



## NATURE RESERVES PRESERVATION GROUP

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**Subject: City of Kalamunda Urban Forest Strategy (Draft).**

This submission on the above draft, is on behalf of the Nature Reserves Preservation Group (NRPG) Inc. It will address specific parts of the draft, citing the section, followed by 'boxed' comments. NRPG members have also been encouraged to make their contributions via the "have your say" site.

This Strategy is a welcome, if long-overdue initiative. The significant work of those involved in its preparation should be recognised and applauded. Acknowledging the challenges posed by the changing climate and the increasing demands for increased density, is a first step. All this good work will be wasted unless councillors and staff ensure future budget allocations permit the required actions to be taken. Failure to do so will compromise the success of the strategy.

### **Message from the Mayor**

#### **2. Introduction.**

*"For example, initial modelling for the Forrestfield North development suggests that the urban forest canopy could reduce from the current 30-40% to as low as 5-10% even with the proposed protection of vegetation in local reserves. This strategy will provide the tools to improve this for future developments in the City of Kalamunda."*

The NRPG submission on the Forrestfield North Residential Precinct Local Structure Plan, welcomed the emphasis placed on the retention of natural environmental assets. We did, however, have reservations over the degree to which the City of Kalamunda would achieve its vision of creating a "forest neighbourhood", particularly at the Subdivision and Development Approval stage. The above modelling, showing such a dramatic reduction of the urban forest canopy, indicates our reservations were justified. It is essential this draft Strategy be approved if future losses are to be curtailed.

## 1.1 What is an Urban Forest?

Whilst tree canopy cover is a convenient measure and its contribution to combatting the Heat Island Effect well-established, it is encouraging to see the importance of understory vegetation clearly acknowledged.

### 1.2 Purpose of the Urban Forest Strategy.

*“...an Urban Forest Strategy must consider vegetation from a holistic view, considering both public and private land and different land tenures.”*

Whilst this statement is welcomed, the Strategy goes on to describe the limitations of local government in tackling problems arising from this view. Where loss of vegetation occurs on land beyond the control of the City, the implications of this loss on this strategy, must be assessed and compensated for by increased revegetation on land under the City’s control. The protection of “*high-value vegetation*” on private land, will require considerable effort by staff and councillors, given the historic and oft-declared opposition of some representatives to any interference with the rights of landowners. The key may lie in educating landowners to the value of that vegetation or providing some tangible incentive to the landowner for its preservation. Defining the purpose of the Strategy by basing it on community feedback, ensures the aspirations of the community are being catered for. This, in turn, should ensure the support of that community.

### Figure 2. City of Kalamunda Strategic Environmental Framework.

Although simply a schematic, it gives no assurance that, throughout the process, there will be no ‘disconnect’ between Environment and Planning. Past experience has shown such a disconnect between City departments, resulting in environmental setbacks. At one stage, there was a proposal to establish a Planning and Environment section, designed to avoid such breakdowns in communication. NRPG, in past submissions, has pressed for having an ‘environment in all decisions’ concept accepted, in the same way ‘health and safety’ features in all decisions.

## 1.3 What are the benefits of an Urban Forest?

*“A significant volume of research, in WA, Australia and Internationally, has demonstrated the economic, environmental, psychological and physical health benefits provided by Urban Forests.”*

One would expect the creation of such a valuable community initiative to receive overwhelming support. The benefits are well described in this draft, well supported by the above mentioned research and should convince the council that urgent implementation of the final Strategy document is urgently required. The benefits of such a strategy have been known for some time (several Local Government Authorities have had such strategies in operation for up to ten years). The City’s environmental consultants, in plans for projects such as Forrestfield North, echoed the elements of this Strategy, yet clearing of valuable native vegetation has continued unabated (see earlier comments on Residential Precinct Local Structure Plan).

### Social and community health benefits

*“Trees naturally filter air, and so planting vegetative barriers along transport corridors can be beneficial for removing diesel particulate matter and decrease residents’ exposure...”*

Despite research supporting this statement, including the Canberra Urban Forest project (placing the value of “energy reduction, pollution mitigation carbon sequestration” at US\$ 20-60 million) and a U.K. study on the “removal of atmospheric particulate pollution by urban tree canopy of London” , more recent research suggests the need for more careful studies to be conducted.

*“Plant selection is one of the most important components in an environmentally sustainable program to keep our cities healthy and thriving.”*

(Ferrini, F., Fini, A., Mori, J. & Gori, A. (2020). Role of vegetation as a mitigating factor in the urban context. *Sustainability*, 12, 4247, Basel, Switzerland: MDPI.).

