



# Water Sensitive Cities Scenario Tool – Urban Water Cycle (UWC) module

Tools and Products

The WSC Scenario Tool is an online planning-support tool that simulates urban development and assesses the performance of green and blue infrastructure interventions. The integrated Urban Water Cycle (UWC) module assesses the stocks and flows of urban water streams for an area based on user-defined strategies.

## Urban Water Cycle module

The updated beta WSC Scenario Tool includes the newly integrated Urban Water Cycle module, one of four performance assessment modules. The UWC module quantifies the impact of different urban form and blue-green infrastructure initiatives for a given site, considering various scales. Applying a conceptual hydrological model, the UWC module simulates the different urban water streams (e.g. potable water, rainwater, stormwater, greywater and blackwater, infiltration and evapotranspiration) in the urban water cycle based on user-defined parameters and water cycle interventions.

Intended for high-level ‘what-if’ scenario planning, the UWC module provides important insights on ways to optimise use of fit-for-purpose water sources drawn from within the urban boundary while managing water taken and returned to the natural environment.

### Uses for the UWC module:

- Explore the urban water cycle responses to different integrated urban water cycle management strategies (Figure A) at lot, precinct and catchment scale
- Assess the impacts of changes to the urban form on water demand and runoff (Figure B)
- Assess the water cycle impacts of blue-green infrastructure scenarios (Figure B)

### Key features

- Simulates water capture and reuse at both the lot scale and sub-catchment scale
- Provides infographics on the dashboard for easy and quick interpretation of results
- Includes base level meteorological data for all of Australia
- Includes capacity to upload custom data sets
- Supported by step-by-step user guide and tutorials

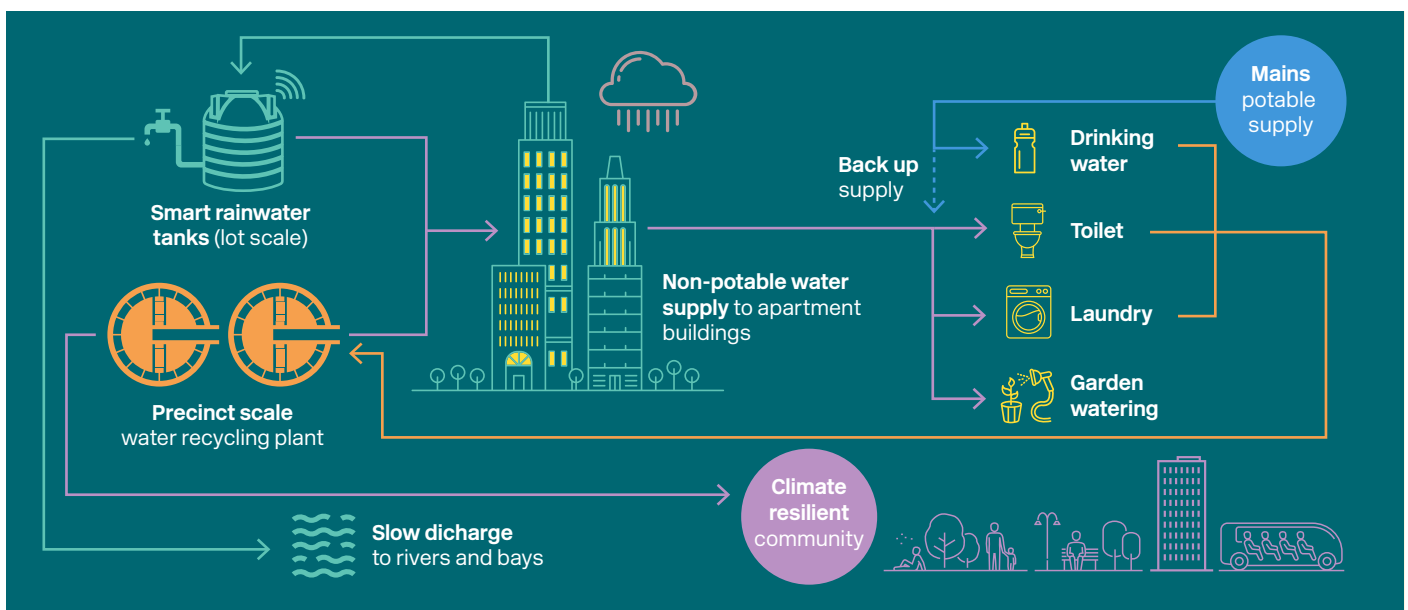


Figure A: Example of a user defined Integrated Urban Water Cycle (IUWC) strategy

## UWC release and training opportunities

The Urban Water Cycle module was formally launched on 3 September 2020 with presentations from the research team and experts.

