

Urban Forest Workshop

6:00pm – 7:30pm 28 November 2018



Meeting Notes

Councillor information workshop to discuss Managing Director Arbor Carbon, Paul Barber and Director of the Forever Project, Chris Ferreira's involvement in the recent Sustainable Urban Forest Management Symposium, to seek advice about the formulation of a brief for the Town's Urban Forest Strategy, including advice on tree selection and the procurement of trees.

Presiding Member – Cr Wilson
Apologies – Cr Gangell

Welcome to Country

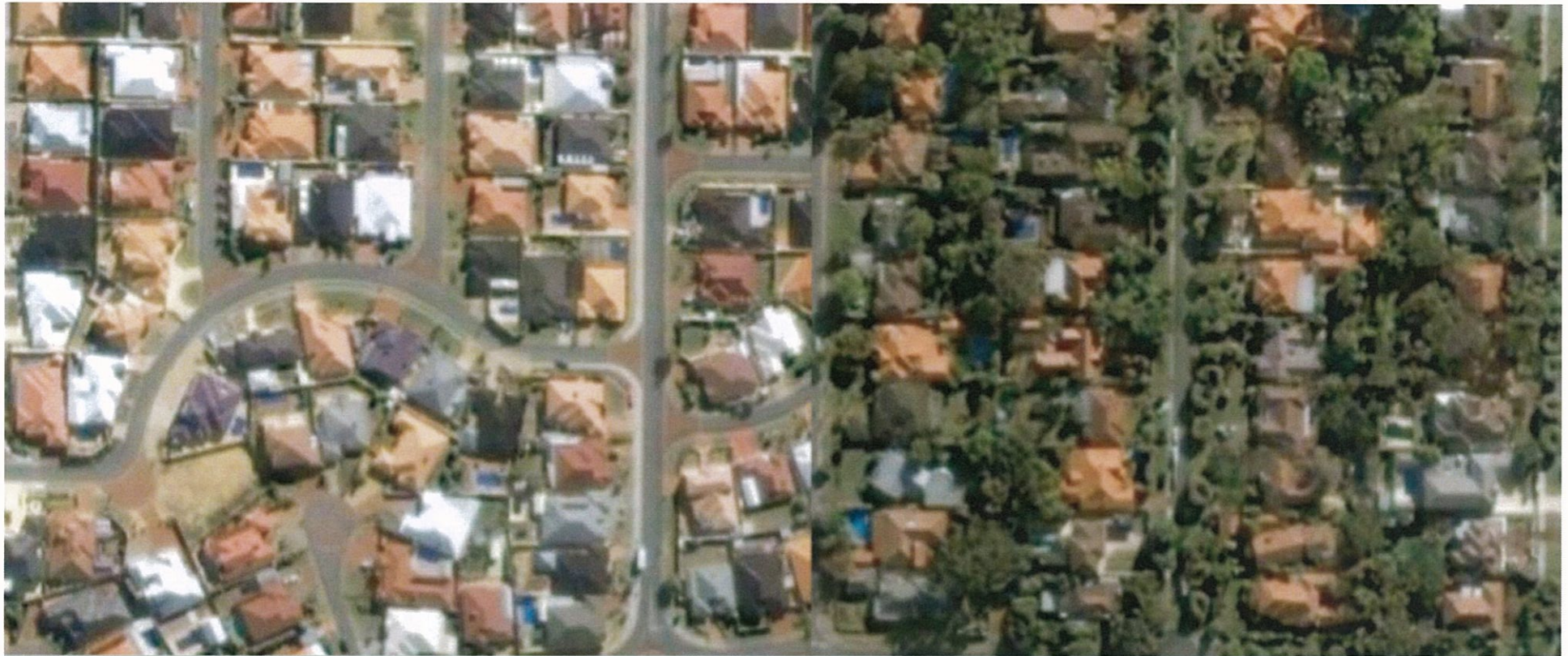
Welcome to Managing Director Arbor Carbon, Paul Barber and Director of the Forever Project, Chris Ferreira

Presentation – Healthy Urban Forests and Communities

- Use aerial mapping to implement pop-up demonstration Urban Forest
- Incentives tree protection to establish
- Track risk assessment – licenced

- Training of staff is required, during the procurement practice, in identifying the best trees for planting within the Town.
- Assessing the risk of a tree
- Procurement Process
- Process for selecting trees - suitable trees for conditions
- Growing of trees from seed – process to ensure a strong tree root is obtained
- Tree Orchard and practice used in developing trees.

- There is a National Standard for purchasing trees (developed by Paul Barber)
- Involve residents in maintaining trees (Water) to save costs
- Need to educate residents on the benefits of trees to encourage tree growth and stop vandalism. (Chris Ferreira)
- Develop pop up exhibition for residents to learn from (Similar to Hawaiian Shopping Centre)



Healthy Urban Forests & Communities

Town of Bassendean | 28 November 2018

Dr Paul Barber & Chris Ferreira

ArborCarbon | The Forever Project | Murdoch University

Bios

- Connecting Science to Sustainable Urban Forest Management
- Urban Forestry, Arboriculture, Forest Pathology, Remote Sensing, Policy, Strategy
- Clients: > 200 clients globally LGA's, state, national govts (HK, Vietnam, NZ, FAO)
- HK Urban Forestry Advisory Panel; WALGA; City of Sydney Urban Forestry & Arboriculture Panel
- Data for Urban Forest Plans and Strategies
- Research & Innovation – canopy mapping, UHIE, diagnostics, treatment



- Australia's largest & most successful community environmental education program
- Since 1992 – > 1500 events & > 120K people
- Award Winning Great Gardens & Heavenly Hectares
- Clients: > 60 councils, state govt agencies, NFPs, schools, developers





Urban Forestry – *bringing the community along*

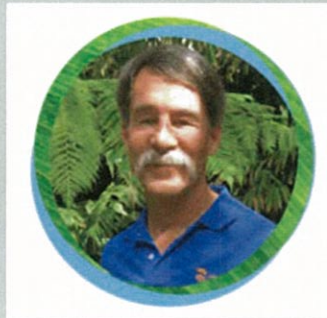
- We understand that success in Town of Bassendean will come from a plan that will:
 1. be based on good science and a solid policy framework
 2. effectively engage with and empower the community
 3. provide council staff with tools and incentives to encourage residents to generate positive outcomes for trees
 4. set up inspirational examples in the community to engender support and uptake
 5. review, analyse and refine the program as it unfolds

