

**TOWN OF BASSENDEAN  
LIVEABLE TOWN ADVISORY COMMITTEE  
URBAN FOREST WORKING GROUP MEETING  
HELD IN COUNCIL CHAMBERS, 48 OLD PERTH ROAD, BASSENDEAN  
WEDNESDAY 08 MARCH 2017 AT 4.10PM**

**Meeting Notes**

**1.0**                    **DECLARATION OF OPENING and ANNOUNCEMENT OF VISITOR**

*Director Operational Services, Simon Stewert-Dawkins, welcomed everyone to the meeting and introduced guest presenter, Guest: Sam Atkinson, Manager - Geospatial, Astron.*

**2.0**                    **ATTENDANCES, APOLOGIES**

Working Group Members

Cr Paul Bridges  
Nonie Jekabsons  
Emma Slavin  
Naomi Bannister

Officers

Manager Development Services - Brian Reed  
Director Operational Services - Simon Stewert-Dawkins

Resignation

Angelika Piantadosi

Apologies

Greg Peterson  
Sarah Quinton  
Director Strategic Planning - Tony Dowling  
Senior Environmental Officer - Jeremy Walker  
Alison Healey  
Kylie Turner

**3.0**                    **PRESENTATION**

Guest: Sam Atkinson, Manager - Geospatial, Astron, will be giving a presentation on Bassendean Aerial Mapping and Tree Canopy Analysis Report.

### Environmental consultancy presentation

*Meeting Notes: Working Group members were invited to ask questions and discuss various aspects of the Tree Canopy Analysis Report.*

*It was suggested that a repeat of this analysis be undertaken every couple of years so that an indication of whether the Town is losing canopy in its residential areas will be apparent and it can be determined at what rate it is being lost.*

*DOS commented that Council is allocating funding for street tree planting; however, there are problems in regards to loss of canopy on residential lots.*

*Emma Slavin commented that the report's findings in regards to canopy height was interesting, in that there is more benefit in having trees as opposed to ground cover, and that for this Group, going forward, to be aware of the value in trees.*

*The Group discussed the following points in relation to selection and management of the Town's street trees:*

- The problems associated with planting street trees that will grow to 15-16 metre tall in areas where there are power lines, which restricts what can be achieved.*
- Managing overhang of trees in residential properties - from a civil perspective, the effected neighbour can prune up to the boundary and return cuttings to property where tree is located. However good neighbour relations is encouraged.*
- The Town's preference is for managing the Town's trees by assessing and determining what kind of pruning is required for each individual tree. Most residents are reasonable if street tree canopy over their property.*
- Tree selection restrictions – decisions on type and size of street tree made according to location and space available.*
- Value of formative pruning whilst tree is growing in anticipation of natural growth pattern.*
- City of Subiaco approach to tree management – inspect once or twice per year and prune as required.*

*The Group discussed the following points on the report's findings in relation to impact of canopy density:*

- Plant health data, density, chlorophyll output: 15m being the minimum height before tree has impact on suburban heat islands*
- Questioning whether density of canopy has bearing. E.g. WA Goldfields Eucalypt with open canopy as opposed to Poinciana,*

*which is lush. Eucalypts turn leaves from sun; exotic trees give more shade, however exotic trees tend to have a higher water requirement and as a result often have a higher level of maintenance.*

- *Benefits of shade from trees, regardless of type.*

*Presenter, Mr Atkinson, drew attention to page 25 of the report where data suggests that an increase in 10% cover results in a reduction of 1° Celsius in land surface temperature and irrigated turf has a better cooling effect than tree cover below 6m in height.*

*DOS commented that the Town's target should be ambitious but also achievable*

*In response to questions from the Group members, Mr Atkinson advised:*

- *If his company were to be requested to repeat the study every two years, most of the workload would be only slightly less of the same.*
- *The advantage of not draining drains and thereby raising the water table, is that the availability of the water table is linked to the canopy cover. The more water in the soil the better.*
- *If another assessment were to be undertaken, it would be done at the same time and period.*

*Presentation concluded and Mr Atkinson was thanked for attending and providing the UFWG with explanations and response to questions on the Bassendean Aerial Mapping and Tree Canopy Analysis Report.*

#### **4.0 ACCEPTANCE OF MEETING NOTES**

That the meeting notes of the Urban Forest Working Group held 7 November 2016, be accepted.

*Meeting notes of the Urban Forest Working Group held 7 November 2016, were accepted.*

#### **5.0 BUSINESS DEFERRED FROM PREVIOUS MEETING**

##### **5.1 Terms of Reference – Task (1)**

*“to review and make recommendations on the Town's draft Urban Forest Strategy 2016–2026 to create a strategy specifically applicable to the Town of Bassendean – with the aim of a staged implementation with identifiable goals and milestones”.*

In February 2016 Council (OCM – 7/02/16) received the draft Urban Forest Strategy for the purpose of community consultation.

