



## Urban Tree Canopy Survey

### **Executive Summary**

The loss of tree canopy cover is a significant issue for Local Government – it impacts on the liveability of communities, public health and local biodiversity. Local Governments are seeking to address this issue at the local scale and are developing urban forest strategies, adopting policies and in some case making amendments to Local Planning Schemes.

WALGA is looking to assist Local Governments to address this issue and have recently undertaken a survey of members. The results of this survey reinforce the findings of previous research and consultation undertaken by WALGA and other groups such as 2020 Vision. This survey has highlighted that Local Governments are seeking tools, information and changes to policy / legislation, particularly at the State Government level, to protect trees and increase canopy cover, particular on private property. Specifically, Local Government is seeking changes to the R-Codes and Liveable Neighbourhoods to ensure that these provide adequate support for maintaining and growing our urban forest.

The comments received from this survey suggest that without this support, Local Governments will continue to encounter obstacles and barriers in seeking to implement Urban Forest / Tree Canopy Strategies, resulting in a continuing overall decline in the Urban Forest of the Perth and Peel regions.

### **Background**

Local Governments are increasingly finding that pressure to meet urban infill targets, along with the loss of native vegetation through clearing for greenfield developments, is resulting in a significant loss of tree canopy cover. The key challenges facing Local Governments that have been identified in previous consultation undertaken by WALGA and 2020 Vision include:

- inconsistent State Government policies, specifically the R-Codes and Liveable Neighbourhoods;
- inadequate protection for existing trees;
- lack of requirements for revegetation in new developments;
- a lack of funding to support urban forest measures; and
- low levels of understanding (community, staff and councillors) regarding the benefits of an urban forest.

This issue has also been acknowledged in a number of WALGA Zone and State Council resolutions. In March 2017 WALGA State Council resolved that WALGA:

1. Advocate and work with the State Government to further prevent the loss of urban tree canopy, which is a significant environmental and social issue for communities across the State; and
2. Work with member Councils to develop a system of appropriate market based and regulatory instruments to promote the increase in the urban tree canopy on private property.

In response to this resolution, WALGA is working with the Department of Planning, Lands and Heritage (DPLH) in the development of an Urban Tree Canopy Framework that aims to support the work that Local Governments are undertaking in this area and to promote best practice in urban forest management.

To inform the Framework and to gain a more comprehensive and current understanding of Local Governments position on this matter, WALGA conducted a survey of Local Government to identify:

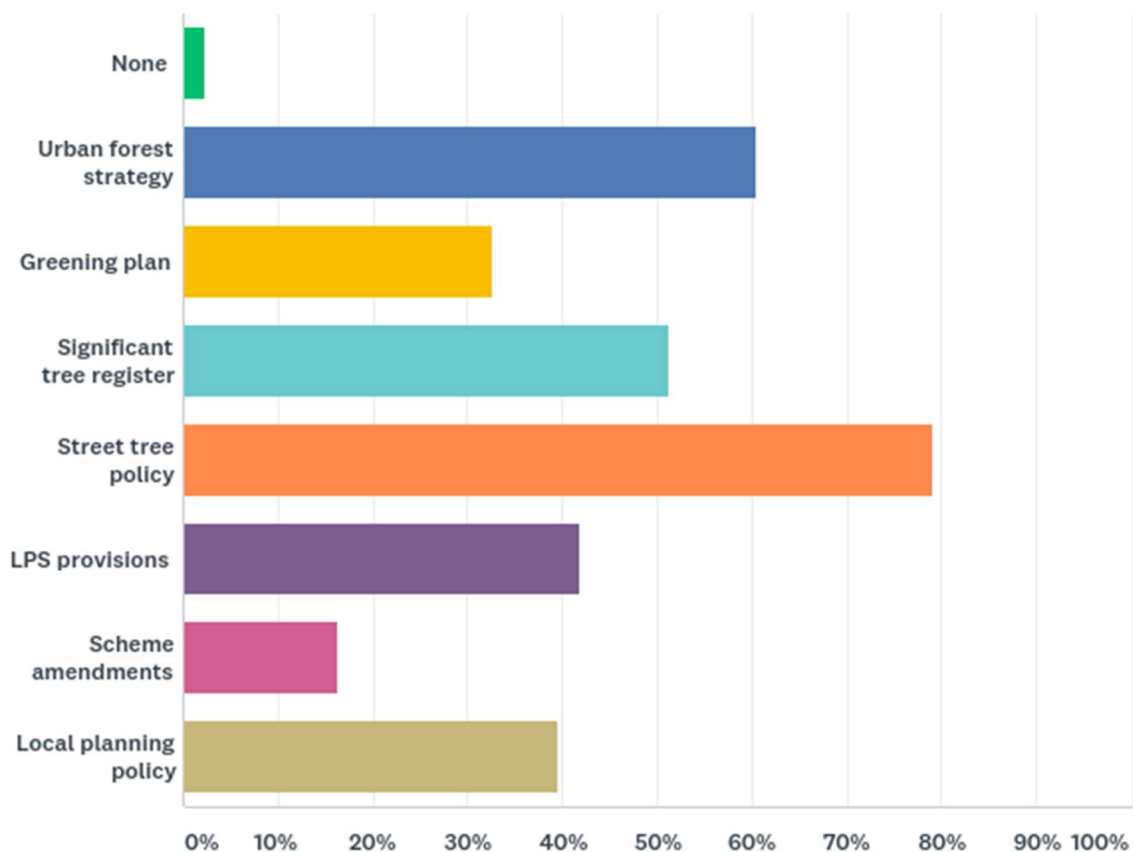
- barriers and needs in relation to increasing urban tree canopy cover;
- the measures and instruments Local Governments are using as part of their urban forest strategies; and
- the data requirements of Local Government in relation to understanding their urban tree canopy cover forest strategies.

