



# Greening the Great West Walk

May 2021





# Acknowledgement of country

The Department of Planning, Industry and Environment acknowledges the traditional custodians of the land and pays respect to Elders past, present and future.

We recognise Australian Aboriginal and Torres Strait Islander peoples' unique cultural and spiritual relationships to place and their rich contribution to society.

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Mapping, research, analysis, and consultation to prepare this report were undertaken by GALLAGHERSTUDIO in July 2020.

### Find out more:

[www.dpie.nsw.gov.au](http://www.dpie.nsw.gov.au)

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Artwork by Nikita Ridgeway



# Introduction

## Project scope

**In May 2020, NSW Department of Planning, Industry and Environment commissioned urban landscape consultants Gallagher Studio to identify and prioritise potential tree-planting locations along the Great West Walk to contribute to the NSW Premier's Priority 12: Greening our City.**

The program aims to increase the tree canopy and green cover across Greater Sydney by planting one million trees by 2022. This is part of a broader commitment to plant five million trees by 2030.

The department is progressing this work in several areas, including through partnering with industry, councils and community groups to identify public spaces where it would be suitable to deliver new tree-planting and green cover projects.



The Great West Walk is a 65 kilometre urban trail that stretches from Parramatta Park to the base of the Blue Mountains on the lands of the Darug nation. The walk, located on the Cumberland Plain in Western Sydney, traverses a range of conditions including city centres, suburban neighbourhoods, historic parks, public reserves and creek systems. The walk is located on lands in the Parramatta, Blacktown and Penrith local government areas and on land managed by Western Sydney Parklands Trust, Parramatta Park Trust and the National Parks and Wildlife Service. The walk was mapped by The Walking Volunteers.

The Walking Volunteers are experienced walkers who came together to create a network of significant walking routes in Sydney. The Walking Volunteers identified a need for long-distance walking routes in Western Sydney. In 2014, the group began mapping a route from Parramatta to Penrith, linking Parramatta Park with Western Sydney Parklands and Wianamatta Regional Park. The NSW Minister for Planning and Public Spaces opened the path in October 2019.

