



2020TM
VISION

WHERE SHOULD ALL THE TREES GO?

INNER WEST COUNCIL

During our How To Grow An Urban Forest Tour, we were told that the cost of measuring canopy and heat were major barriers to developing Urban Forest Strategies at a Local Government level.

*That's why we've developed this snapshot, which provides insight into gains and losses in green cover, identifies hot areas and the overall vulnerability based upon the RMIT research report *Where Should All The Trees Go?**

HOW TO INTERPRET THE DATA

WHY THIS SNAPSHOT?

During our 2015/16 How To Grow An Urban Forest tour our network told us that the cost of canopy and heat mapping was a barrier to increasing green space. We listened.

Working alongside RMIT, we mapped your hot spots and canopy cover. From this data we created a custom snapshot for you that overlays indicators of green space, urban heat island and socio-economic factors to map where people are hottest and most vulnerable and where trees and green space are being lost and gained.

The RMIT report overlays three kinds of data to identify where green infrastructure might be placed. The figures, graphs and maps on the following pages summarise the report for your LGA.

MEASURING GREEN COVER

i-Tree technology was used to identify the changes in green cover within your LGA. This method relies on aerial imagery and a set of 1000 random sampling points generated within your LGA boundary.

2015 LGA boundaries were used to ensure that the new figures could be compared with the previous estimates in *Where Are All The Trees?* Due to recent council amalgamations in NSW, affected councils will be supplied data for old and new LGA boundaries.

These images were collected between March 2015 and December 2016.

ESTIMATING THE URBAN HEAT ISLAND EFFECT

The urban heat island effect was estimated by measuring the difference in temperature between an urban and a corresponding non-urban area.

Land surface temperature estimates were produced from Landsat 8 satellite data that passed over each location approximately every 16 days between 8am and 10am during October 2015 and April 2016.

WHAT IS THE VULNERABILITY INDEX? (VHHEDA)

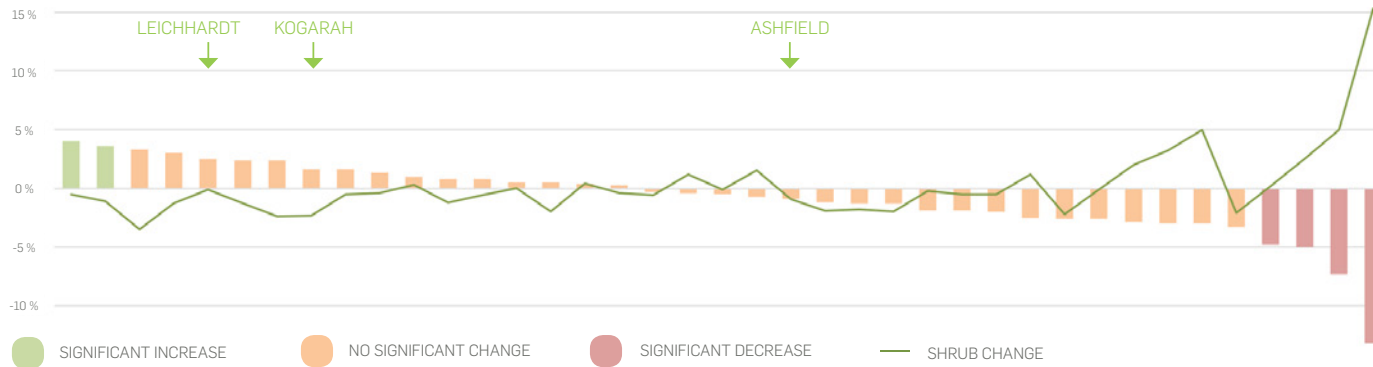
The VHHEDA index is a combination of Vulnerability to Heat, poor Health, Economic Disadvantage and Access to green space. It combines the following data sets:

- Canopy percentage versus hot spot percentage
- Self-assessed Health Age Standardisation Rates ASR 100 versus diabetes ASR 100
- Socio-Economic Indexes for Areas (SEIFA) Index of Relative Socio-Economic Disadvantage versus SEIFA Index of Economic Resources
- Average rate of change of canopy cover percentage versus rate of change of total green cover percentage
- Percentage of population under five years versus percentage of population over 65 years and living alone

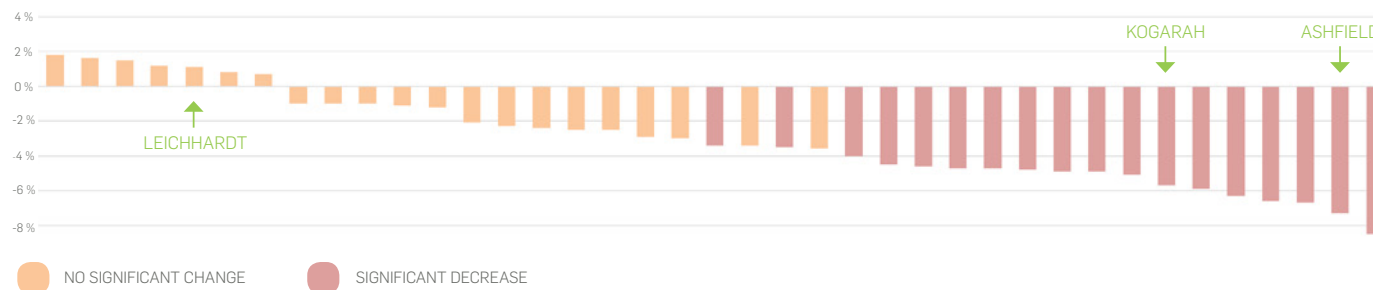
i-Tree based land cover information was collected from 2015 and 2016, while socio-economic and health data were based on the 2011 ABS Census.

KEY STATISTICS	2016
Tree Canopy Cover	20.1%
Shrub Cover	3.6%
Grass Cover	12.8%
Hard Surface	63.4%

SHRUB & TREE CANOPY COVER CHANGES IN NSW LGAs 2009-2016



GREEN COVER GAIN & LOSS IN NSW LGAs 2009-2016



THE GREEN KEY

In technical terms, a tree is a plant over six metres, while a shrub is under six metres. However, for an accurate comparison to our previous mapping report, *Where Are All The Trees?*, we have used the following definitions:



Trees - anything that looks like a tree from above, distinguished from shrubs by the shadows cast.



Shrub - landscaped vegetation as well as bushland shrubs, crops and grape vines.



