

ITEM NUMBER: 10.1

CONFIDENTIAL REPORT

REVIEW OF SERVICE

Pursuant to Section 87(10) of the Local Government Act 1999 the Report attached to this agenda and the accompanying documentation is delivered to the Audit Committee upon the basis that the Audit Committee consider the Report and the documents in confidence under Part 3 of the Act, specifically on the basis that Audit Committee will receive, discuss or consider:

- j. Information the disclosure of which –**
 - i. would divulge information provided on a confidential basis by or to a Minister of the Crown, or another public authority or official (not being an employee of the Council, or a person engaged by the Council); and**
 - ii. would, on balance be contrary to the public interest.**

Recommendation – Exclusion of the Public – Section 90(3)(j) Order

1. That pursuant to Section 90(2) of the *Local Government Act 1999* Audit Committee hereby orders that the public be excluded from attendance at this meeting with the exception of the Chief Executive Officer and Staff in attendance at the meeting in order to consider Report No: 81/24 Review of Service in confidence.
 2. That in accordance with Section 90(3) of the *Local Government Act 1999* Audit Committee is satisfied that it is necessary that the public be excluded to consider the information contained in Report No: 81/24 Review of Service on the following grounds:
 - j. pursuant to section 90(3)(j) of the Act, the information to be received, discussed or considered in relation to this Agenda Item is information the disclosure of which would divulge information provided on a confidential basis by or to the Auditor-General (not being an employee of the Council, or a person engaged by the Council).

The Auditor-General in the information between Council, Auditor-General and relevant parties relating to the service review is requested by the Auditor-General to remain confidential until the report is delivered to Parliament.

In addition, the disclosure of this information would, on balance, be contrary to the public interest. The public interest in public access to the meeting has been balanced against the public interest in the continued non-disclosure of the information. The benefit to the public at large resulting from withholding the information outweighs the benefit to it of disclosure of the information.
 3. The Audit Committee is satisfied, the principle that the meeting be conducted in a place open to the public, has been outweighed by the need to keep the information or discussion confidential.
-

Item No: 10.1

Subject: REVIEW OF SERVICE

Summary

The Auditor-General has conducted a review of the City of Holdfast Bay's management of its urban tree canopy. This report outlines the findings and recommendations from the review. The outcome of the review along with a final written comment from Council will be reported to Parliament by the Auditor-General.

Recommendation

That the Audit and Risk Committee recommends to Council it:

1. receives the letter to the Mayor from the Auditor-General;
2. receives the review findings and recommendations; and
3. approves the final written response prepared by Administration provided in Attachment 2.

RETAIN IN CONFIDENCE - Section 91(7) Order

4. That having considered Agenda Item 10.1 81/24 Review of Service in confidence under section 90(2) and (3)(j) of the *Local Government Act 1999*, the Audit and Risk Committee, pursuant to section 91(7) of that Act orders that the report, attachment and minutes be retained in confidence for a period of 12 months and/or the Chief Executive Officer is authorised to release the documents when the Auditor-General's report is delivered to Parliament and that this order be reviewed every 12 months.
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Background

The Auditor-General conducted a review of the City of Holdfast Bay's (the council) management of the urban tree canopy (the review) in its council area under section 32(1)(c) of the *Public Finance and Audit Act 1987* (PFAA). This section allows the Auditor-General to review the efficiency, economy and effectiveness of the activities of a public funded body.

The objective of the review was to conclude on whether the selected metropolitan councils have effective activities in place to increase or maintain tree canopy cover in the council area. Two metropolitan councils, inclusive of the City of Holdfast Bay, were selected for this review.

The review covered a period from 2018-19 to current, aligning with the capture of tree canopy data across metropolitan Adelaide by the state government in 2018 and 2022.

The review considered if council has:

- documented plans and/or strategies to increase or maintain tree canopy cover;
- implemented governance structures to manage and oversee their performance while working towards their tree canopy target; and
- established systems and process to effectively manage tree data and monitor and report on its outcomes.

Please see the audit mandate, objectives and scope attached to the Auditor-General's letter and review findings.

Refer Attachment 1

Report

The review was completed over 12 months from April 2023 and included review of council systems and documentation as well as interviews with key council staff. Council staff were actively cooperating and providing assistance to the auditors during the review process.

The timing of the review was beneficial as Administration recently completed an assessment and audit of all council owned trees. This information is being used to develop an Urban Forest Strategy and Tree Management Plan. The recommendations from the review will be incorporated into our planning to support ongoing tree management.

The audit identified that council demonstrated it is committed to and working towards increasing its tree canopy cover, with some effective activities. The review also identified gaps in other areas for Council to address to achieve effectiveness.

Areas found that council were effective include:

- a long term tree canopy target;
- established an Environment Strategy 2020–2025 which includes tree related actions that will help council increase its tree canopy and improve tree health;
- recently conducted its first tree audit and obtained comprehensive data about its public trees and potential plant-able spaces;
- established clearly defined roles and responsibilities for tree management activities;
- strategies to increase public awareness about the value of trees, including its Adopt a Tree program and Tree of the Month.

Areas found where council needs to take action include:

- developing system functionality to ensure:
 - tree data is able to be easily accessed and maintained by staff in line with their work responsibilities;

- staff can easily produce comprehensive reports to support their analysis, decisions and monitoring activities;
- staff can easily produce reports for reporting and monitoring against council objectives and tree canopy targets;
- staff can consistently assess and record tree risks, access and maintain this data and retrieve information about works performed;
- documenting the assessment and treatment of all relevant tree canopy risks.

Actions to address these risks are currently in progress through the integration of tree management activities into council's existing enterprise technology system. This solution is intended to provide the appropriate information for staff and risk management activities. The final written comments provide council's response to the audit findings and recommendations.

Refer Attachment 2

The complete review findings are attached along with final written comments by council. The final written comments will be presented to Council on 9 April 2024, before being supplied to the Auditor-General on 10 April 2024.

The Auditor-General intends to report to Parliament in June 2024 on this review, which will include the final written comments.

