

An aerial photograph of a city, likely Melbourne, Australia. The Yarra River flows through the center, with the city skyline visible in the background. In the foreground, a large, circular stadium with a green field and a white, tiered seating area is prominent. The surrounding area is a mix of residential and commercial buildings, with green spaces interspersed.

# CRCWSC Tools

Chris Tanner, Luke McPhail, Sayed Iftekhhar

[watersensitivecities.org.au](http://watersensitivecities.org.au)



# Development Platforms to support City Transition

## WSC Transition Strategy Transition Framework and Tools

**IRP1**  
Transition  
Strategies

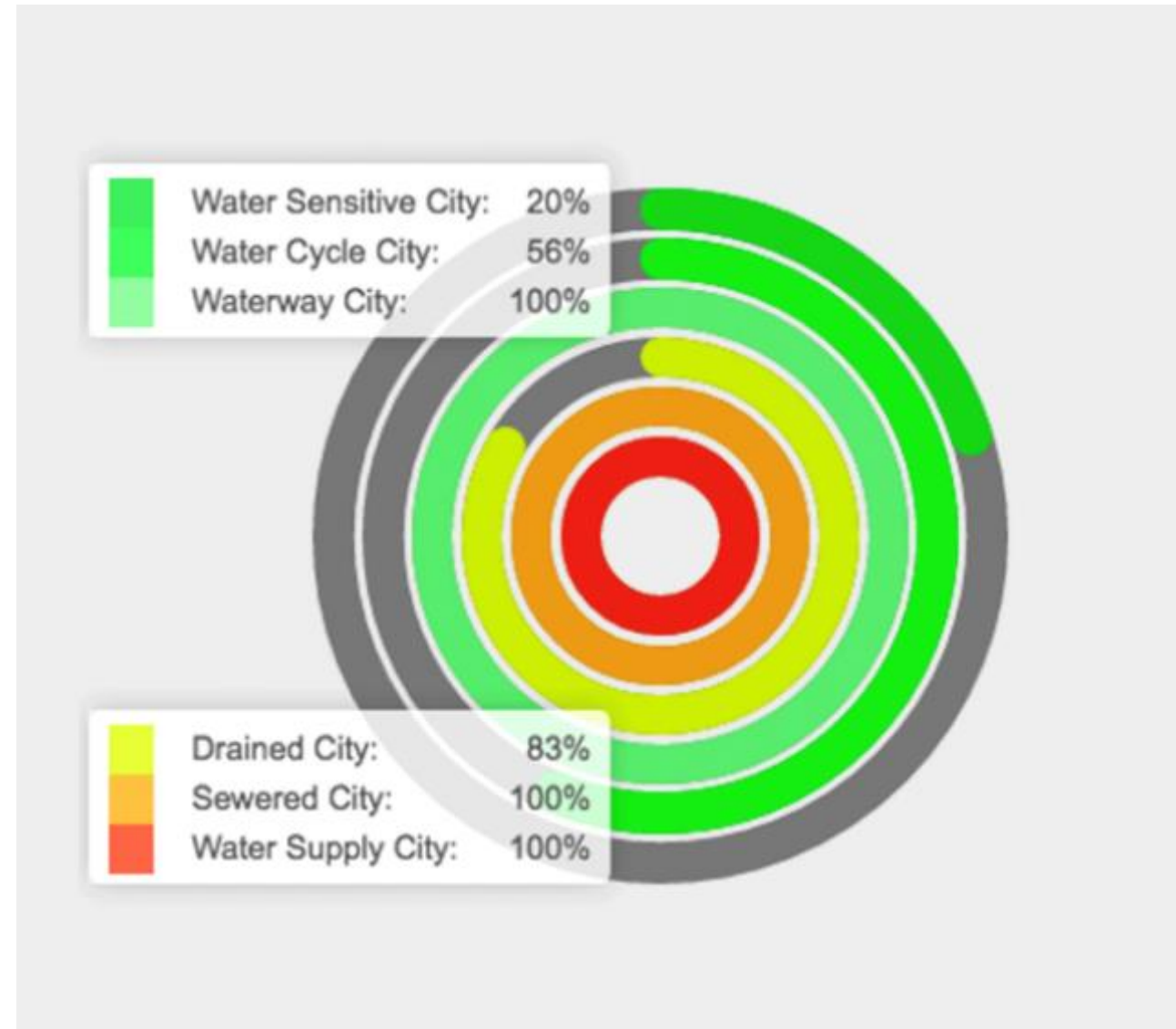
**Implementation Plan**  
City Shaping Framework and Platform