Perth Urban Sprawl

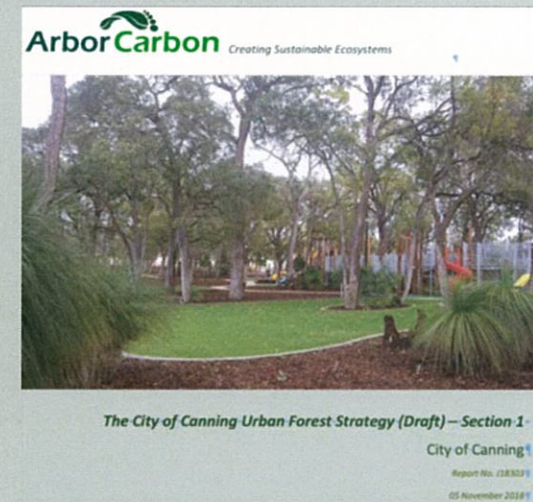
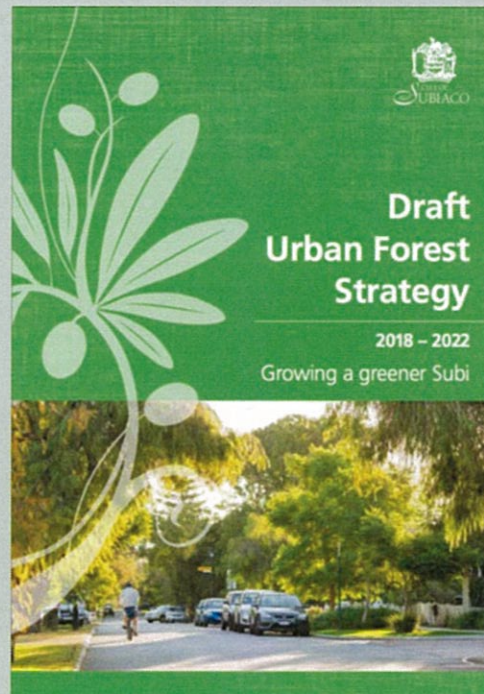
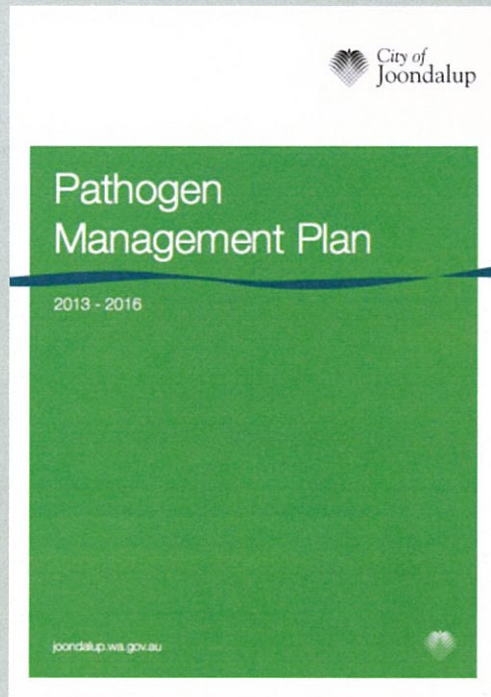
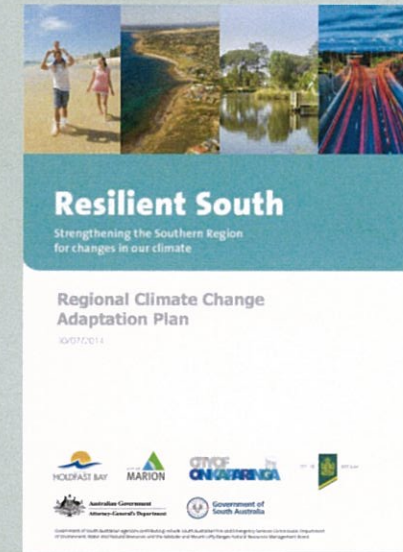
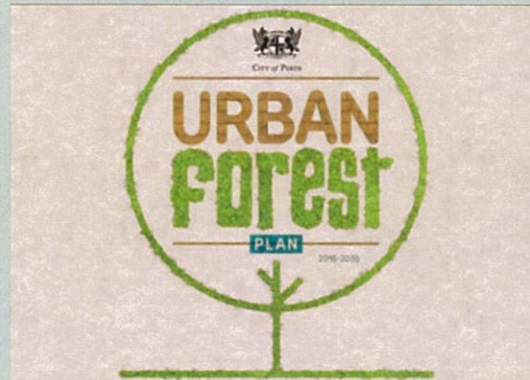


Sustainable Urban Forest Management Symposium Series

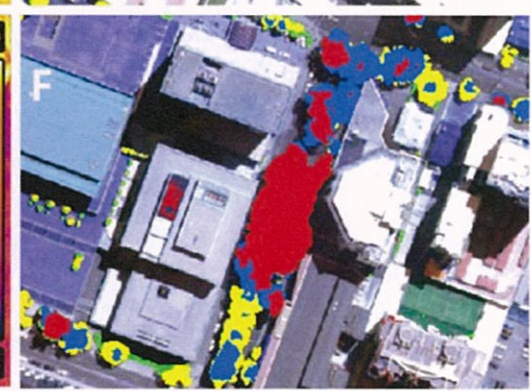
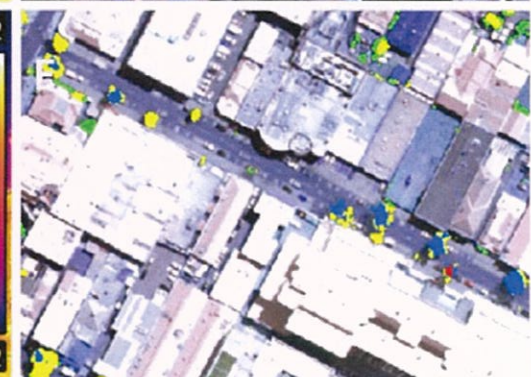
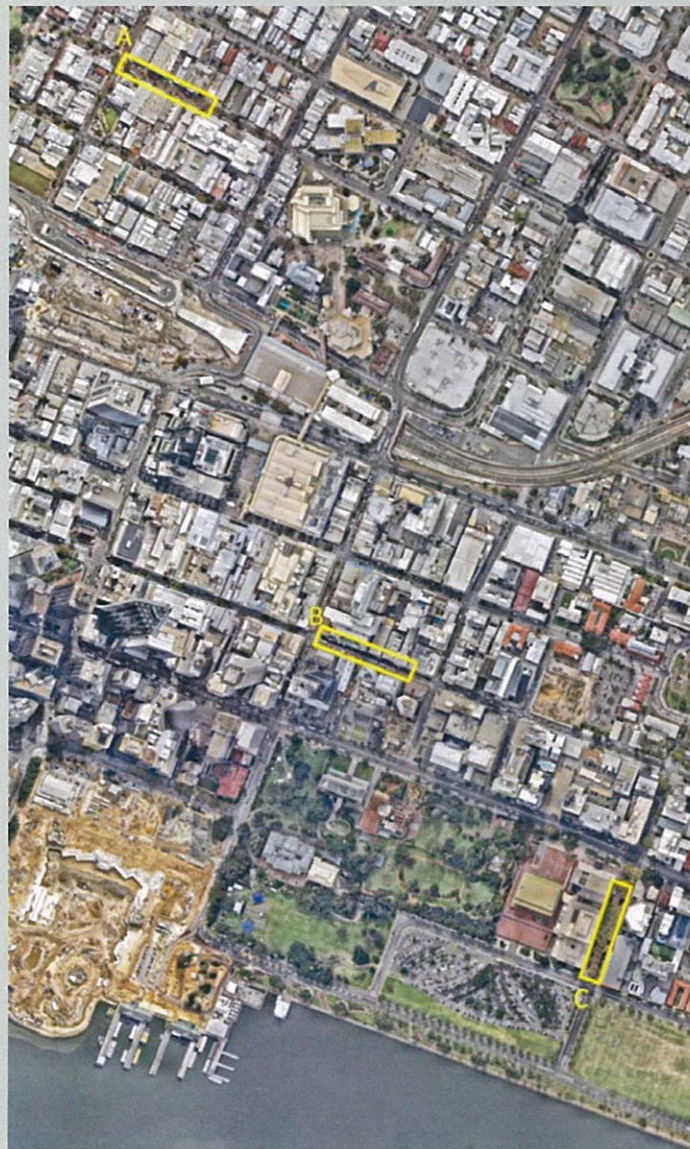
- Brainchild of Chris and Paul to deliver something different
- Community engagement with world class speakers & case studies
 - Tree Health Management in a Changing Climate
 - Measurement, Monitoring and Strategic Planning
 - Healthy Trees, Healthy People



