

Greening Darwin Research Collaboration

Adaptation in Action

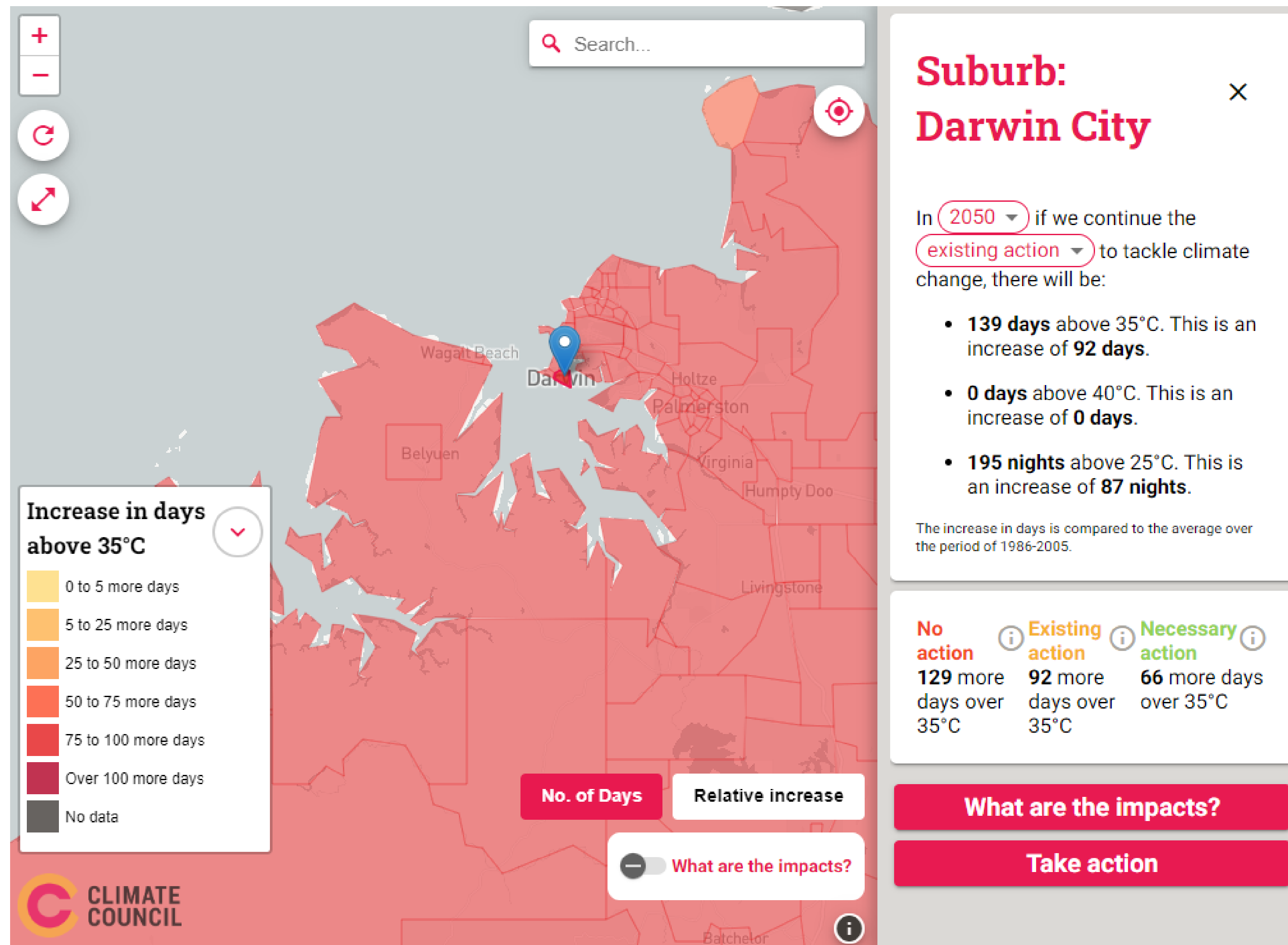
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Darwin is hot and getting hotter



- Maintaining liveability - Darwin's biggest climate adaptation challenge!
- How do we adapt in a way that is strategic, equitable and evidence-based?
- Collaboration across key stakeholders is crucial in tackling this issue
- Darwin City Deal - 10-year partnership between City of Darwin, NT Govt, and Australian Govt for a more vibrant and liveable City