**Delivery**

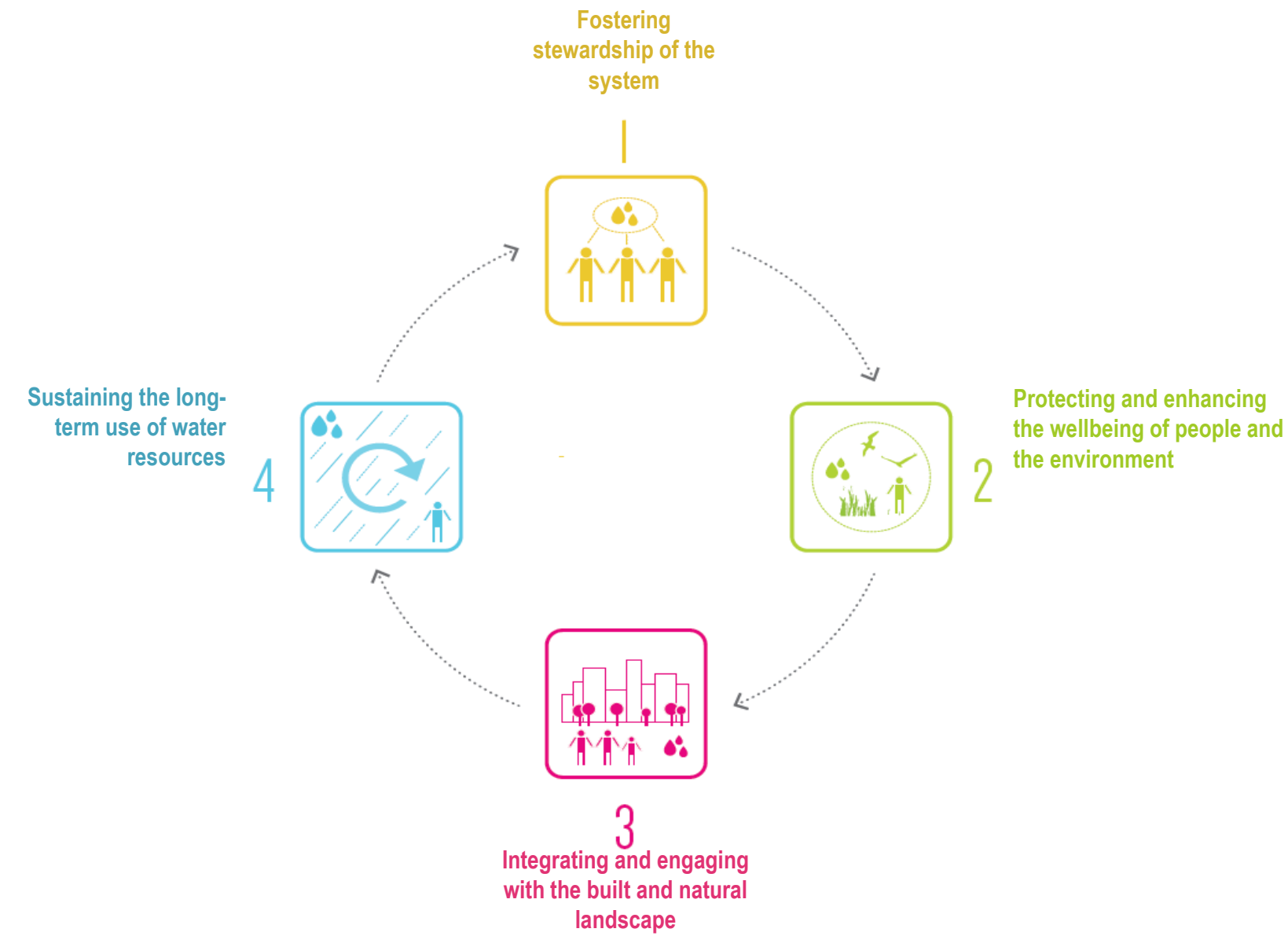


# Water Sensitive Cities Transition Platform

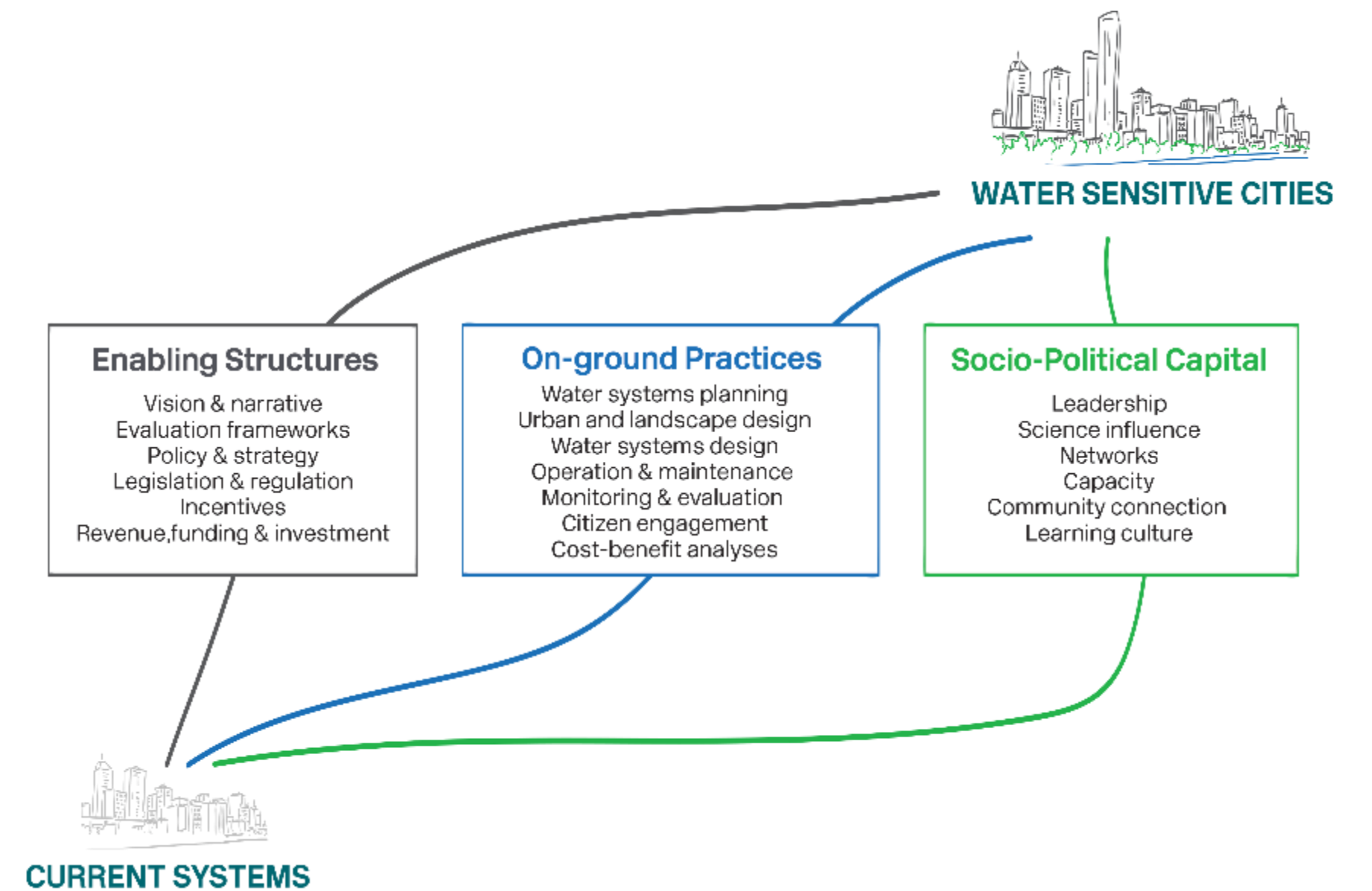
## Benchmarking



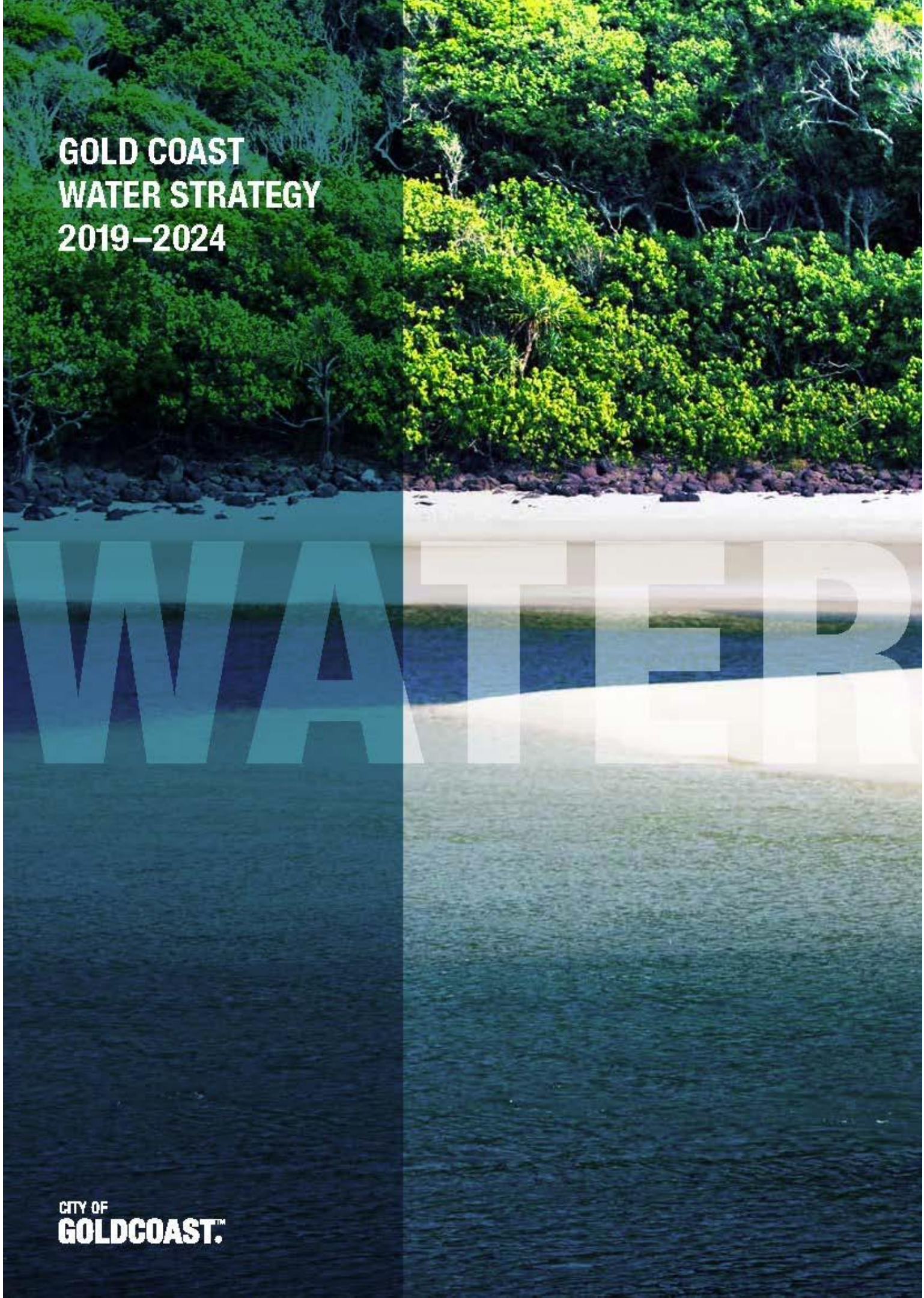
