Greening our City
Case Study

Cooling Chameleon Reserve

In 2019, Penrith City Council was one of 20 councils successful in securing a share of $5.3 million in grant funding to deliver more trees across Greater Sydney. Penrith City Council set out to use the grant funding to cool Chameleon Reserve, which was identified via thermal imaging in 2015 as one of the hottest locations in the suburb.

Chameleon Reserve is a 10-hectare reserve in Erskine Park, positioned within a 2-km radius of 6 schools. It has significant potential as an open space to promote healthy outdoor recreation among the local community. By increasing canopy coverage and creating a cooler reserve, Penrith City Council can promote outdoor recreation and better use of green space to deliver positive outcomes.

Council used the funding to plant and establish 340 new trees in the reserve. These are strategically located to provide shade and support future improvements to the park under the Chameleon Reserve Masterplan. This plan includes pedestrian and cycling paths, all-ages play and exercise equipment, nature play, picnic areas and an off-leash area for dogs. Chameleon Reserve also provides a significant stormwater basin function.

The tree planting helps enhance the reserve for locals and makes it an even more attractive open space. Further development of Chameleon Reserve will promote healthy outdoor activities while enhancing and preserving the space, providing the community with connections to nature.

Trees planted
340

Tree survival rate
98%

Grant amount
$150k

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Tree selection

- A diverse tree selection was developed to support biodiversity and provide long-term canopy coverage.
- Deciduous species were used to ensure winter sun still entered neighbouring backyards and wetland species were selected for the areas that hold moisture in the stormwater basin sections of the park.
- The species were also selected based on suitability to the local climate and soil conditions to maximise success rates and long-term outcomes for the community.
- Trees selected for the Chameleon Reserve were in sizes 45 L, 75 L and 100 L, averaging mostly 75 L in size.
- The trees planted in this site were mostly natives, including Angophora, Corymbia, eucalyptus, wilga and Melaleuca.
- Some non-native selections including Chinese pistachio and Chinese elm were also used in specific locations.

Tree establishment

- Penrith City Council is required to ensure a successful 18-month tree establishment period as part of the grant conditions. This is an important component of the grant program, as the first 18 months are critical to the ongoing life of the trees.
- Council attends to the new trees by regularly watering, weeding and adding additional mulch and fertiliser as required.
- Regular check-ups include reviewing tree health and checking for pests and diseases to address appropriately.
- The planting program has resulted in a 98% tree survival rate to date and as trees mature further, locals will enjoy the cooling effects of the canopy .

Timeline

Date of planting and start of establishment period:
August 2020

End of establishment period: February 2022

Ongoing routine maintenance by council: From February 2022

Greening our City grants

The Greening our City grant program supports local councils and their partners to enhance urban tree canopy and green cover by funding tree planting and demonstration projects across Greater Sydney. It provides a fantastic opportunity for Greater Sydney Councils to be a part of the Premier's Priority of planting one million trees by 2022, which will create cooler suburbs for our communities. More trees also provide improved air quality, better urban amenity and more habitat to support birds and wildlife.

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