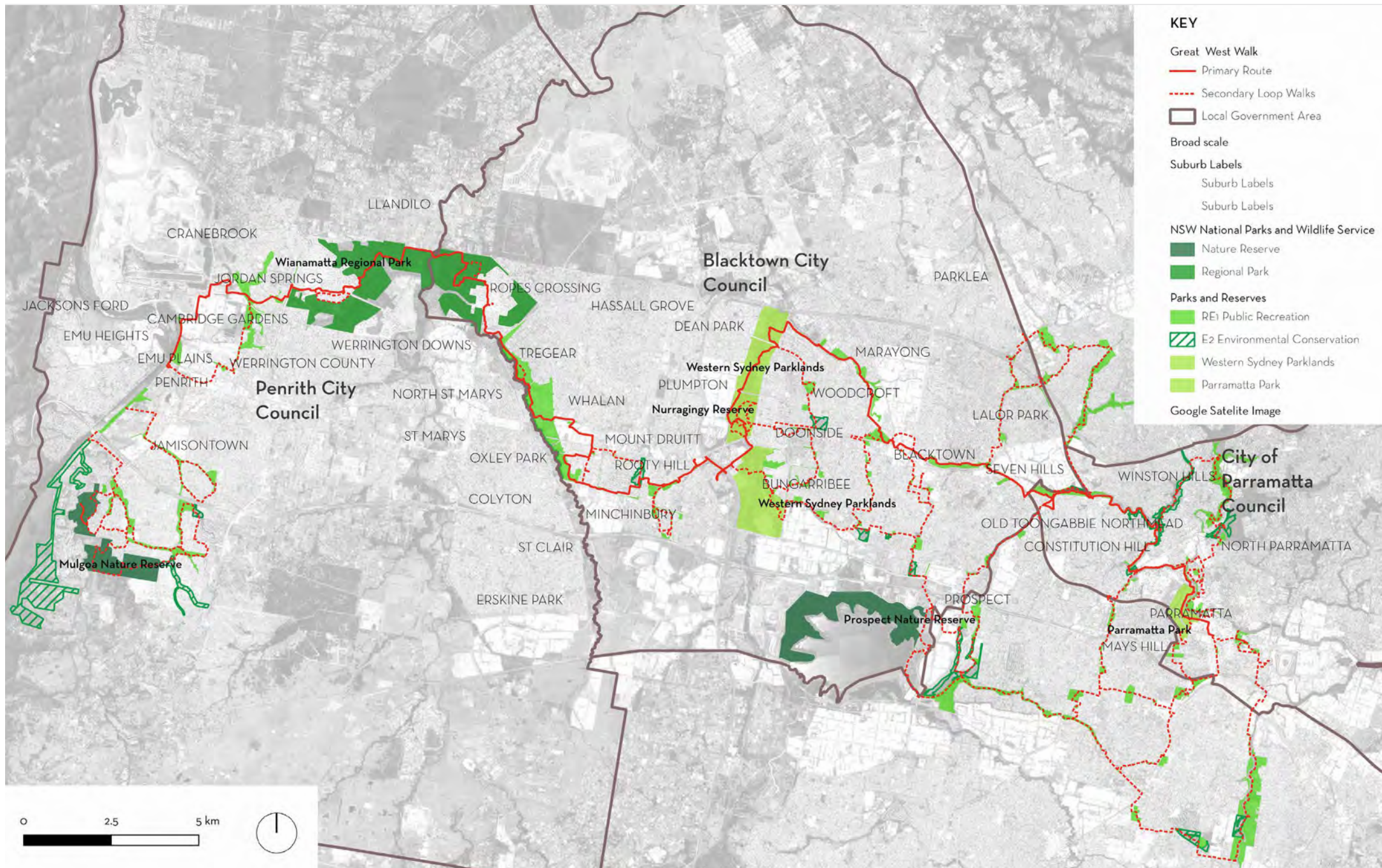
## Project approach

The process of identifying and prioritising tree-planting areas involved a combination of mapping, research, analysis, and consultation. The project team examined the Great West Walk in relation to its environmental, climatic, and social context. They overlaid NSW Government data on soils, landform, vegetation, canopy cover and urban heat on the walk. The team also mapped parks, open spaces and reserves to understand the relationship of the route to the wider public open space network.

The project team reviewed relevant state and local government policies and plans related to urban tree canopy and interviewed key stakeholders to understand potential greening projects in their localities. This information was synthesised into a series of selection criteria and tree-planting projects.



# Background and context



**Figure 1: Overview of the Great West Walk**

The Great West Walk traverses a range of environments including regional parks, bushland reserves, pocket parks, rail line embankments, streets, carparks, and arterial road corridors.

The Great West Walk is a significant western extension to the existing Sydney metropolitan walking network.





Parramatta Park

## Landform

The Great West Walk starts and ends on the banks of two rivers – the Parramatta River in the east and the Nepean River in the west. The walk traverses the floodplains, rivers, creeks, and low hills of the Cumberland Plain.

The Darug people are the traditional custodians of this land. Evidence of continuous connection to Country is documented in historical accounts and decades of archaeological surveys conducted across the Cumberland Plain.