## Visioning



## Transition Planning







# A city sustained and inspired by water





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**Delivery**

**IRP2**  
Economic  
Evaluation



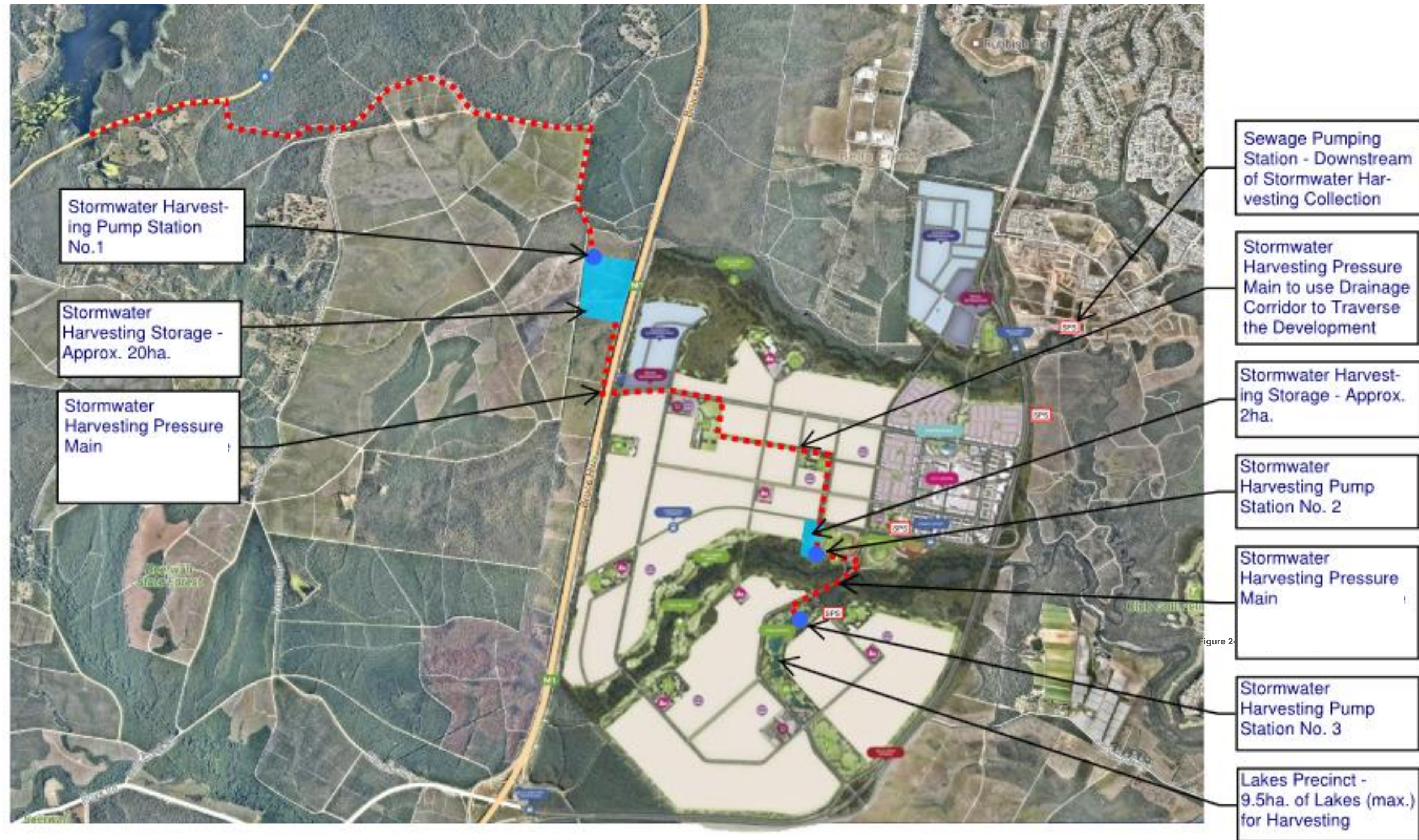
# Background

- ❑ Need to prioritise investments in water-sensitive cities
- ❑ Present convincing business cases to decision makers
- ❑ Led to development of INFFEWS  
(Investment Framework For Economics of Water-Sensitive Cities)





