 C:\Alan\g\8000 WATER BY DESIGN\8300 - Knowledge Building\8303 - Communication, Marketing and Branding\!WBD_branding\Inkahoots\Water_by_Design_logo(CMYK).jpg

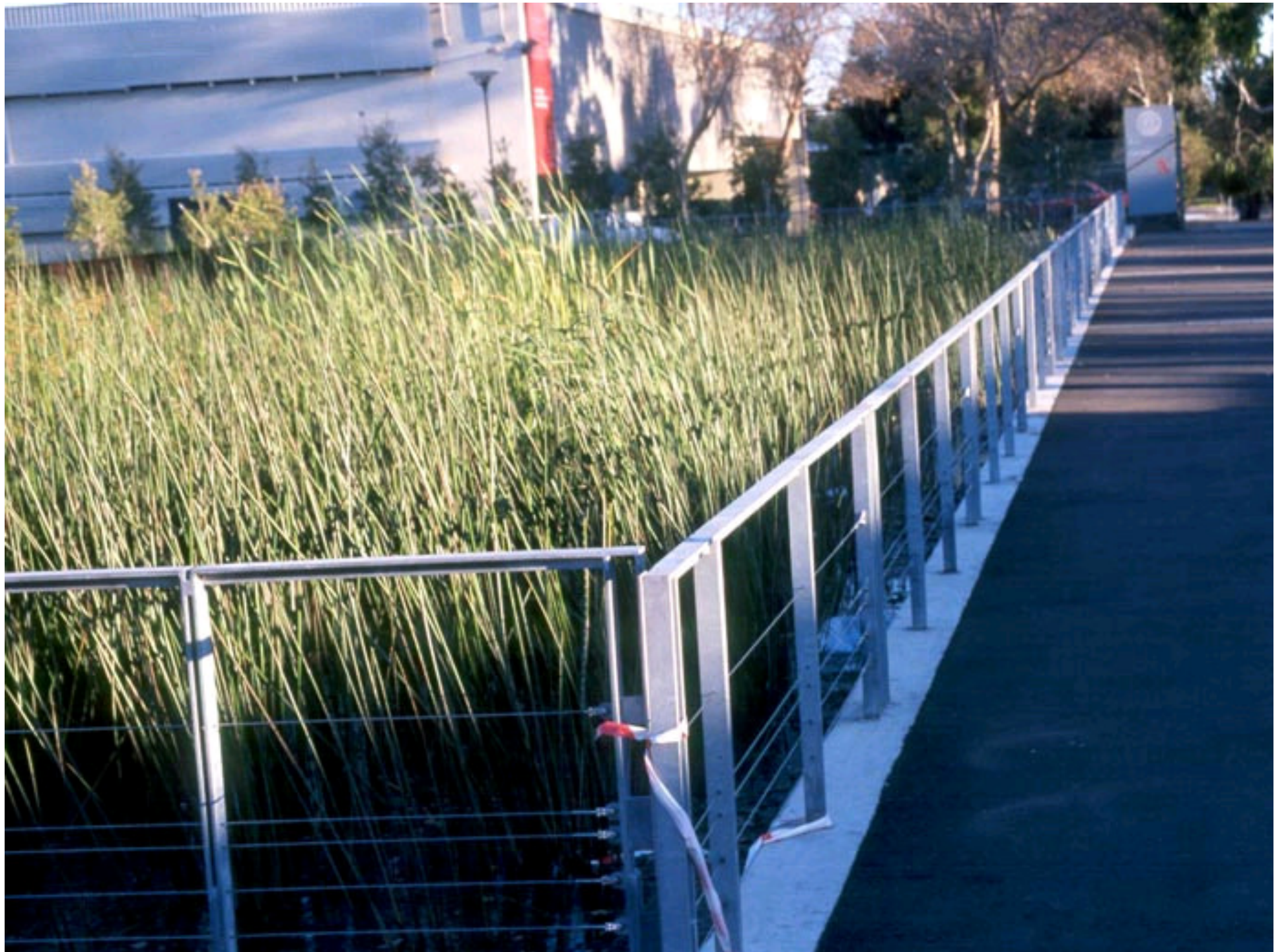
Design of a Best Practice Sustainable Urban Water Capacity Building Program