Early access to the updated beta WSC Scenario Tool will be available to CRCWSC Participants from 9 September 2020 when the TAP team delivers a hands-on training session on the module's functions and capabilities. If you are interested in attending TAP launches and/or training, please contact Tammie Harold, at [tamara.harold@uwa.edu.au](mailto:tamara.harold@uwa.edu.au)

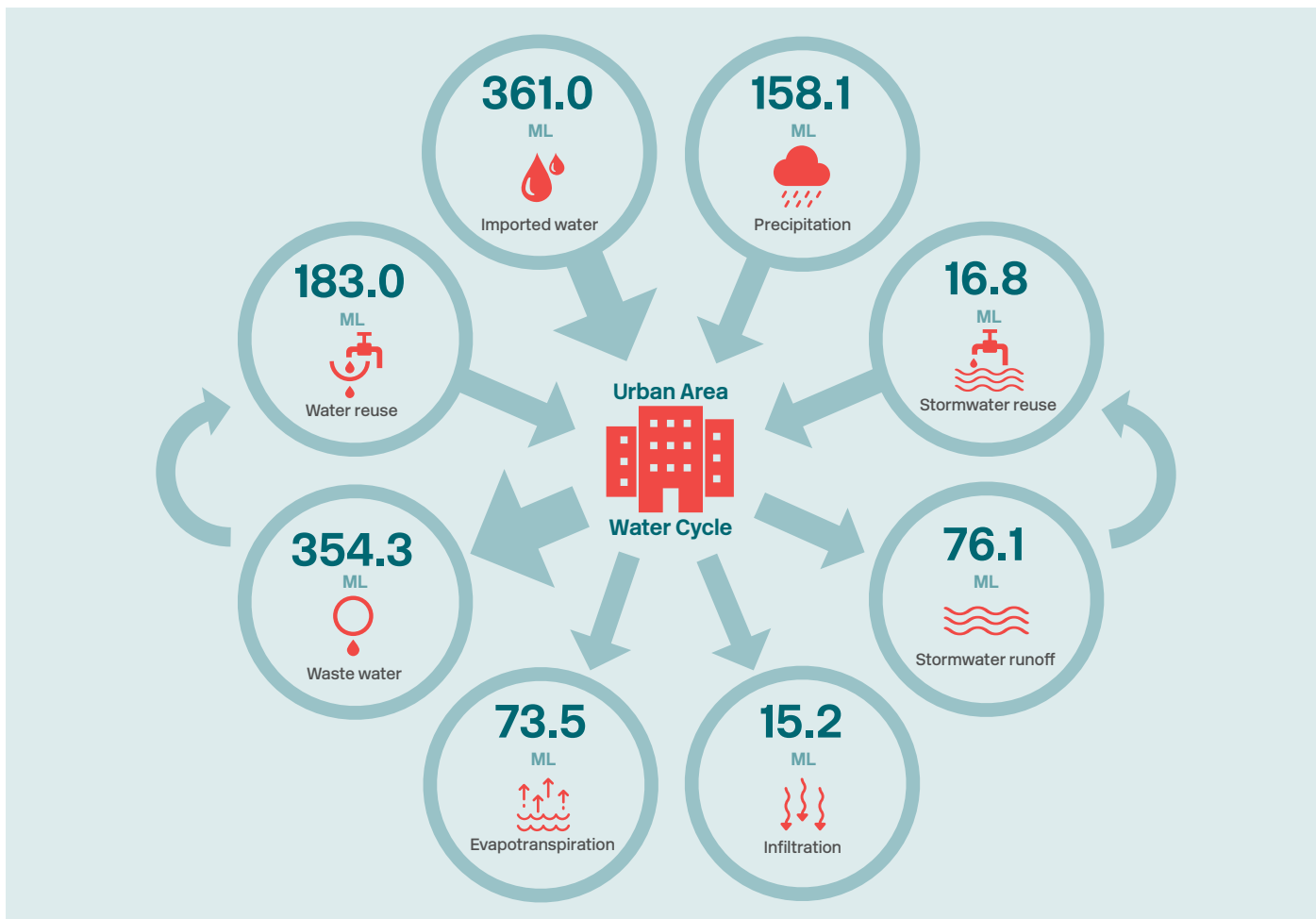


Figure B: WSC Scenario Tool's Urban Water Cycle module results from an example analysis

## User feedback

We invite industry feedback on the functionality and usefulness of the WSC Scenario Tool and associated modules. We are interested in learning about applications of the Land Surface Temperature, TARGET and Urban Water Cycle modules, and how the results helped planning, decision making and business case development.

To provide feedback, please [submit an enquiry form](#).

## Further information

Visit our Tools and Products website:

<https://watersensitivecities.org.au/content/tools-products-tap/>

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