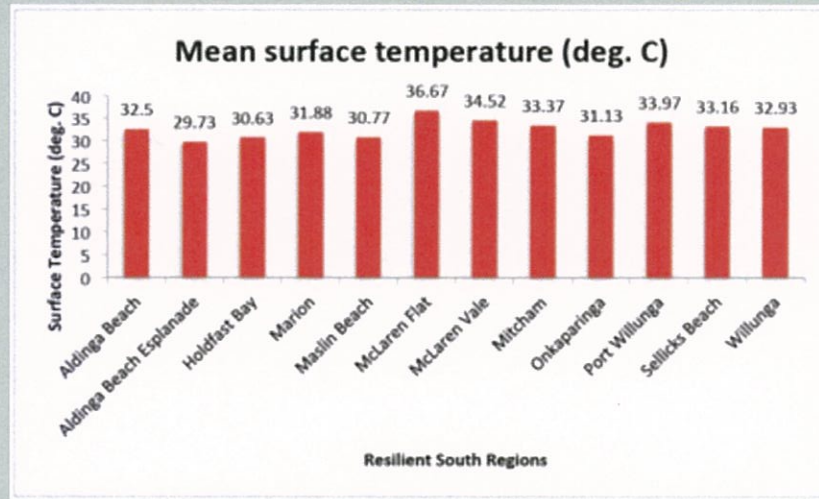
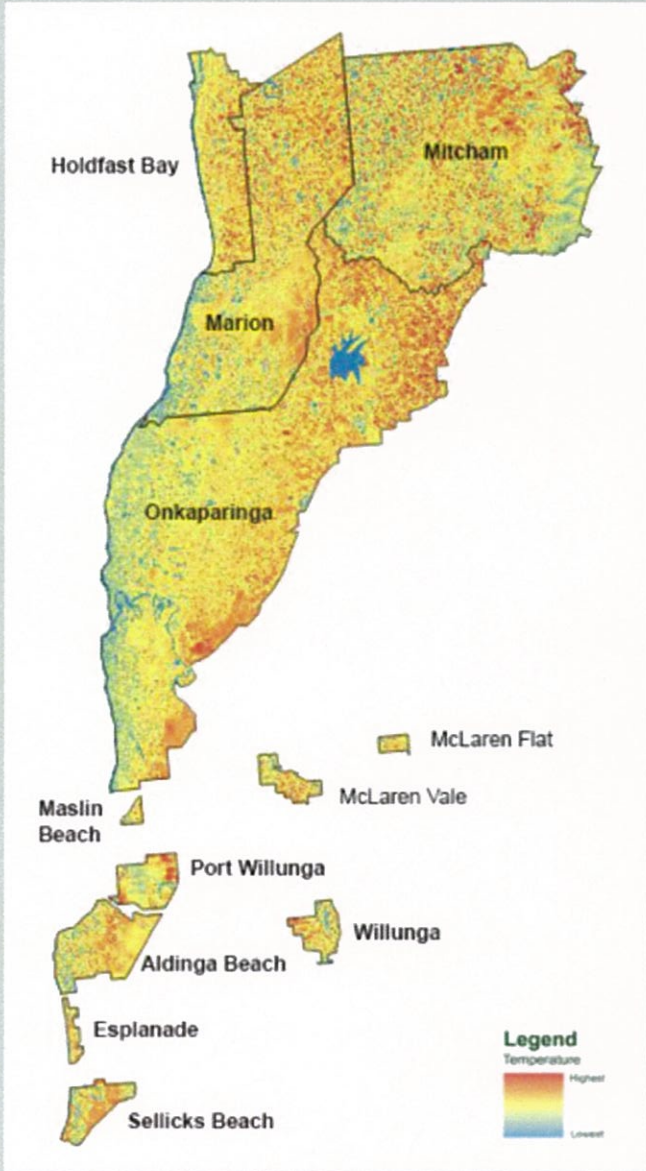
Urban Forest Planning