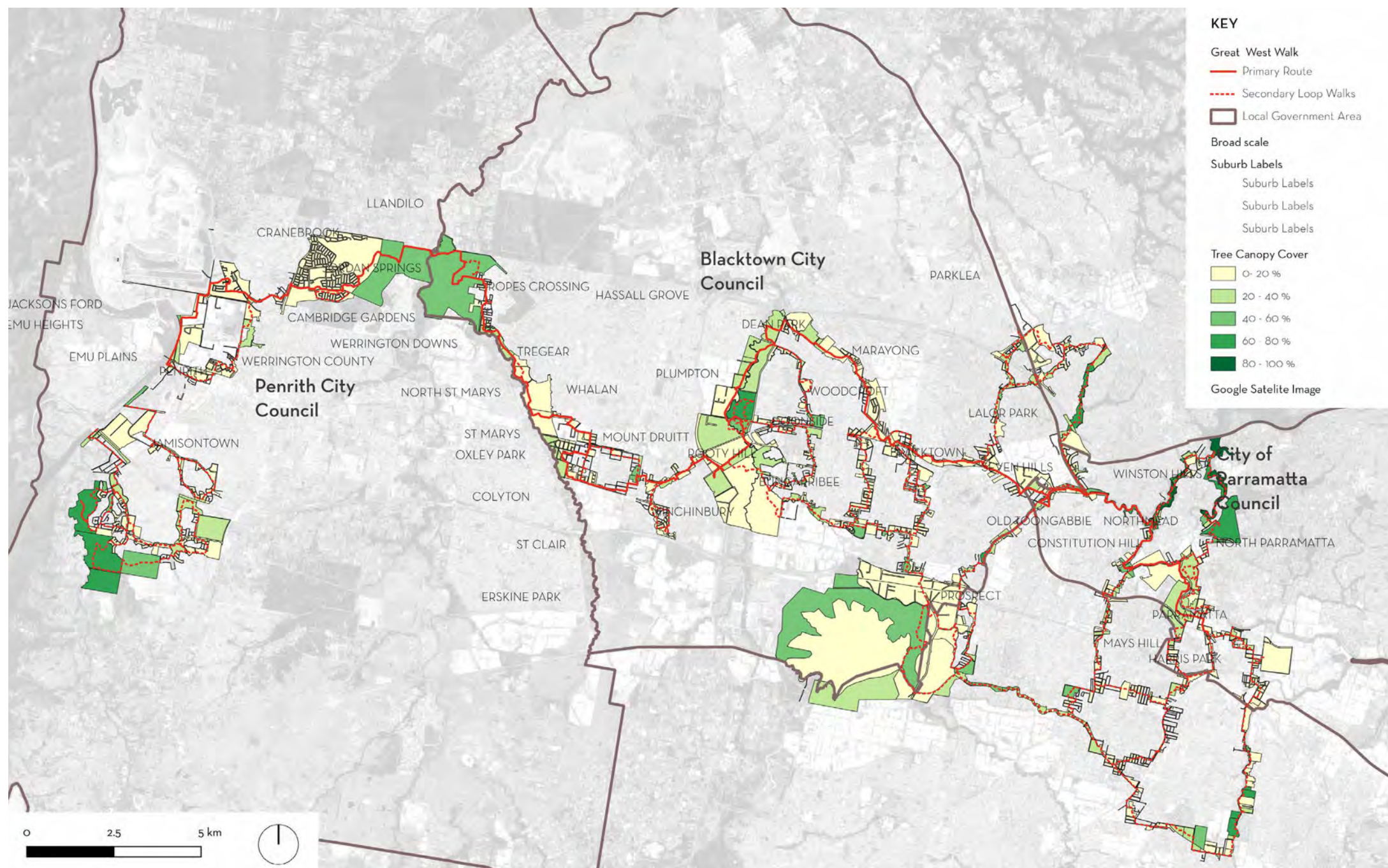
There is an opportunity through this project to show the value and threats facing this unique landscape. We can help preserve the area through replanting, revegetation works and information sharing.



## Existing tree canopy

The department mapped and categorised the Greater Sydney region's urban vegetation cover. This dataset indicates the amount of vegetation (including tree canopy) across Greater Sydney in 2016. The data shows large portions of the route contains very low canopy cover (20% or less).

The vegetation data has been used to identify locations for new tree-planting. We have prioritised sites with existing canopy cover of less than 20%.



