

The logo features the words "FACE TO FACE" in large, bold, white letters. The letters are filled with a close-up photograph of tree bark. A green circle with the word "TO" in white is positioned between the two "FACE"s. Below this, the word "with" is written in a smaller, green, lowercase font. To the right of "with" is the word "TREES" in large, bold, green, uppercase letters. Below "TREES" is the "treenet" logo, which consists of a stylized green leaf icon and the word "treenet" in a green, lowercase font.

# FACE TO FACE with TREES

23rd NATIONAL STREET TREE SYMPOSIUM  
ADELAIDE 2022



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# Inner Suburban Unley is The Canary in the Mine

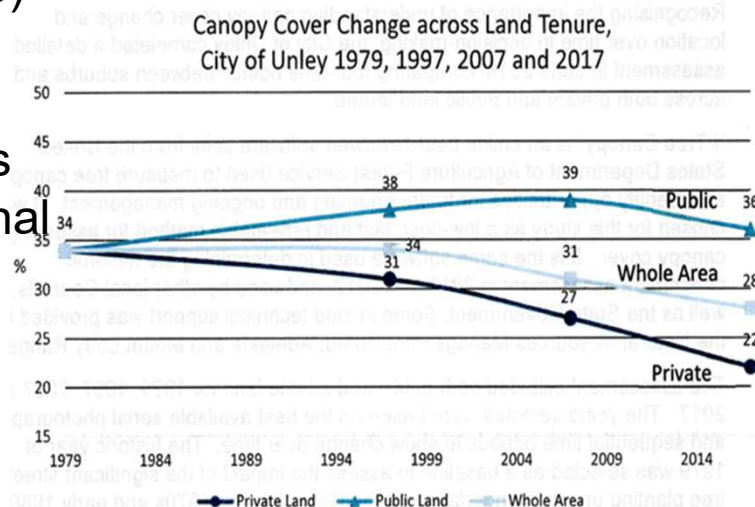


Mayor Michael Hewitson AM  
The City of Unley, South Australia



# Tree Canopy Cover Loss

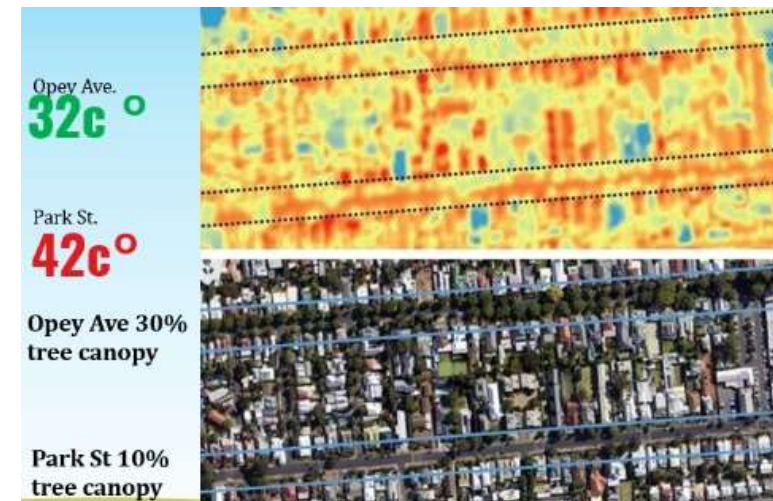
- In 2000, tree canopy in Unley was 574 Ha
- Cover decreased by 8 Ha, 2% p/a (from 34% to 26.6%) between 2007-17
- Target canopy cover is 31.2%
- Unley addressing tree loss through traditional methods
- Tree planting (2 for 1 trees), tree giveaways, educational programs
- Council land will exhaust within 5 years
- Tree loss is mostly on private property
- Unley is down to 400 Ha of tree canopy cover
- Needed an innovative approach to address the issue
- Proposal to trial a financial incentive to preserve/increase trees on private property



# The Problem for the Canary

- Unley is an inner city, densely populated urban area
- Lowest open space in greater Adelaide (3% or <8m<sup>2</sup> per person) - not much land to plant trees on
- Greatest loss of trees was on private property – how can Council control this?
- Unley lost a third of tree cover overall
- Heat mapping project showed 10°C differential on two parallel streets (2018)
- Daking Street, Western Sydney = 50°C
- Land is expensive – costly for Council to purchase

Data from 2018



# Council action

- New Council and Mayor elected 2018 – immediate action on trees
- Proposal for all DAs to include trees or contribute to offset fund – lacked the data and power
- Significant and regulated tree maintenance assistance
- Acceleration of planting on Council land
- Verge soil replacement program
- Tree voucher giveaway
- Conservation grants

