



Best Practice: Tree Amenity Value Program

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CITY: MELBOURNE

**POLICY AREA: PARKS AND GREEN SPACES;
ENVIRONMENT**

BEST PRACTICE

The City of Melbourne has launched an initiative to calculate the monetary amenity value of trees or the “tree amenity value.” This initiative enables the city to protect trees, effectively manage the urban forest, and calculate greenhouse gas emissions reductions and the associated cost savings to the city.

ISSUE

The City of Melbourne is home to iconic parks and gardens, some of which are on the United Nations Educational, Scientific and Cultural Organization (UNESCO) World Heritage list, the Australian National Heritage List and the Victorian Heritage Register. These parks and green spaces contribute significantly to the city’s reputation as one of the most livable cities in the world.

Environmental Challenge

The protection and retention of trees in an urban environment has been a challenge for the city. An estimated 40% of the city’s significant trees listed on the National Trust Victoria Significant Tree Register and located in major parks, boulevards and avenues are declining or dying. The tree amenity value of the city’s significant trees is estimated at 240 million AUD (\$240 million USD) and the value of the city’s entire tree population is estimated to be valued at over 600 million AUD (\$600 million USD).

The following environmental factors have taken an unprecedented toll on the urban forest:

- the highest temperatures on record;
- a prolonged drought in Melbourne;
- the lowest soil moisture levels on record;
- aging trees, a vast majority of which were planted around the turn of the 19th century

Infrastructure Challenge

Damage to trees and the removal of trees is a constant threat to the urban forest. Construction due to increasing infrastructure needs has accelerated damage to the urban forest. It is estimated that a 10% increase in canopy cover can reduce urban temperatures by 3-4 degrees Celsius. Conversely, a loss of tree cover would increase urban temperatures. An acre of trees absorbs 2.6 tons of carbon dioxide, equal to a car being driven 40,000 kilometers.

GOALS AND OBJECTIVES

The goal of using the amenity value formula is to ensure that trees are protected from development and other activities that threaten their health. It also mitigates the conflict between the needs of the urban forest and the infrastructure needs of the city. There are no specific program targets. Rather, the implementation of the formula enables compensation to the Council for the loss of amenity value. These funds are put towards replacement greening.

IMPLEMENTATION

The Amenity Valuation formula was developed by the City of Melbourne. The ability to place a monetary value on the amenity value of trees is critical to effective tree management, tree protection and the management of the urban forest. The multi-variable formula applies a calculation based on the basic dollar value, species, aesthetics, locality and the condition of trees.

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The photo below provides an example of the application of the tree amenity value formula. The values shown on the right are associated with four trees adjacent to a proposed Library conversion. A bond will be secured to the amenity value of the four trees during the Planning Permit application process. This in combination with a Tree Management Plan will serve to protect the health of the trees.



Using the tree amenity value formula ensures that trees are protected from development and other activities that threaten their health. It also mitigates the conflict between the needs of the urban forest and the infrastructure needs of the city. The ability to place an amenity value on a tree has enabled the Melbourne City Council to obtain bonds from developers to ensure the protection of trees during development. This tree amenity value initiative has become a critical platform for negotiations and discussions with developers around tree removal requests, decision-making regarding development and infrastructure design, and determining tree protection plans. The Council has also used the tree amenity value in prosecutions for illegal tree removal.

Another result of using the tree amenity value is that the Council has decided to invest approximately 27.6 million AUD (\$27.6 million USD) in the 2010-2011 city budget for Melbourne's parks and gardens. This includes an immediate injection of 7.2 million AUD (\$7.2 million USD) in the form of a tree rescue package in order to have 2,000 trees removed and 3,000 trees replanted. Also, new landscape design works will be funded to maximize water collection and will help Melbourne's World Heritage landscapes adapt to the new climate after years of drought conditions.

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Alexandra Avenue in 2004 showing a lush canopy.



Alexandra Avenue in 2010 showing decline in tree health.

COST

The use of the tree amenity value tool generates income for the Council regarding compensation for tree loss. There are no additional costs associated with implementing this practice. The cost of staff time is a part of the Urban Landscapes Department's budget.

RESULTS AND EVALUATION

The City of Melbourne is currently developing ways to measure the initiative's success annually. As mentioned, the tree amenity value of the city's significant trees is estimated at 240 million AUD (\$240 million USD) and the value of the city's entire tree population is estimated to be valued at \$600 million AUD (\$600 million USD). An acre of trees absorbs 2.6 tons of carbon dioxide, equal to a car being driven 40,000 kilometers. Thus, the city can quantify the loss of trees in terms of a monetary value and also measure a reduction in greenhouse gas emissions by saving acres of trees.



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TIMELINE

1997	The city of Melbourne began to study the implications of using the tree amenity value
2010	Council voted to enact the tree rescue package for 2010/2011 financial year
2011	Council will begin to quantify on an annual basis the dollar value of trees protected as a result of this tool

LEGISLATION

The Tree Amenity Value is embedded in Council's Planning process. The use of the amenity value is undertaken on an as needs basis for individual developments.

LESSONS LEARNED

The City of Melbourne reports no specific difficulties in implementing this program. However, as the initiative continues to be implemented, information on the lessons learned can be provided.

TRANSFERABILITY

As a tool, this is readily transferrable mechanism to value trees. A recent seminar in Perth, Western Australia specifically looked at the City of Melbourne's tree protection activities.

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