# Scheme Overview





# Economic Model – Preliminary Results

Case	Base	Optimistic?	Pessimistic?
Overall Project BCR	6.4	9.4	3.2
Overall Project NPV	\$11.2M	\$34.7M	\$9.1M
Proponent BCR	2.2	7.3	1.1
Proponent NPV	\$2.4M	\$25.9M	\$0.3M

## Other not allowed for

- ❑ Asset deferral savings to Utility due to the augmented supply
- ❑ Property value uplift



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**IRP3**  
Integrated  
Planning

**IRP2**  
Economic  
Evaluation

**Delivery**



# INTEGRATED WATER AND LAND USE PLANNING

## TRENDS

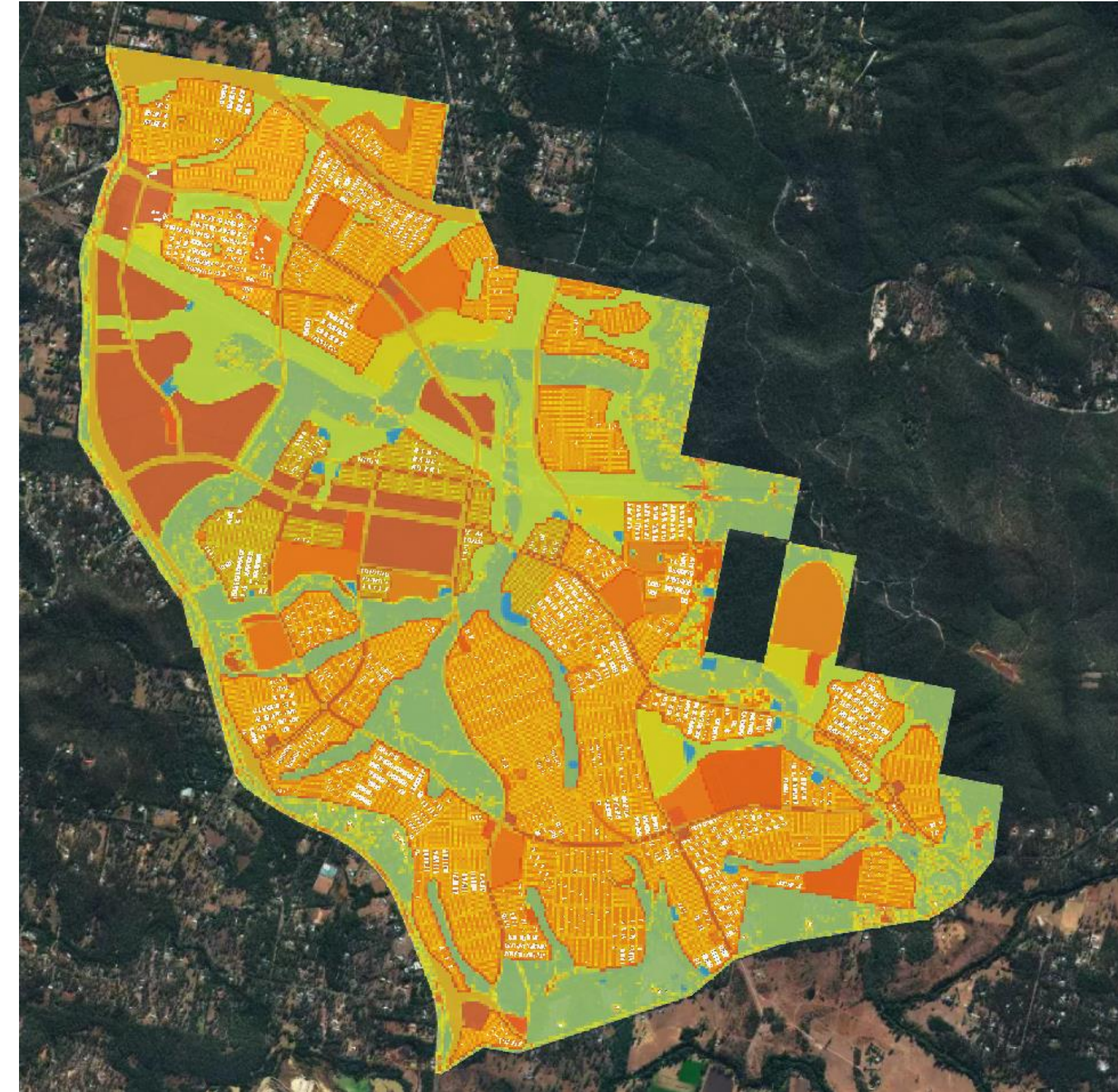
- Population growth
- Urban expansion and densification
- Climate change