Given that this study is focussed on the same climatic conditions as those enjoyed by Perth (i.e. Mediterranean), it could be a valuable resource.

### **Environmental and biodiversity benefits**

These benefits are but the main ones. Many more could be included for the benefit of ‘doubters’, with perhaps more references for residents interested in this topic.

### **1.4 The relationship between Urban Forest Canopy Cover and Urban Heat Island Effect.**

It has been widely accepted for some time that, increasing canopy cover will reduce the ambient temperature of a location. Dramatic temperature images of unshaded and shaded streetscapes provide the incontrovertible evidence. The Heat Island figures make a convincing argument. The contribution of air conditioners to the effect is often forgotten. Air conditioning is increasingly required in ‘scorched earth’ subdivision developments.

## **4. How do we increase our urban forest?**

### **1.10. Goals**

#### **Swan Coastal Plain Area**

This is the area most at threat of vegetation and tree cover loss. It should be given the highest priority and adequate budget funding to ensure the implementation of the strategy takes place smoothly. Given that the infill requirements of the State Government are contributing to the loss of canopy, should they be requested to make funding available to the City through specific Urban Forest grants?

### **1.11. Action Plan.**

#### **Strategy 4.**

#### **Action 4.8**

*“Undertake a review of all City-managed reserves (including reserve purpose) to identify opportunities to revegetate underutilised spaces, including increasing urban canopy through planting (combine with implementation of the Local Biodiversity Strategy and Public Open Space Strategy)”.*

Whilst it is comforting to see so many actions given a “High” priority, given the environmental importance of both these strategies, this action also deserves a “High” priority.

## **Strategy 6.**

### **Action 6.1**

*“Through the implementation of the **Environmental Land Use Planning Strategy** investigate the implementation of a local planning policy to address clearing of significant trees on private property.”*

It is essential that the problem of private land clearing is addressed and that any policy created has sufficient powers to tackle this problem effectively. Such a policy will doubtless face some opposition in Council, as the failure of past proposals will attest.

### **6.2**

*“Through the implementation of the **Environmental Land Use Planning Strategy** incorporate a provision in the Scheme allowing the City to require rehabilitation of land where an owner or occupier has caused or allowed land to be cleared, managed or degraded in such a way as to cause environmental harm or to adversely affect the amenity of adjoining or nearby land.”*

This action may ensure the problem is addressed. See above comments.

## **Strategy 7.**

### **Action 7.1**

*“...develop a local planning policy to support the retention of urban forest on newly created lots as part of structure planning, subdivision and development...”*

This action is long overdue and its proposal is welcomed. It is also essential that areas declared to be retained on such lots are carefully monitored. Past examples have shown that areas intended for retention, have ‘accidentally’ been cleared. In such instances, *“replacement planting or contribution to Council”*, should be at a far higher rate than that where *“it is not possible to retain urban forest”*.

## **Strategy 8.**

### **Action 8.3**

*“...target planting in specific areas including industrial areas...”*

Assigned “Medium” priority, it is essential this be given “High” priority. Through ‘infill’ and land development pressures, the Swan Coastal Plain is the area most likely to be generating the heat island effect. Within the Swan Coastal Plain, industrial areas will be the main generators of this effect, becoming ‘super HIE generators’. This will have a dramatic effect on adjacent or ‘downwind’ residential areas when the heated air masses migrate to the residential blocks. These super-HIE-generators should not be considered in isolation when assessing the need for improved canopy cover.

## **Conclusion.**

Whilst fully endorsing all the strategies (with the above suggested modifications) it is an oversight not to include some consideration of the overall effect of this welcome strategy on

bushfire level threat within the City. It is hoped that the relevant bodies within and outside the City had input into the draft at some stage. The final strategy should detail any such consultation and the end result of such discussion on the final draft.

The draft Strategy is welcomed and addresses, in varying degrees, the environmental and health concerns of the residents. Whilst Strategy 6. *“Maintain trees and other vegetation on private property”* addresses the ‘elephant in the room’, it is essential that long-overdue action be taken. There will be substantial opposition to any reduction in a landowner’s right to do whatever he/she likes on the block of land. Using the ELUPS *“to incorporate a provision in the Scheme”*, may be the only way to tackle this longstanding problem.

Recent research has suggested that, regardless of the success of a local authority in retaining tree cover on lands for which it is responsible, failure to address the topic of tree preservation on private land, will always lead to increasing canopy loss.

NRPG appreciates the opportunity to comment on the draft and congratulates staff involved on the work done.

Tony Fowler

pp. Steve Gates

President.

**For information only. Errata** in draft document.

**p.7** dot point three. Replace “buy” with “by”.

**p.33** Replace “Floodeed Gun” with “Flooded Gum”.