

3.1. The state of the Urban Forest in North Sydney LGA

AUTHOR	Jessica Karam, Urban Forest Officer
ENDORSED BY	Gary Parsons, Director Open Space and Infrastructure
ATTACHMENTS	Nil

PURPOSE:

The purpose of this report is to showcase the work conducted by Council’s Urban Forest team and provide a summary on our outcomes and achievements.

EXECUTIVE SUMMARY:

- The Urban Forest team at North Sydney Council is constantly seeking new opportunities to enhance the canopy cover within the region.
- The Urban Forest team plants and ensures the establishment of at least 350 trees per annum, and maintains all existing trees around the Local Government Area (LGA) (irrigation, pruning, removal when necessary, treatment for diseases, etc.)
- Continuous monitoring of the Urban Forest (whether by visually assessing trees or by remote sensing-based mapping) highlights the changes throughout the years on different land categories, allowing us to set out plans to mitigate or lower the impact of any loss and to identify locations where trees are most needed, including replacing dead or senescent trees.
- Infrastructure projects undertaken in North Sydney LGA, as well as urban developments, are causing a dramatical loss of canopy.
- Trees for Newborns program has been in place since July 2023. 100 trees have been requested by the community for planting on their own property.
- Education programs are being prepared and implemented to raise awareness among the stakeholders about the value and benefits of trees in an urban environment.
- Plans and policies are continuously reviewed and updated for the protection of the trees in the LGA.

FINANCIAL IMPLICATIONS:

The Urban Forest team operation is funded through the recurrent operating budget provided by the Council. Other initiatives such as Trees for Newborns, LGA canopy cover mapping, street tree audits, and converting low voltage conventional powerlines to aerial bundled cables are fully financed through the annual budget allocated from the Environmental Levy.

RECOMMENDATION:

- 1. THAT** the report on the state of the Urban Forest in North Sydney be noted.

LINK TO COMMUNITY STRATEGIC PLAN

The relationship with the Community Strategic Plan is as follows:

1. Our Living Environment
 - 1.1 Protected, enhanced and biodiverse natural environment
 - 1.2 Environmentally sustainable community
 - 1.3 Clean and green places

3. Our Innovative City
 - 3.2 North Sydney is smart and innovative

5. Our Civic Leadership
 - 5.3 Community is engaged in what Council does
 - 5.4 Council services are efficient and easy to access

BACKGROUND

As per the North Sydney Council Urban Forest Strategy, the aim of the Urban Forest team is to “Value, Protect, Maintain, Plant and Monitor” the Urban Forest in the North Sydney LGA.

To educate and raise awareness among stakeholders, innovative programs and projects are being created to highlight the value and importance of preserving the Urban Forest.

Protection of trees is manifested by implementing and executing legislative controls and by continuously reviewing and updating existing policies.

Daily maintenance of the current canopy involves activities such as nurturing juvenile trees through establishment, removal, pruning and deadwooding public trees, and treating any diseased specimens. Additionally, residents can take advantage of complimentary consultations provided by the Council's Tree Management Officers for trees situated on both public and private property by submitting a request through the Council's website.

The Urban Forest team also aims at planting at least 350 trees per annum in parks and on roadsides and enforces replanting conditions.

Monitoring of the urban forest is done by keeping accurate records and statistics through continuous audits: a high-resolution remote sensing-based canopy cover mapping and assessment undertaken every two years, and a detailed physical audit and valuation of street trees conducted every five years.

CONSULTATION REQUIREMENTS

Community engagement is not required.

REPORT

Council’s Urban Forest Team is committed to maintain and protect existing trees and to plant at least 350 trees annually to preserve our canopy cover.

Every five years, Council engages consultant arborists to conduct a Tree audit, visually evaluating the health and condition of our street trees, as well as determining their valuation. The next audit is due in 2025.

Every two years, Council hires an environmental consultancy firm with expertise in diagnosing, monitoring, and sustainably managing vegetation using innovative remote sensing techniques to monitor the canopy cover in the LGA. The canopy cover capture is conducted biennially using an airplane. The consultancy's experts then analyse the collected data to generate indicative results of the overall canopy cover percentage across the LGA, as well as percentages for different land categories, as presented in the table below. These results also highlight areas emitting the most heat through thermal imaging and can assess the current health condition of the vegetation, among other features.