## POLICY GOALS

- Sustainability
- Liveability and wellbeing
- Resilience
- Adaptation

## OUTCOMES

- Loss of green space
- Heat island effect
- Poor water quality
- Degraded waterways
- Declining liveability



Lost opportunity to maximise resource efficiency, minimize costs, improve outcomes



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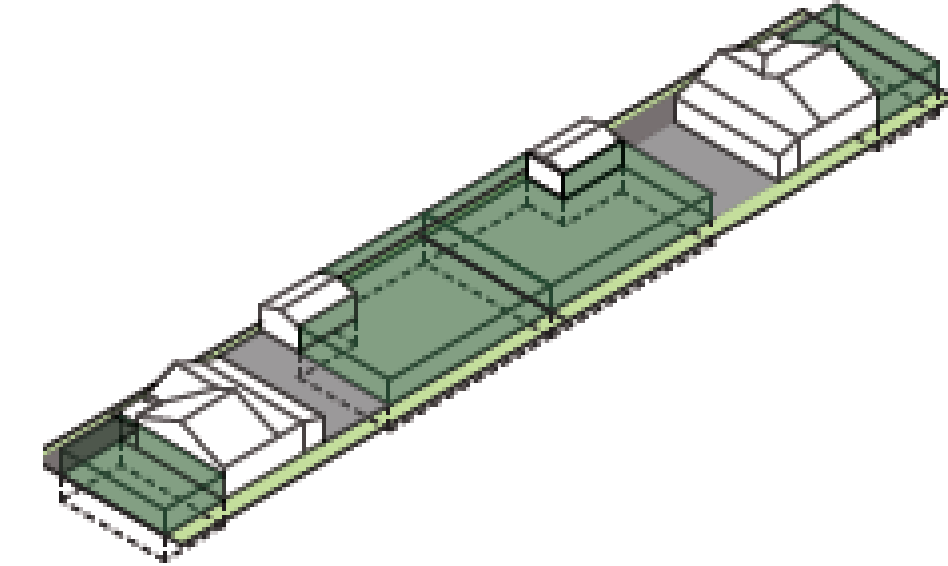
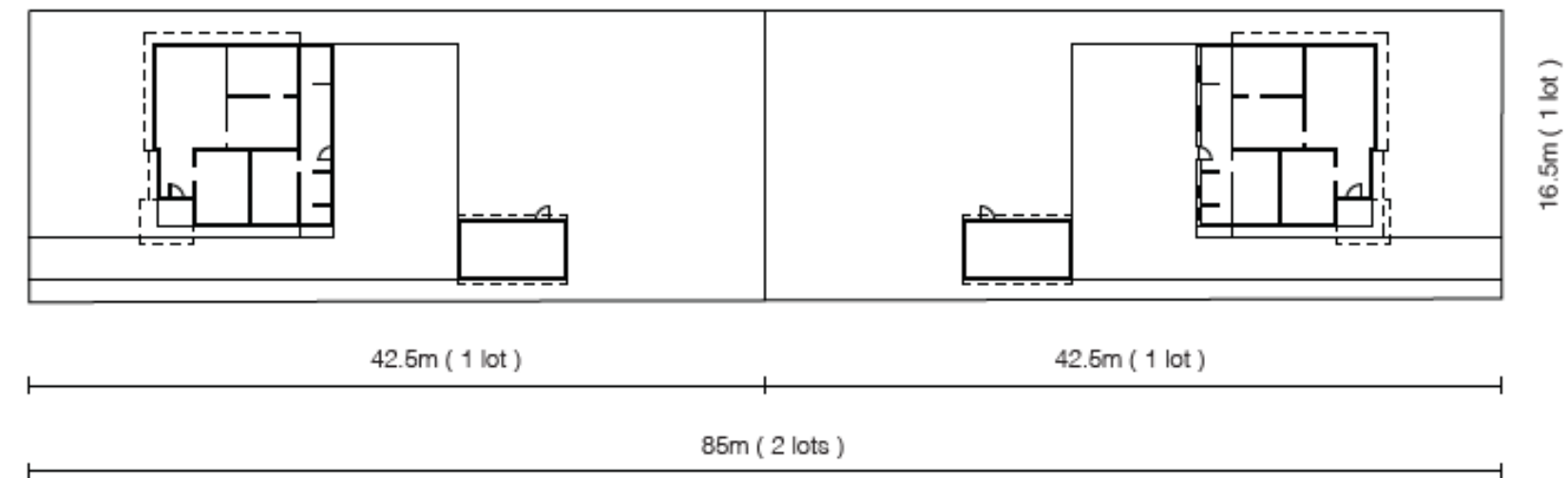
### Delivery

