

Shifting the Focus

a blue/green city



The Journey to Blue Green

2007-2016

- Living Rivers Commitment to Melbourne Water
- Delivering WSUD Assets (157 Assets)
- Sustainable Environment Strategy - IWM

2016-2017

- WSUD Asset Audits
- WSUD Upgrades and New Maintenance Specs

2017-2018

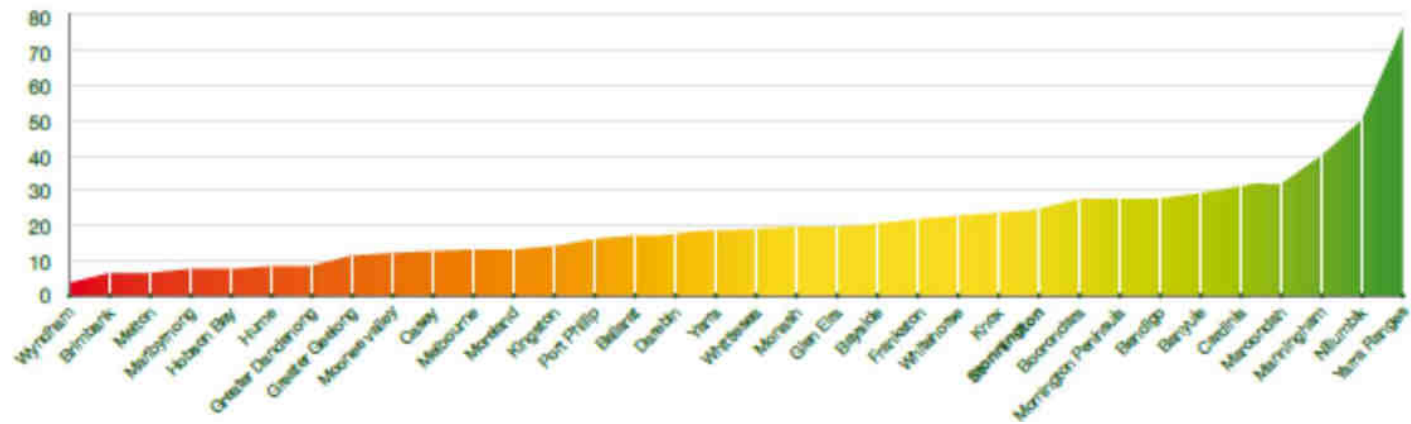
- Urban Forestry Strategy
- Blue Green Infrastructure Manual

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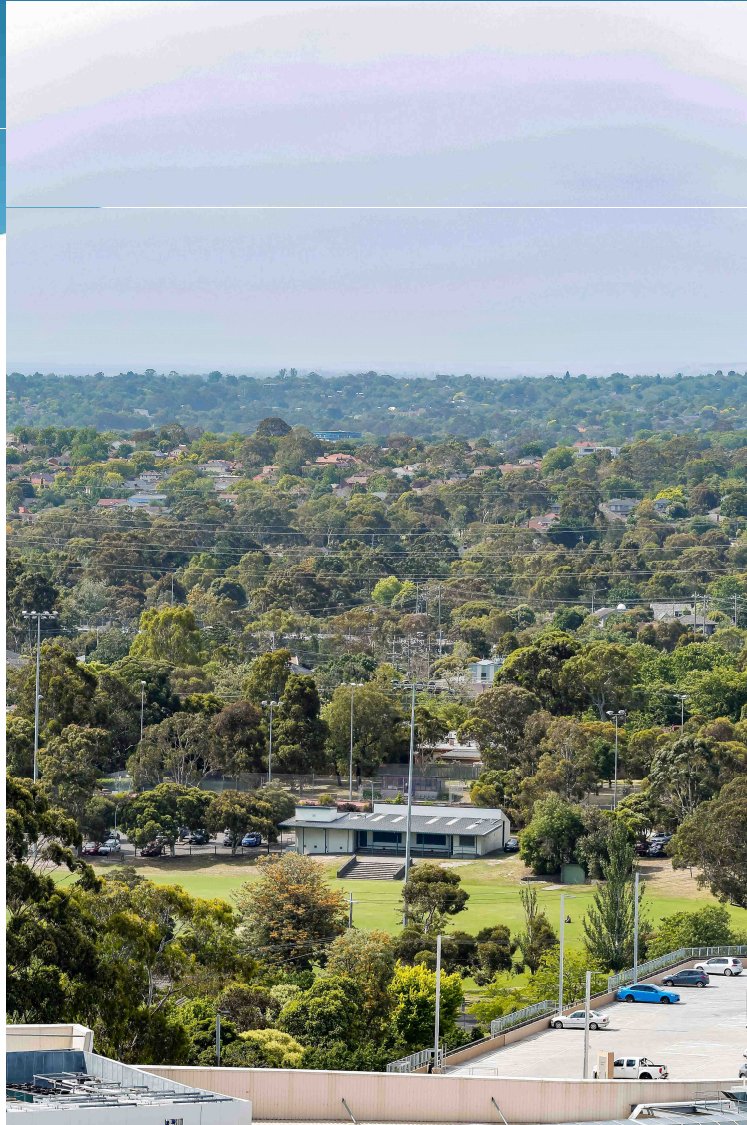
TOWARDS A BLUE/GREEN CITY