Budget

Not applicable

Life Cycle Costs

Not applicable

Strategic Plan

Statutory compliance and Our Holdfast 2050+

We have achieved our environmental targets, including becoming a carbon-neutral community and increasing our tree canopy to 16.8 per cent (2030s Aspiration)

Council Policy

Tree Management Policy

Statutory Provisions

Section 32(1)(c) of the *Public Finance and Audit Act 1987*

Written By: Manager Engineering

General Manager: Assets and Delivery, Ms P Jackson

Attachment 1



Our ref: A23/503

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15 March 2024

Mayor Amanda Wilson
City of Holdfast Bay
email: awilson@holdfast.sa.gov.au

Dear Mayor Wilson

Review of urban tree canopy management

We are currently finalising our review of the City of Holdfast Bay's (the Council) management of the urban tree canopy in its council area under section 32(1)(c) of the *Public Finance and Audit Act 1987* (PFAA). We engaged a subject matter expert, RM Consulting Group Pty Ltd, to assist us with our review.

The objective and scope of this review were detailed in a letter sent to you on the 4 April 2023.

The attachment to this letter explain our findings and recommendations and requests the Council's comments on the matters raised and a response to each recommendation.

I would appreciate receiving the Council's comments by no later than 10 April 2024.

1 Background

The State Government has acknowledged the importance of trees and of increasing the level of tree canopy cover over metropolitan Adelaide. The State Government has included targets in its 30 Year Plan for Greater Adelaide to increase or maintain tree canopy coverage over council areas.

Councils must manage, develop, protect, restore, enhance and conserve the environment in their council areas in an ecologically sustainable manner, to improve amenity.¹ This includes managing trees on council owned land such as verges, parks and reserves. While the State

1 *Local Government Act 1999* section 7(e).

Government targets are not mandatory, many metropolitan councils have set long term targets to increase the tree canopy in their council areas.

2 Key observations

We assessed whether the Council has effective activities in place to increase or maintain local tree canopy cover. We reviewed the period from 2018-19 to 2023 against the review objective provided in attachment 1. Our detailed review findings are included in attachment 2.

The Council demonstrated it is committed to and working towards increasing its tree canopy cover. While we found the Council has some effective activities, we also identified gaps in others that need to be addressed to achieve effectiveness.

Activities where the Council needs to take action to achieve effectiveness include:

- developing system functionality to ensure:
 - tree data is able to be easily accessed and maintained by staff in line with their work responsibilities
 - staff can easily produce comprehensive reports to support their analysis, decisions and monitoring activities
 - staff can easily produce reports for reporting and monitoring against Council objectives and tree canopy targets
 - staff can consistently assess and record tree risks, access and maintain this data and retrieve information about works performed
- documenting the assessment and treatment of all relevant tree canopy risks.

Further, we identified the Council could improve its long term tree canopy target by establishing specific targets for tenure and land use. This will give a fairer and more accurate measure of the Council's performance.

We also found activities where the Council was effective. These include the Council has:

- a long term tree canopy target
- established an Environment Strategy 2020–2025 which includes tree related actions that will help the Council increase its tree canopy and improve tree health
- recently conducted its first tree audit and obtained comprehensive data about its public trees and potential plantable spaces
- established clearly defined roles and responsibilities for tree management activities
- strategies to increase public awareness about the value of trees, including its Adopt a Tree program and Tree of the Month.

We discussed our preliminary findings with Mr Roberto Bria, CEO, Ms Pamela Jackson, General Manager, Assets and Delivery and Mr James Mitchell, Manager, Engineering on 13 March 2024 and have reflected that feedback in this letter where appropriate.

3 Report to Parliament

As previously communicated, under section 32(4) of the PFAA the Auditor-General may prepare a report to Parliament on the results of the review. That letter set out the procedural fairness process for the report on the review.

I intend to report to Parliament in June 2024 on this review. The report will include:

- the findings in this letter
- summary of your responses to the findings and recommendations
- an overall conclusion on the review objective
- additional context for the review.

We will provide the Council a draft copy of the Report to Parliament and you will be given the opportunity to provide your final written response on the content, including our conclusions. We will consider Council's final comments, finalise the Report and submit it to Parliament.

In line with section 32(5) of the PFAA, we will provide the Council with a copy of the Report once it is delivered to Parliament. A copy of the report will later be published on the Auditor-General's Department's website at www.audit.sa.gov.au. We will advise you and the CEO of the date it will be published on our website.

4 Confidentiality

To respect the reporting provision of the PFAA, confidentiality must be maintained throughout the procedural fairness process on all communications of the findings from the review until the reporting responsibility to Parliament is completed. The President of the Legislative Council and the Speaker of the House of Assembly must, not later than the first sitting day after receiving the final report from the Auditor-General, table it before their respective Houses.

Until such time, the contents of this letter and the attachment should be treated as confidential and not be made publicly available or published (for example, in the Council's meeting minutes). This is to respect the concurrent and mutual reporting obligations to the Council and the Parliament.

5 Concluding comments

If you or your staff have any questions or would like to arrange a time to meet to discuss these matters before 2 April 2024, please contact my office on (08) 8226 9640.

Finally, I appreciate the cooperation and assistance provided by the Council staff, particularly Ms Alex Gaut and Mr Ben Hall. Their enthusiasm for this area was clearly evident and we were grateful for their patience, time commitment and the sharing of knowledge throughout our review.

Yours sincerely



Andrew Blaskett
Auditor-General

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cc: Roberto Bria, Chief Executive Officer, City of Holdfast Bay, rbria@holdfast.sa.gov.au

Attachment 1 – Audit mandate, objective and scope

Our mandate

The Auditor-General has authority to conduct this review under section 32(1)(c) of the *Public Finance and Audit Act 1987*. (PFAA) This section allows the Auditor-General to review the efficiency, economy and effectiveness of the activities of a public funded body.

PFAA section 4 includes a council constituted un the *Local Government Act 1999* (LG Act) in its definition of a publicly funded body.

Our objective

The objective of the review is to conclude on whether selected metropolitan councils have effective activities in place to increase or maintain tree canopy cover in their council areas.

Our review covered the period from 2018-19 to 2023. This period aligns with the capture of tree canopy data across metropolitan Adelaide by State government entities in partnership with councils in 2018-19, and Green Adelaide in 2022 for the update of the 30 Year Plan for Greater Adelaide.