**Key Results from the Urban Forest survey**

The survey was open for a period of 3 weeks in July / August 2017. 61 survey responses were received, representing 33 Local Governments, 2 Regional Councils and 1 Statutory Authority.<sup>1</sup>

**Current Local Government Initiatives**

In regards to current initiatives adopted or in development, almost all Local Governments have some form of initiatives in place or in development to protect and /or increase canopy cover. Street Tree Policies are the most widely used mechanism to protect / increase tree canopy, followed by Urban Forest Strategies.



**Figure 1: Does your Local Government currently have (or is in the process of developing) initiatives, frameworks, and/or plans to protect trees, plant trees, and increase canopy cover?**

<sup>1</sup> Regional Councils – Eastern Metropolitan Regional Council and South West Group; Statutory Authority – Landgate.

In regards to what **actions** Local Governments are undertaking that are achieving **good results**, there was minimal feedback, which exemplifies the issues being faced by Local Governments. Notable comments included:

- Council Policy requires that any tree to be removed needs CEO approval unless approved by Council as part of the planning approval process or the tree is dead or deemed to not be safe; and
- the ‘threat’ of being charged the amenity value of a street tree sometimes results in property owners changing their mind about removing trees.

Local Governments were asked what the impetus or ‘drivers’ were for developing initiatives to increase canopy cover. The environment and biodiversity were highlighted as the main reasons for developing / implementing initiatives, with community health and lifestyle also being significant reasons.

The survey asked what **initiatives** had **not worked**. Significant comments included:

- vegetation protection requirements that are now in conflict with bushfire management requirements; and
- bond system adopted that includes a tree protection zone around all building / development sites. This system has some value, but the significant time to implement outweighs the benefits.

In regards to **private property**, a question was asked regarding **market-based (price mechanisms) and/or regulatory instruments** that Local Governments have implemented to protect trees and promote an increase in the urban tree canopy.

The majority of Local Governments who responded did not have market based mechanisms and / or regulatory instruments in place to protect and promote trees on private property. Some Local Governments did have instruments that include:

- tree preservation areas which require planning approval to remove or significantly modify trees;
- Local Planning Policies that require the provision of minimum canopy cover and deep soil zones;
- significant tree registers that protect (and can impose fines) against damage/unauthorised removal and provision of financial assistance to property owners for maintenance of significant trees;
- incentive based policy for small dwellings which requires provision of a deep planting zone at 5% of the site area;
- requirement for planning approval for removal of vegetation on lots greater than 2000sqm
- requirement for revegetation areas on structure plans;
- Local Planning Scheme provisions that incorporate rates reduction in conservation areas and requirement for planning approval for the clearing of existing vegetation; and
- policies / methods to determine the amenity value of trees or groups of trees in the public realm.