On the 25 May, 31 May, 14 June and 21 June, 7th November 2016 the Urban Forest Working Group (UFWG) meetings have reviewed the draft document and provided feedback up to page 25 - A Milestone Approach.

The UFWG meeting notes reported that after the 21 June meeting and 7 November 2016, a community sub-group had been established to review the draft Urban Forest Strategy.

The community sub-group consisted of:

- Sarah Quinten;
- Emma Slavin;
- Nonie Jekabsons; and
- Naomi Bannister.

The community subgroup members advised that they would like to receive copies of the individual submissions received as part public comment period for the draft Urban Forest Strategy. The subgroup members also advised they would like to add an Executive Summary, Historical Background and Indigenous Background, and re-arrange the current order, content of the draft Urban Forest Strategy by moving the technical information to Appendices.

On 25 November 2016, electronic copy of the full transcript of community feedback (excluding Names and Addresses) was provided the subgroup, along with an electronic copy of the UFWG modified version of the Council endorsed strategy.

At the November 2016 UFWG meeting, the community sub-group members advised that they would provide a progress report and table prior to or at next meeting, a draft re-structured Urban Forest Strategy for the UFWG consideration.

As the working group is aware, the draft Urban Forest Strategy presented to Council (OCM–7/02/16) outlines the overall objective of developing the strategy is as follows:

- Improve the quality and quantity of tree canopy within the Town of Bassendean;
- Provide and integrate strategic / systematic planning framework;
- Manage the conceptual shift from dealing with our trees on an individual basis, to manage the vegetation as a collective and integrated canopy;
- Contribute to the health and wellbeing of our community.

As a result, Council allocated funding in the 2016/2017 budget to permit the Town to engage a consultant to undertake the following:

- Measure the overall baseline existing vegetation cover, including height stratification.
- Determine the condition of the vegetation, using a commonly used/proven method, such as the normalized difference vegetation index (NDVI) algorithm.
- Town-wide heat islands impact mapping and analysis using the Landsat thermal imagery.

In late January 2017 Astron provided the **attached** Aerial Vegetation Mapping, Tree Canopy Analysis and Urban Heat Island Mapping report.

Astron's Manager-Geospatial has been invited to the March 2017 UFWG meeting to present the draft (Revision B) report to the working group members.

#### *Meeting Notes*      **UFWG Sub-Group**

*It was reported by Emma Slavin, that the UFWG sub-group, who were reviewing the Draft Urban Forest Strategy, had a couple of meetings with the following outcomes:*

- *Sarah Quinton had taken on the role of coordinator.*
- *Coming up with the approach that the strategy “speaks to people”.*
- *Revision of order of contents.*
- *Each sub-group member has specific tasks. Tasks not completed as-yet but progress made.*
- *Not based on, but inspiration taken from, the Green's strategy, which the Sub-Group found to be approachable.*
- *Include photographs and other information.*
- *Local and relevant.*
- *Move technical information to appendices.*
- *Different structure, moving information to the back.*
- *Inclusion of historical information*
- *Engaging people – changing the way people think about this subject by opening hearts and minds.*
- *Need to re-commit.*

*Cr Bridges commented that it is important that this project is finalised as working groups are finite bodies and until this task is completed, the next will not be tackled.*

*The tasks need to be done to have something to budget against and as a group, a target date should be set to have outcomes that can be endorsed and presented to Council.*

*Emma Slavin advised that she would convene a sub-group meeting as soon as possible.*

*DOS advised that the current format of the draft Urban Forest Strategy is based on the guidelines set out in the 2020 Urban Forest Vision Plan and the structure is a similar format to other East Coast and West Coast Local Government Urban Forest Strategies. On this basis, DOS suggested that the current draft be refined to articulate the UFWG's Objectives and Goals, which could include a goal of developing a Communication Plan. DOS advised that in taking this approach, Council could then receive the amended draft Strategy and then the UFWG could progressively develop the communication plan.*

*The community representatives were advised that the budget process started in February and in March/April Council would start having budget workshops.*

*Cr Bridges remarked that once this strategy is concluded, the next task is tree species selection, which is governed by the Street Tree Master Plan and mass street tree ordering.*

*DOS advised that the next phase was to engage an arborist to review the Street Tree Master Plan's tree selection, undertake a desk-top analysis and provide recommendations with the knowledge that a unified decision on tree species is unlikely but it is a matter of balancing selection.*

Design WA planning implications on the Town's Urban Forest Strategy; Brian Reed – Manager Development Services.