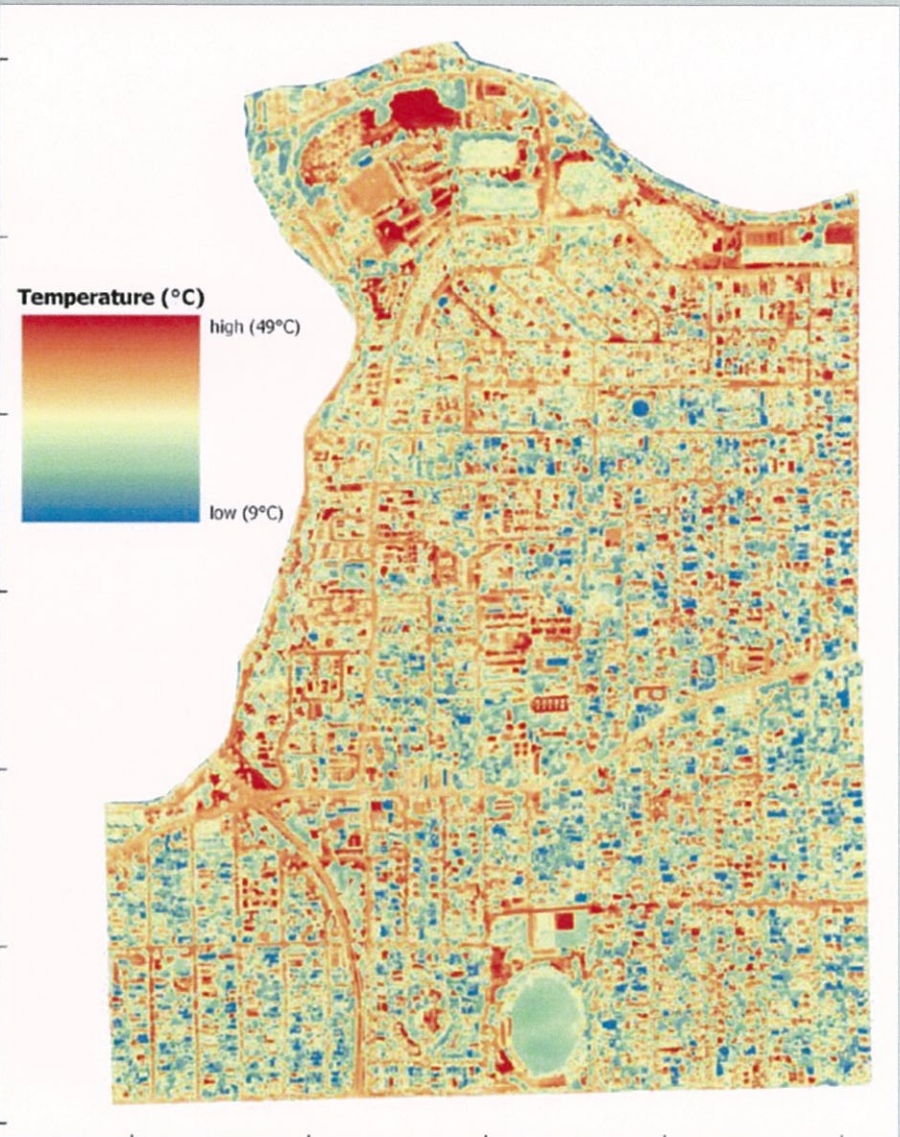
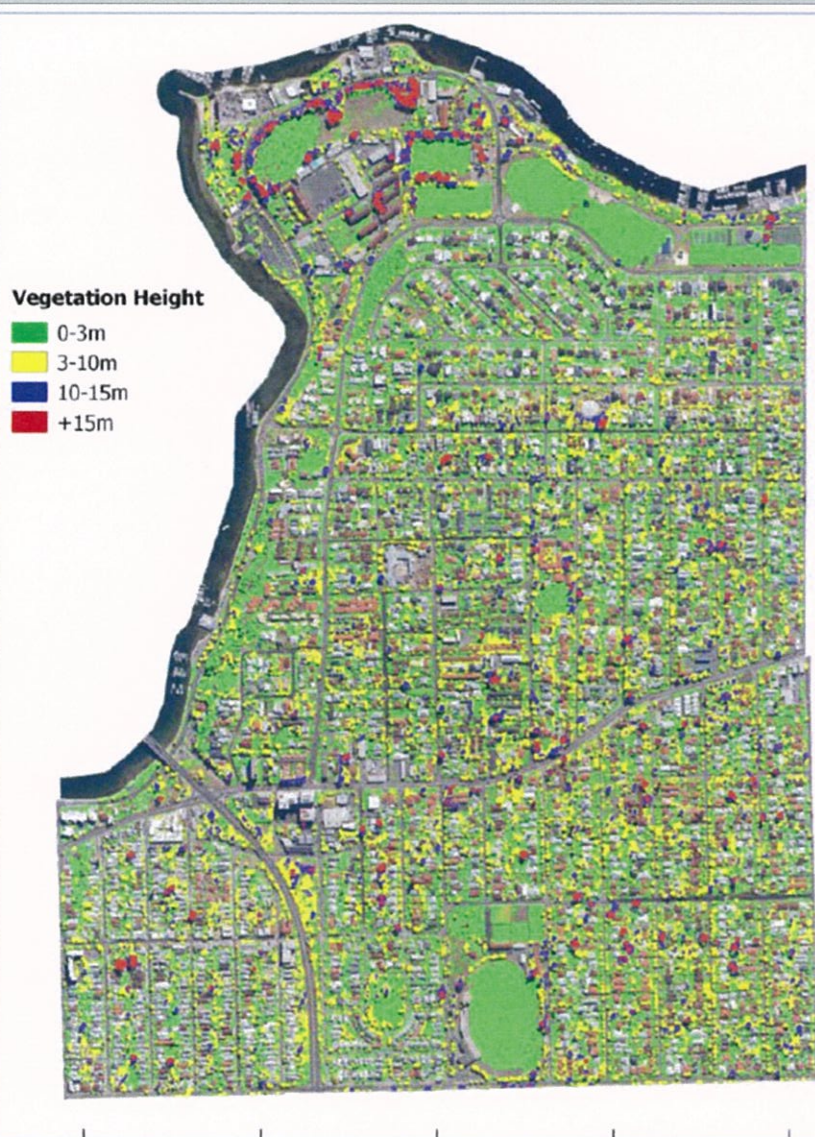
City of Perth – Urban Forest Plan 2015



Urban Heat and Design..



Priority areas for planting



A good start in life...

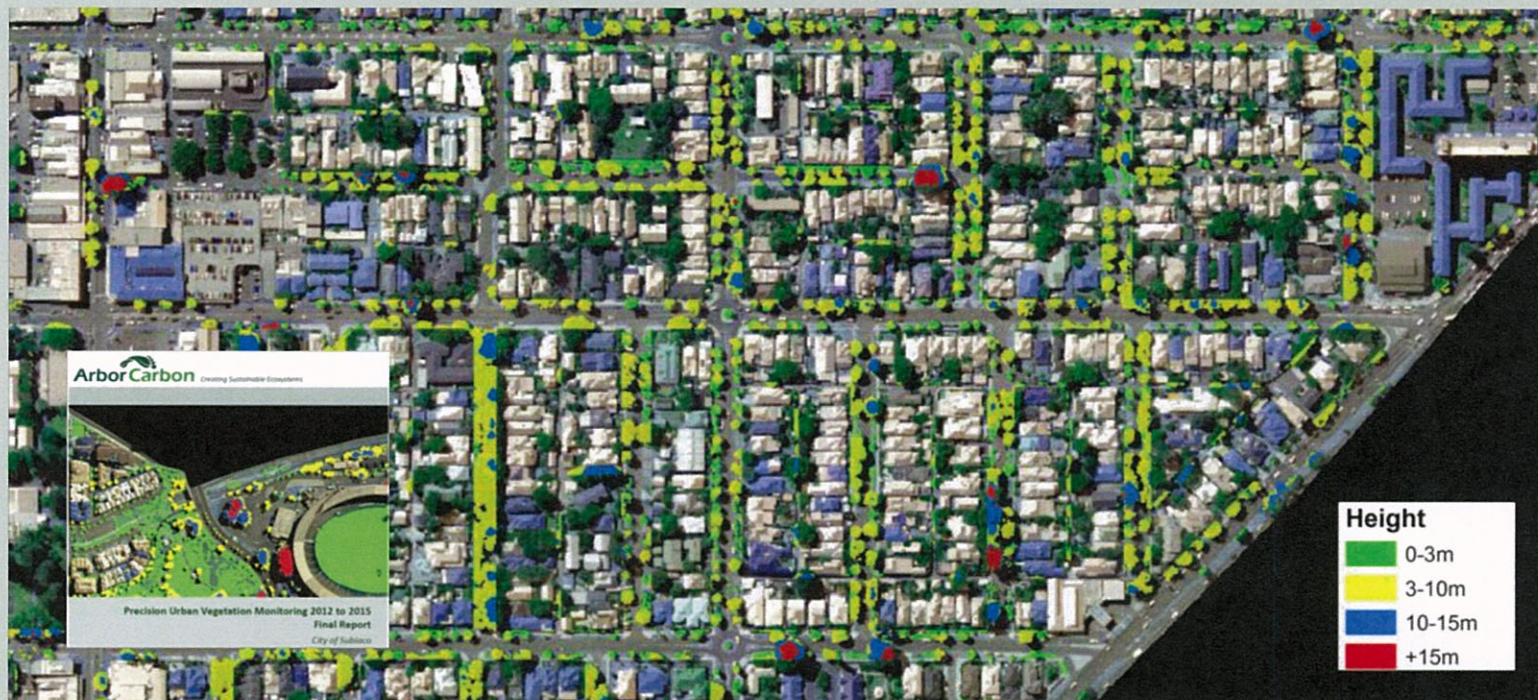


You can't manage if you don't measure...but...



