

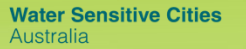
NATURE AND CLIMATE NEXUS

Nature-based Solutions for Urban and Rural Landscapes

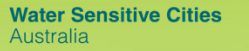
Lecture Series + Project Design Clinic

17–19 September 2024 • Multifunction Halls 2–3 • Hybrid

This training is organized by the **ADB Environment Group** together with the **Water and Urban Development Sector Group**, and **Agriculture, Food, Nature, and Rural Development Sector Office**.



This is not an ADB material. The views expressed in this document are the views of the author/s and/or their organizations and do not necessarily reflect the views or policies of the Asian Development Bank, or its Board of Governors, or the governments they represent. ADB does not guarantee the accuracy and/or completeness of the material's contents, and accepts no responsibility for any direct or indirect consequence of their use or reliance, whether wholly or partially. Please feel free to contact the authors directly should you have queries.

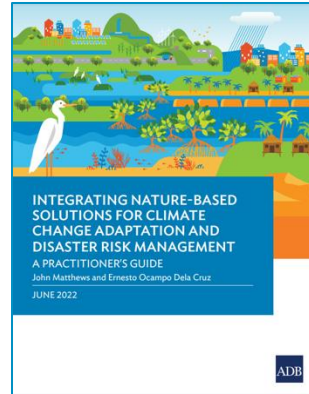
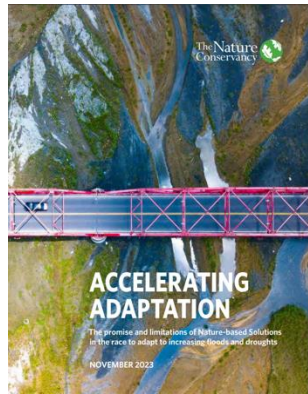


DAY 3

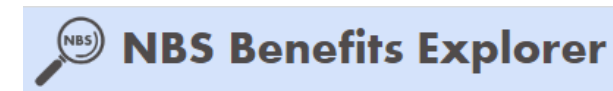
NEXT STEPS & RESOURCES



A growing body of resources on NBS for Urban and Rural Landscapes



Resilient Watersheds Network



A How-to Guide to develop Watershed Investment Programs

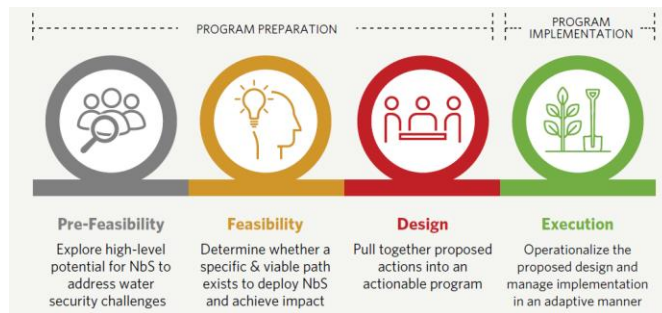
- The "[How-to Guide](#)" is structured according to the phases of a project cycle for the development of an investment programme
- [Executive summary](#) provides a quick overview of the guide
- Series of « Deep dives »
 - [NbS Benefits & Trade-Offs](#)
 - [Economic and Financial Analysis](#)
 - [Governance for Watershed Investment Programs](#)
 - [Working together for water security: green and gray](#)
 - [Monitoring & Evaluation](#)
 - [Factsheets of NbS for water security](#)
 - [Legal and regulatory policy frameworks mapping](#)
 - [Stakeholders mapping](#)
 - [Motivating sustainable funding in watershed investment programs](#)
- Template for terms of reference: [pre-feasibility](#), [feasibility](#), [design](#)
- Examples of business cases for [Camboriu](#), [Nairobi](#), [Dar es Salaam](#) and [Cape Town](#)



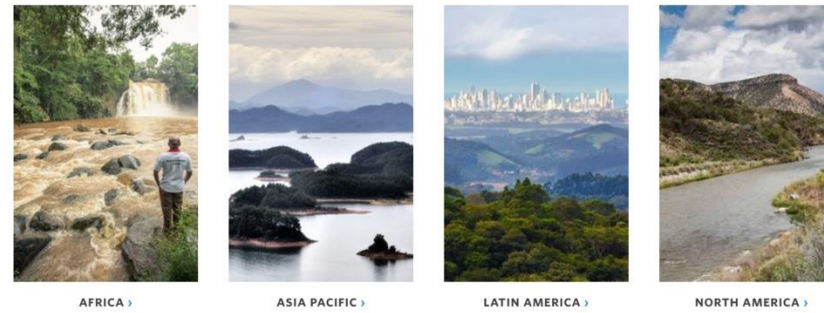
RW Toolbox: decades of experience codified in step-by-step guidance to help practitioners navigate the process of developing watershed investment programs.