**Figure 2: Canopy cover on the Great West Walk (data retrieved from urban vegetation cover to modified Mesh Block 2016, NSW Department of Planning, Industry and Environment)**

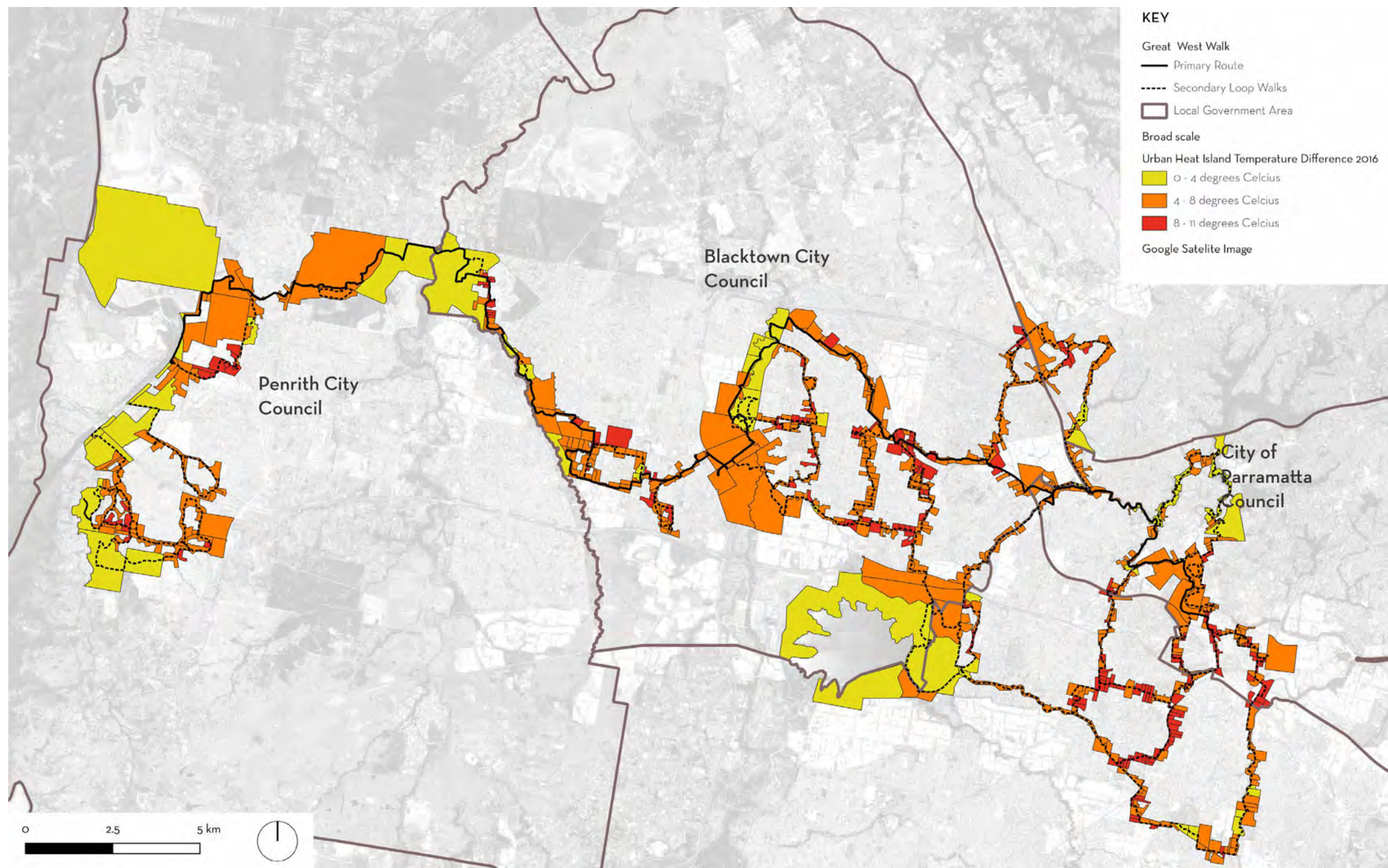




Tree cover on the Cumberland Plain



## Urban heat



**Figure 3: Urban Heat Island temperature difference on the Great West Walk (data retrieved from Urban Heat Island to modified Mesh Block 2016, NSW Department of Planning, Industry and Environment)**

The department's urban heat island dataset measures the effects of urbanisation on land surface temperatures across the Sydney Greater Metropolitan Area for the summer of 2015-16. There are locations on the walk that are 8 to 11 degrees hotter than other areas in Sydney. Increasing tree canopy can help mitigate the urban heat island effect.