Alan Hoban













Little Bourke Street, Melbourne

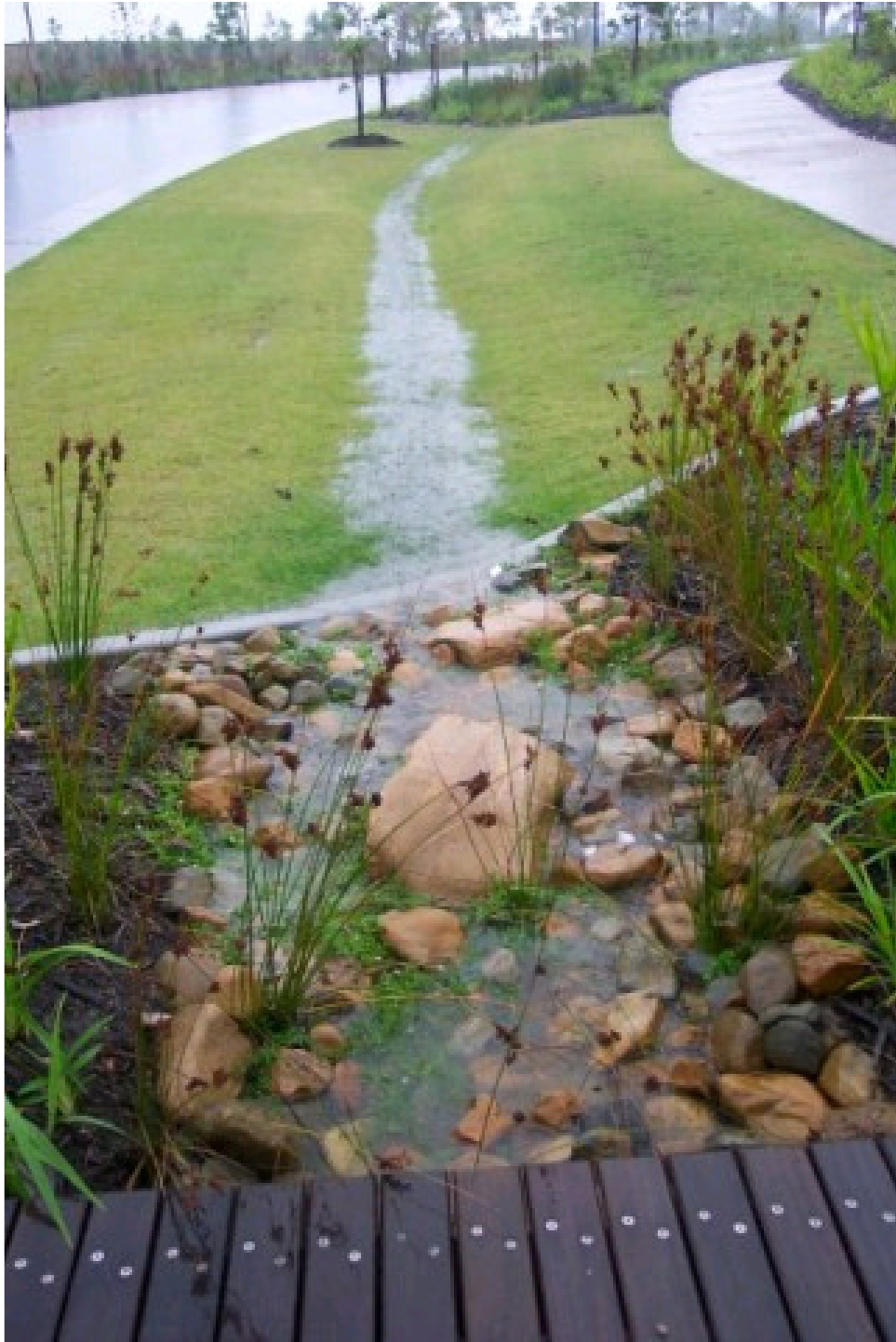




Victoria Park, Sydney



Adelaide Museum Forecourt





Mopping
up



The good, the bad
and the....

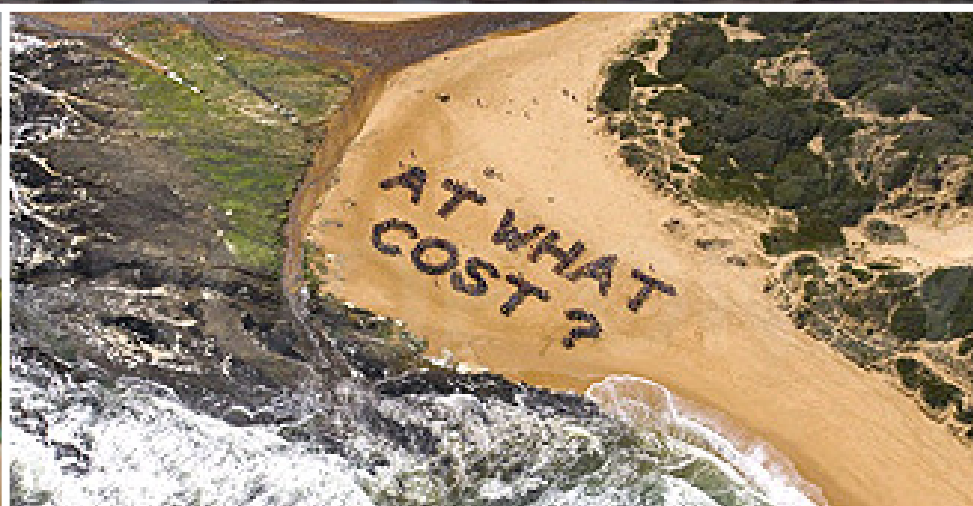












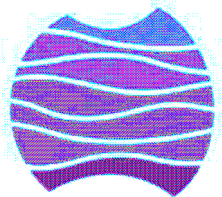
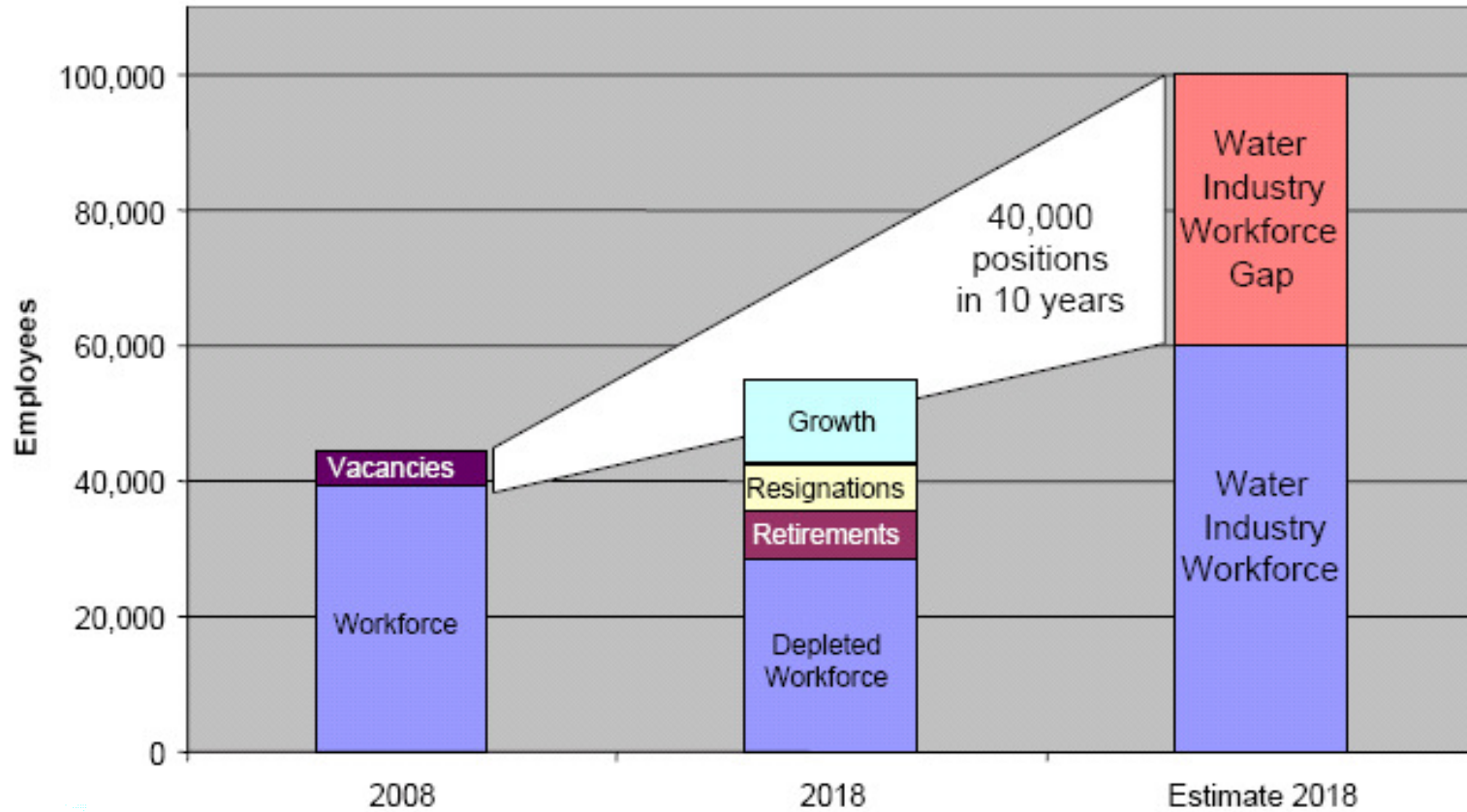