Darwin Living Lab – working together

- Brings together local knowledge and resources (NT Govt, City of Darwin and our community) with trusted scientific expertise (CSIRO)
- 10-years! time enough to build strong relationships and test and evaluate heat mitigation measures – includes indoors (cool, energy-efficient buildings) and outdoors (cool, shady, breezy and green)



Darwin Living Lab – working together



FEELING COOLER IN DARWIN

Darwin Heat Mitigation and Adaptation Strategy

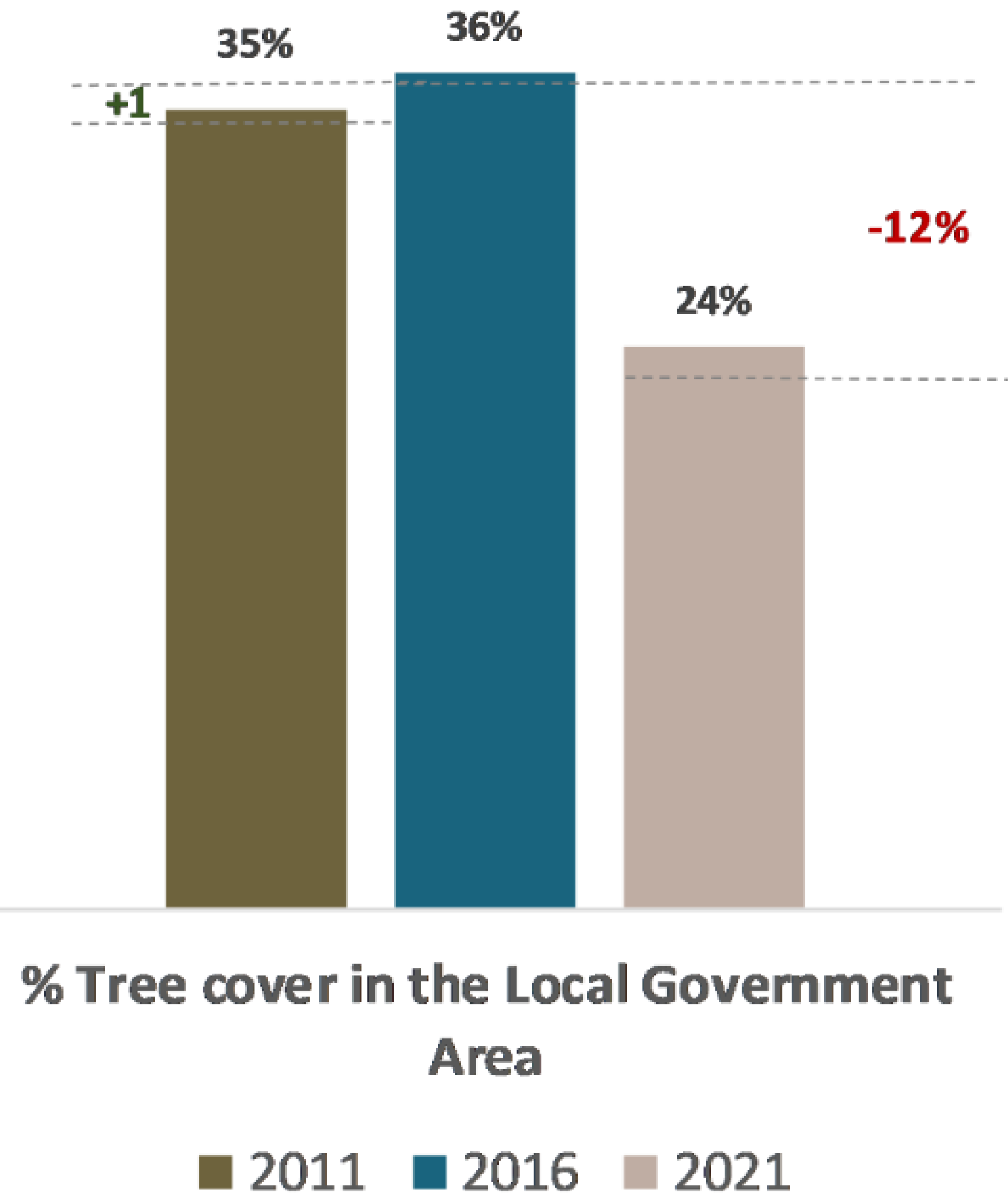


Canopy cover - past and present

Urban Monitor canopy cover analysis

Cyclone Marcus 2018

Lost over 30% of canopy



Canopy cover - future

Modelling of tree numbers required to be planted on City of Darwin streets and parks – data input a collaborative effort