Table 1. Canopy cover in North Sydney LGA 1997-2022

Whole LGA		% of NSC LGA land area	Target cover Based on Industry best practice	1997	2001	2008	2014	2017	2020	2022	Canopy Loss since 2008
				%	%	%	%	%	%	%	
Land Use	Overall Canopy Cover	100	34.4	19	24	33.9	30.7	28.2	27	24.9	9
	Central Business Districts	10	15	-	-	16.5	13.5	14.2	11.9	10.5	6
	Urban Areas	48.3	25	-	-	32.4	28.8	26.9	25.8	23.5	8.9
	Suburban Areas	41.7	50	-	-	39.8	37	33	32	30	9.8
Land Tenure	Public land	25.7	-	-	-	50.5	52.8	50	50	48.8	1.7
	Private Land	58	-	-	-	31.6	26.4	24	22.4	19.9	11.7
	Roads	16.3	30	-	-	28.1	26.1	23.4	23	21	7.1

Based on the information provided, the Council can identify suburbs requiring additional tree and vegetation planting to reduce the urban heat island effect and alleviate associated impacts on the community and the environment.

The most recent flyover was completed in February 2024 and Council is currently awaiting results. Due to major infrastructure projects undertaken in the LGA in the last couple of years, it is predicted that the loss of green cover is going to be staggering compared to the previous years in all land categories, including public land. Therefore, it has been decided to reassess the overall canopy cover target to make it more feasible and achievable in the future.

Two major ongoing infrastructure projects overseen by Transport for NSW (TfNSW) include the Sydney Metro Victoria Cross station in North Sydney and Crows Nest station, as well as the Western Harbour Tunnel and Warringah Freeway Upgrade (WHT/WFU).

For the construction of Sydney Metro stations, a total of 35 trees will be removed. However, Sydney Metro contractors will plant 62 trees on-site, and an additional 59 trees have been planted on roadsides around Crows Nest, maintained by the Council. This initiative promises a net increase in canopy cover in the future.

Regarding WHT/WFU, trees are being removed during road works, with an estimated 3,000 trees (defined as over 3 meters high) set for removal. As part of the projects planning approval, it's a requirement that a Tree Replacement program be implemented. The program proposes replacing removed trees at a 2:1 ratio, resulting in the planting of 6,000 juvenile trees across the LGA. Priority will be given to areas within 500 meters of the project boundaries. While this replacement ratio aims to ensure a net increase in canopy cover in the future, limited vacant planting sites in North Sydney LGA, coupled with some residents' reluctance to have trees planted outside their properties, may pose challenges to planting all 6,000 trees.

The Urban Forest team is continually exploring alternative methods to introduce trees onto public land whenever feasible, such as planting trees on rooftop carparks. In fact, although limited, several sites have been identified as suitable for accommodating a few trees and some vegetation, providing protection for cars from the elements.

Other than adding trees to our current amenity, the Urban Forest team aims at preserving the current healthy trees to reach their maturity and full potential. For instance, Council has submitted their application to take part of a co-funding program with Ausgrid to upgrade low voltage overhead conventional bare powerlines in high priority areas into aerial bundled cables (ABCs). With ABCs, trees don't have to be pruned so aggressively or hacked to maintain a safe clearance zone around the powerlines, which ultimately allows the growth of a dense and healthy canopy.

Other ventures that the Urban Forest team adopted to increase the canopy cover on private land, is launching the Trees for Newborns program that consists of providing a tree of the residents choice to plant on their local private property to commemorate the birth of their child or grandchild. The program initiated in July 2023, and since then 100 trees (native and exotic) were requested from Council and were delivered to the residents' doorstep free of charge.

The Urban Forest team is also looking into running competitions for primary schools to celebrate National Tree Day, as well as a program of educational posts on Council's social media platforms on the benefits of trees among other interesting subjects that could shed light on the importance and value of trees within the urban environment.

On a more strategic level, the Urban Forest team continuously works on reviewing and updating their plans and policies (e.g. Development Control Plan, Urban Forest Strategy, Street Tree Strategy, etc.) based on the daily experience acquired by the team members for a better protection of the trees around the LGA. The team also takes part in the Department of Planning and Environment workshops and actively works on giving them feedback to improve systems.