Endangered Mary River Turtle

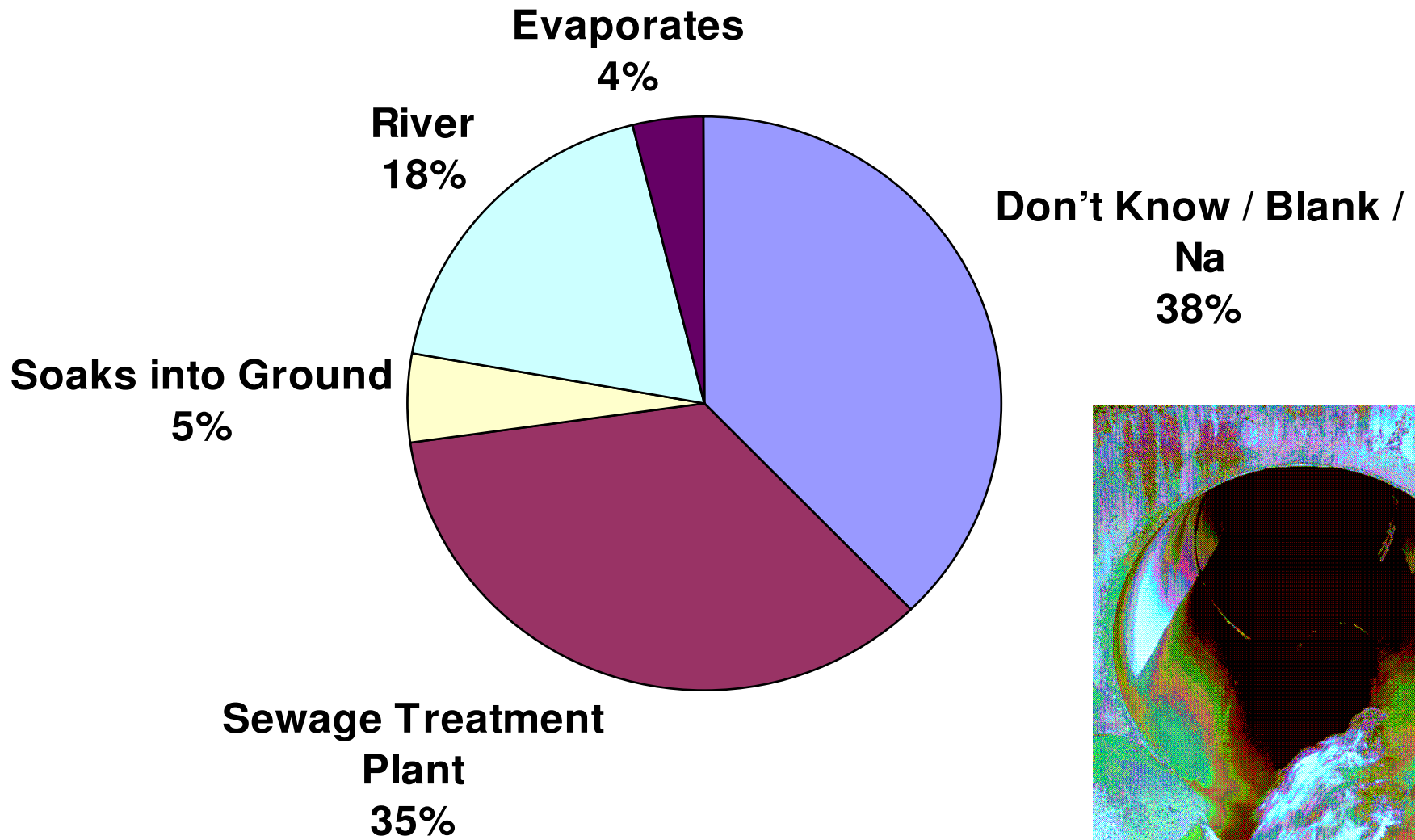


National Water Skills Audit

- Projected Workforce and Gaps – 2018, additional factors

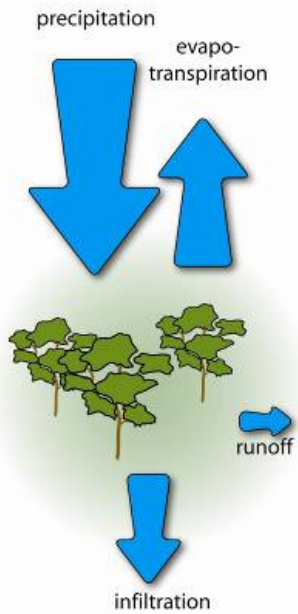


Where does rainwater go?