To maintain canopy cover, 36,000 trees to be planted between now and 2030

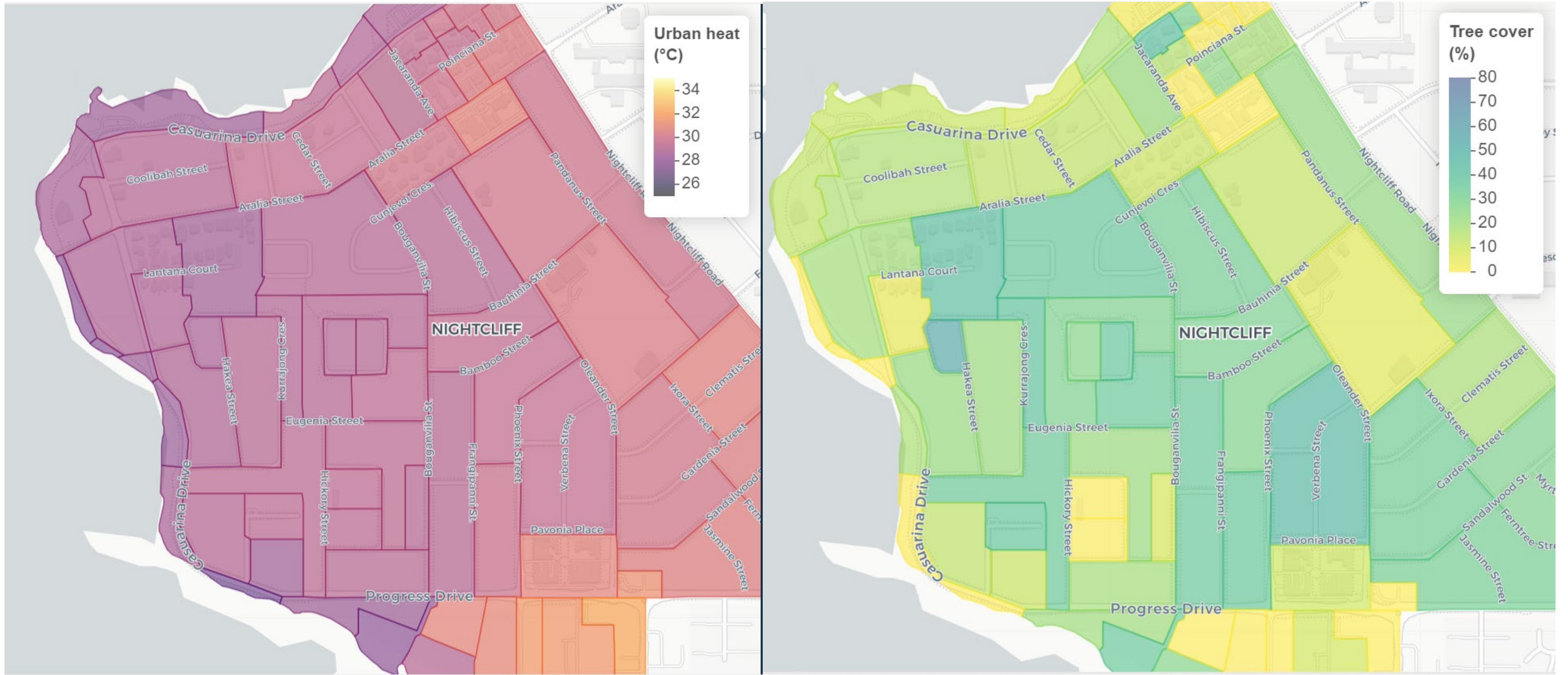


Canopy cover – 2024 Darwin Report Card climate change resilience indicator



- A** Very good 80–100% of results meet objectives
- B** Good 60–80% of results meet objectives
- C** Moderate 40–60% of results meet objectives
- D** Poor 20–40% of results meet objectives
- E** Very poor 0–20% of results meet objectives