### **Barriers and Key Challenges on Private Land**

In regards to the **barriers and key challenges** to tree retention and planting on **private land**, there was significant comment which is reflected throughout the survey, particularly in regards to the development of the Framework. Common and notable responses referenced:

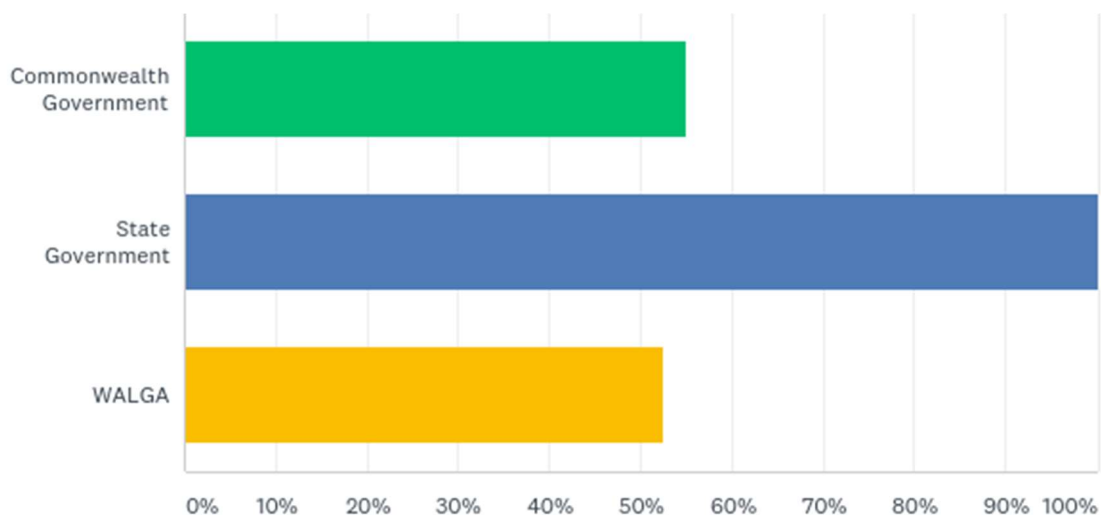
- development pressure and land values;
- lack of planning / legislative framework to protect trees during the development/planning approval process;

- change in State Government clearing regulations has led to a marked increase in small scale tree clearing which has a large scale cumulative effect;
- not enough space in new verges (with smaller lots) under Liveable Neighbourhoods;
- a lack of awareness of the role and value of trees in the urban environment; and
- a lack of community support for street trees.

### Government support and development of Framework

The survey asked if there anything that that the **Commonwealth Government**, **State Government**, and **WALGA** can do to **support Local Governments** preserving and increasing canopy cover.

All respondents considered that the State Government needs to support Local Governments to preserve and increase canopy cover. Interestingly, respondents noted that the Commonwealth Government should also play a significant role.



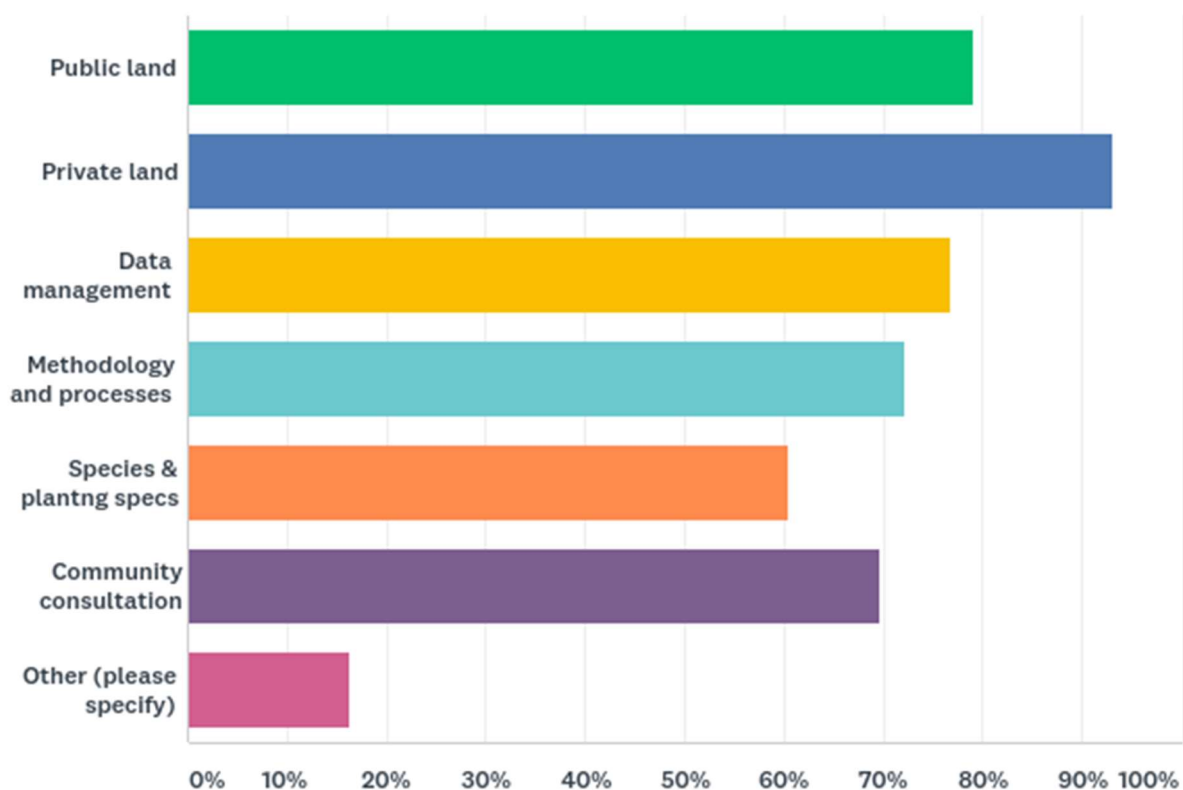
**Figure 2: Is there anything that the following agencies (Commonwealth Government, State Government and WALGA) can do to support Local Governments preserving and increasing canopy cover?**