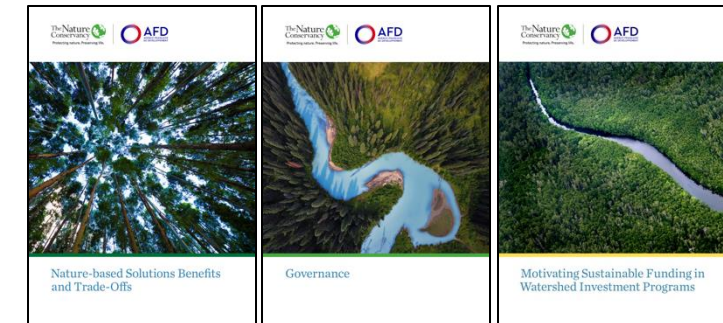
Navigate the Project Cycle



In-Depth Case Studies



Subject Matter Area Deep Dives



Searchable Library of Resources Library Index

SEARCH THE LIBRARY *Enter Keyword or Region*

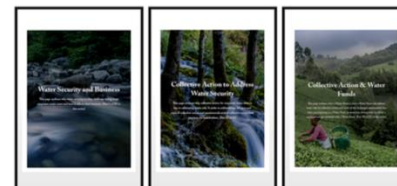


PROJECT CYCLES: **All Cycles** | COMPONENTS: **All Components** | REGION: **All Regions** | **SEARCH**

AFRICA | FACT SHEET
TNC Greater Cape Town Water Fund Fact Sheet - December 2022
TNC GCTWF Fact Sheet - December 2022

NEW

Online Training Curricula



CORPORATE BRIEFING PACKAGE - A virtual learning experience

Click below to find out about TNC's new 3-part series intended for businesses, companies, and other stakeholders to learn about collective action, water funds, and using nature-based solutions to help them achieve corporate water security and more.

[LEARN MORE](#)

Join the Network



Learning Webinars

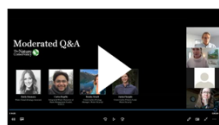
Community Platform

Resource Newsletter

Resilient Watersheds Network: an ever-growing community of experts who work to advance watershed resilience around the world.



BI-MONTHLY WEBINARS



ROI & Economic Analysis for Water Funds

This WFN Webinar gives members and colleagues an overview of what TNC's global water funds team has been working on in regard to Return on Investment (ROI) and Economic Analyses of Nature-based Solutions for Water Security.

[ECONOMIC & FINANCIAL ANALYSIS >](#)



Soils & Water Funds: New Methods for Linking Water, Climate, and Food

Restoring soil health increases water infiltration and reduces erosion, both of which are essential parts of the Water Funds mission. In addition, restoring soil health removes carbon dioxide from the atmosphere and increases the fertility of soil for food production. Soils, therefore, represent an important opportunity to link Water Funds activities and outcomes with other key conservation and human objectives.

[THE ROLE OF SOIL >](#)



Monitoring and Evaluation Programs

Watch this WFN webinar to learn more about monitoring costs, best practices, and data management.

[WATER FUNDS MONITORING PRIMER >](#)

PEER REVIEW & COACHING PROGRAM

The Network facilitates capacity mobility to meet the immediate needs of priority projects. The matching program supports high-impact projects to achieve their conservation & socio-economic development objectives and creates professional development opportunities for staff to export lessons learned from their basin and support peers around the world.



CURATED NEWSLETTER

Our quarterly Newsletter elevates relevant announcements, new resources, and advertises timely opportunities including the Nature for Water Call for Proposals, public funding windows, upcoming trainings and webinars, and coaching needs.



Ghod River Water Fund (GRWF)

Earlier this year, the GRWF team organized a stakeholder's workshop in India's new Ghod River Water Fund, India's first watershed. It brought together over 24 people who shared their perspectives on socio-economic, WASH, and climate challenges facing the region. In addition, the team is exploring the possibility of a participatory rural appraisal (PRA) survey. For more information read grwfa.godhede@TNC.ORG.



Kenya's First Lady joins One Million Trees Effort

On a Friday morning in early June, Kenya's First Lady Rachel Ruto slowly lowered a small seedling into a hole and covered it with dirt. With that, the first of one million trees to be planted in the Eldoret-Iten Water Fund project area was now in the ground. The First Lady has partnered with TNC in this effort as part of her pledge to plant 500 million trees in the next few years as a response to the effects of climate change. [READ MORE](#)

@TNC Africa

Sign up link: <http://eepurl.com/dISoPD>

Nature for Water Facility: a purpose-designed technical assistance platform to help watershed investment programs reach their objectives



WHO WE ARE



- **Blended international team** with staff model to support projects in North America, Latin America, Caribbean, Europe, & Africa
- **Direct experience** working across **30+ watershed investment programs**
- **Co-managed** by