What we reviewed and how

We considered whether the two councils had:

- documented plans and/or strategies to increase or maintain tree canopy cover
- Implemented governance structures to manage and oversee their performance while working towards their tree canopy target
- established systems and process to effectively manage tree data and monitor and report on its outcomes.

Figure A1.1: Performance audit sub-objectives

Audit area	Audit sub-objective
Tree canopy planning	Does the Council effectively plan its tree canopy activities?
Governance structures and practices	Does the Council have effective governance arrangements over its tree canopy activities, including: <ul style="list-style-type: none">• establishment of clearly defined roles and responsibilities• monitoring of performance of tree canopy activities and performance against targets• risk management processes for the management of its tree canopy
Management of tree canopy data	How effectively does the Council manage information abouts its trees to maintain or increase its tree canopy?

We reviewed documents in detail and held discussions with relevant council staff.

Attachment 1 – Audit mandate, objective and scope

Our assessment considered:

- the LG Act requirements
- Council objectives, targets, policies and plans for tree canopy management
- The 2017 update of the SA Government’s 30 Year Plan for Greater Adelaide which includes tree canopy targets for council areas
- the *Planning, Development and Infrastructure Act 2016*
- the *Electricity (Principles of Vegetation Clearance) Regulations 2021*
- Risk management processes based on *ISO 31000:2018 Risk management guidelines*.

We engaged a subject matter expert to provide guidance and advice throughout the review and to ensure our observations and recommendations were consistent with sound industry practice.

What we did not review

The scope of this performance audit did not include assessing:

- Council risk management practices across all its functions. We focused on risks relevant to the management of its tree canopy.
- significant or regulated trees legislation and compliance with it
- how other land holders are managing trees
- the completeness and accuracy of LiDAR tree canopy data
- the merits of alternative tree canopy measurement methodologies
- the Council’s tree audit process.

We will not review or conclude on the results of our survey of metropolitan councils.

Attachment 2 – Review findings

1 Data and asset management systems

1.1 Audit recommendations and findings

1.1.1 The Council's system does not support effective tree management

Recommendation

In developing its tree management system, the Council should consider system functionality that:

- enables staff and contractors to update tree records for maintenance data and risks easily and timely
- gives relevant staff access to data for update, analysis and decision making
- enables staff to create reports that provide information to support their decision making about tree management activities.

The Council should prepare a plan about changes needed to the system for actioning and monitoring.

Audit finding

We found the Council's enterprise management system was not at a sufficient level of maturity to support effective tree management. This was because the system did not have functionality which:

- ensured accurate and complete tree data was maintained
- provided information needed to perform tree management activities effectively.

Maintaining complete and accurate tree data

During 2021–2023, the Council conducted the first audit of its public trees. The audit collected comprehensive data, providing the Council with an up to date understanding of its tree population, species diversity and other tree demographics (such as information about an individual tree's health, location, age and risk status).

During the audit, a tree asset management system was used to record this data and individual tree records were updated to show maintenance work needed or performed. This ensured the Council had current and complete information about its trees.

In early 2023, the Council discontinued using the tree asset management system, and built functionality for tree management activities in its existing enterprise management system.

Attachment 2 – Review findings

Tree data was transferred from the tree asset management system to the enterprise management system, but not all functionality to support key tree activities had been fully developed in the new system at this time.

We found:

- some Council staff did not have access to tree data in the enterprise management system they needed to perform their roles
- a Council officer needed to maintain manual records to support certain tree management activities.

As a result, tree data obtained during the Council's audit was not being fully maintained in the enterprise management system, increasing the risk of tree data becoming redundant.

Gaps in reporting capability

We found the enterprise management system's reporting capabilities were still being developed for key tree management activities. For example, the system could not produce automated reports to help staff evaluate and monitor activities such as:

- annual planting, including details about planned tree species, planting dates and locations
- watering routes
- risk-based tree maintenance and inspection programs
- tree health and risk status
- performance against objectives and targets.

We also found Council staff had difficulty accessing information in the enterprise management system, making analysis and decisions more difficult and time consuming.

It is important staff can easily access information to help them make effective and efficient decisions about their work, such as:

- the setting of performance targets for tree diversity and annual planting to achieve the Council's long-term tree canopy target
- the timing, level and allocation of resources needed to maintain healthy trees and increase the tree population
- manage related risks such as tree limb failure, tripping hazards and root conflicts with footpath and road infrastructure
- the management of the Council's work crews and contractors
- whether current tree management activities are achieving the Council's objectives and targets

Attachment 2 – Review findings

- whether there is a need for changes to the Council’s strategic plans about its urban forest and tree management.

An effective tree management system could provide, for example:

- a register to store tree data (such as tree species, location, planting date, health, risk rating) and the ability to maintain this data efficiently
- the ability to manage tree maintenance activities efficiently and effectively (such as create, coordinate and monitor planting, watering and pruning programs, coordinate planting programs with footpath and kerb maintenance programs)
- the ability to manage community complaints and requests, and record when and how these were resolved
- the ability to provide information to monitor and evaluate performance against the Council’s objectives and targets.

Plan for changes to the enterprise management system

We also found the Council did not have a documented plan for changes needed to the enterprise management system for access and reporting. It is important the Council prepares such a plan to ensure all changes needed to the system are identified, prioritised, allocated for actioning and monitored for progress.

Attachment 2 – Review findings

2 Risk management

2.1 Audit recommendations and findings

2.1.1 The Council's system does not support effective management and reporting of tree risks

Recommendation

As a matter of priority, the Council should develop system functionality to support the effective management of tree risks.

The Council should review its processes to ensure reporting is in place to enable appropriate oversight of key tree risks.

Audit finding

As mentioned in section 1.1.1, we found the Council's enterprise management system did not support the effective management of tree risks because it did not:

- have a built-in risk assessment methodology to assist staff assess tree risks. This could lead to inconsistencies in how Council staff assess and conclude on tree risks.
- allow staff to easily access tree risk ratings and see what work had previously been performed on trees to address identified risks. We found staff could only understand the complete history of work performed on a particular tree and the effect on its risk status if all separate work orders were produced for the tree.