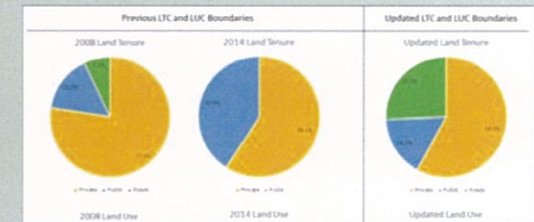
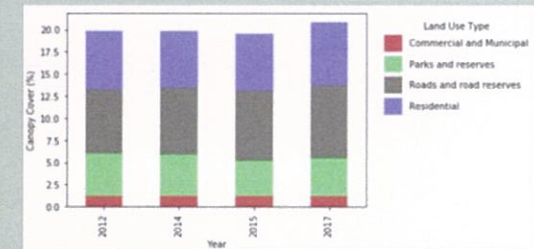
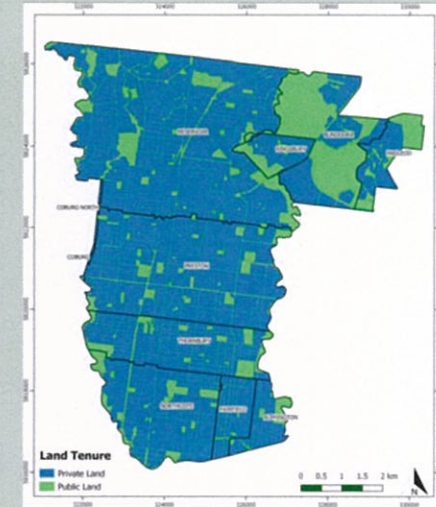
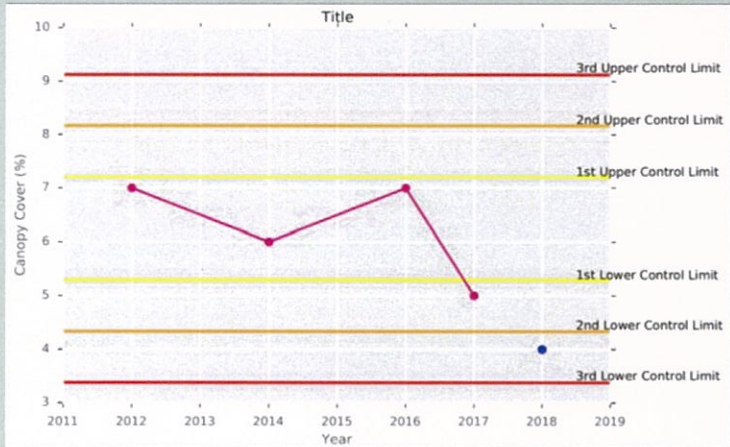
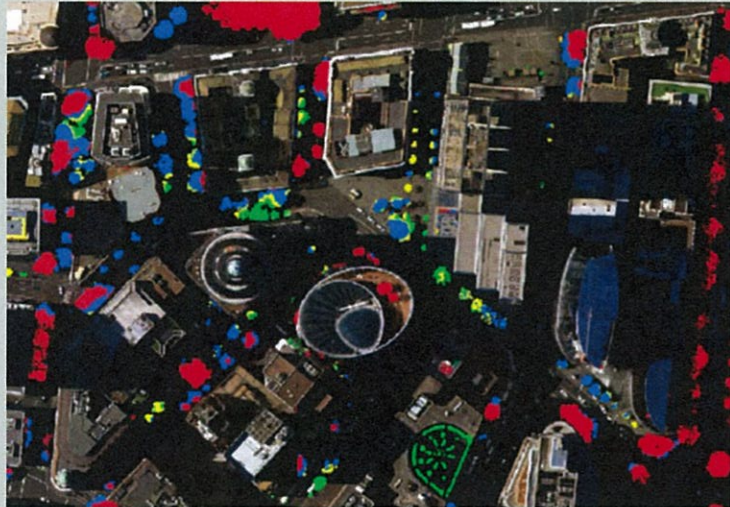
A decrease in canopy cover in Subiaco of almost 5%??

See Parmehr et al. 2016 UFUG for limitations of i-tree

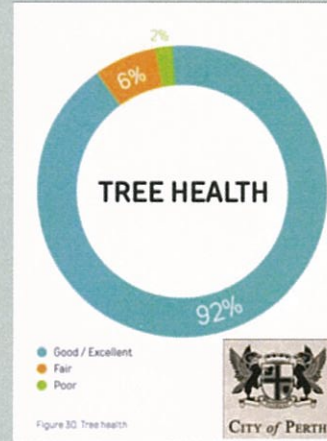
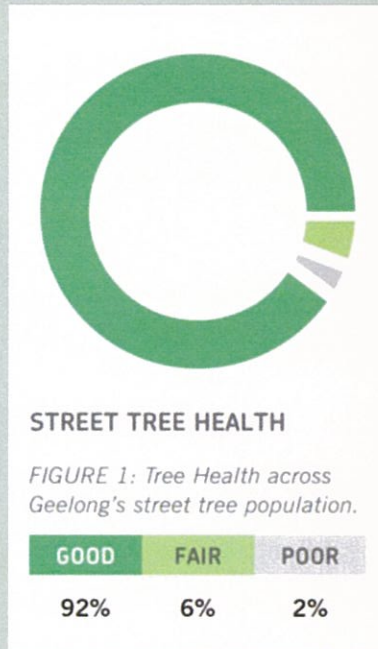


A marginal increase in canopy cover has been achieved since 2012

Spatial and temporal data for decision making



Measuring tree health?

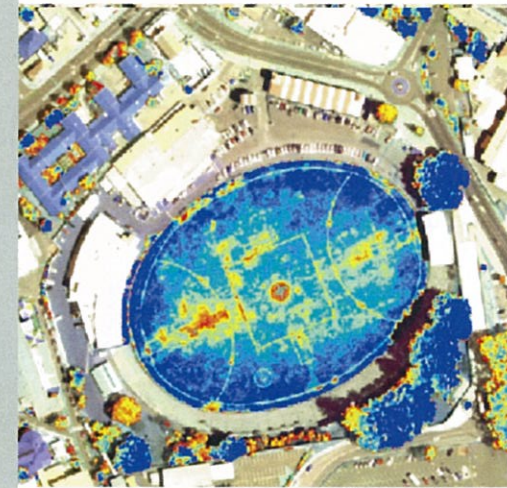
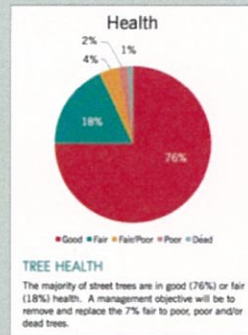


Goal 7: Maintain tree health

Appropriate management tools will be developed and implemented to deal with the potential effects of climate change and the specific health challenges currently identified for the City's street and parkland trees.