How Are We Going?

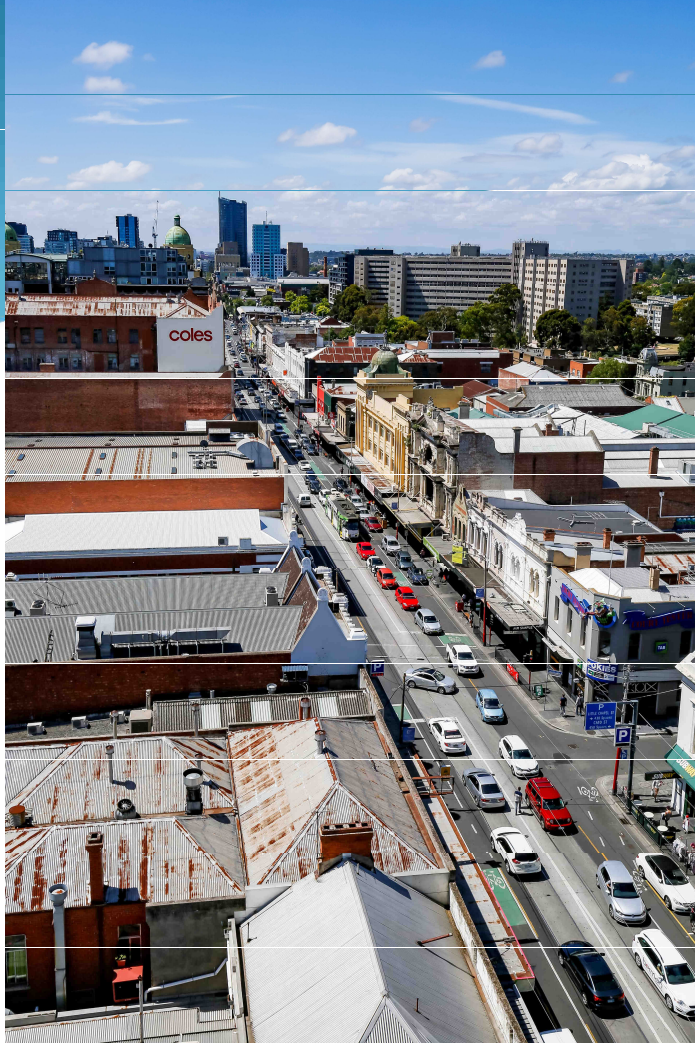
Canopy cover for Victoria Local Government Areas 