It is important Council staff have access to information in the system to monitor, evaluate and report on tree risks efficiently. For example, the system could not produce a list of all high-risk trees at a point in time which staff could use to monitor tree health and update the corporate risk register. We found Council staff were maintaining manual records to help them manage known high risk trees and there was no documentary evidence these risks had been reported in line with Council policy, such as reporting risks to the Audit Committee.

2.1.2 The Council had not documented an assessment of some relevant tree management risks

Recommendation

In finalising its risk register, the Council should:

Attachment 2 – Review findings

- perform a comprehensive review of its tree data and tree management practices to identify and assess all tree risks.
- maintain a complete and central record of the risk assessments and treatment plans to enable adequate monitoring and reporting of risks.

Audit finding

The Council's risk management policy and procedure outlines the key elements of a sound risk management process. It defines roles and responsibilities, processes and reporting requirements.

Effective risk management involves identifying, analysing, mitigating, monitoring and communicating risk. The use of a risk register is key to performing these activities.

The corporate risk register identifies the Council's strategic, operational, asset and project risks and requires sufficient information to be recorded to let elected members and staff know how risks will be managed.

We found the Council's corporate risk register included strategic and operational tree management risks but did not recognise some relevant risks, such as the risk of:

- tree data not being maintained to understand the status of the Council's tree population, and individual tree's health, diversity and risk rating
- specific trees assessed as high operational risks not being managed effectively
- adverse impact to trees and the tree canopy from Council or State managed civil or capital works
- adverse impact to trees due to natural events, such as pest outbreak or disease
- Council trees and tree canopy not being resilient to climate change and extreme weather events, such as warming average temperatures and lower average annual rainfall
- negative public perceptions of trees.

Without a complete listing of all relevant risks, management cannot determine and demonstrate whether:

- risks have been adequately assessed and treated
- all risks are being reported to senior management, council committees and the elected members, as outlined in the Council's risk management policy.

Attachment 2 – Review findings

3 Monitoring and reporting of performance

3.1 Audit recommendations and findings

3.1.1 The Council has limited performance reporting

Recommendation

The Council could improve its reporting of tree management performance by sourcing actual tree planting numbers from the enterprise management system and reporting this against their annual planting target.

In finalising the draft urban forest and tree management plans, the Council should develop and document performance reporting requirements that contribute to the achievement of objectives and tree canopy target. These could include:

- numbers of trees removed and new and replacement plantings during the period
- changes in overall tree population diversity and performance against target ratios
- status of tree population health
- numbers of plantable spaces available for public planting
- estimated trees lost on private land
- estimated canopy spread or loss
- tree risks.

Audit finding

The Council's reporting of tree management performance is limited to the yearly tree planting numbers published in its annual report. There is no other performance reporting of tree management activity. The Council advised us that the number of trees planted each year is based on the maximum outputs that can be achieved with allocated resources.

Further the tree planting numbers reported are based on records maintained by Council staff about the procurement of trees instead of actual planting data sourced from the enterprise management system.

It is important actual performance is compared to targets for the Council to assess whether its actions are successful or changes to activities and resources are needed to achieve its objectives and the long-term tree canopy target.

We noted that the Council's draft urban forest and tree management plans do not specify reporting requirements on achievements of objectives and targets about new and replacement tree plantings, tree population health, tree risks and species diversity.

Attachment 2 – Review findings

4 Strategic planning for tree management

4.1 Audit recommendations and findings

4.1.1 The draft urban forest and tree management plans do not currently include some key elements

Recommendation

The Council considers incorporating our suggestions in its draft urban forest and tree management plans.

Audit observation

The Council has engaged a consultant to help it develop an urban forest plan (UFP) and a tree management plan (TMP). These plans will reflect the outcomes of the Council's 2023 tree audit and the 2022 LiDAR data. They aim to support a proactive best practice approach to managing public trees and related risks and increase the Council's tree canopy.

We considered the draft plans available at the time of our review and identified some areas that could be improved to help the Council achieve the aim of these plans, including the analysis of the comprehensive tree data to inform planning activities.

Draft Urban Forest Plan

The draft UFP includes a purpose, vision, goals, a tree canopy target (already set in the Council's Environment Strategy), measures of success, and key actions with timeframes and how these will be resourced.

While we acknowledge the draft UFP is still being developed, we found its analysis of the diversity and structure of the Council's urban forest did not reflect current conditions. Rather it was generic in nature. Understanding the diversity of the types of tree species, the on ground issues and opportunities related to the Council's urban forest is needed to help readers understand why certain targets have been set and what specific actions are needed. The draft UFP could benefit from utilising the summarised data trends identified in the TMP to better inform the setting of targets and actions as follows:

- Identify the issues and gaps in the current tree population and make recommendations for how they will be addressed.
- Identify the most common tree species in streets and/or open spaces and note any opportunities for improving diversity.

Attachment 2 – Review findings

Summarise the:

- Useful life expectancy profile of the urban forest and identify how this might impact on the future urban forest and canopy targets. Identify the strategic planning requirements to minimise the impacts.
- Age profile of the urban forest and outline any future management measures to help nurture the mature tree population.

Further, the draft UFP did not include some of the key outcomes the Council had initially identified, including it did not:

- identify the tree planting and management requirements needed to meet the 2030 target such as:
 - the number of trees to be planted each year and their locations
 - the location of priority planting areas (those with high heat impact or heavy pedestrian activity that would benefit most)
 - the number of plantable vacant street tree sites or open space sites by suburb
 - which trees need renewing, their locations and when this will occur
 - how this will be achieved within the Council's available resources; financial, labour, and materials and likely availability of tree stock
 - the costs of achieving these requirements
- a tree planting plan which includes strategies to increase planting on private property
- describe the organisationally specific tree protection measures the Council currently has in place and what needs to improve.

We also noted that while the draft UFP details actions reflective of good urban forest practice, many of these are generic in nature and have not been aligned with existing Council practices. This reduces their relevance to the Council and increases the risk of actions not being adopted because the Council must interpret these to understand what is needed. For example:

- *Use water-sensitive urban design (WSUD) applications around trees whenever possible.* This action could be improved by clarifying how this will happen eg include WSUD specifications into Council design guidelines, identify which vacant spaces or tree renewal sites could be retrofitted with WSUD.
- *Prioritise low canopy locations.* This action could identify the specific site locations that need to be targeted first.
- *Prioritise high urban heat areas.* This action could identify where these areas are and which ones get priority.
- *Advocate for and demonstrate well-considered and thoughtful design choices that allow for existing trees to be retained as part of development.* This action could be improved by describing what the process is for better tree protection and what needs

Attachment 2 – Review findings

doing better? Which team will look after this? Which stakeholders will need to be educated? Are these private or public trees?