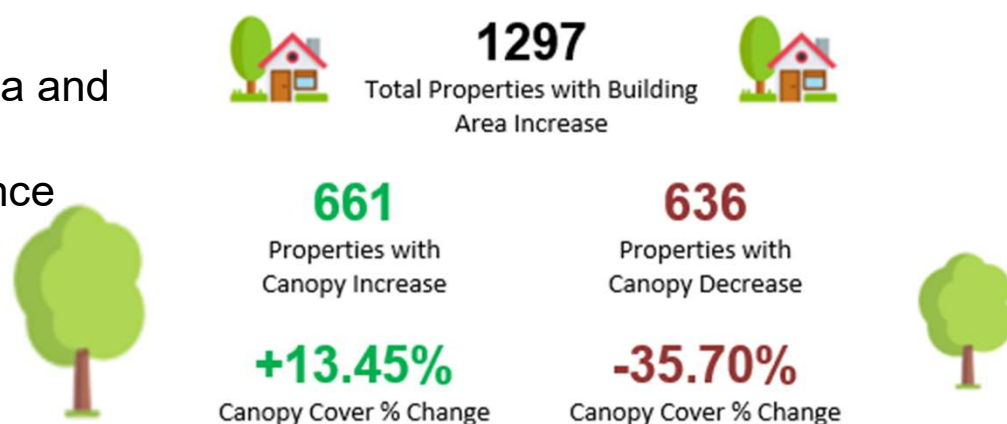


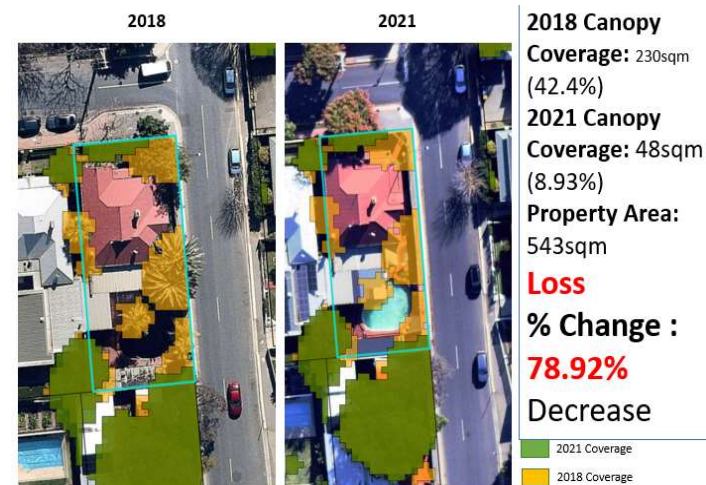
Figure 4. Average positive and negative canopy change due to development between 2018-2020

Despite our work we **still** needed to address tree loss on private properties ... (4 Ha p/a)



# My Canopy

- Project to pinpoint tree loss was initiated to address issue (Aerometrex & LiDAR)
- Flyovers produced aerial images of properties across Unley - including tree canopy detail
- LiDAR used these images to compare tree changes over three years (accuracy to the nearest 10cm<sup>2</sup>)
- Data was used to calculate canopy % of each property to include on rates notice (2018/2021 comparison)
- My Canopy app was developed - residents can view canopy from 2018 and 2021 to compare change
- Unley won Local Government Award, 2022 National iTnews Benchmark Awards
- Data showed 50% of loss from just 212 new developments (not all development is bad!)



## Examples of LiDAR Outputs



# On Track to reach target???



Average Property Canopy Coverage 2021

**22.82%**



Average Property Canopy Coverage 2018

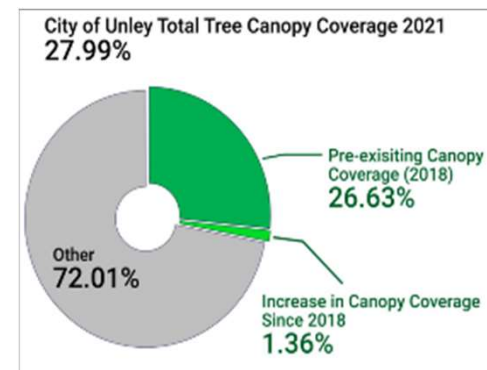
**21.69%**

Overall Property Canopy Coverage Increase  
(2018 to 2021)



