

Interactive Urban Forest Map Tool

Tuesday, 9 August 2022

Council

Strategic Alignment - Environmental Leadership

Program Contact:

Sarah Gilmour, Associate
Director Park Lands, Policy &
Sustainability

Public

Approving Officer:

Ilia Houridis - Director City
Shaping

EXECUTIVE SUMMARY

A report providing information on the City of Melbourne's Urban Forest Visual Map, and a selection of comparable urban forest visualisation tools used by other South Australian Councils, was presented to Council on 12 April 2022. Council noted that a subsequent report on the establishment and operating costs for delivering an Interactive Urban Forest Map Tool (Forest Map Tool) for the City of Adelaide (CoA) would be bought back by August 2022 for decision.

This report provides information on the next steps towards developing a Forest Map Tool as outlined in the Council report on 12 April 2022 and recommends augmenting our existing software platform for this purpose, rather than purchasing a proprietary product.

RECOMMENDATION

THAT COUNCIL

1. Approves the development of a City of Adelaide Interactive Urban Forest Map Tool.
-

IMPLICATIONS AND FINANCIALS

City of Adelaide 2020-2024 Strategic Plan	<p>Strategic Alignment – Environmental Leadership 4.5 Enhance biodiversity in the Park Lands and connect our community to nature.</p> <p>Strategic Alignment – Enabling Priorities 5.1 Review and improve the way we collect and present data and insights with the community.</p>
Policy	<p>Climate Change Risk Adaptation Action Plan 2021-2026 Action 4.6 Complete a full audit of tree and species planted in public spaces within the city and Park Lands (to be completed by June 2023).</p>
Consultation	Resilient East Councils comprising the Town of Walkerville, Campbelltown City Council and Cities of Tea Tree Gully, Burnside, Prospect, Unley and Norwood Payneham & St Peters.
Resource	An Interactive Urban Forest Map Tool can be developed and maintained by CoA within existing staff resources and the existing agreement with Council's software vendor.
Risk / Legal / Legislative	Not as a result of this report
Opportunities	There is an opportunity to improve the City of Adelaide's tree asset data, tree asset management, customer service and our community's connection to nature.
22/23 Budget Allocation	Allocation to finish Stage 1 and undertake Stage 2 tree asset audit of approximately 40,000 park trees, from existing budget to a maximum of \$190,000.
Proposed 23/24 Budget Allocation	Not as a result of this report
Life of Project, Service, Initiative or (Expectancy of) Asset	An internal Interactive Urban Forest Map Tool could operate for the effective life of the software.
22/23 Budget Reconsideration (if applicable)	Not as a result of this report
Ongoing Costs (eg maintenance cost)	Not as a result of this report
Other Funding Sources	Not as a result of this report

DISCUSSION

1. At its meeting on 12 April 2022, Council noted a report providing information on the City of Melbourne's Urban Forest Visual Map and a selection of comparable urban forest visualisation tools used by other South Australian Councils. Council noted that a subsequent report on the establishment and operating costs for delivering an Interactive Urban Forest Map Tool (Forest Map Tool) for the City of Adelaide (CoA) would be bought back to Council by August 2022 for decision.
2. Key considerations for the CoA in establishing a Forest Map Tool include the capability and breadth of our asset database, reliability of existing data, and the creation or purchase of a spatial system and/or platform for the public to view and interact with the information.
3. This report provides information on the next steps towards establishing a Forest Map Tool as outlined in the Council report on 12 April 2022 and recommends augmenting our existing software platform for this purpose, rather than purchasing a proprietary product.

Audit of Existing Tree Assets

4. An audit of CoA's existing tree asset data is commenced to improve asset knowledge and ability to plan, manage and communicate about tree assets.
5. Stage 1 of this process comprised auditing of around 10,000 street trees and some park land trees (approximately one-fifth of CoA's total tree assets) and is planned for completion by the end of July 2022.
6. Stage 2 involves auditing the remaining 40,000 park land tree assets for completion in 2022/2023.

Verify and Update CoA Tree Asset Database

7. Verifying and updating the tree asset database into the Asset Management System (AMS) Assetic, is planned to occur in the second half of 2022/23.

Evaluation of CoA Information Management Solutions

8. CoA currently uses Assetic as our main Asset Management System (AMS) and is working toward an Assetic Mobile Solution (AM2) to assist in-field use and updating of Assetic in real time.
9. CoA can develop a Forest Map Tool for viewing via a link on the existing CoA website, use existing Assetic data and GIS Mapping platform, ESRI, including spatial systems programming and additional branding.
10. The costs incurred for hosting the Forest Map Tool on ESRI can be covered under the existing agreement with the software vendor.
11. A CoA Forest Map Tool will include a navigable map, identification of trees, species name, common name, height (as a range), canopy (as a range), tree image and ability to message/email the tree (refer to prototype screen shot image [Link 1 view [here](#)]).
12. Additional fields of information, including future planting information could be included and CoA tree canopy LiDAR data could be layered over the base image if these were deemed useful but would require additional in-house time than what is included in this report.
13. The Forest Map Tool supporting data would be updated through CoA asset management practices.
14. Information Management has been consulted on the above which aligns with CoA's Enterprise Architecture principle of optimising existing software prior to introducing another solution.

Proprietary Product Options

15. Specialist tree asset management software is available, with *Forestree* a common proprietary product used by local government in South Australia.
16. Proprietary Forest Map Tools such as *Forestree - Tree Visualiser* are generally linked to their associated specialty tree asset management software system. Proprietary systems have enhanced public interfaces for community engagement.
17. A proprietary system can communicate tree data and information such as how many of a given tree species are within a geographic area, graphs of species by suburbs, number of trees in a selected street, water requirement, future planting locations and recently planted species.
18. The cost of Forestree and the Forestree -Tree Visualiser is in the order of \$40,000 to establish with an ongoing annual subscription fee of \$10,000 and any in-house maintenance.

19. The CoA consulted with our seven Resilient East partner councils to ascertain if they use a Forest Map Tool and opportunities for partnerships or cost efficiencies. Of the three Councils using a Forest Map Tool, all are using Forestree – Tree Visualiser and are satisfied with the product.

Establishment and Costs for CoA Forest Map Tool integrated with existing systems

20. Establishment steps are set out below and can be managed within existing CoA resources or under existing software licence agreements:
 - a. Development of application using ESRI.
 - b. Website integration and branding.
 - c. Publishing on hosted ESRI site.
21. A Forest Map Tool will integrate with existing CoA systems, does not require additional purchases and subscription fees and can be developed and maintained within existing staff resources and software agreements.
22. Emails received via the Forest Map Tool would be managed through a CoA email account and are estimated to be less than 10 emails per week based on the experience of City of Melbourne.
23. Ongoing operating costs include staff time for maintenance of the Forest Map Tool program and responding to community queries/emails.

Investigate other Creative Options for Community to Engage with Trees

24. A Forest Map Tool has potential to improve community knowledge and interest in CoA tree assets. Other activities to increase community engagement could include Park Land tours, volunteer mapping and planting, community naming of trees, community tree of the month nominations and promotions, children’s drawing competition, adopt a tree program(s), tree/plant give aways, regular social media messaging highlighting the benefits of trees and corresponding messaging on printed shade cloth for new tree surrounds.

DATA AND SUPPORTING INFORMATION

Link 1 – CoA Internal Forest Map Tool Prototype Screen Shot

ATTACHMENTS

Nil

- END OF REPORT -