Further, the UFP includes actions that require additional investment. However, these have not been quantified. The UFP would be improved if these actions were prioritised and allocated a budget.

Draft Tree Management Plan

The draft TMP has an asset management focus. It seeks to align trees with asset management principles which is crucial for determining the appropriate amount of maintenance and capital funding needed to maintain and renew the urban forest asset.

The draft TMP outlines the current status of the urban forest, which is valuable information needed for asset management.

We suggest some of this summary information be included within the UFP to provide the strategic context about why certain targets and actions have been developed.

Other elements that could be considered for inclusion in the TMP:

- Outline the status of the Council's current tree management service delivery so as to understand what the Council does well, what needs improvement and where the gaps are.
- Identify the Council's current operational tree management issues and opportunities.
- Outline the resource breakdown between current contracts, outline key specifications and how they are audited to track progress and compliance.
- Utilise the tree data to identify the quantum of works required to mitigate risk and to ensure a healthy, well structured and diverse tree population. Calculate the resources, budgets and timeframes to action the works.

While the draft TMP includes budgets that are forecasted on historical spends, there is no analysis on the resources required. The draft TMP could be further improved by including these details.

The draft plans do not explain their relationship

We also noted the draft UPF and TMP do not explain how they relate to each other. A statement describing the components of the Council's tree management framework (including its existing policies such as its tree, verge, asset and risk management) and explanation about how each policy and plan is connected could help users understand their purpose and linkage.

Attachment 2 – Review findings

4.1.2 The Council does not set specific tree canopy targets

Recommendation

In revising its tree canopy target, the Council should consider setting a subset of targets specific to land use types and based on available plantable space and Council resources.

In finalising its urban forest and tree management plans, the Council should consider specific strategies, actions and resource allocation to achieve the specific targets set.

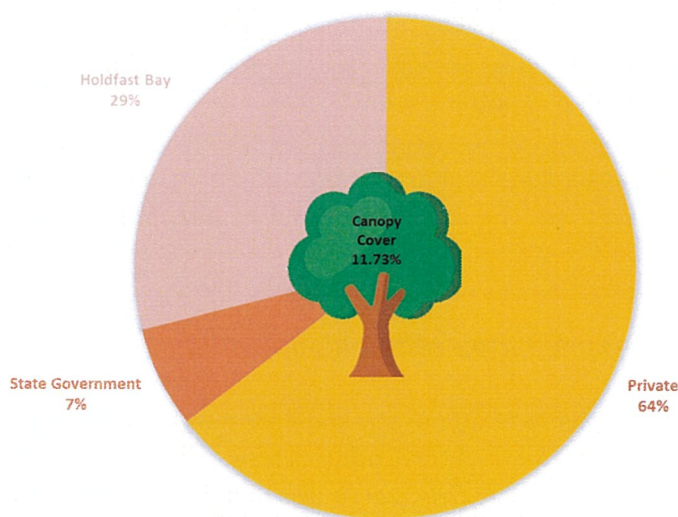
Audit finding

The Council’s Environment Strategy 2020 – 2025 includes a target to increase the City’s tree canopy by 10% from 15.28% in 2018 to 16.8% in 2030. Based on the initial 2022 LiDAR data, the Council’s tree canopy cover is now 11.7%.¹ The Council intends to revise its target following the official release of the 2022 LiDAR data and the finalisation of its UFP.

A well-documented challenge faced by metropolitan councils working to increase their tree canopies, is that they do not own or control a large portion of land in their council areas.

Figure 4.1 shows a breakdown of the percentage of land ownership and tree canopy over the Council’s area based on 2022 LiDAR measurements.