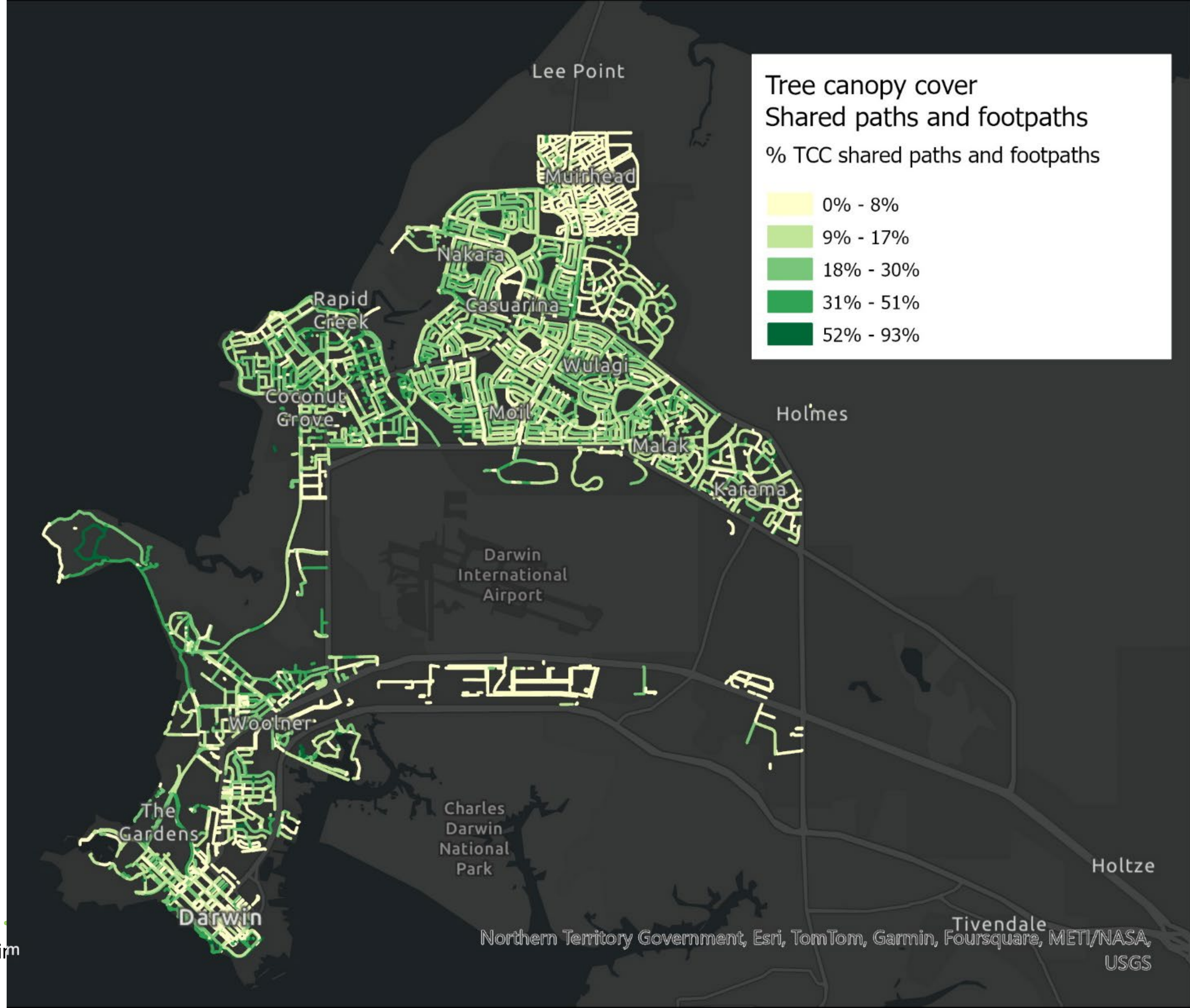
Canopy cover – 2024 Darwin Report Card climate change resilience indicator