Commitment to Greening



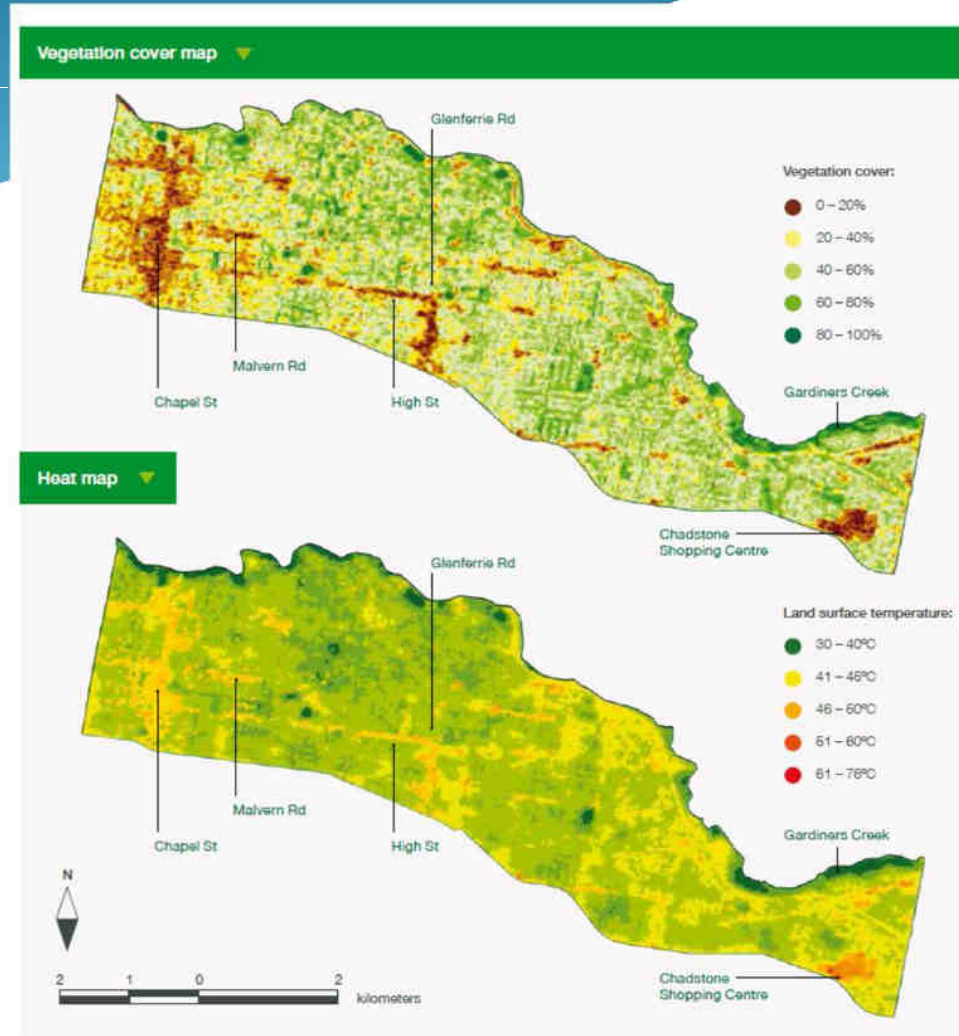
Commitment to Greening



Commitment to Greening



City of Stonnington Cover and Heat Mapping



Urban Forest Strategy

Vision ▼

The City of Stonnington will have a healthy, resilient, diverse and valued urban forest that will continue to be a core element of the character and liveability of the City. The urban forest will underpin the health and wellbeing of the community, increase biodiversity and environmental outcomes and help strengthen economic activity.

Key directions ▼

The Urban Forest Strategy will realise its vision by enacting eight key directions:

- | | | | | | |
|----|---|----|------------------------------------|----|--|
| 01 | Protect and value existing trees | 04 | Grow the urban forest | 07 | Manage the interface between trees and infrastructure |
| 02 | Sustain and support a healthy and safe urban forest | 05 | Create feature boulevard plantings | 08 | Increase the cover of alternative Green Infrastructure |
| 03 | Renew ageing trees | 06 | Create habitat | | |

Strategy is Essential but What About Practice?



- The purpose of the manual is to support the successful integration of green-blue infrastructure into Council's streetscape project.
- It aims to simultaneously deliver on Council's water sensitive urban design (WSUD) and urban forestry objectives and achieve broader economic and social outcomes for the city.

Strategy is Essential but What About Practice?



The following steps form the recommended structure to plan and implement Green-Blue infrastructure:

1. **Identify site-appropriate Green-Blue responses**

Most sites have several options for Green-Blue infrastructure, the first step is to identify site type and what responses are best suited.

2. **Determine Preferred Design Configuration**

To determine the optimal response from those available, the site's unique characteristics must be analysed.

3. **Concept Design**

Once a response has been decided, a concept design should be developed that addresses critical design elements.

4. **Functional Design**

Functional design involves detailed MUSIC modelling, service proving and initial budgeting.

5. **Detailed Design**

Detailed engineering drawings, specifications and tender documents must be prepared to transition the project to construction.

Strategy is Essential but What About Practice?

4.