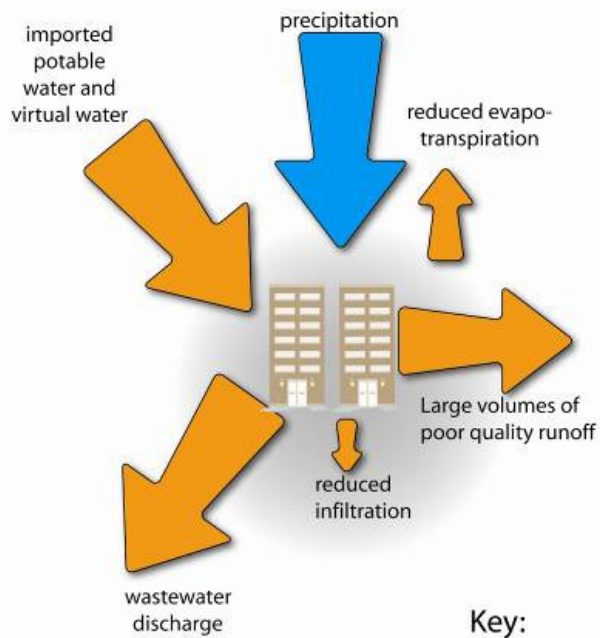


More than 1 response was allowed

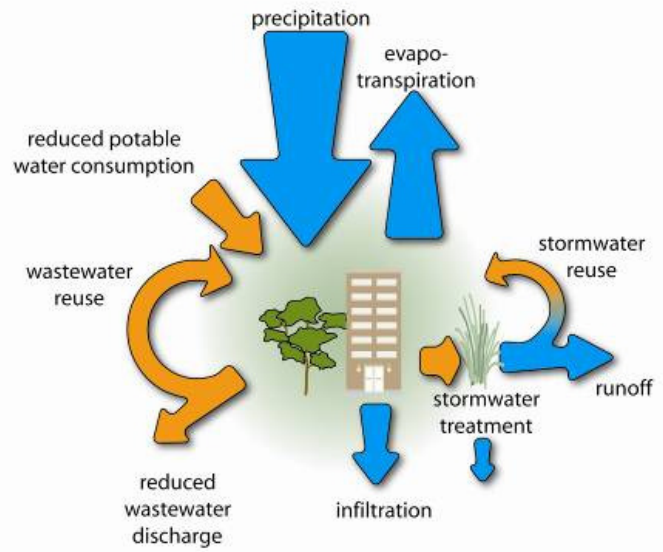
natural water balance



Urban water balance



WSUD water balance




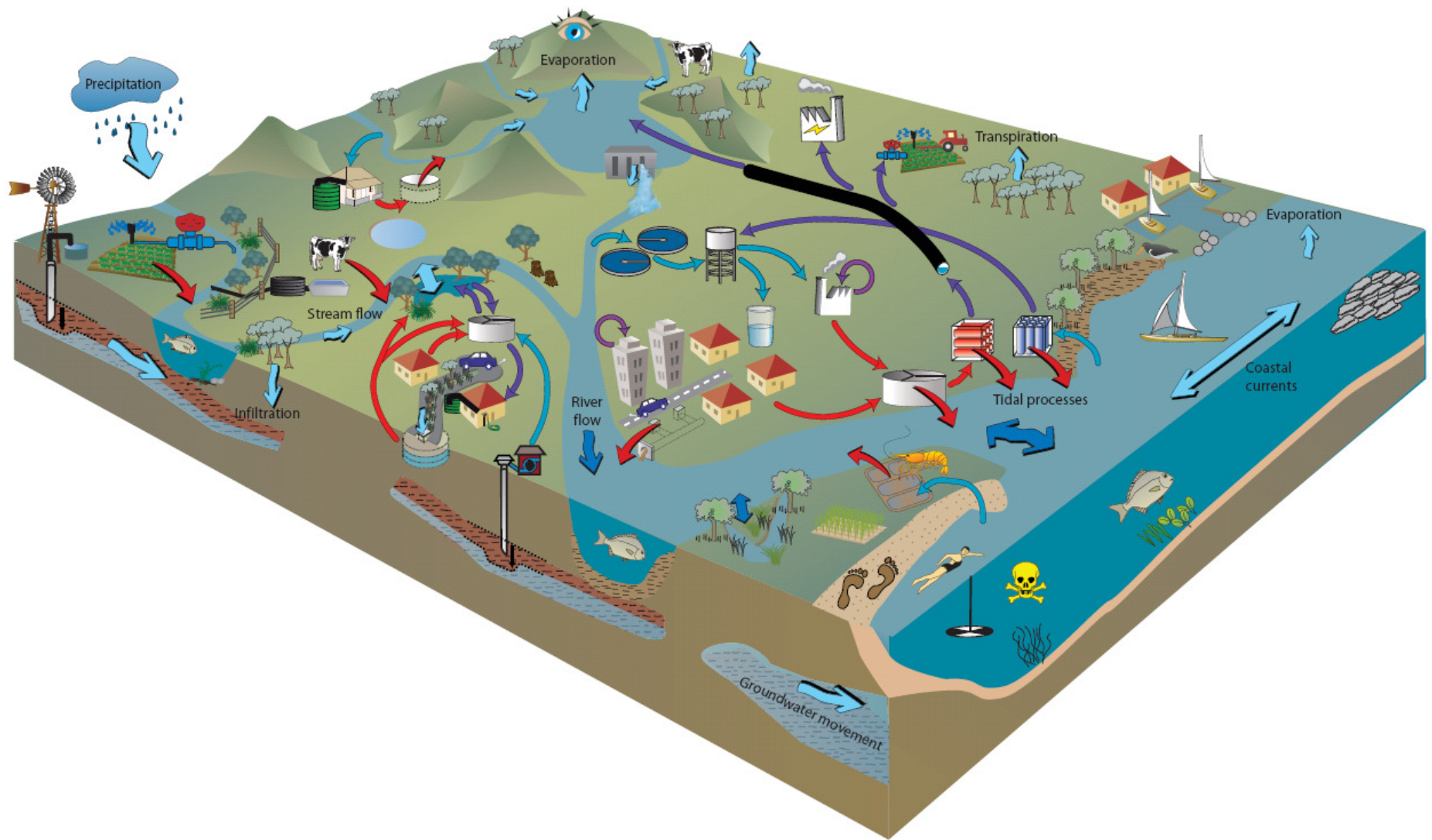
Key:

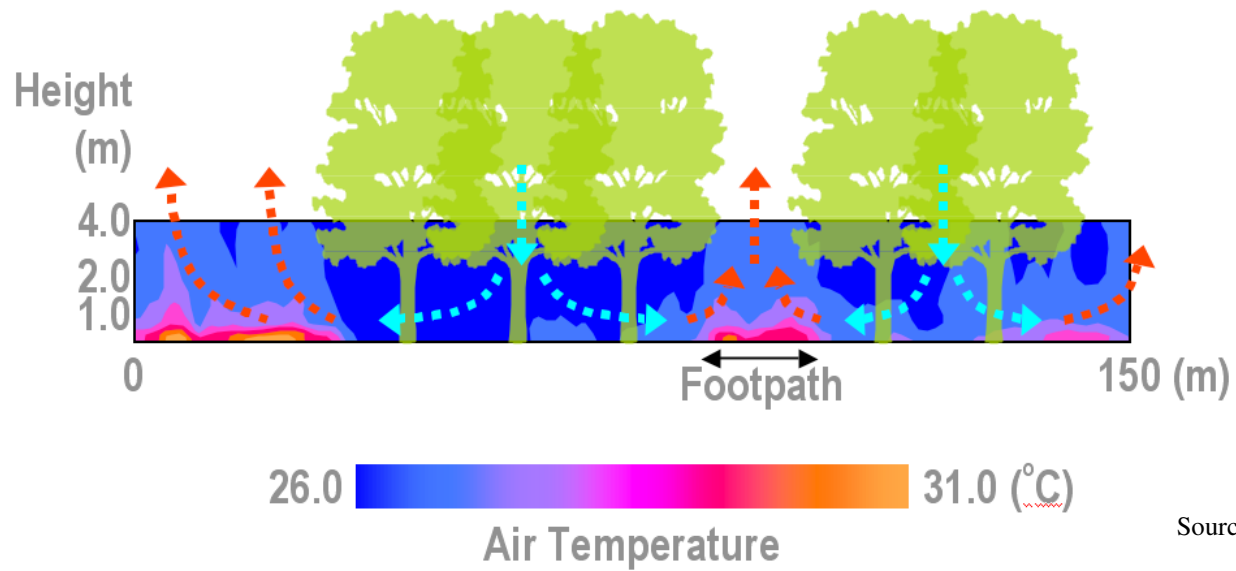
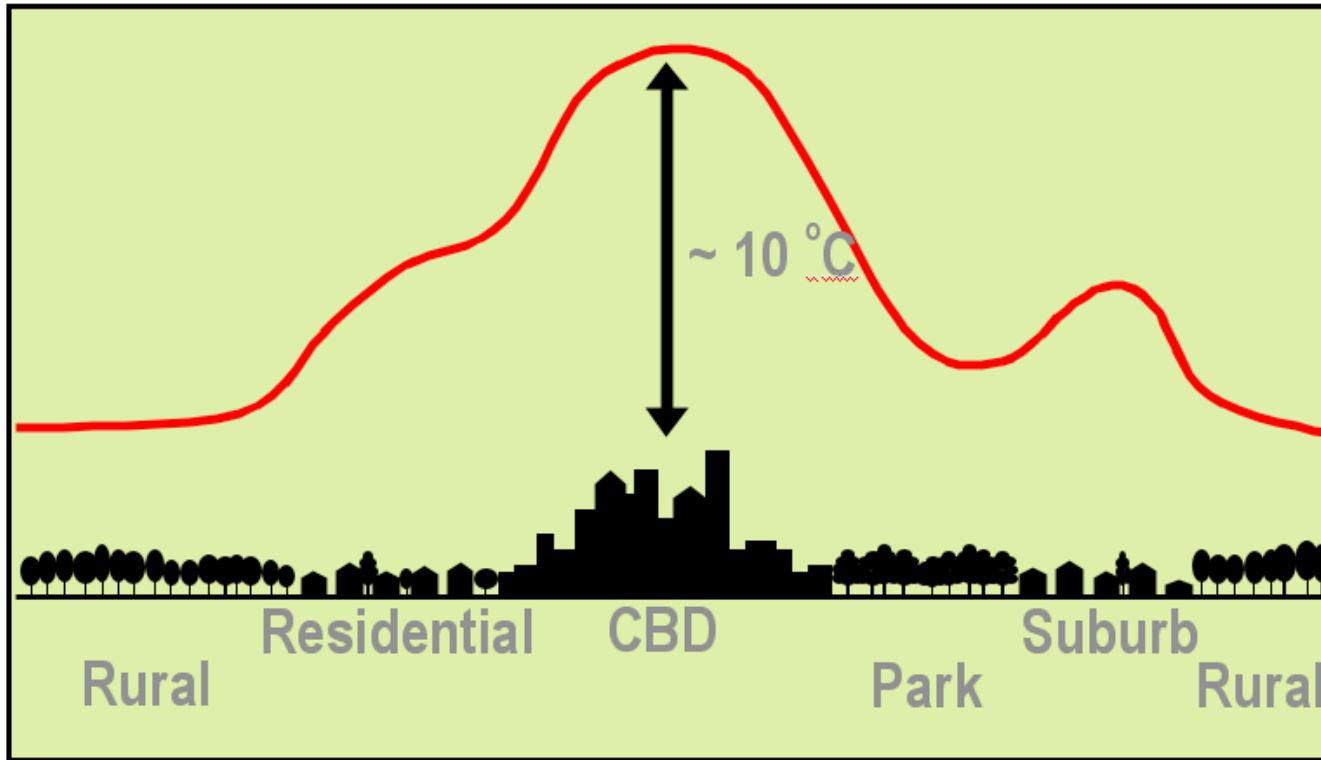