&



SERVICE OFFERING



- **Prefeasibility:** Diagnosing water security challenge & NbS options
- **Feasibility:** NbS portfolio identification, ROI analysis & business case development
- **Design:** Long-term strategic planning & sustainable funding evaluation
- **Implementation:** Monitoring & Evaluation program development

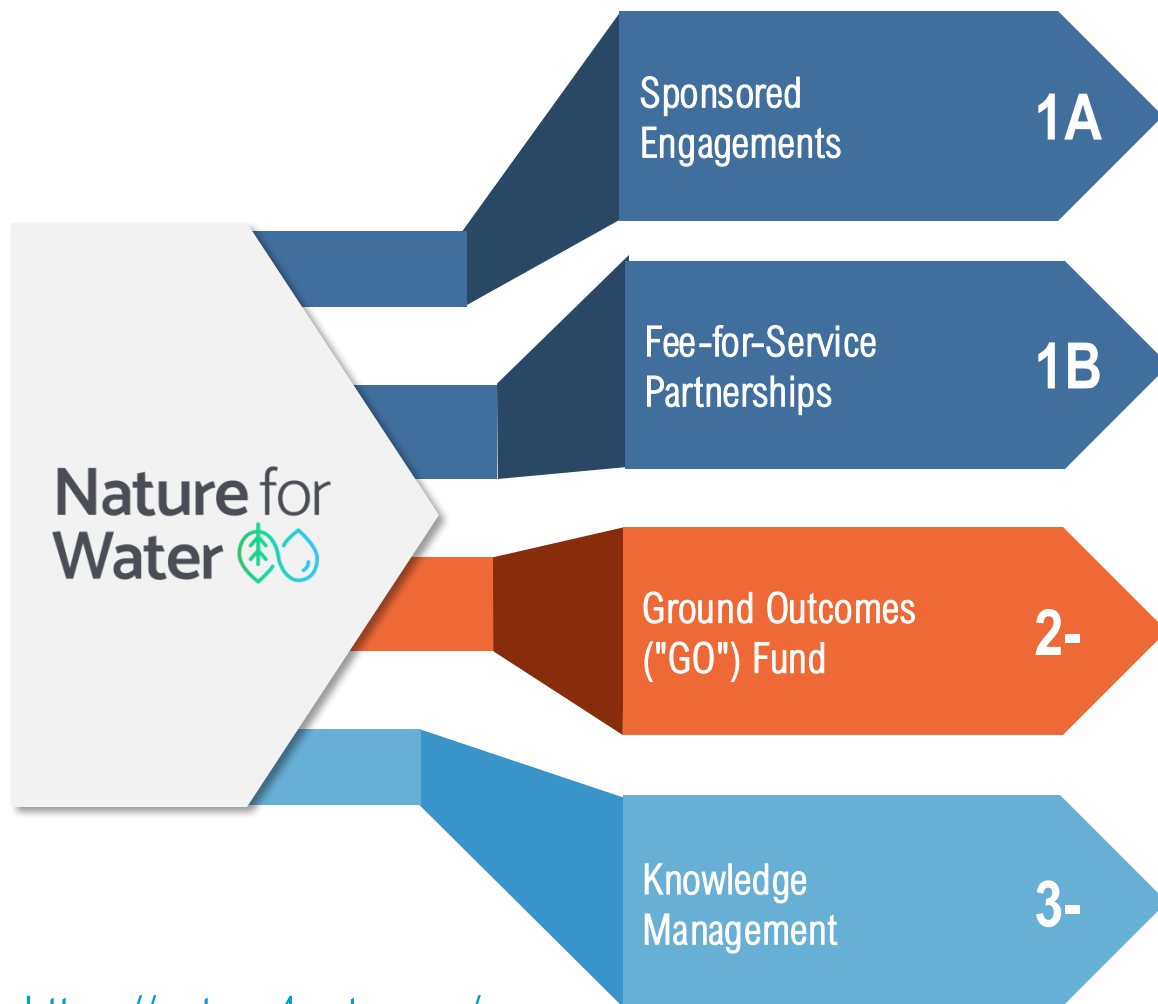
IMMEDIATE PROJECT FOLLOW-UP SUPPORT



Teams that express interest will also be eligible for **two person-days support from Nature for Water Facility staff** to help advance them advance their next steps

- To organize this assistance, please contact Naomi NOEL (naomi.noel@tnc.org)