In terms of what could be done to support Local Governments, the most common recommendation, was the need for legislative, regulatory or policy changes. Generally this was in terms of State Government legislation, but some respondents did recommend that the Commonwealth Government needs to provide overarching regulation such as setting canopy targets. Other widespread suggestions were the need for funding to support actions taken by Local Governments, with some suggesting funding for mapping. The need for a holistic, consistent, multi-agency approach to this issue was also a common response.

In regard to the **Framework** and what matters, Local Governments think would be of **value and benefit to include** respondents generally think that the framework should address and include a wide range of elements including public land. But, private land was seen as being the highest priority in terms of being of greatest value and benefit to be included in the framework. The following noteworthy comments were also provided:

- the Framework will be of no value unless there is clear head of power / legislation to give Local Governments the ability to enforce it. The Planning and Development Act needs to be amended to provide this power;
- amendments to the R-Codes, landscaping and deep root zone requirements for single and grouped dwellings are needed;

- apartment design policy needs to be finalised as a matter of priority so that Local Governments can impose the 12% deep root zone requirement;
- changes to SPP 3.7 and Liveable Neighbourhoods are needed to provide a robust framework;
- consistent and regular data collection and mapping is required;
- model subdivision conditions are needed to improve tree retention;
- funding required to assist with maintenance of mature trees on private property;
- green infrastructure should be seen as an essential asset to sustainable environments, healthy communities and vibrant liveable cities; and
- need to promote shared understanding of the role and value of the urban forest across all levels of government.



**Figure 3: The DPLH is developing a framework to guide Local Governments regarding tree canopy (tree and plant) retention. What matters do you think would be of value and benefit to include in the framework?**

### Data Requirements

Over half of respondents **currently measure** canopy cover with the majority using Urban Monitor. Light Detection and Ranging (LiDAR) and aerial imagery is also used to capture data for additional uses. The highest priority for use of data was for the development and implementation of Urban forest strategies, heat island detection, parkland monitoring, infrastructure planning, high water use areas and wetland management. The majority of Local Government respondents rated the data outputs of Urban Monitor as being very to extremely beneficial.

Further comments of interest regarding data included:

- data acquisition can be expensive and time consuming, especially where it requires specialist interpretation of raw data;
- do not understand the process to access Urban Monitor data;
- data needs to be user friendly and compatible with other GIS applications such as intramaps; and
- as it currently exists, Urban Monitor is not a usable platform and is not used as the raw data is required to calculate canopy cover.

### **Conclusion**

The results of the survey are consistent with the findings of previous research and consultation undertaken by WALGA and 2020 Vision and provide valuable guidance regarding key issues and priorities to maintain and increase canopy cover.

One of the most prevalent and significant responses by Local Governments was that **changes to State Government planning legislation, policies and plans such as R-Codes and Liveable Neighbourhoods are critical** and that without these changes, Local Government will struggle to maintain and grow their urban forests, particularly on private land and verges. This will result in impacts on the overall liveability of our communities with reduction in public amenity, health impacts from increased temperature and loss of biodiversity.

The **regular provision of consistent and reliable data** that is user friendly and easy to access was also highlighted as a key requirement. In this respect it is important that the State Government **makes Urban Monitor data available to Local Government in a readily accessible form at regular intervals** to enable the establishment of tree canopy baselines and progress to be measured, in addition to its other uses.

Finally the survey identified that in addition to the provision of guidance on how to develop and promote best practice Urban Forest Strategies in the community. In this respect the Framework should **identify and recommend appropriate planning and incentive based tools and mechanisms that are supported by the State Planning Framework.**