STEP 1: Identify Site-Appropriate Blue-Green Responses

The context of a site can influence the type of green-blue infrastructure that can be successfully implemented. A site's available space is the most critical constraint when deciding on a Blue-Green response. Table 1 can be used to identify appropriate responses for eight common site types across Stonnington. [Information on the selection of project type and specific design configurations can be found in Appendix XX](#)

Table 1: Contextual green-blue infrastructure responses

Common Site types	Raingardens		Tree pits		Soil volume systems	
	Tree Raingardens	Non-Tree Raingarden	Open tree pits	Grated tree pits	Permeable pavement & structural soil.	Proprietary soil systems (e.g. Strata-flow)
Residential street with bump-outs	●	●	●	●	●	●
Residential street with wide nature strips	●	●	●	●	●	●
Residential street with narrow nature strips	●	●	●	●	●	●
Residential street with no nature strips	●	●	●	●	●	●
Commercial shopping strip	●	●	●	●	●	●
Laneway	●	●	●	●	●	●
Carpark	●	●	●	●	●	●
Park and open space	●	●	●	●	●	●

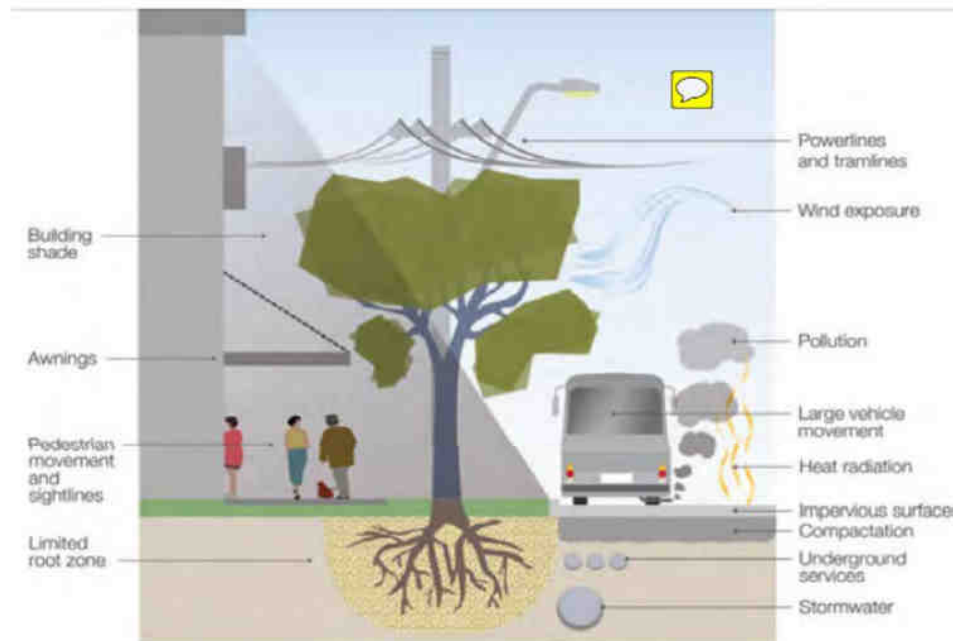
● Proceed ● Consider ● Avoid

Strategy is Essential but What About Practice?

D.

There are a range of site considerations that influence the implementation of green-blue infrastructure in the streetscape. Choosing the correct green-blue response for each site is vital to ensure the long-term success of the system.

Consideration	Potential issues
1. Sunlight and shade	<ul style="list-style-type: none"> Stunted tree growth
2. Overhead conditions	<ul style="list-style-type: none"> Tree canopy conflicts with buildings, awnings, powerlines, tram lines etc.
3. Underground conditions	<ul style="list-style-type: none"> Stunted tree growth from restricted soil volumes and waterlogging Tree root conflicts with underground services
4. Maintenance access	<ul style="list-style-type: none"> Safety issues in maintaining asset performance (i.e. tree canopy, asset drainage, debris collection)
5. Ground slope	<ul style="list-style-type: none"> Poor stormwater treatment performance with an uneven infiltration zone Potential soil erosion from fast entering flows
6. Catchment area	<ul style="list-style-type: none"> Stunted tree growth from excessive drying out periods or frequent inundation events
7. Local debris	<ul style="list-style-type: none"> Poor stormwater treatment performance from sediment and leaf litter clogging Increased maintenance requirements from unsightly litter accumulation
8. Safety requirements	<ul style="list-style-type: none"> Poor interface with other site activities and users (i.e. pedestrians, traffic) can create a potential hazard. Asset damage from conflicting site activities (i.e. heavy foot traffic, parking)
9. Community engagement	<ul style="list-style-type: none"> Community resistance to asset implementation and upkeep from a limited understanding of green-blue water management systems



Where to and Learnings?

- Processes, processes, processes.
- You need champions.
- Habit and practice makes perfect.