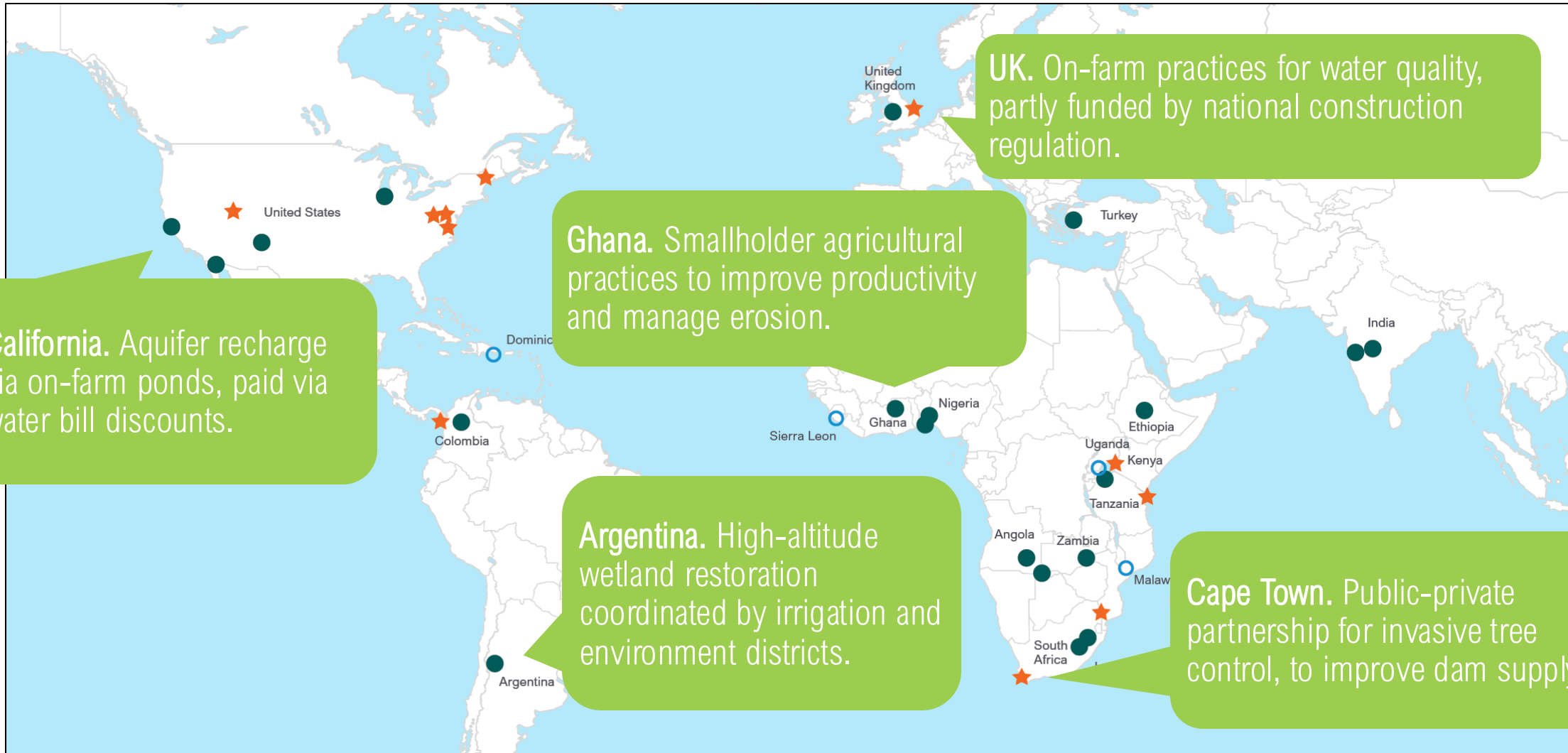
N4W: We Have Four Core Focus Areas



Technical assistance

- N4W provides majority of co-funding for engagement
- Allocated via regular disbursement windows based on prioritization criteria
- Aim to sponsor 30+ engagements over four-year period
- Client pays for engagement
- No need to align with Call for Proposal disbursement windows
- Otherwise, identical to 'Sponsored Engagements' (same talent pool, tools, etc.)
- Targeted support for existing N4W clients that are launching de-novo watershed investment programs
- Combination of **direct financing** for pilots alongside **capacity-building assistance** from N4W team to **enable local partner to show track record and begin delivering at-scale**
- N4W to 'open-source' all tools, processes, and standard templates it relies upon
- **Goal: inspire broader water sector, 'kick-start' provider network, and maximize iterative learning feedback loops.**

N4W has supported about 30 local partners since 2022



WaterProof: a tool to carry out rapid pre-feasibility for deploying NbS to address water quality issues



WaterProof: webinar and online training



IWA
the international water association

WEBINAR

WaterProof

A rapid return on investment tool for Nature-based Solutions

17 MAY 2023
15:00-16:30 BST

REGISTER NOW
www.iwa-network.org/webinars

In partnership with:

The Nature Conservancy 

Welcome to the WaterProof virtual course - Rapid Return on Investment of Nature-based Solutions for Water Security

The first cycle of the virtual WaterProof course was held from June 15, 2023 to July 6, 2023. If you want to access the contents as a guest, use the username `guest.waterproof` and password `Guest.w4terproof`