Priority objectives

7.1 Introduce measures for the early detection and treatment of, either an escalation in existing pests and diseases or, the emergence of new ones within the population of street and parkland trees.



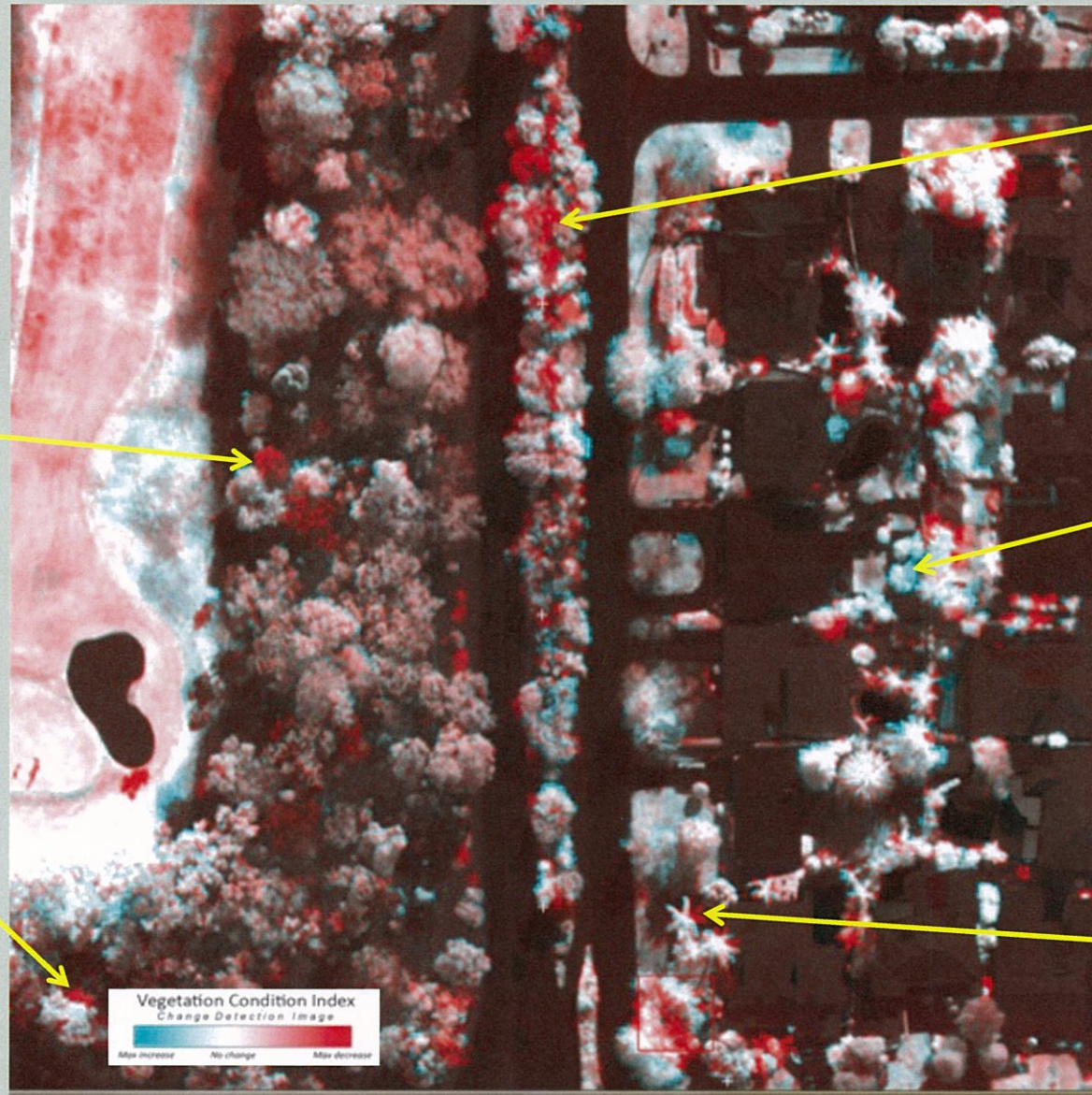
98.7% of Geelong's public urban trees are healthy or are in fair condition
 90% of City of Melbourne's tree population will be healthy by 2040
 Requires **accurate and consistent measures...what is considered healthy?**

Early Detection of Tree Health Disorders



Sudden death Banksia

Branch collapse Tuart



Powerline clearance pruning

Healthy growth

Palm fronds pruned

Canopy & Community Well-being

- The data proves what we already suspect..
- Less canopy = **hotter temperatures, more exposure to UV, less physical activity**

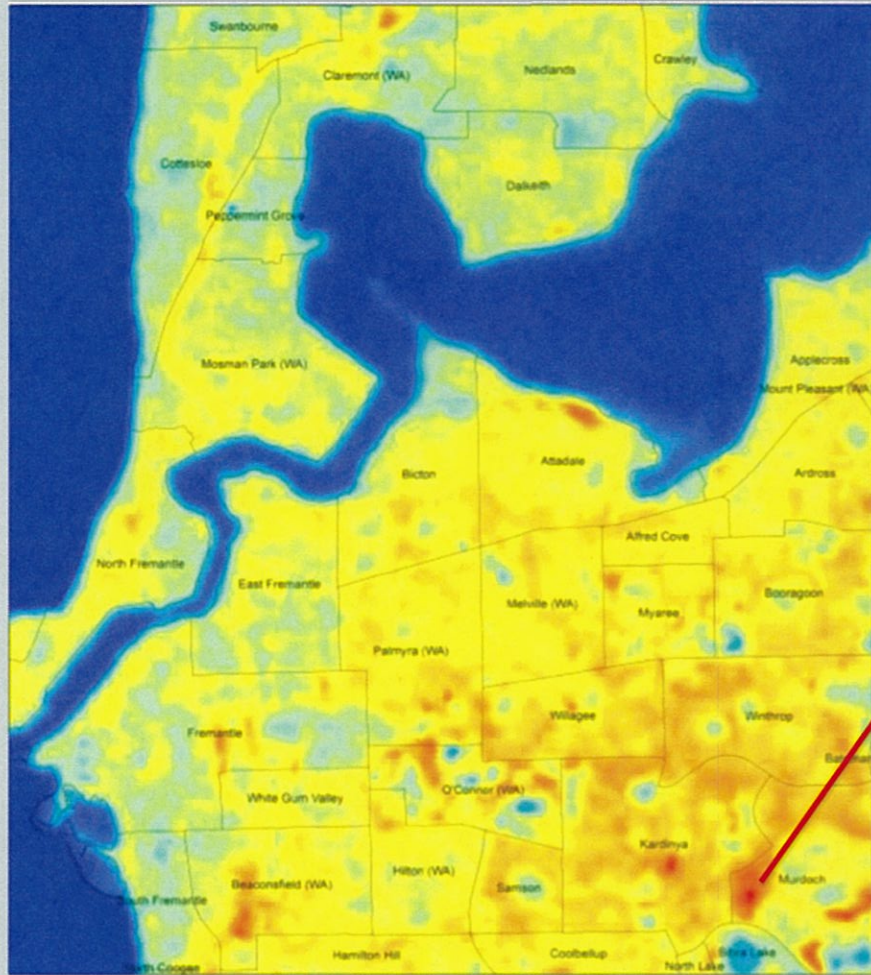


Physical Activity UV Exposure

The largest global study to examine physical activity in children aged between two and five years old has found 66 per cent of children are not getting the nationally recommended three hours of daily physical activity needed for their growth and development. ...trees, shrubs and edible gardens are important for active play