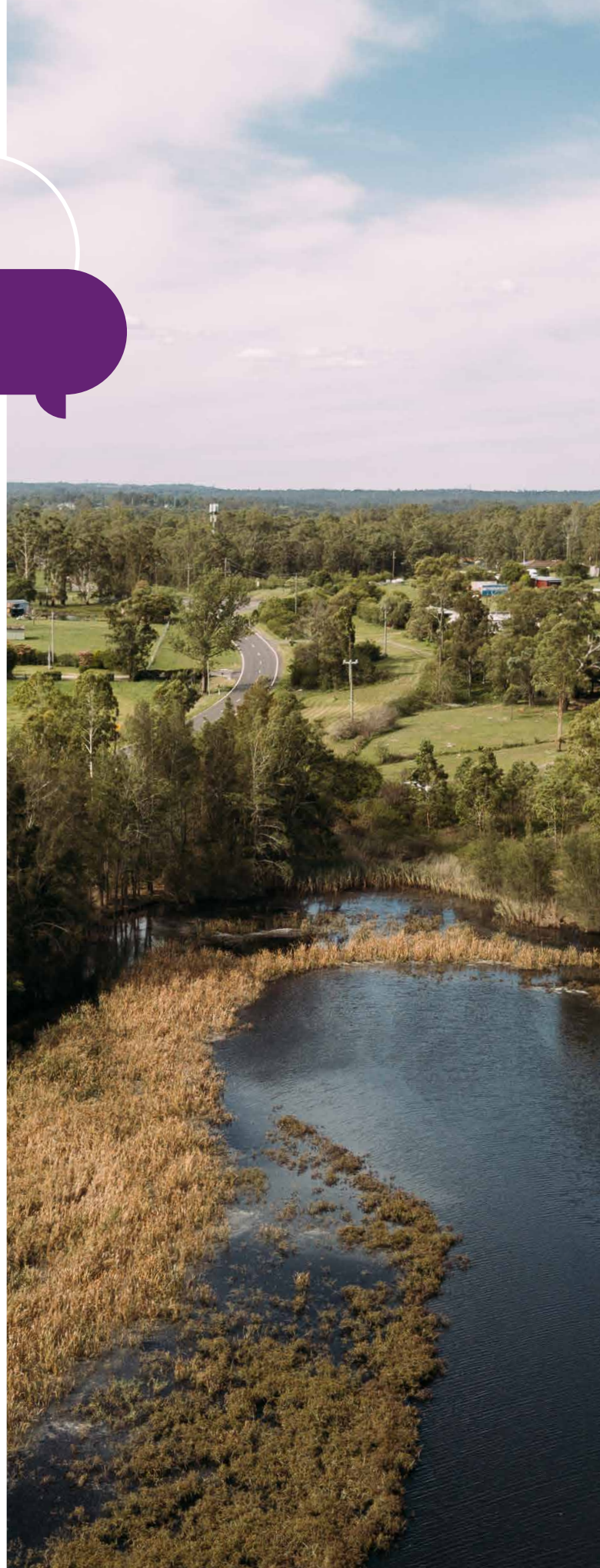


## Social conditions

The route traverses suburbs with communities of varying economic circumstances. Each suburb's index of relative socio-economic disadvantage is listed in table 2.8 from the 2016 Census. This index shows disadvantage indicators such as unemployment, low incomes or education levels, and lack of internet access and is most commonly used for funding allocations and advocacy.

Three suburbs on the walking route (Doonside, Whalan and Tregar) are in the lowest percentile of economic advantage. Communities like these are especially vulnerable to increased urban heat, with less access to air conditioning and other cooling measures. Tree-planting projects can provide benefits to these communities by reducing local temperatures. Projects in these locations can also provide additional opportunities for employment and training in tree-planting and maintenance and in bush regeneration.

Increasing tree canopy can significantly improve the amenity of a region for local communities.