**IRP4**  
Infill Developments

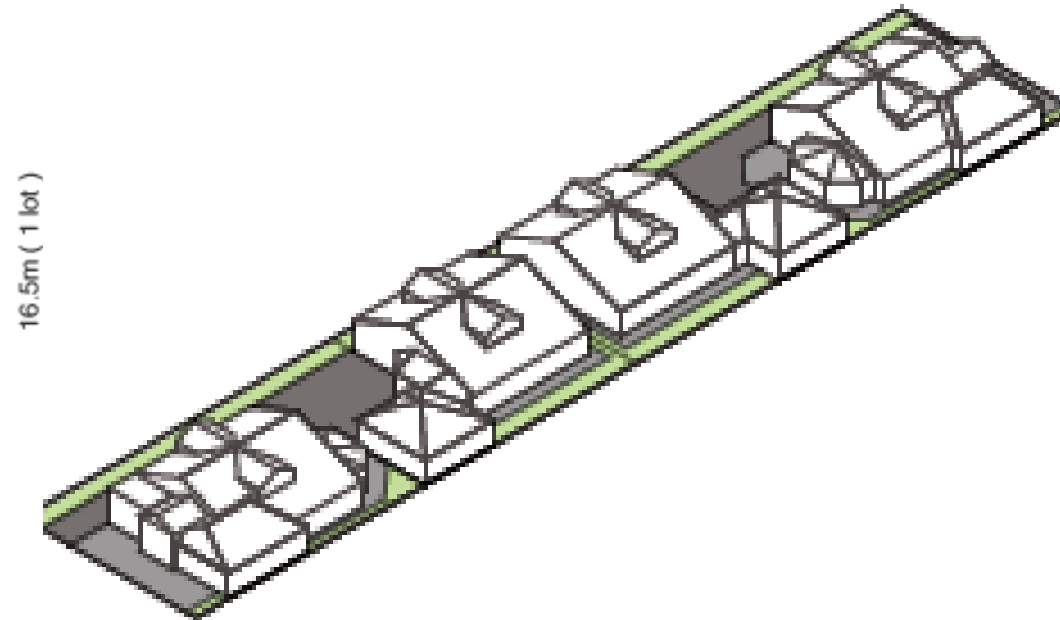
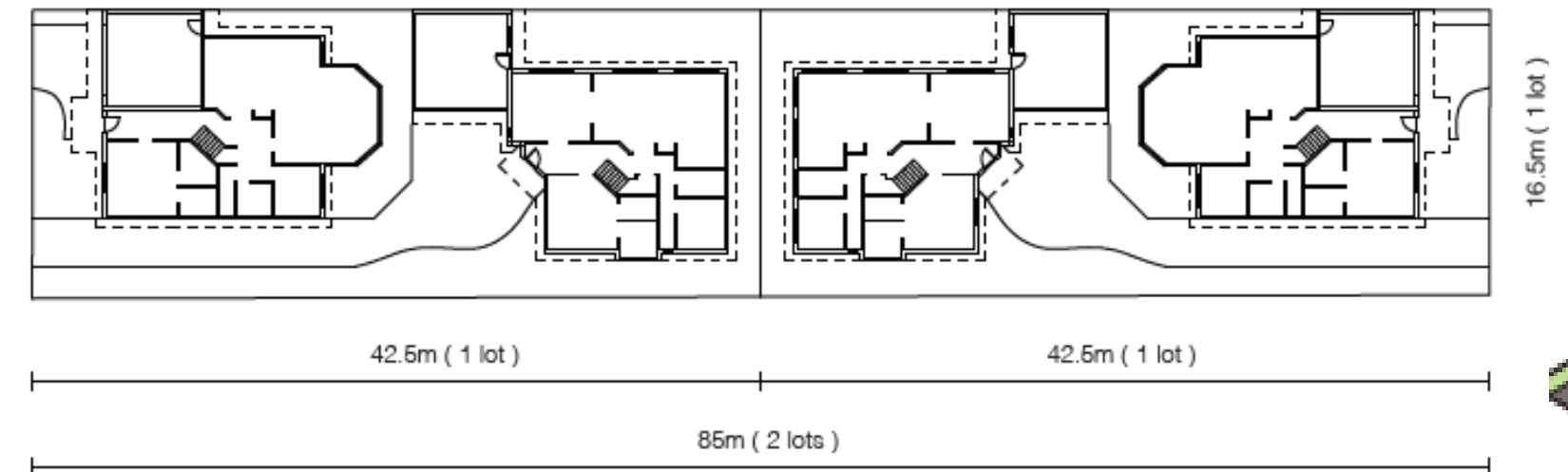