Figure 4.1: Percentage of land use and tree canopy cover

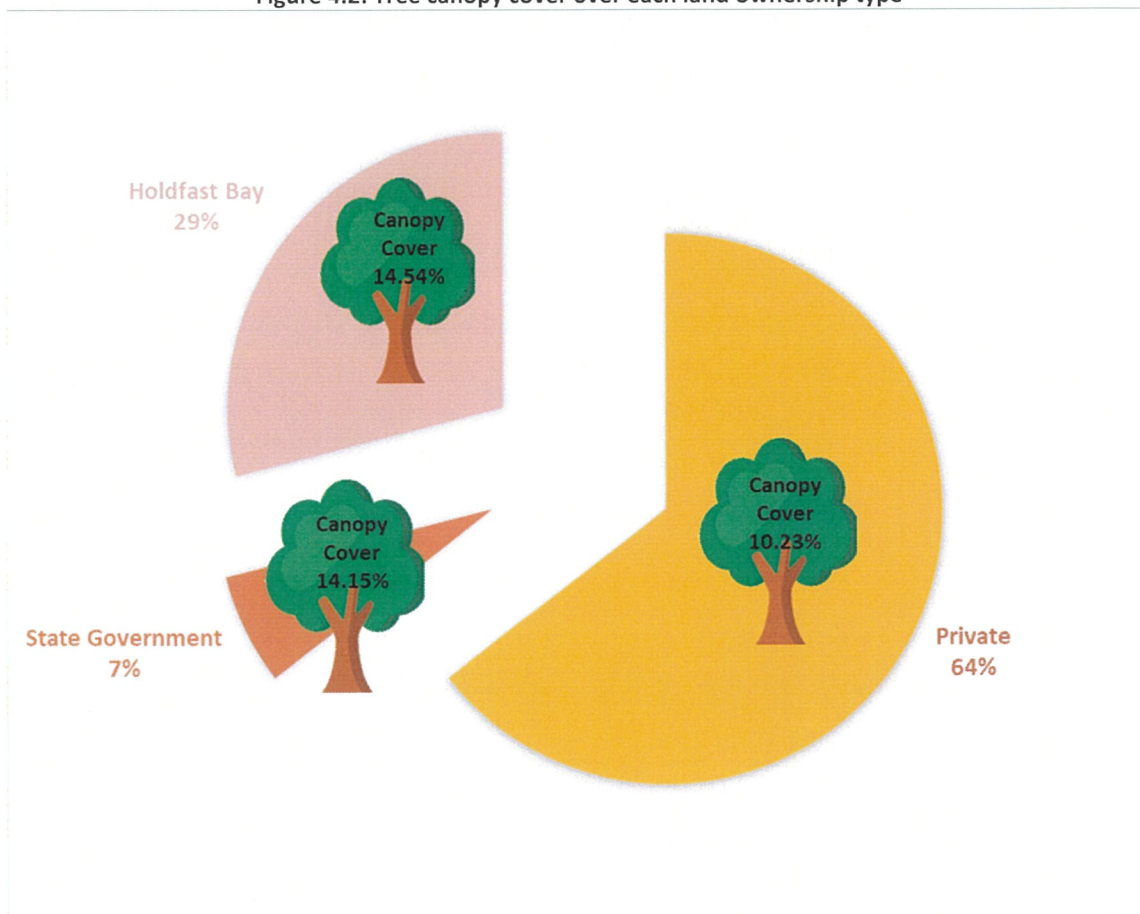


¹ At the time this letter was prepared, Green Adelaide was reprocessing 2018 LiDAR data. It is likely this will change the City’s tree canopy measurement of 15.28% in 2018.

Attachment 2 – Review findings

Figure 4.2 shows tree canopy cover over each land ownership type.

Figure 4.2: Tree canopy cover over each land ownership type



Also, the amount of land controlled by councils and available for planting is further limited by infrastructure such as powerlines, storm and wastewater networks, footpaths and roads, and house and fence footings.

To recognise these limitations, many councils set separate tree canopy targets for different land use and tenures.

For example, another local council has split its tree canopy targets by land use and ownership:

We will increase average township tree canopy cover to 20% by 2043 and to 30% by 2073 by meeting the following targets:

- *Average Road reserve tree canopy from 11% to 20%*
- *Average Open space tree canopy cover from 7% to 30%*
- *Aiming for net gain of tree canopy cover on private residential land within township boundaries.*

Some councils have also set annual tree planting targets which are linked to their tree canopy targets.

Attachment 2 – Review findings

It is important there is a link between the performance target set and what the Council is able to deliver through its planned strategies, allocated resources and available plantable space. Setting specific targets will help to inform targeted actions and will allow a more fair and accurate measurement of the Council's performance.

Attachment 2 – Review findings

5 What the Council did well

We also identified some Council activities that were effective in working towards increasing the tree canopy and tree health in the Council area.

5.1 The Council established an Environment Strategy

The Council has an Environment Strategy 2020 – 2025 which identifies five environmental action themes, each with its priority activities and benefit rankings. The Environment Strategy includes tree related action items which will help the Council increase its tree canopy, improve tree health and raise community awareness about the value of trees. The elements of the Environment Strategy concerning trees will be supported by the UFP and TMP once they are finalised.

5.2 The Council conducted a tree audit

High quality data about trees is key to a Council maintaining and growing a healthy urban forest. Council staff are able to make more efficient and effective decisions about tree management because decisions are evidence based.

Between 2021 and 2023, the Council conducted its first audit of its public trees which resulted in a database of 21,170 trees. The audit identified the Council had approximately 6,000 more trees than it had estimated and around 5,500 plantable spaces. The audit captured wide ranging data about the Council's trees, including data about species diversity, tree health, age, useful life expectancy, works required and risk status.

This data will enable the Council to develop informed urban forest and tree management plans, identify priority actions and set attainable targets that consider available plantable space and species diversity needs.

Further this data will enable the Council to better understand what resources are needed to support and grow its trees and increase its tree canopy.

We did not review the Council's tree audit process.

5.3 The Council has strategies to increase public awareness about the value of trees

The Council has an Adopt a Tree Program. Under this program, the Council allocates new trees to be planted on residents verges each year. Registration is free and the Council issues

Attachment 2 – Review findings

trees on a first come first serviced basis. Residents must commit to watering the new trees for the first three to four years after planting.

The Council also has a Tree of the Month program which aims to increase community awareness about the value of trees, the role they play in providing shade and habitat, cleaning air and supporting public health and wellbeing. Residents can nominate a tree that is significant to them and it is showcased on the Council's website.

5.4 The Council has clearly defined roles and responsibilities for tree management

The Council has clearly defined, documented and communicated to staff their roles and responsibilities for tree management, including:

- program delivery and oversight
- reporting
- tree risk assessment and treatment.

This has given staff transparency and understanding about work expectations, and how they contribute to the Council's broader strategic objective of increasing the tree canopy.

Attachment 2 – Review findings

6 Other initiatives

We observed other initiatives the Council had used to improve tree health.

6.1 The Council uses WSUD to improve tree health

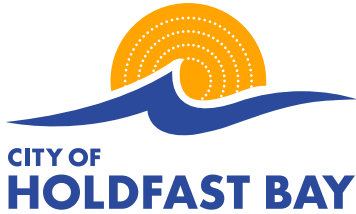
The Council is using innovative techniques to improve street and open space tree health, by passively infiltrating stormwater through water sensitive urban design (WSUD).

WSUD provides environmental benefits such as capturing rainfall runoff to prevent flooding and improving stormwater quality which reduces sediment and pollution into waterways. It is also highly valuable for providing supplementary irrigation to urban vegetation, improving tree and canopy health and longevity.

We saw several examples where the Council had used:

- WSUD in the form of raingardens to capture stormwater runoff including in high traffic streets and in parks from tennis courts to passively irrigate trees and vegetation.
- street tree inlets to redirect stormwater from roads to tree roots, which increases the availability of water for the surrounding street trees.

Attachment 2



10 April 2024

Andrew Blaskett
Auditor-General
Level 9, State Administration Centre
200 Victoria Square (Tarntanyangga)
ADELAIDE SA 5000

Dear Mr Blaskett

Review of Urban Tree Canopy Management

Thank you for the opportunity to be involved in the Auditor-General's review of urban tree canopy management (the review). This letter will detail the City of Holdfast Bay's (the council) final written response to the review.