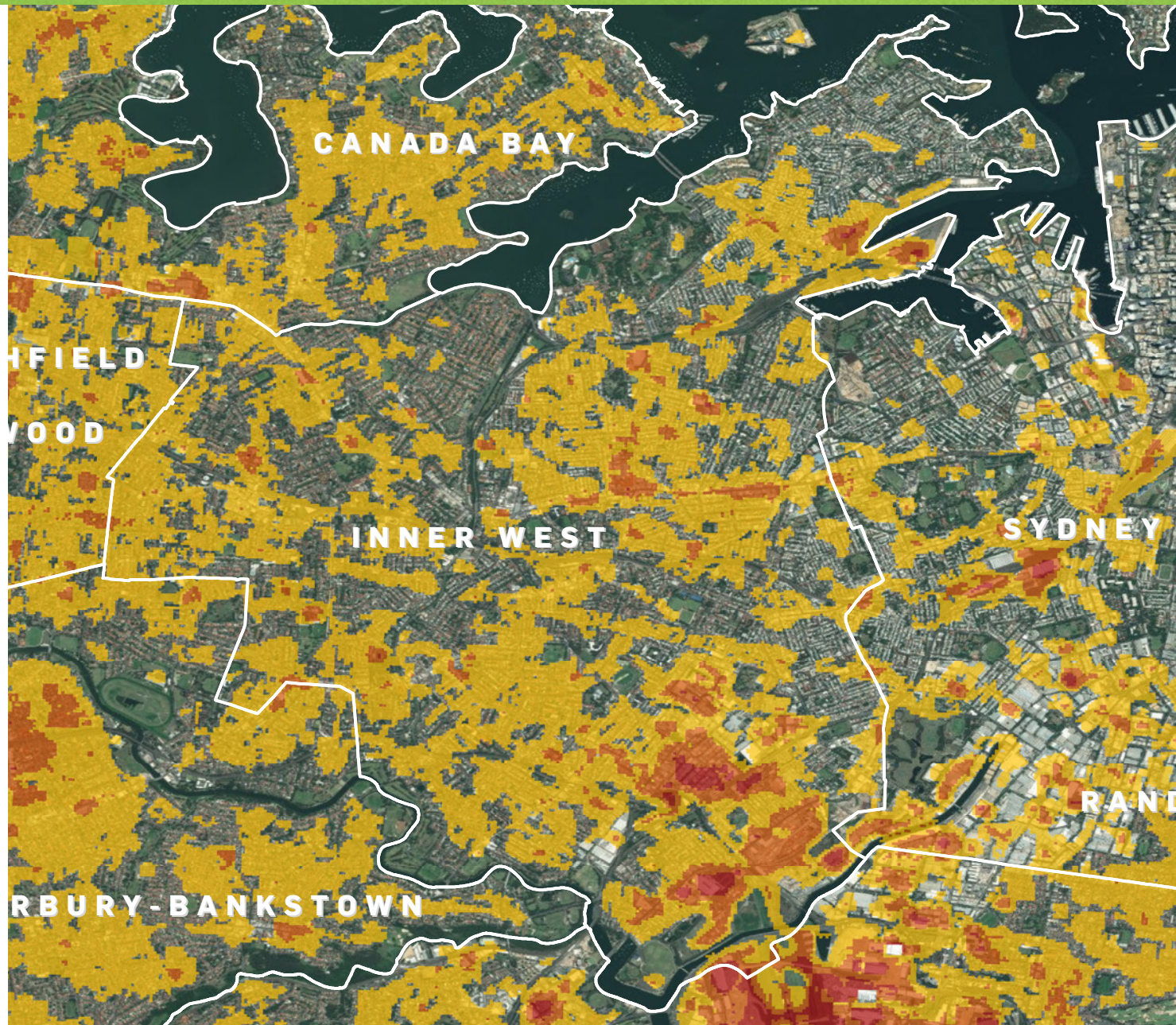
Grass - cleared road sides, lawns, pastures, sites cleared for development and sporting grounds.



Hard surfaces - asphalt, buildings, car parks, footpaths, sandy beaches, train lines, rocky coastlines and water.

URBAN HEAT ISLAND MAPPING

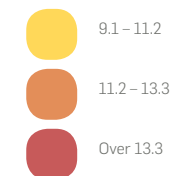
Data supplied by: 