# LOT SCALE DESIGN TYPOLOGIES

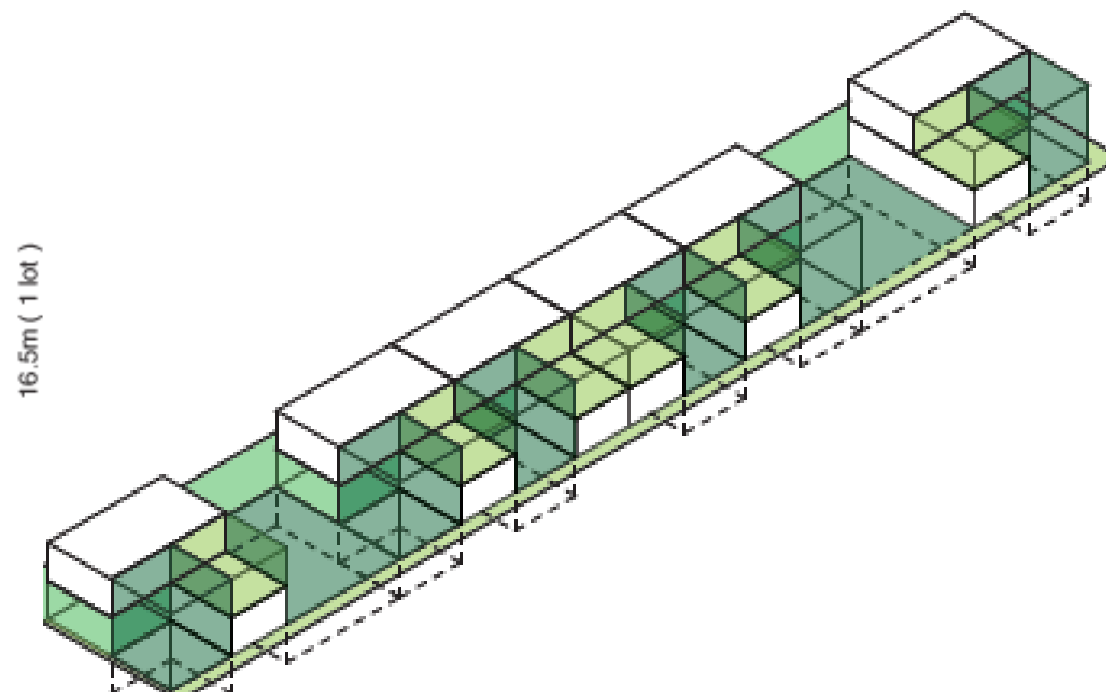
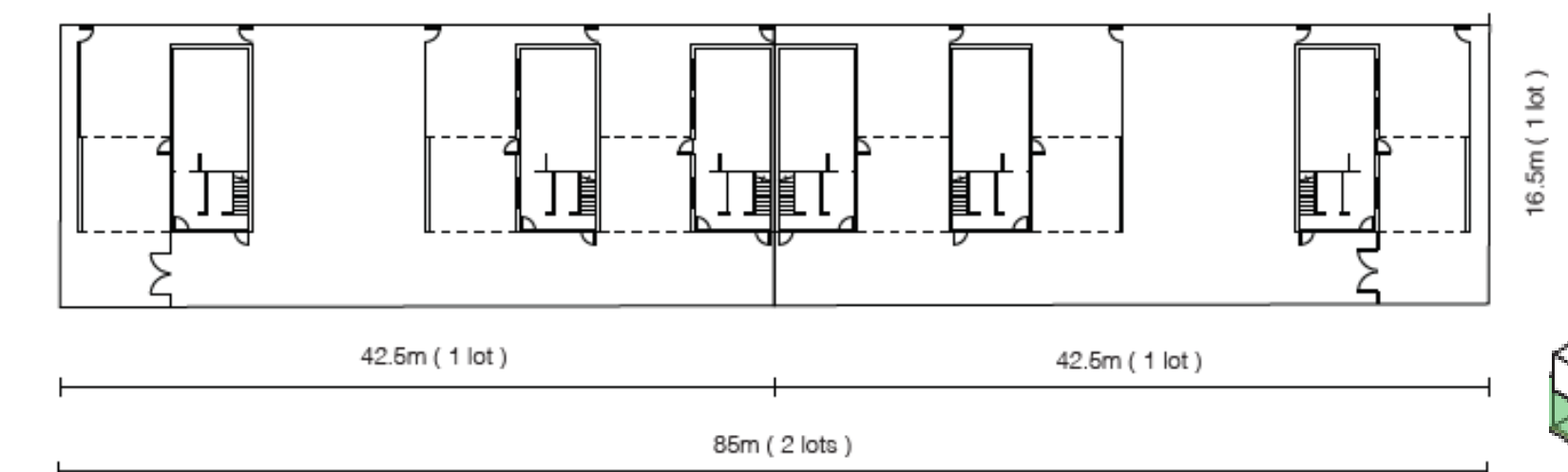
## EXISTING



## BUSINESS AS USUAL



## WATER SENSITIVE





# PRECINCT-SCALE INFILL CASE STUDIES



## 1. Salisbury (SA), to explore:

- Water-related liveability - cooling
- Waterway renewal for public amenity
- Green corridors for connectivity
- Groundwater recharge



## 2. Knutsford (WA), to explore:

- Technologies for non-potable water
- Water-related energy
- Innovative governance for shared management of services



## 3. Norman Creek (QLD), to explore:

- Overland flow / flooding
- Storage for both drought and flood resilience



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Integrated  
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**IRP2**  
Economic  
Evaluation

### Delivery

Scenario Platform and Tools

**IRP4**  
Infill Developments



# Contact us

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