Canopy & Community Well-being



Land Surface Temperature (deg C)



Land Surface Temperature
Mid morning 10 January 2014

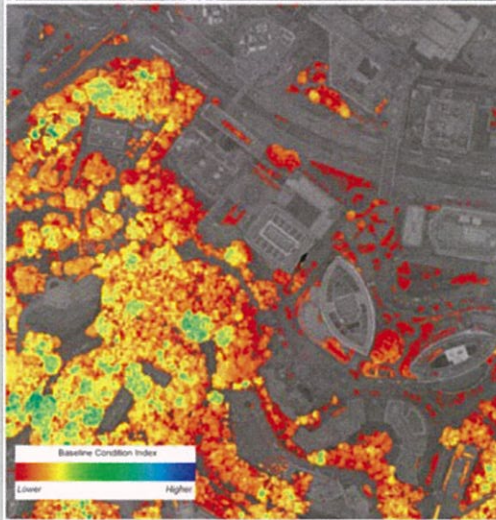
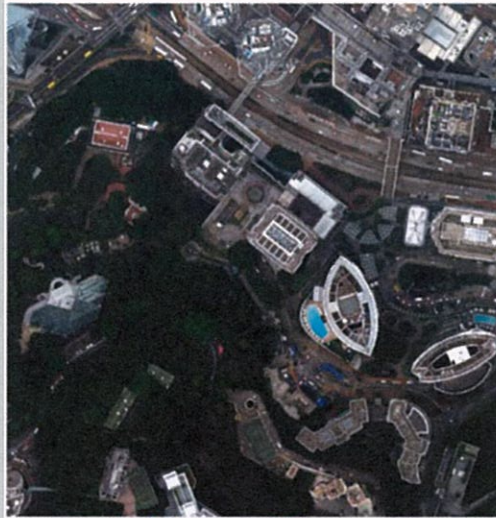


Early Detection of Disease & Mitigation of Risk

Tree management in Hong Kong under fire after falling branch kills Indonesian domestic helper

Civic Party lawmaker Tanya Chan said she had seen 'no real action taken by the government' despite seven years of pressing

Public Domain: Tanya Chan (13 August 2018) via Wikimedia Commons
PHOTO: Lee Jiahui (18 September 2018) via Flickr



Early Detection of Disease & Mitigation of Risk



Early Detection of Disease & Mitigation of Risk



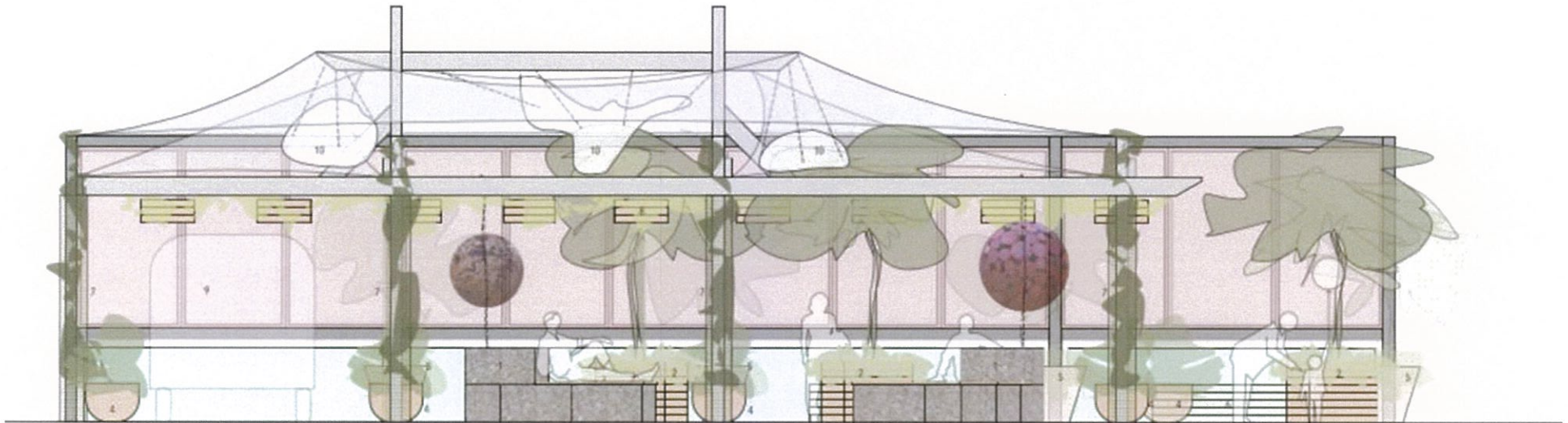
Keeping Trees Healthy



The Bassendean Pop-Up Forest

DRAWING LEGEND

- 1 GABION BASKET/RECYCLED TIMBER TOP BENCHES
- 2 FEATURE TREE IN RECYCLED TIMBER CRATE
- 3 SCULPTURAL BALLS SUSPENDED WITH CHAIN
FIXED TO BEAM AND GABION BASKET
- 4 EXISTING POT WITH NEW PLANTING
- 5 EXISTING TIMBER POT WITH NEW PLANTING
- 6 RECYCLED TIMBER PALLETTE SOFAS
- 7 RECYCLED STEEL MESH WITH NEW PLANTING
- 8 RECYCLED PALLET BOX PLANTERS HANGING OVER
FIXED WITH CHAIN WRAPPED AROUND BEAM
- 9 FUTURE FOOD VAN / STAGE LOCATION
- 10 SCULPTURAL ITEMS OVER HUNG FROM BEAMS



DATE 26/9/18
CLIENT 26/9/18 1
NOV 2018 REV
REVIEW 26/9/18 A
DRAWING STATUS
PRELIMINARY
PROJECT NAME
BASSENDEAN POP UP
PROJECT NUMBER
180918

The Bassendean Pop-Up Forest Installed



The Bassendean Pop-Up Forest Installed



Heat Sink Rethink © Urban Landscape Makeover

This new and innovative event showcases what can be done to make our high profile urban spaces greener, cooler and more inviting. Combining the skills of our expert landscapers & architects these events typically run as a fast paced and engaging 45min-1hr performance: A fusion of entertainment and environmental education that shows audiences the vital role of trees in the urban setting.



Heat Sink Rethink © Urban Landscape Makeover



We typically provide audiences with landscape recipe sheets, species & product lists as well as a range of gardening & landscaping prizes. 'Heatsink Rethink - Urban Landscape Makeovers' are an exciting new way to help Councils & Developers engage their community around the issues tree loss and urban forests and to garner support for protecting and expanding urban forests in the community.