Council acknowledges the importance of trees and our vital role in the management of our natural environment. We are committed to increasing our tree canopy and welcome the external review of our tree management activities.

Council's Urban Forest Strategy and Tree Management Plan are currently being developed and have been on hold during the review, awaiting updated tree canopy data from the state government. This data is critical to the development of realistic and achievable tree canopy targets, with the recommendations from the review supporting our efficiency, economy and effectiveness of our tree management.

1. Data and Asset Management System

Recommendation: The Council should prepare a plan about changes needed to the system for actioning and monitoring.

During the public tree data collection and assessment (2021-2023), Council captured comprehensive data of all individual trees. After the audit this data was transferred into council's asset management register.

Council has committed to build additional functionality for tree management into the existing enterprise asset management system to address the gaps identified in the review.

2. Risk Management

Recommendation: As a matter of priority, the Council should develop system functionality to support the effective management of tree risks.

The Council should review its processes to ensure reporting is in place to enable appropriate oversight of key tree risks.

Recommendation: In finalising its risk register, the Council should:

- *perform a comprehensive review of its tree data and tree management practices to identify and assess all tree risks.*
- *maintain a complete and central record of the risk assessments and treatment plans to enable adequate monitoring and reporting of risks.*

During the public tree data collection (2021-2023), every tree was assessed for risk. High risk trees were identified in real time to be dealt with urgently. By the completion of the audit, council had no identified high risk trees remaining. Each tree has an ongoing assessment frequency based on its risk status.

Existing operational tree risks are captured in the operational risk register. Through the development of the tree management plan, council will undertake a review of its tree risks and update the operational risk register. This will ensure central reporting enables appropriate oversight of these risks.

3. Monitoring and Reporting of Performance

Recommendation: In finalising the draft urban forest and tree management plans, the Council should develop and document performance reporting requirements that contribute to the achievement of objectives and tree canopy target.

Council's tree performance reporting will be refined and integrated into the development of the strategic planning documentation.

4. Strategic Planning for Tree Management

Recommendation: The Council considers incorporating our suggestions in its draft urban forest and tree management plans.

Recommendation: In revising its tree canopy target, the Council should consider setting a subset of targets specific to land use types and based on available plantable space and Council resources. In finalising its urban forest and tree management plans, the Council should consider specific strategies, actions and resource allocation to achieve the specific targets set.

Council will consider these recommendations in detail and select appropriate placing for the inclusion of them in development of the strategic planning documents.

Council has made significant progress on developing its action plan with specific actions to improve our overall urban forest management to achieve targets, including allocation of resources.

The strategic planning documents were required to be put on hold due to the time delay in delivery of the 2022 tree canopy data capture from the state government. It was critical to understand the baseline 2018 data set and subsequent change in canopy to 2022 to undertake accurate modelling to develop canopy targets.

A subset of targets specific to land use types, available plantable space and council resources will be included in the urban forest strategy and tree management plans following the release of the tree canopy data by the state government.

Context, Challenges and Opportunities

Our urban forest is inclusive of all trees within the City of Holdfast Bay on public and private land. Trees are also subject to a range of diverse legislative and regulatory requirements. As the management of the urban forest is a joint responsibility and impacted by a number of stakeholders, it is important to recognise the external constraints that impact the success of achieving an increase in canopy across the city as a whole.

During the last 18 months, council has made two significant submissions about trees and the urban forest to the:

- Planning System Implementation Review
- Parliamentary Inquiry into the Urban Forest

We would like to take this opportunity to summarise some of the legislative and regulatory barriers to retaining, managing and increasing the urban forest, which we identified through these processes.

Conflict Between Trees and Utilities

There are several state-government laws, regulations or policy documents that restrict the trees that can be planted on public land, including:

- *Electricity (Principles of Vegetation Clearance) Regulations 2021*; including the Approved and Permitted Species lists maintained by the Office of the Technical Regulator that mandate which species may be planted under power lines;
- *Water Industry Act 2012*, including the SA Water Tree Planting Guide which mandates which species may be planted in the vicinity of water and wastewater infrastructure; and
- Operational Instruction 19.8: Trees in Medians and Roadsides in the Urban Environment, which mandates vegetation clearances from road corridors.

These documents treat trees only as a risk to critical infrastructure or life, rather than as green infrastructure with the same value as grey infrastructure. While trees can pose a risk to infrastructure, these documents ignore the numerous benefits that trees provide to the community.

As infrastructure proliferates with urban sprawl and infill, regulations that allow trees to be removed and limit replacement plantings, make it impossible for councils to achieve canopy targets on public land alone, especially because most metropolitan councils own a lower proportion of land than private landowners, as is the case for the City of Holdfast Bay.

There is an urgent need to incorporate a more sophisticated understanding of trees as community assets and an important mitigator of climate risk, rather than simply as a threat to infrastructure. There is also a need for harmonisation of all tree-relevant legislation and regulation to ensure this balanced and wholistic view of trees is promulgated across all state government policies, aligning infrastructure and development regulation with the principles of the 30-Year Plan for Greater Adelaide (and/or its replacement, the Greater Adelaide Regional Plan), and government commitments to greening and increasing canopy, such as the Urban Greening Strategy currently being developed by Green Adelaide.

Undergrounding and Aerial Bundling of Power Lines to Avoid Conflict

Independent of legislative and regulatory reform to the utilities sector, one of the simplest initiatives the state government could invest in to improve the extent of the urban forest and its performance is to underground power lines, including in common services trenches under roadways and in new land divisions, which combine electricity, gas, water, sewerage and communications services in a single trench. The placement of a common trench in the middle of a roadway would increase the amount of above- and below-ground space for planting on the verge, increasing the number and size of trees that can be planted on roadsides.

Alternatively, the bundling of power lines together (called 'aerial bundle cabling') overhead is also a cost-effective approach to existing suburbs with a similar outcome, making more space for tree canopy and reducing the need for large pruning clearances. Both of these approaches also increase the stability of the electricity grid due to reduced damage in storms and fires.

However, retrospectively undergrounding power lines is expensive (ca. \$3,000 per metre). The Power Line Environment Committee (PLEC) is a committee assisting the Minister responsible for the *Electricity Act 1996* in assessing and recommending locations for the undergrounding of overhead power lines. PLEC has annual funding in the order of \$10M, and operates in a co-funding model, whereby councils are invited to apply for funds to support undergrounding in specific areas.