Hoban & Wong, 2006

 IWCM

 IWCM_WSUD

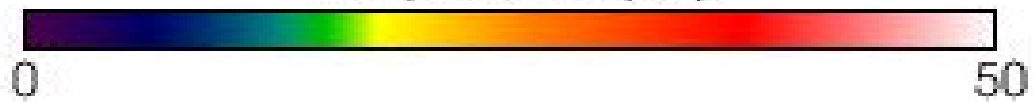




Source: Ishida 1993 (AIJ)

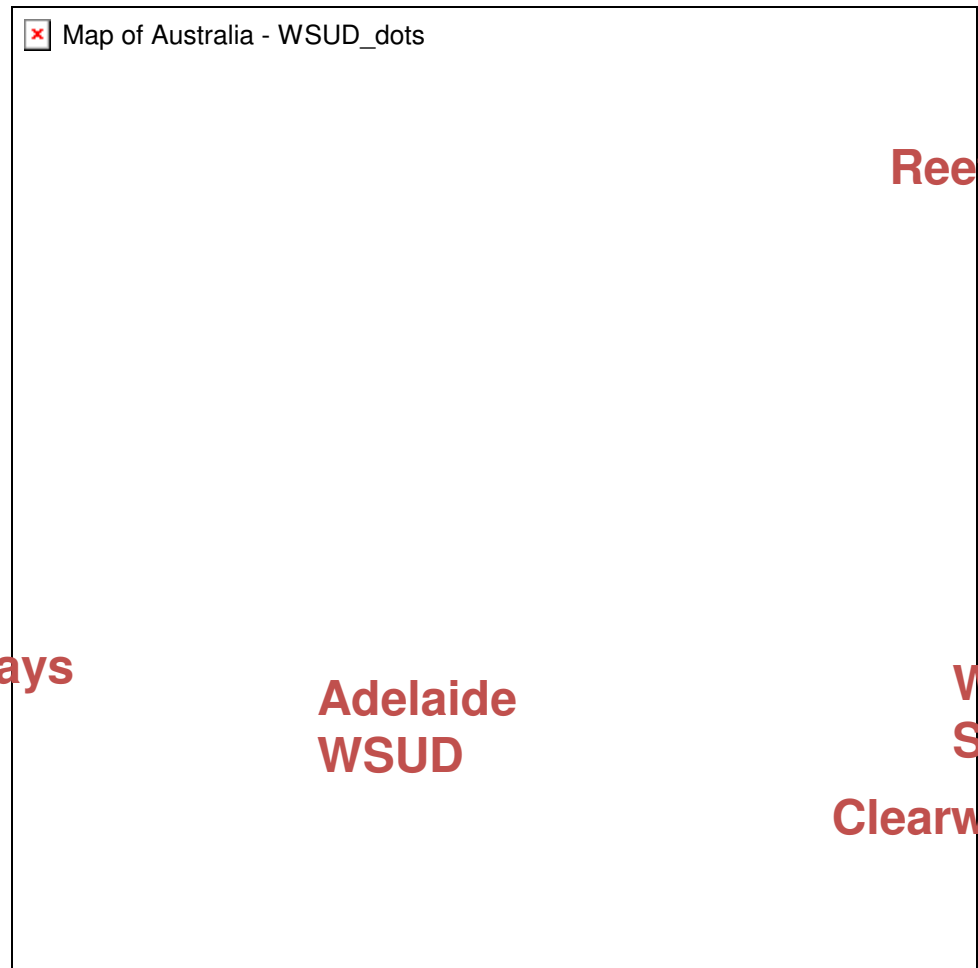


Temperature (°C)



What is capacity
building?

National Consortium of Capacity Building Programs



Reef Catchments?

Water by Design

HCCREMS

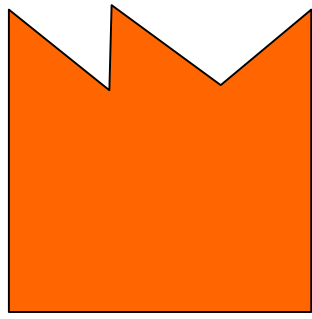
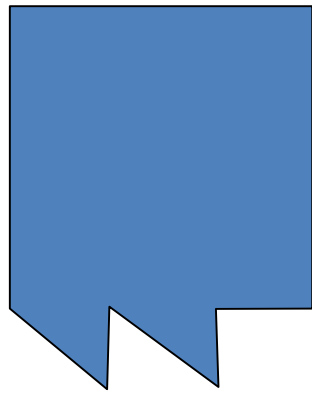
**WSUD in the
Sydney Region**