START



 Water Proof

<https://water-proof.org/learning/>

<https://iwa-network.org/learn/waterproofwebinar/>

Research to practice

A 9 year \$120M research to practice initiative

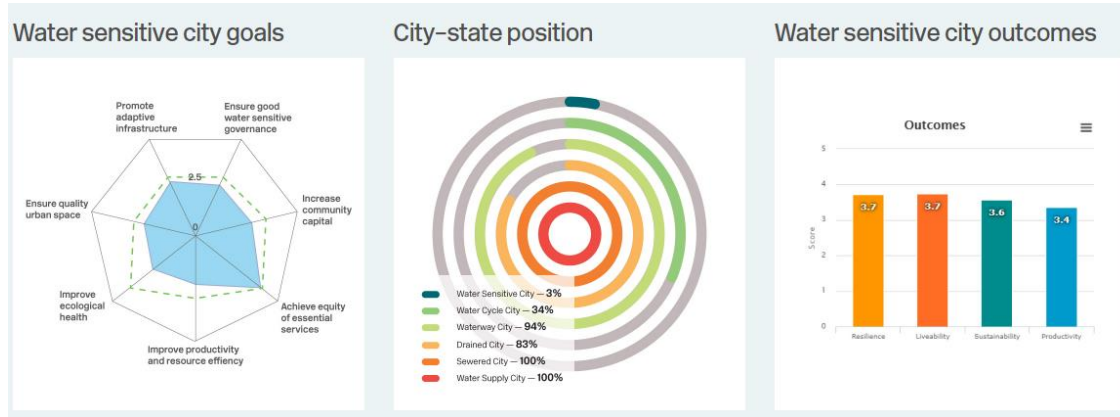
The screenshot shows the homepage of the CRC for Water Sensitive Cities website. At the top left is a 'MENU' button. In the center is the CRC logo, which consists of three circles of varying sizes. To the right of the logo is the text 'CRC for Water Sensitive Cities'. On the far right is a search icon. The main content area features a large circular diagram on the left with a central circle labeled 'Choose a topic'. The outer ring of the diagram is divided into eight segments: 'Essential services', 'Community engagement', 'Governance', 'Urban metabolism', 'Urban liveability', 'Environment', 'Circular economy', and 'Essential services'. To the right of the diagram is the text 'SUSTAINABLE CITIES START HERE' with a play button icon, followed by the main heading 'Realising the Vision of a Water Sensitive City'. At the bottom of the page are three navigation buttons: 'Resources', 'Tools', and 'Case Studies', each with a right-pointing arrow.

watersensitivecities.org.au

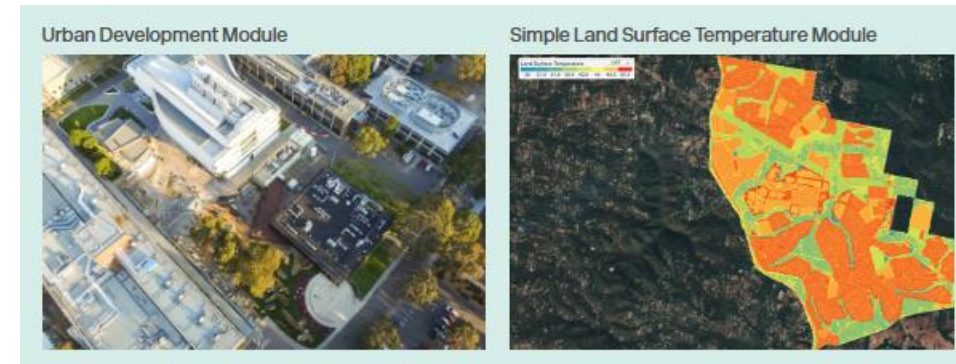
A collage of various research outputs and tools. At the top left is a 'Benefit Cost Analysis Tool' which compares the benefits of a water sensitive project with its costs. Below it is a 'Value Tool' which gives practitioners a way of valuing the benefits of water sensitive projects. To the right are several book covers: 'Designing for a cool city: Guidelines for passively irrigated landscapes', 'Moving toward Water Sensitive Cities: A guidance manual for strategists and policy makers', and 'Adoption Guidelines for Green Treatment Technologies'. At the bottom right is a book cover titled 'Constructing business case for water sensitive investment: a handbook for local government'. The collage also includes images of laptops displaying data and 3D architectural models of buildings.