Councils are generally expected to contribute at least one third of the costs of undergrounding (ca. \$1,000 per metre) and are expected to also commit to all of the costs of aesthetic improvement of the space after the undergrounding has happened.

This high requirement for council funds and limited co-funding available through PLEC means that undergrounding of existing overhead cables remains rare. In addition, in the current selection criteria of the PLEC funding program, tree canopy is not considered as part of the decision-making about locations to receive funding, therefore locations that could potentially provide important additional canopy are ignored.

Providing additional funding to PLEC, reducing the level of co-funding required by councils, and including expansion of urban tree canopy in the funding criteria, would allow the removal of more overhead power lines, thereby improve safety and public amenity, and increasing opportunity for greening. Undertaking more undergrounding would possibly also reduce the net cost per metre due to efficiencies of scale.

Alternatively, the state government could identify high priority targets for undergrounding (e.g. specific major transport corridors) to target for power line undergrounding and greening, providing the majority funding as a major project. Such projects could effectively transform barren transport corridors into shady boulevards with high public amenity and increased appeal for active transport users.

Landscape South Australia Act 2019

The *Landscape South Australia Act 2019* prevents the planting of species declared as weeds including common trees such as Aleppo pine (*Pinus halepensis*), box elder (*Acer negundo*) and desert ash (*Fraxinus angustifolia*). These species are prohibited because they have the potential to pose a risk to South Australia's environment and primary industries.

Prohibiting the planting of these species in rural, regional and peri-urban areas has sound logic. However, the traits that allow them to grow and proliferate also make some of them effective urban trees. For example, the desert ash has been planted extensively as a street tree and is popular in gardens because it is shady and performs well. The major risk this species poses is its ability to colonise and spread along streams, which may not be an issue in some urban contexts.

New developments

Developers are often heavily criticised for perceived failings in the environmental or social amenity created by their developments, particularly when large trees are removed to facilitate building.

Under the current legislation, it is extremely difficult for councils to enforce or prosecute vandalism of trees (removal, damaging, poisoning), with limited mechanisms to defer illegal removal of public trees.

Linking tree retention and other public good outcomes to economic incentives (e.g. charging developers the full assessed financial value of a tree before approving its removal) would ensure that commercial and public good incentives are better aligned. Another proposed financial incentive method is the use of tree bonds, especially for regulated and significant trees. The bond value would be derived using an agreed methodology embedded in the PDI Act, would be charged prior to development approval, and only refunded in part or in full depending on the extent of any damage suffered by the tree, as assessed by a qualified consulting arborist.

Large trees valued by industry-accepted methodologies often exceed \$100,000 in value, therefore funds accumulated through these processes would be significant enough to support major greening projects, including the purchase of land for pocket parks or other greening opportunities. Such an approach would lead to more certainty for developers, and to development that is in line with public expectations.

Planning, Infrastructure and Development Act 2016

The *Planning, Development and Infrastructure Act 2016* (PDI Act) is the primary mechanism for protecting trees on private land in the greater Adelaide area. The City of Holdfast Bay has provided extensive and specific feedback on the tree protection mechanisms and exemptions within the PDI Act as part of the Planning System Implementation Review. The Act and its regulations require significant improvements in order to retain more private trees.

If Adelaide is to reach its canopy target as set out in the 30 Year Plan for Greater Adelaide, it needs mechanisms to retain, protect and increase tree canopy on private land. This is because the majority of the urban forest is on private land, where the majority of tree loss happens. In the City of Holdfast Bay, the council controls only 29% of the tree canopy, where 64% is controlled by private land owners. Due to significant changes in the planning system between the previous Development Act and the current PDI Act, councils now have no control over trees on private land, therefore the City of Holdfast Bay is currently putting a lot of effort into researching and developing creative ways in which we can encourage and incentivise retention and planting of private trees.

Infill development increases the number of access points to a road that significantly reduces space for trees. More acceptance of combined driveways or stronger clearance zones around existing trees is required.

One of the most important changes that needs to be made to the PDI Act is to remove the ability to remove any tree (other than *Eucalyptus* or *Agonis flexuosa*) that is within 10 metres of a dwelling or in-ground swimming pool, which effectively means that most 'protected' trees in urban areas are exempt from protection, or become exempt after a block with one house on it is subdivided into two or more blocks with multiple dwellings. Reducing or removing this distance will significantly enhance protection for existing trees and bring South Australia into line with other states where the majority of councils do not have a distance provision.

The tree protections currently in place in the PDI Act are defined by the size of the circumference of a tree trunk. This is inadequate both in terms of the specific sizes that are used (2 metres or more for regulated trees; 3 metres or more for significant trees), and because only one measure is used. In the

benchmarking study *Urban Tree Protection in Australia: Review of regulatory matters* produced by The University of Adelaide, commissioned as part of the Planning System Implementation Review, it was shown that the majority of the 101 non-South Australian councils included in the study used at least two measures of tree size. These include tree trunk circumference, canopy spread and tree height. It is considered best practice to use at least two of these measures for specific tree protection regulations.

Regulated trees are often removed by the state government on state government land because both the state Department for Infrastructure and Transport, and the Department for Education have exemptions under the PDI Act. However, these types of locations have particularly high risks associated with increased urban heat. The Federal Government (e.g. Department of Defence) also has an exemption from these State laws and therefore has little responsibility to maintain or protect trees on its land (e.g. significant trees at Warradale Army Barracks).

The University of Adelaide review confirmed that South Australia's tree protections were markedly less stringent than those in other Australian capital cities and that the exemptions to protection in South Australia were so broad that few trees in Adelaide's urban setting are actually protected against removal for development. The University of Adelaide report provides several recommendations on reforms that would improve canopy retention on private land.

We would like to thank the Auditor-General and the Department's team for undertaking the review. The timing has assisted the development of our tree management documentation and the recommendations will assist with our commitment to increase our tree canopy and ongoing tree management improvements. We hope these findings will support the industry as a whole in South Australia to improve tree management and result in increased tree canopy cover across the state.

Yours sincerely

Roberto Bria
Chief Executive Officer