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'Pop-Up Forest' Space Activation Demo

Making great, green and cool spaces and places

This exciting 'Pop-up' aims to show how trees and a suite of recycled products can be used to create a beautiful, cool and engaging community space using the latest Waterwise and Wastewise techniques.

The Forever Project

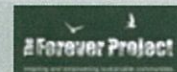
www.theforeverproject.com.au

hawaiian 

www.hawaiian.com.au



Arbor Carbon





Cockburn Waterwise Verge Demonstration Project

Come along and learn how to create your own beautiful, climate resilient, Waterwise verge!

- Detailed instructions and recipes on how to do it well
- Practical makeover where you can help see and learn how to do it like the professionals
- Beautiful morning tea provided by the *Pear Tree Café*
- Wonderful Waterwise prizes and giveaways!

Saturday June 24th, 9am - 12noon

Pear Tree Café, Cnr Kerry & Stratton St, Hamilton Hill

Bookings Essential. Spaces Limited.

www.tfpverge.eventbrite.com



Big thanks to all our product sponsors and partners!



Health Trees Healthy People



Thank you

Email: p.barber@arborcarbon.com.au; chris@theforeverproject.com.au

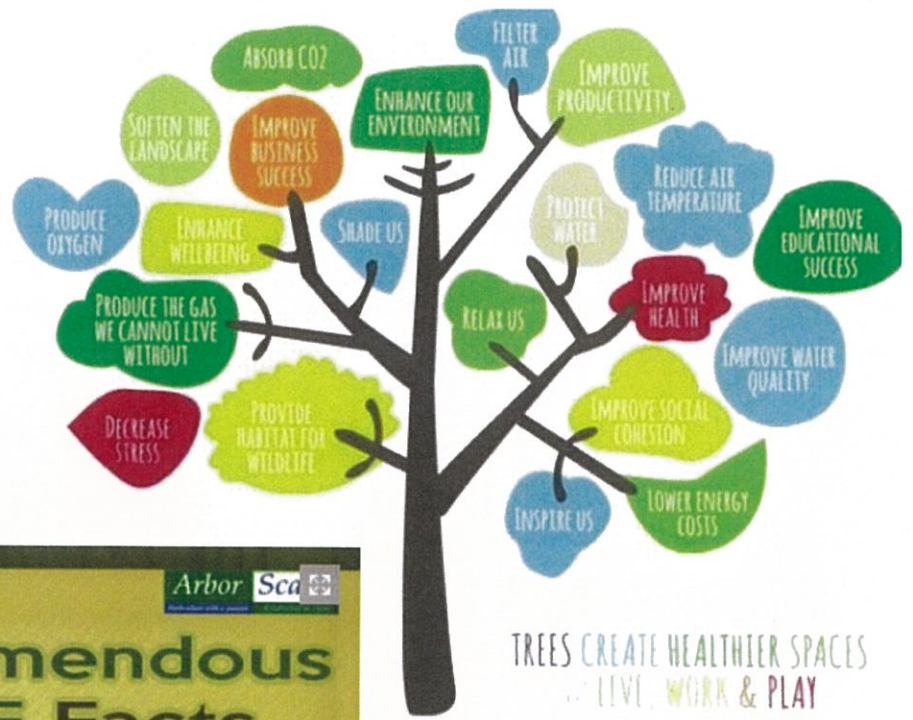
Web: arborcarbon.com.au; theforeverproject.com.au

Ph: +61 419 216 229; +61 409 662 704



Potential Flyers





TREES CREATE HEALTHIER SPACES
TO LIVE, WORK & PLAY

<https://savesheffieldtreesorg.uk.files.wordpress.com/2018/01/12-reasons-to-love-trees-double-sided-a4-print.pdf>

Arbor Scape

TREEmendous TREE Facts

Presented by ArborScape

Benefits	Growth	Fun Facts
A mature tree produces as much oxygen in a season as 10 people inhale in a year.	About 6 trees per citizen are planted each year in the United States.	Tree rings give information on environmental events, including volcanic eruptions.
Homes with tree shade stay 20° cooler in the summer.	You don't want to be a tree in the city. A tree growing in a metro area lives for 8 years.	Every state has an official tree. What's yours?
A healthy tree can increase property value by up to 27%.	Trees cover 29.6% of the earth's total land area.	You can tell how old a tree is by counting its rings. This method of tree ring dating is called Dendrochronology and was developed in the early 20th century.
People will spend more money in shopping districts with trees than without.	The world's tallest tree is 2x the height of the statue of liberty and stands at 369 ft tall in California.	

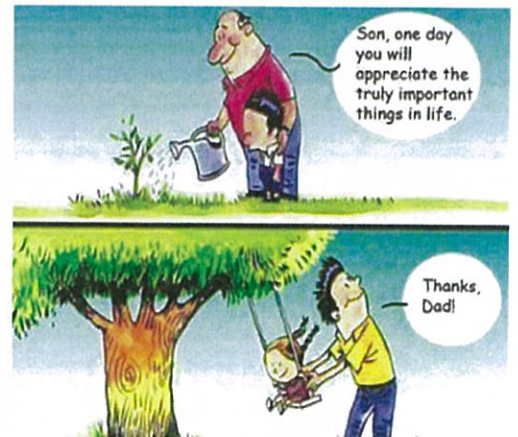
Most Popular Trees in the West

- Red Maple
- Chanticleer Pear
- Red Oak
- Ponderosa Pine
- Linden
- American Elm
- Aspen
- Colorado Blue Spruce
- Honey Locust
- Green Ash

Sources: <http://www.ncsu.edu/project/treesofstrength/treefact.htm>, <http://www.forestry.about.com>, <http://www.treesaregood.com>, <http://www.npr.org>, <http://www.greenanswers.com>, <http://www.amnh.org>

Design: Volume 9 Inc. www.arborscapeservices.com

Spraying · Lawn Maintenance · Shrub Care · Tree Removal · Trimming



How trees make our lives better

GROWING TREES MAKE GREAT NEIGHBORHOODS

Trees make the places we live feel like home

Trees provide privacy and more comfortable settings.

TREES SLOW TRAFFIC.



TREES REDUCE NOISE.



Trees help reduce crime.¹

Trees are beautiful.



Trees clean the air and the water

Trees absorb odors and filter pollution out of the air by trapping them in their leaves and bark.



Tree foliage absorbs & filters rainwater helping slow down stormwater runoff during rainstorms.

Trees help reduce carbon that builds up in the air. This carbon build up increases temperatures and leads to changes in our climate.



TREES RENEW OUR AIR SUPPLY.

Trees absorb carbon dioxide and produce oxygen.

Trees help your family be healthy



Research shows views of trees improves recovery from stress within 5 minutes as indicated by changes in blood pressure and muscle tension.²



Creating natural places with views of trees supports outdoor activities reducing stress and violence, and positively affecting behavior which helps combat obesity.³



Kids living in areas with more street trees have less asthma.⁴



Did you know?

Trees properly placed around buildings can reduce air-conditioning needs by at least 30%

City of Baywater.
Planted avenue of London Planes
with gums inbetween