Selection of tools

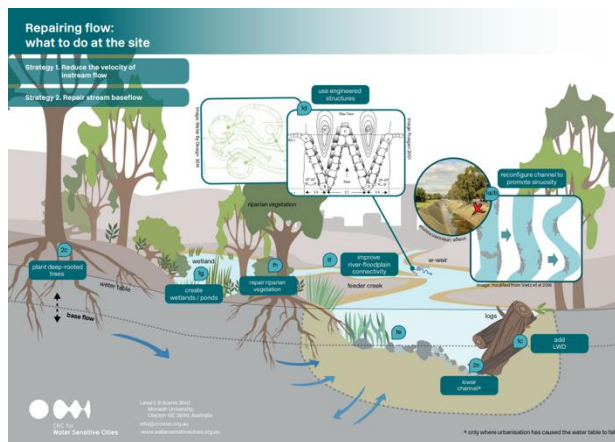
Water Sensitive Cities Index



Scenario Tool



RESTORE



Transition Dynamics Framework

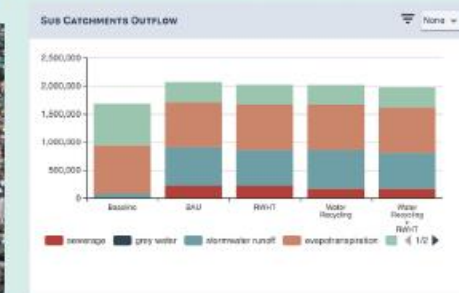
Transition Dynamics Framework: six phases and five enablers

Transition phase	Champions	Platforms for connecting	Knowledge	Projects and applications	Tools and instruments
1. Issue emergence	Issue activists		Issue highlighted	Issue examined	
2. Issue definition	Individual champions	Sharing concerns and ideas	Causes and impacts examined	Solutions explored	
3. Shared understanding and issue agreement	Connected champions	Developing a collective voice	Solutions developed	Solutions experimented with	
4. Knowledge dissemination	Influential champions	Building broad support	Solutions advanced	Solutions demonstrated at scale	Refined guidance and early policy
5. Policy and practice diffusion	Government agency champions	Expanding the community of practice	Capacity building	Widespread implementation and learning	Early regulation and targets
6. Embedding new practice	Multi-stakeholder networks	Guiding consistent application	Monitoring and evaluation	Standardisation and refinement	Comprehensive policy and regulation

TARGET (The Air-temperature Response to Green/Blue infrastructure Evaluation Tool) Module



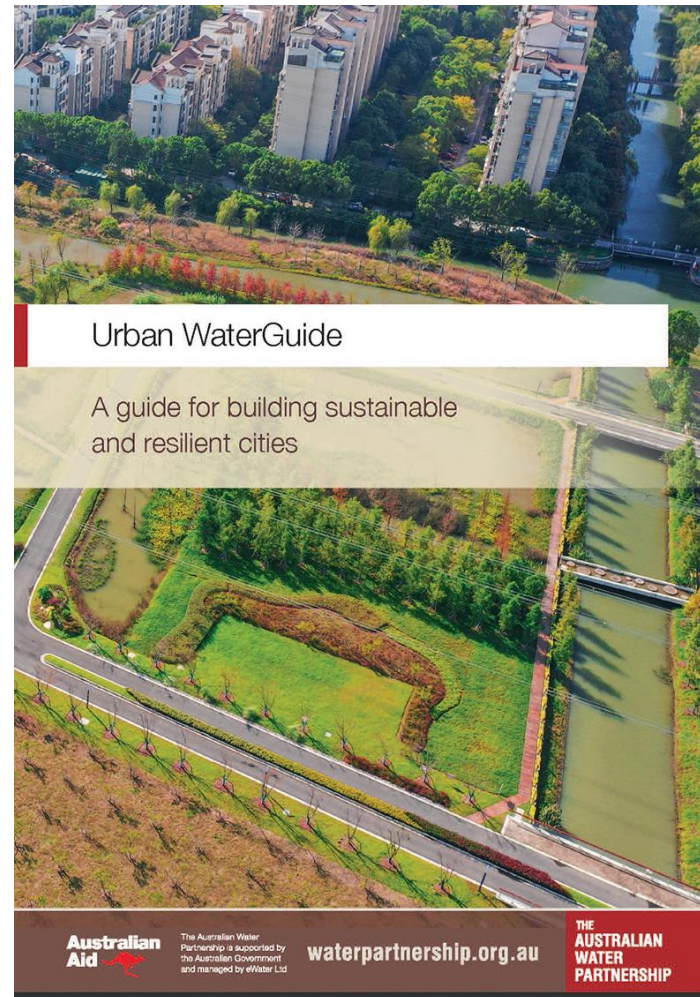
Urban Water Cycle Module



Urban WaterGuide

The Guide shows how to address urgent water challenges in a way that also delivers the SDGs and enhances resilience and sustainability by:

- Reducing reliance on rainfall fed water supplies and large-scale infrastructure
- Incorporating nature-based solutions to improve liveability and sustainability outcomes
- Delivering equal access to basic services and being inclusive in planning and governance.
- Considers inclusion through a lens of gender equality, disability, Indigenous and social inclusion (GEDSI)



The Urban WaterGuide comprises 5 steps

- 1** Set a city vision and articulate water's role in this vision 
- 2** Develop a total water strategy to solve complex challenges 
- 3** Co-design project-level solutions that perform multiple functions 
- 4** Build support to deliver and evolve integrated solutions 
- 5** Establish an enabling environment 

Methodologies to develop options for implementing NBS in urban areas

Valuing the benefits of Nature-based Solutions for Integrated Urban Flood Management in the Greater Mekong Region

1. Define your urban system context

Considerations:

- What are the objectives and functions of the urban area of focus from a hydrologic, social, environmental and economic perspective?
- Define GEDSI characteristics, interests and rights for the area of focus
- How do these objectives and functions interact with wider catchment and regional factors?
- Assess climate vulnerability and degree to which the objectives of the urban system is impacted by different types of climate hazards.