**5.19%**

- Unley now has the data to accurately address tree canopy cover loss – we know exactly where the loss is occurring
- Despite trend of tree loss on private property, efforts of Unley Council through planting & programs improved cover
- Unley tree canopy cover increased from 21.69% in 2018 to 22.82% in 2021
- Council land is only 6.4% of the 31% target
- Bronze Medal/Fool's Gold Prize



# Change Detection





# Proposal to address loss

- Unley is looking at an initiative to address tree loss on private property
- Hoping to trial initiative encouraging developers and owners to preserve trees
- Proposal involves financial incentive for developers/owners to preserve/plant trees
- DA and/or property would be assessed against 15% tree canopy target
- We are able to use the LiDAR data to assess canopy on properties
- If target is not met, additional 10% rates will be incurred
- Additional rates will contribute to tree offset fund which Council will utilise to purchase more land in order to plant trees
- Such an offset fund requires ministerial approval
- Submission to the Minister for Planning has been made

# Planning Code

- Proposal is consistent with new SA Planning Code rules
- New Planning Code in SA (March 2021)
- New criteria including planting/retention of at least one tree per dwelling and minimum 10% soft soil for landscaping
- Combined with LiDAR data and a financial incentive, we can achieve more canopy cover

## Planning Code Problems:

1. Impossible to monitor planting/retention of tree – no means of enforcement
2. Observation 6 months after new build – trees removed/died
3. 'One size fits all' approach within the state of SA

Will it be enough...???

# Communication is key

- It's easy to blame someone else for a dead canary
- Politics is “the art of the possible”
- Try not to cause eyes to glaze over: 3,999,771m<sup>2</sup> tree canopy
- Unley Oval = 2 Ha (people need to be able to visualise it)

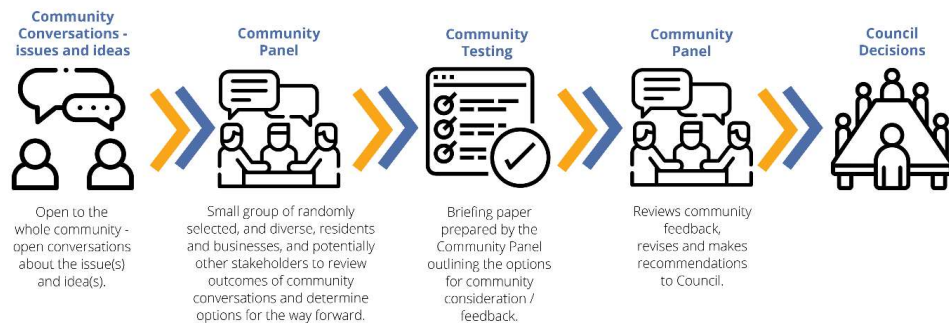
City of Unley's land area, canopy area, and annual canopy loss in 2021:

|  |                                |
|--|--------------------------------|
| <b>Total area of the City of Unley</b>         | 1,429 ha                       |
| <b>Total tree canopy</b>                       | 400 ha (28%)                   |
| <b>Previous decade annual loss</b>             | 8 ha                           |
| <b>Current annual loss</b>                     | 4 ha                           |
| <b>Annual loss from new developments (200)</b> | 2 ha (50% of all current loss) |

# Shaping Unley

New model empowering community to be involved in designing policy – not just consult on or provide feedback

Trees are a city-wide problem, just like parking



- Being involved in finding solutions will encourage community to understand why tree loss canopy is everyone's problem
- Wider pool of ideas = better solutions
- People vote on policy ideas (Trikala, Greece)



# Financial Incentives

- Lowest cost way to combat tree loss?
- Way to solve lack of trees on rental properties
- Council spends over 6% of budget on trees (\$2.27m in 2019) for maximum 6.4% of tree cover
- Idea for small rebate for owners with above-average tree cover
- 1% of rates would give a 2% rates rebate incentive
- This may give us all 2 Ha per annum extra tree on private property
- 2 Ha per annum would cost \$40m per annum to buy

# Conclusion

- Tree loss in Unley seems to be mostly on new developments/private property
- A Financial incentive for property owners to retain/plant trees is the lowest cost way for residents who live in tree-less property to enjoy 31% tree cover – they pay rates (as do tenants through rent)
- Unley will continue planting, education and incentives, but we need to do more to reduce tree loss on private property – Council land will exhaust
- We need the support of the Minister for Planning to trial an offset fund or we will continue to lose 2 Ha per annum
- We want to empower community to assist us in achieving the 31% target so we can all enjoy a greener Unley
- If this works in Unley, it will be a game-changer for cities worldwide!