Clearwater

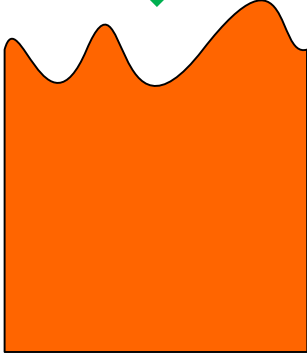
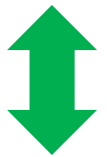
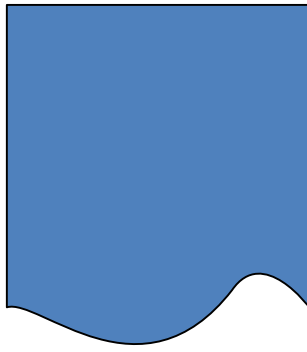
**Derwent Estuary
Program**

New Water Ways

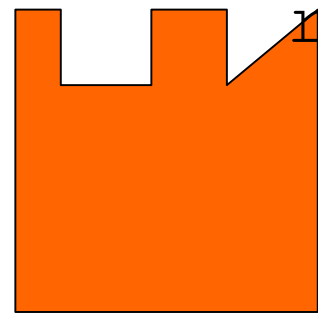
**Adelaide
WSUD**



Vic



SEQ



REEF

Policy

(regulatory
landscape)

Capacity
building
role

Practice

(operational
landscape
)



D:\My Pictures\Illustrator\Water By Design\Infrastructure_cycle.jpg

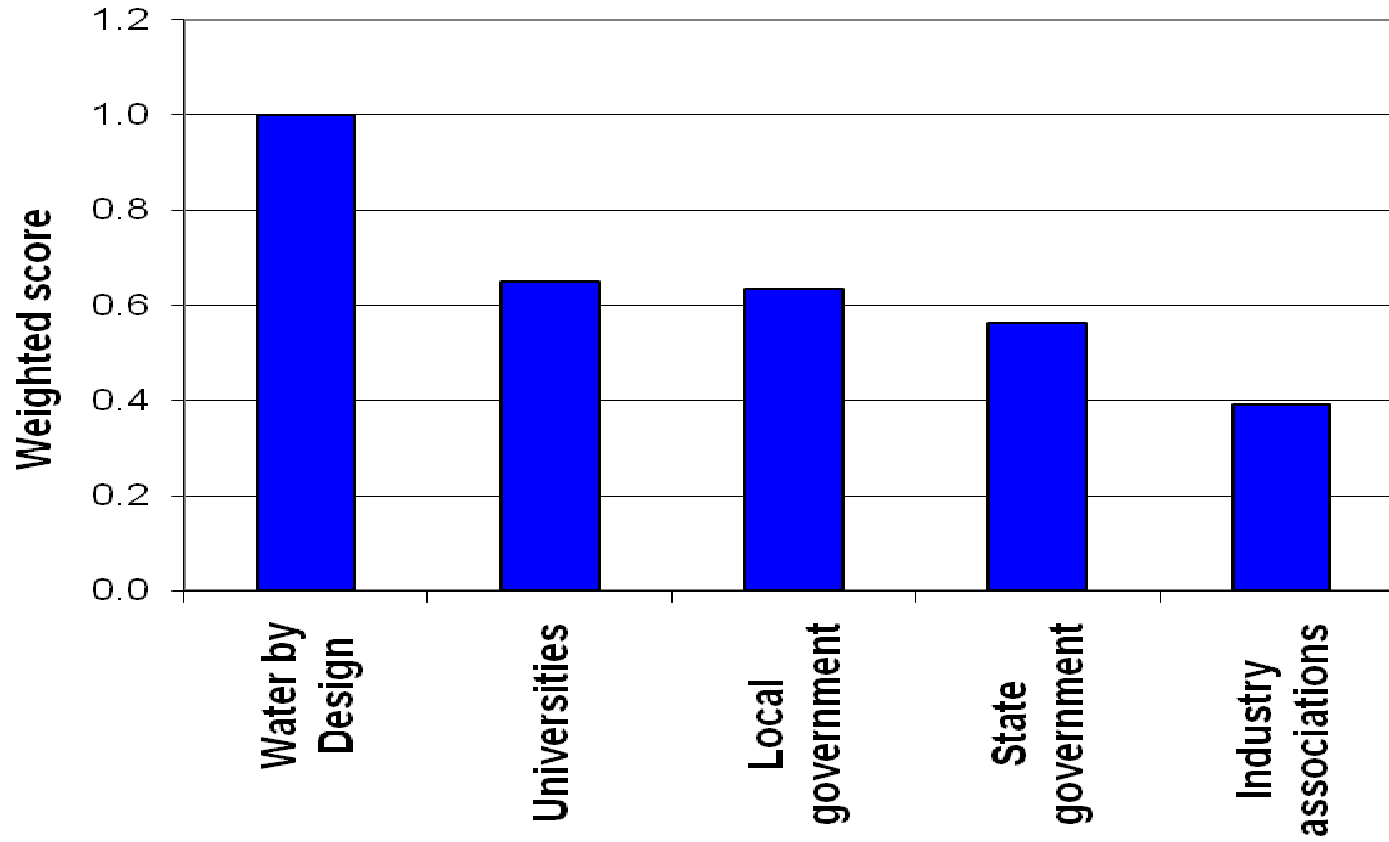
Governance

Steering Committee

1. Department of Infrastructure and Planning
2. Dept of Environment & Resource Management
3. Queensland Water Commission
4. Brisbane City Council
5. Gold Coast City Council
6. Sunshine Coast City Council
7. Ipswich City Council
8. Engineers Australia
9. Stormwater Industry Association (SIA)
10. Queensland Water Directorate
11. Urban Development Institute of Australia (UDIA)
12. Australian Institute of Landscape Architects (AILA)
13. Institute of Public Works Engineers Australia (IPWEA)
14. Environment Institute of Australia and New Zealand (EIANZ)
15. Local Government Association of Queensland (LGAQ)



Which organisations do you TRUST to provide information on WSUD?