2. Consider full range of options

Considerations:

- Identify a selection of context-appropriate management interventions/options, based on the three-tiered strategy: prepare, respond, recover
- Consider full spectrum of green, grey and blue interventions as well as non-structural solutions
- Identify GEDSI interests/needs in each option.



3. Identify and value benefits and costs

Considerations:

- The direct and indirect benefits, costs and risks of different options need to be identified and quantified
- Consider the distribution of benefits, costs and risks across time, stakeholders and location – including a particular focus on vulnerable population groups identified through your earlier GEDSI analysis.



4. Evaluate and compare options

Considerations:

- Benefit cost analysis provides a rigorous method to compare different options
- Sensitivity testing and transparent assumptions build understanding and support better decisions
- Distributional impacts for both benefits and costs are important considerations.
- Independent or peer review and participatory processes enhance confidence in options assessments



5. Identify appropriate financing and funding

Considerations:

- Once you have selected the optimal mix of interventions, principles for fair and efficient financing options need to be identified and options assessed.





Resilient Urban Centres and Surrounds (RUCaS) for climate resilient communities, environments, and economies in the Greater Mekong region.



Publications



Case studies



Events



Tools



Team

 English



CRCWSC ThinkTank



Harnessing Hybrid Systems for Transformative Cities




CRC for Water Sensitive Cities



Business





ThinkTank




Strengthening the delivery of WASH in urban informal settlements


Addressing multiple exposure pathways in urban environments



CRC for Water Sensitive Cities



Business



ThinkTank



Water Utilities of the Future

Australia's experience in starting the transition



CRC for Water Sensitive Cities



Business



ThinkTank

GSI Impact Hub – Coming Soon!



Capturing the Multiple Benefits
of Green Infrastructure

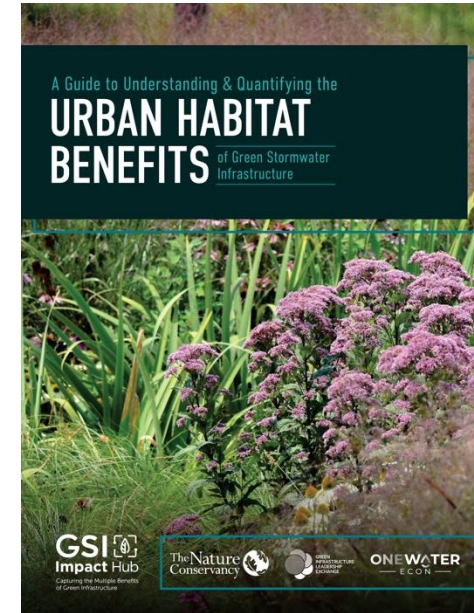
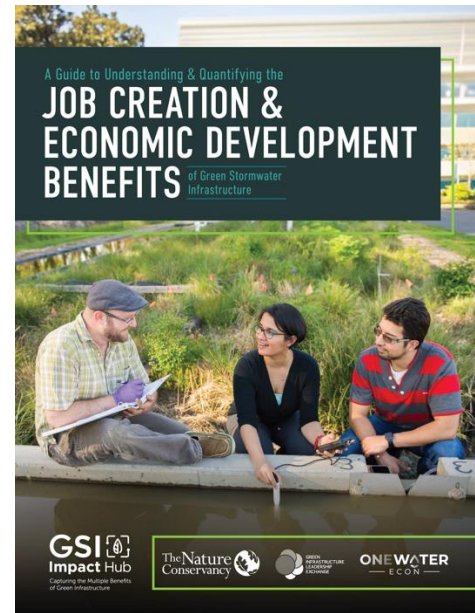
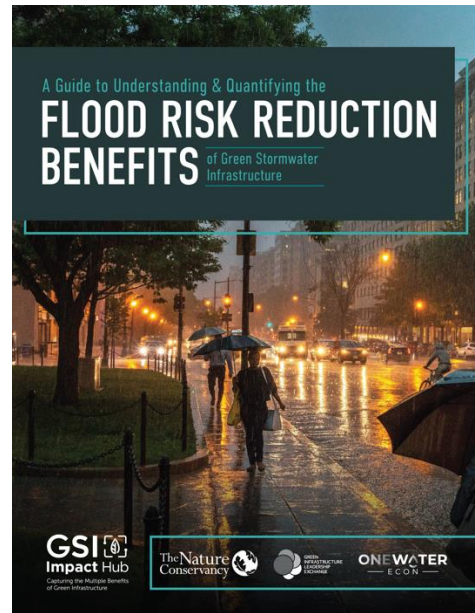
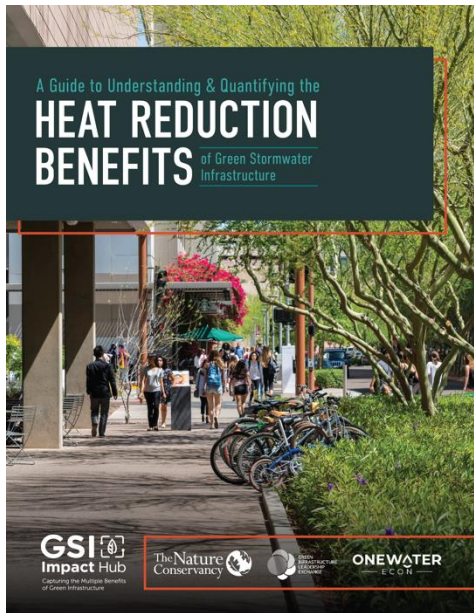
www.gsiimpacthub.org