HOT SPOTS

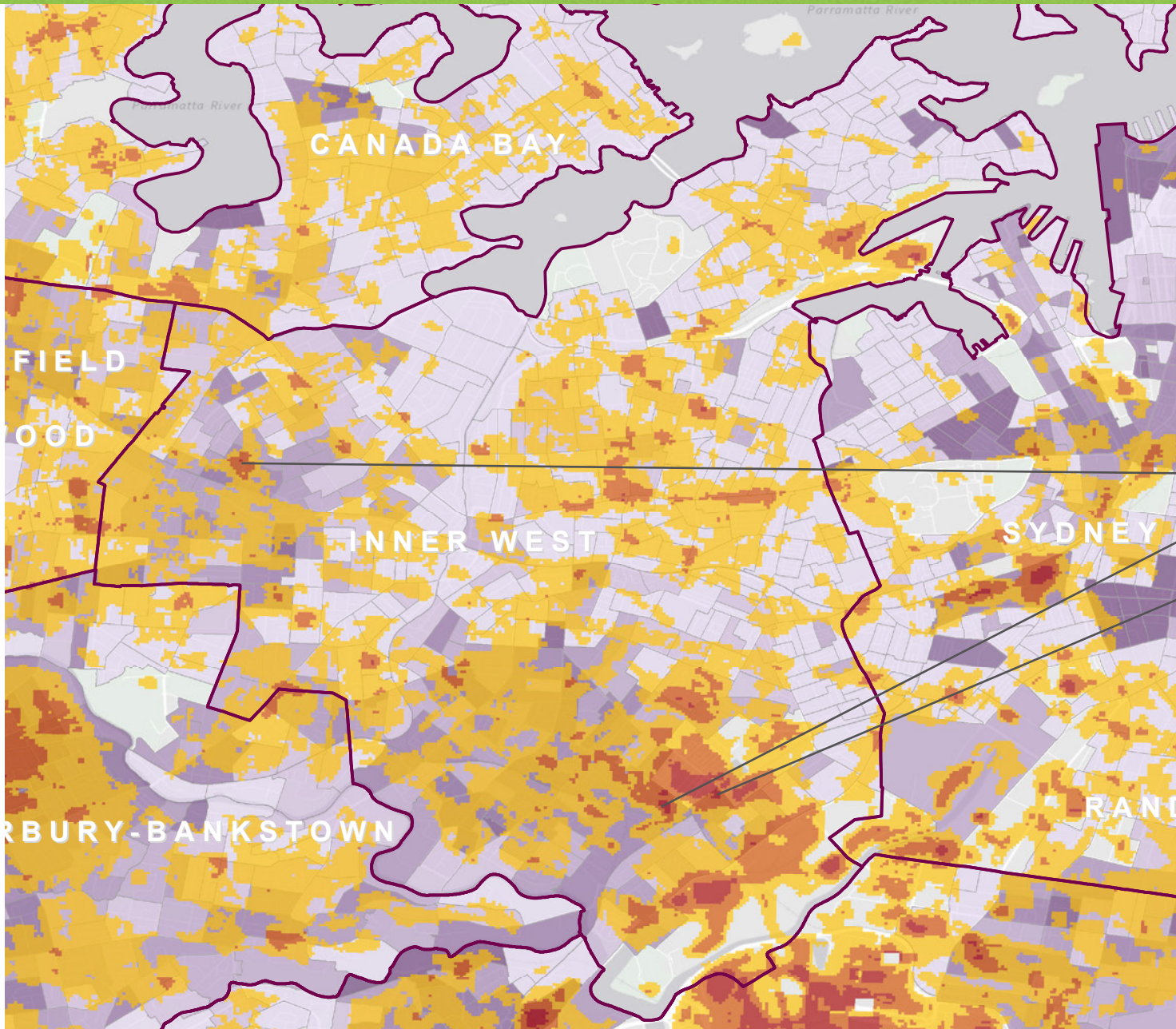
Hot spots are classified as all areas with a temperature greater than one standard deviation above the mean land surface temperature.

DEGREES ABOVE MEAN



For further information please contact hello@2020vision.com.au or call us on 02 8097 8746

WHERE SHOULD ALL THE TREES GO?



POSSIBLE GREENING OPPORTUNITIES*

These locations have been highlighted to give an indication of the areas which may gain the most benefits from greening, based on a combination of heat and socio-economic factors from the analysis.

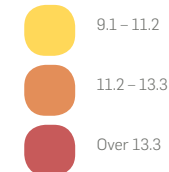
** Please note that these opportunities have been identified based on locations where there is a correlation between high temperatures and socio-economic disadvantage. As part of our outreach each council was invited to provide commentary on the snapshot results. In this case no additional commentary was provided.*

Corner of Alt St & Elizabeth Street

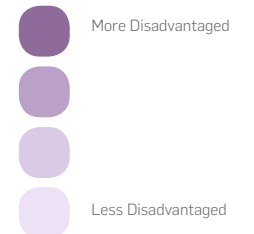
Corner of Meeks Ln & Meeks Rd

Corner of Gleeson Ave & Burrows Ave

DEGREES ABOVE MEAN



SOCIO-ECONOMIC DISADVANTAGE*



* Based on ABS SEIFA data