 D:\My Pictures\Illustrator\Water By Design\capacity_building_ARR.jpg

From Brown, Mouritz and Taylor in Engineers
Australia 2006

Urban Stormwater Best Practice Environmental Management Guidelines

**Large or complex
developments**

Concept Design Guidelines

MUSIC Modelling Guidelines

Technical Design Guidelines

**Small and simple
developments**

Deemed to Comply Solutions

Standard Drawings

Erosion & Sediment Control Guidelines

Construction and Establishment Guidelines

Asset Management Guidelines*

* Available 2010

 D:\My Pictures\Illustrator\Water By Design\capacity_building_ARR.jpg

From Brown, Mouritz and Taylor in Engineers
Australia 2006



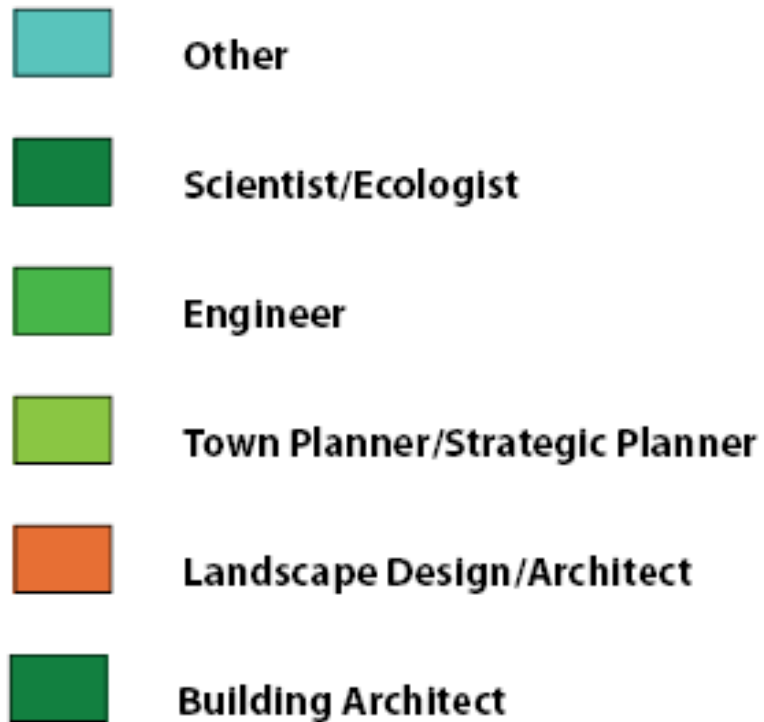




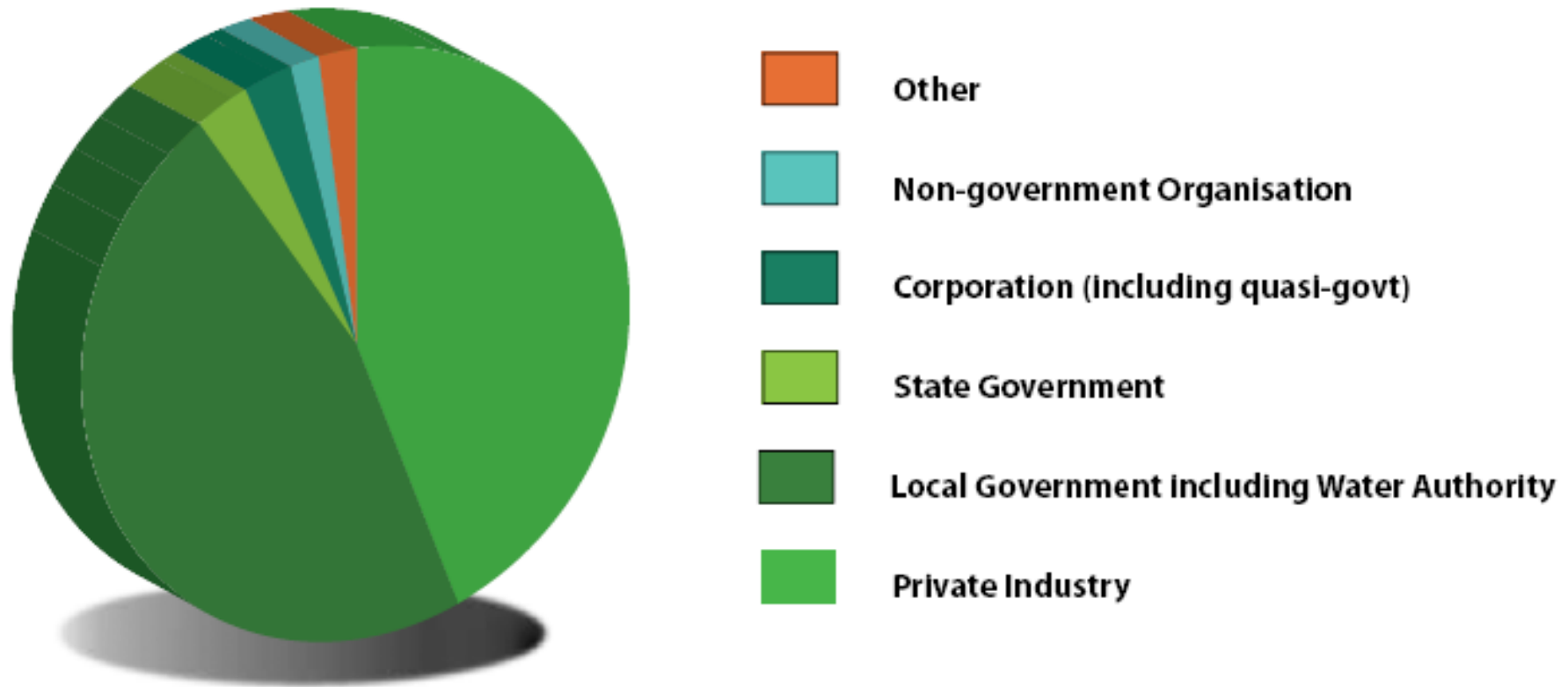




Attendance by discipline

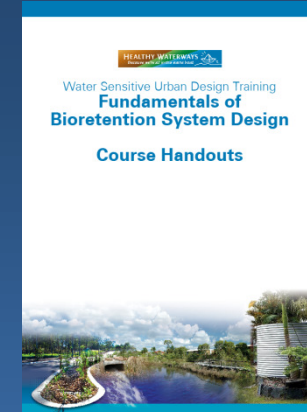


Attendance by sector



Training Modules

- Introduction to Water Sensitive Urban Design
- WSUD Policy & Regulatory Framework
- Conceptual Design Approaches
- Fundamentals of Bioretention Basin Design
Advanced Bioretention Design
- Fundamentals of Constructed Stormwater Wetland Design
Advanced Constructed Stormwater Wetland Design
- Fundamentals of Swale and Sediment Basin Design
- MUSIC Modelling for Development Assessment
- Construction and Establishment
- Sediment and Erosion Control (via IESC)
- Maintenance of Vegetated Stormwater Management Systems



Comments...

- *Very comprehensive & practical*
- *Experienced water sensitive urban design experts*
- *Would love to learn more!*
- *Overall this was one of the best seminars I have attended*

