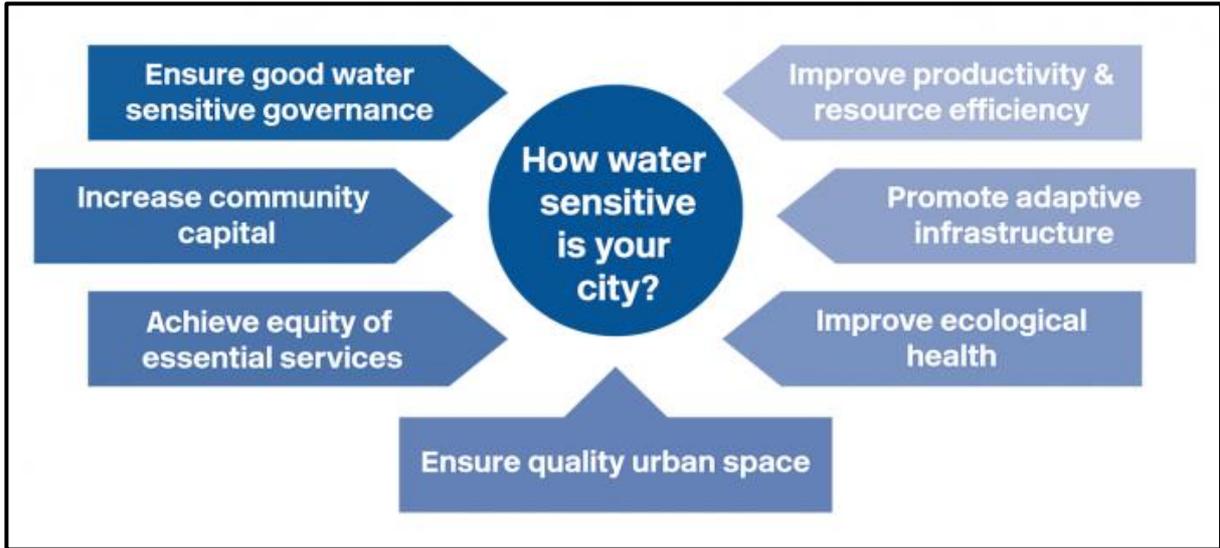

Figure X: 7 goals of a water sensitive city……….Source: CRCWSC 2018, https://watersensitivecities.org.au/solutions/wsc-index/ (accessed 17 April 2018).
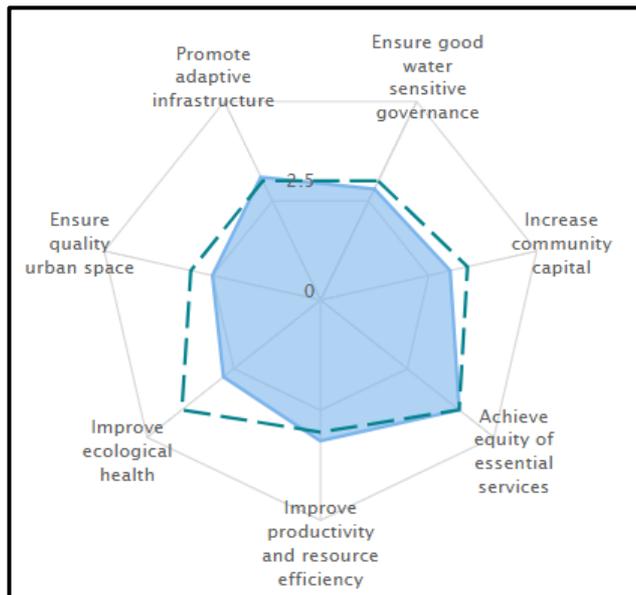

Figure X: XXX's WSC Index scores………Source: CRCWSC 2018, WSC Index web interface.