Website launching in October 2024 to include:

- 5 Benefit Guides and Summary Documents for Specific Co-benefits of Green Stormwater Infrastructure (GSI)
- Compendium of Existing Tools Available for Measuring GSI Co-benefits
- Newly developed web-based tool for quantifying co-benefits from proposed GSI projects

*currently specific to North American geographies

5 Guides on Co-Benefits of Urban NbS



+ Transportation Guide!

Quantifying Co-benefits of Urban NbS

GSI IMPACT CALCULATOR



Welcome

Define Scenario

Refine GSI Portfolio

Evaluate Benefits

Review Costs

Explore Results

Logout

Welcome to the GSI Impact Calculator!

This calculator allows you to quantify and monetize the multiple benefits, or co-benefits, associated with green stormwater infrastructure (GSI) projects early in the planning process. Users can input information at the block level to determine recommended GSI Best Management Practices (BMPs) and estimate associated benefits and costs from proposed projects that extend beyond typical water quality and quantity goals. The calculator incorporates the following benefit categories:

- Avoided Infrastructure Costs
- Avoided Replacement Costs
- Energy Savings
- Water Supply
- Air Quality
- Property Values
- Ecosystem
- Heat Stress
- Recreation
- Water Quality
- Green Jobs
- Carbon Sequestration

Visit [GSI Impact Hub](#) to learn more about the multiple benefits of GSI and designing stormwater projects for the greatest impact.

PROCEED

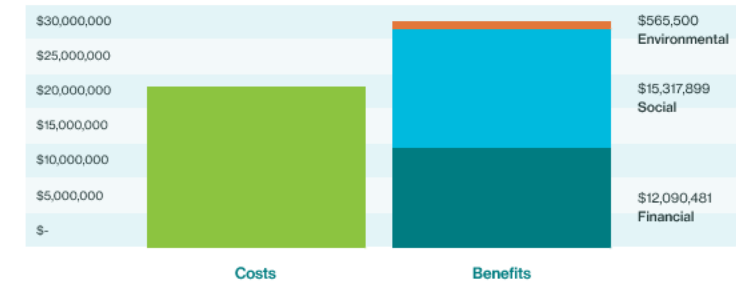


Capturing the Multiple Benefits of Green Infrastructure

Date: <DATE>

Present Value Benefits and Costs

Over the 30-year analysis period, total present value benefits amount to \$X, or an average of \$X per year. This compares to total present value costs of \$X, including capital and maintenance costs over time.



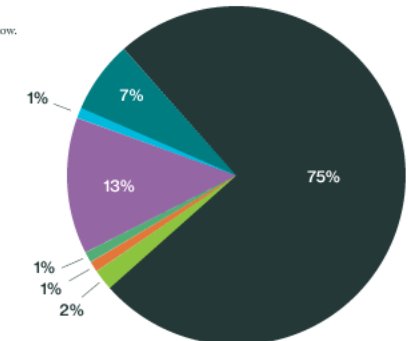
Note: present value benefits and costs are calculated using a discount rate of 3%

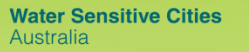
GSI Benefits

The GSI scenario selected for this analysis will result in multiple benefits. The makeup of these benefits is show below.

Associated financial, social, and environmental benefits

- Enhanced recreation
- Community uplift values
- Improved habitat
- Avoided infrastructure costs
- Avoided replacement costs
- Reduced urban heat stress
- Improved air quality
- Other





THANK YOU