 D:\My Pictures\Illustrator\Water By Design\capacity_building_ARR.jpg

From Brown, Mouritz and Taylor in Engineers
Australia 2006

*If you want to go faster,
go alone*

*If you want to go further,
go together*



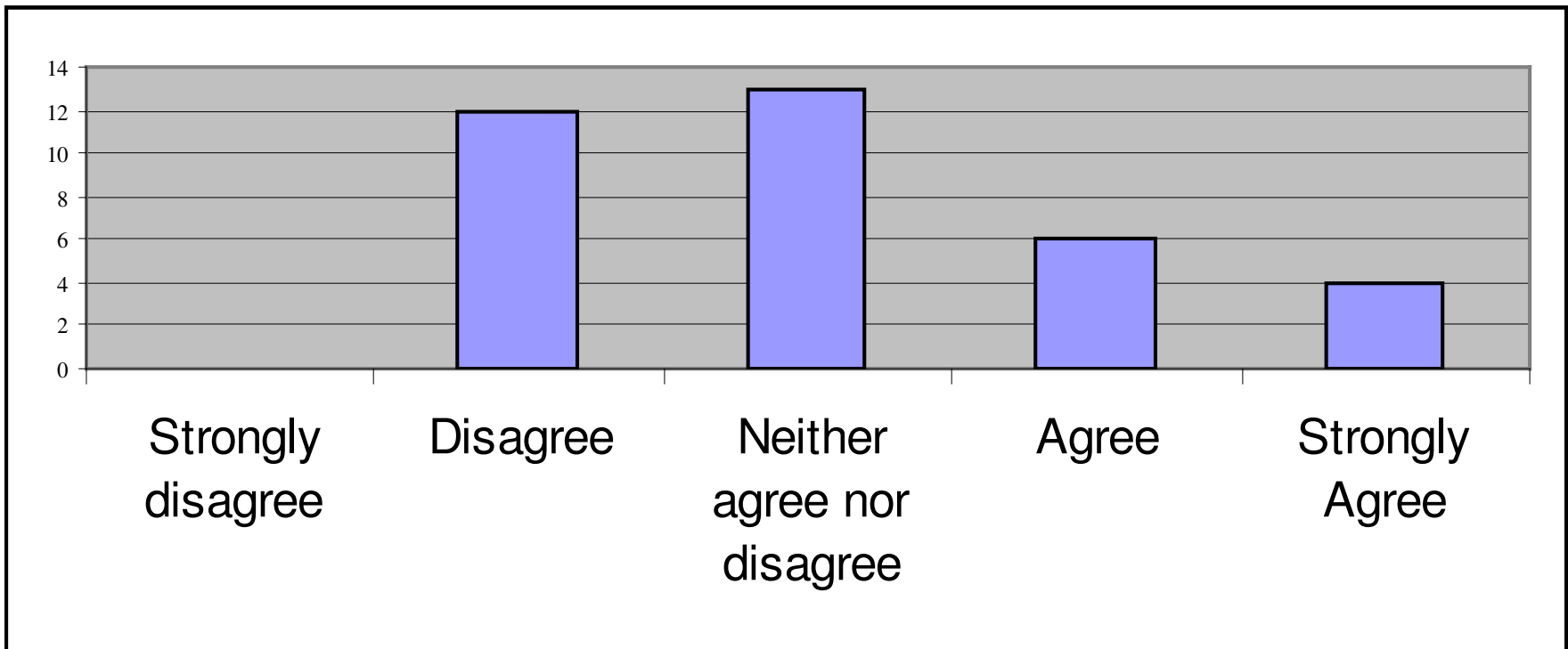
A photograph of a meeting or conference room. Several people are seated at tables, some looking towards a screen on the right. The room has a modern, professional feel with a blue wall and a large window. A blue text box is overlaid on the image, containing a quote.

“The invitation was appreciated. My knowledge of WSUD has been supported by issues and concerns raised by other officers in SEQ.”

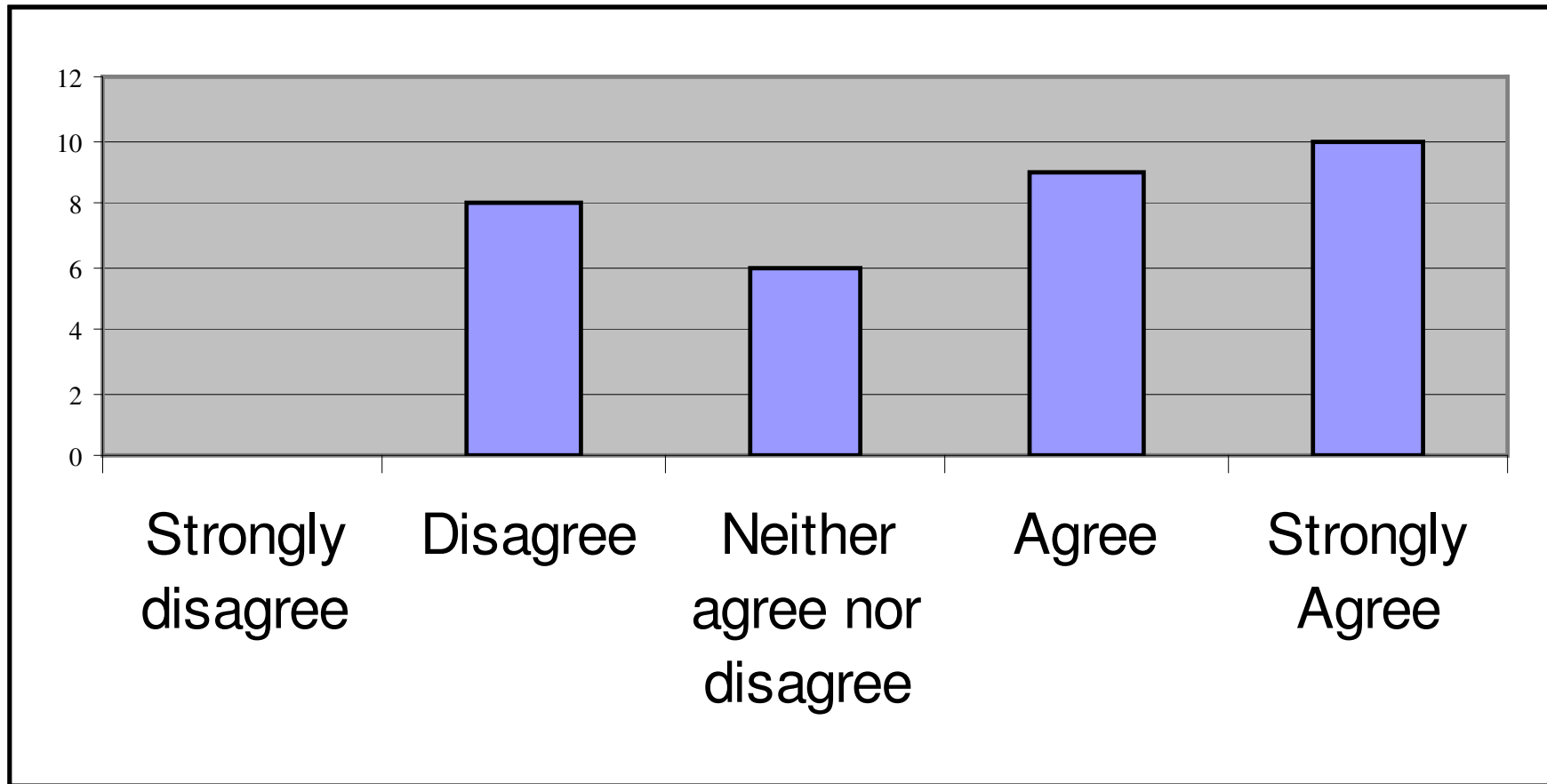
“Good networking opportunity between development assessment officers. We should be doing this more often: A regular forum on how to address issues and share ideas that is supported by different disciplines.”



I feel pressure to approve developments that do not implement best practice WSUD.



My workload limits my ability to adequately assess WSUD aspects of development applications.



 D:\My Pictures\Illustrator\Water By Design\capacity_building_ARR.jpg

From Brown, Mouritz and Taylor in Engineers
Australia 2006









MARINA BAY...A SPARKLING JEWEL THAT WE CAN BE PROUD OF