1. Ensure good water sensitive governance	2. Increase community capital	3. Achieve equity of essential services	4. Improve productivity and resource efficiency	5. Improve ecological health	6. Ensure quality urban space	7. Promote Adaptive infrastructure
1.1 Knowledge, skills and organisational capacity	2.1 Water literacy	3.1 Equitable access to safe and secure water supply	4.1 Benefits across other sectors because of water-related services	5.1 Healthy and biodiverse habitat	6.1 Activating connected urban green and blue space	7.1 Diverse fit-for-purpose water supply system
1.2 Water is key element in city planning and design	2.2 Connection with water	3.2 Equitable access to safe and reliable sanitation	4.2 Low GHG emissions in water sector	5.2 Surface water quality and flows	6.2 Urban elements functioning as part of the urban water system	7.2 Multi-functional water system infrastructure
1.3 Cross-sector institutional arrangements and processes	2.3 Shared ownership, management and responsibility of water assets	3.3 Equitable access to flood protection	4.3 Low end-user potable water demand	5.3 Groundwater quality and replenishment	6.3 Vegetation coverage	7.3 Integration and intelligent control
1.4 Public engagement, participation and transparency	2.4 Community preparedness and response to extreme events	3.4 Equitable and affordable access to amenity values of water-related assets	4.4 Water-related commercial and economic opportunities	5.4 Protect existing areas of high ecological value		7.4 Robust infrastructure
1.5 Leadership, long-term vision and commitment	2.5 Indigenous involvement in water planning		4.5 Maximised resource recovery			7.5 Infrastructure and ownership at multiple scales
1.6 Water resourcing and funding to deliver broad societal value						7.6 Adequate maintenance
1.7 Equitable representation of perspectives						

Figure X: 7 goals and 34 indicators of a water sensitive city[a]

a This image is based on the Water Sensitive Cities Index developed by the CRC for Water Sensitive Cities.

WSC Index Goal and Indicators	/5	WSC Index Goal and Indicators	/5
1. Ensure good water sensitive governance	**XX**	**4. Improve productivity and resource efficiency**	**XX**
1.1 Knowledge, skills and organisational capacity	XX	4.1 Benefits across other sectors because of water-related services	XX
1.2 Water is key element in city planning and design	XX	4.2 Low GHG emission in water sector	XX
1.3 Cross-sector institutional arrangements and processes	XX	4.3 Low end-user potable water demand	XX
1.4 Public engagement, participation and transparency	XX	4.4 Water-related commercial and economic opportunities	XX
1.5 Leadership, long-term vision and commitment	XX	4.5 Maximised resource recovery	XX
1.6 Water resourcing and funding to deliver broad societal value	XX	**5. Improve ecological health**	**XX**
1.7 Equitable representation of perspectives	XX	5.1 Healthy and biodiverse habitat	XX
2. Increase community capital	**XX**	5.2 Surface water quality and flows	XX
2.1 Water literacy	XX	5.3 Groundwater quality and replenishment	XX
2.2 Connection with water	XX	5.4 Protect existing areas of high ecological value	XX
2.3 Shared ownership, management and responsibility for water assets	XX	**6. Ensure quality urban space**	**XX**
2.4 Community preparedness and response to extreme events	XX	6.1 Activating connected urban green and blue space	XX
2.5 Indigenous involvement in water planning	XX	6.2 Urban elements functioning as part of the urban water system	XX
3. Achieve equity of essential services	**XX**	6.3 Vegetation coverage	XX
3.1 Equitable access to safe and secure water supply	XX	**7. Promote adaptive infrastructure**	**XX**
3.2 Equitable access to safe and reliable sanitation	XX	7.1 Diverse fit-for-purpose water supply system	XX
3.3 Equitable access to flood protection	XX	7.2 Multi-functional water system infrastructure	XX
3.4 Equitable and affordable access to amenity values of water-related assets	XX	7.3 Integration and intelligent control	XX
		7.4 Robust infrastructure	XX
		7.5 Infrastructure and ownership at multiple scales	XX
		7.6 Adequate maintenance	XX

Table X: XXXX's WSC Index goal and indicator scores[a]
a This table presents Water Sensitive Cities Index goals and indicators developed by the CRC for Water Sensitive Cities.