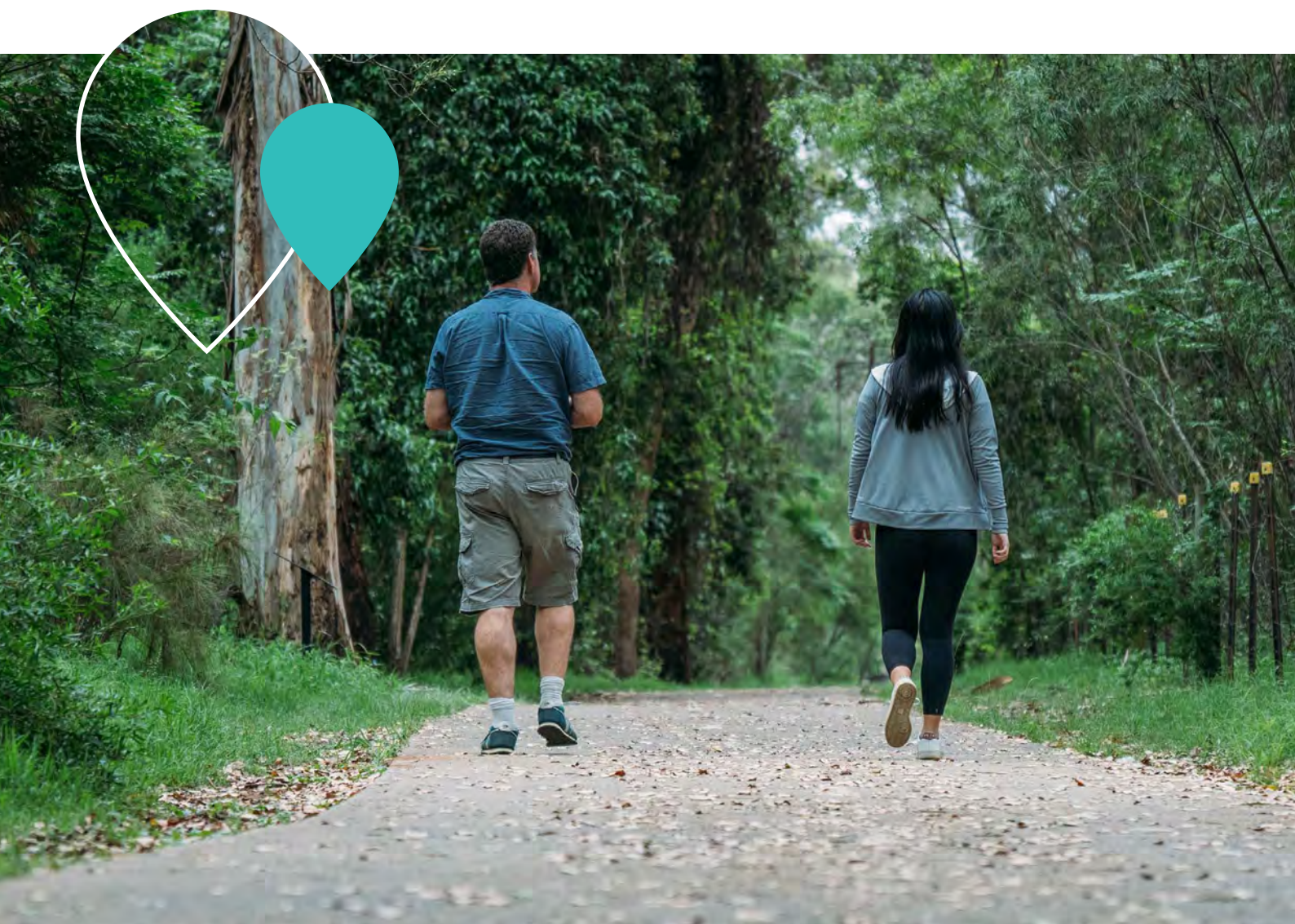
A wetland area on the Cumberland Plain



## Where to From Here?

The background research and analysis in this report helped to identify the projects that will deliver tree-planting along the Great West Walk. An approximate timeline for the planting of trees is outlined below:

- **May 2021** – program launch
- **June-August 2021** – project preparation and tree procurement
- **September-November 2021** – tree-planting
- **December 2021 onwards** – tree maintenance for optimal tree growth and survival



Walking track on the Cumberland Plain





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