Canopy cover planning & priorities

Input into planting and funding
priorities

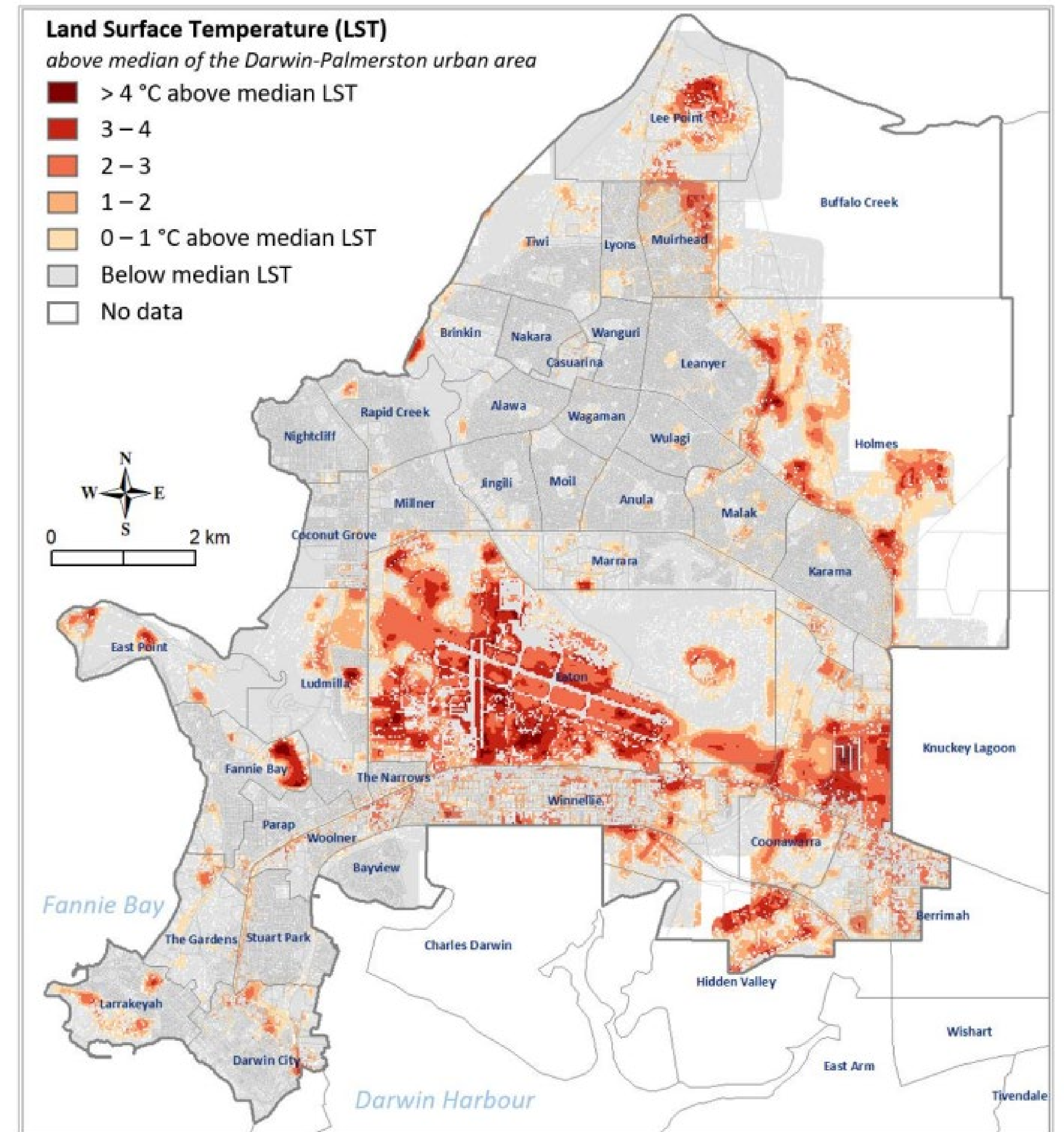
Shading along micro-mobility
routes



Potential planting sites to reduce land surface temperatures

A preliminary assessment of 'potential' planting locations is presented for an area within the City of Darwin, with land surface temperatures being used to address 'where it is hot', and 'bare ground or grass' being used to address 'where green vegetation/trees could potentially be planted'.

Meyers J, Langston A, Devereux D and Lin BB (2020) Mapping land surface temperatures and heat-health vulnerability in Darwin. CSIRO, Australia.



Ingredients for a successful research collaboration

1. Long term extremely beneficial
2. Co-design of the research ensures a collaboration that benefits all parties – e.g. CSIRO considering how research findings and approaches could be used elsewhere – not just routine monitoring
3. Everyone contributes to the input of data and information- extending beyond research findings, but also leveraging the collective expertise and experience of the team
4. Research is aligned with Strategy actions, while monitoring and evaluation allows for ongoing feedback to refine approaches and track progress
5. Communication – regular, open, and clear communication ensures mutual understanding and progress tracking