The Western Australian Planning Commission (WAPC) and Department of Planning (DoP) released last October (2016) for public consideration and comment a draft framework to facilitate well-designed built form, especially in relation to residential and mixed-use development.

The framework includes a new draft Apartment Design Policy which will provide design guidance for apartments and mixed-use developments, replacing the Multiple Dwelling provisions in Part 6 of the Residential Design Codes.

The draft Policy acknowledges that many local governments are formulating policies for urban forest, including a target percentage of urban tree canopy and measures to reach it. The draft policy seeks to assist with provisions aimed at promoting trees as a standard component of apartment design through the introduction of tree retention measures and introducing deep soil areas for apartments.

The Policy reinforces the point that significant trees contribute to the local environment, while creating a varied, interesting and attractive landscape that builds on sense and character of place.

Existing trees on private land represent a significant proportion of tree canopy within our urban areas. Significant loss of urban tree canopy, due to private development, is an increasing focus of community concern.

Retaining existing trees is critical for urban ecology and maintaining a liveable environment, including:

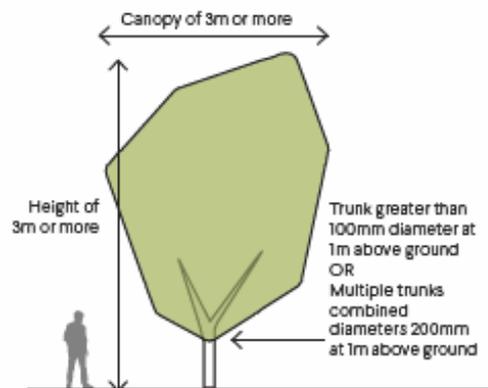
- mitigating urban heat island effect through the provision of shade and cooling micro-climates;
- providing amenity to residents and neighbours;
- preserving neighbourhood character;
- visual softening of building bulk and scale at both the site and neighbourhood level
- supporting biodiversity and habitat; and
- improving connections with deep soil to assist with stormwater management and soil ecology.

#### Identification of existing trees

The draft policy will require applications for apartments to identify existing trees for retention prior to development and as part of early site planning. The policy will require existing trees to be identified on a site analysis report.

Existing trees are considered appropriate for retention if they are:

- healthy specimens with ongoing viability; and
- species not included on an applicable weed register; and
- are 3m or more high; and/or
- have a trunk with a diameter of 100mm or more, 1m from the ground; and/or
- have two or more trunks and the sum of their individual diameter at 1m above ground is 200mm or more; and/or
- have a canopy 3m or more wide; and/or
- are recognized for individual importance/significance.



**Figure 3.3a** Size criteria used to identify existing trees for retention. See full criteria in 3.3.1 DC1.

The Policy also introduces a 5-year rule where trees that have been removed in the 5 years prior to an application being lodged (through the use of aerial photography) are treated as existing trees. It is unclear at this stage how this rule will be applied where the property has changed hands.

#### Tree retention, replacement or offset

The Policy requires existing trees to be either:

- Retained with appropriate landscape design measures to support trees' ongoing health and viability within proposed development ; or
- Replaced by equivalent planting as part of the deep soil area requirement; or
- Offset with an offset cost to be paid for the planting of four additional trees per tree not retained within the immediate project vicinity (but outside the development site). The cost per tree of supply, installation, irrigation and maintenance for two years of a 100-litre pot native tree is to be determined by and paid to the local authority.

#### Management of retained trees.

Where existing trees are to be retained, it will become necessary to seek specialist arboricultural advice on 'rootable soil area' and use of structural soils or structural cells under adjacent pavements as part of design development in order to maximize probability of successful retention. There will also be a requirement to ensure that the trees are protected during construction activities, and to establish a monitoring program post construction to inform any future loss of health.

### Deep soil areas.

The draft Policy introduces for the first time the concept of deep soil areas.

The draft policy requires deep soil areas to be provided in accordance with the following table:

Site Area	Minimum dimension	Minimum deep soil area (% site area)
Less than 650m <sup>2</sup>	–	12% *
650m <sup>2</sup> – 1,500m <sup>2</sup>	3m	12% *
Greater than 1,500m <sup>2</sup>	6m	12% *

**Table 3.4.1** Deep soil area requirement

\* If existing tree(s) are retained and incorporated into the development, deep soil area requirement can be reduced to 8% of site area. Refer to 3.3 Existing Trees Retention.

As part of the Town’s submission on the apartment design draft policy the point has been made that a minimum dimension should be specified for **all** deep soil areas and that even where a minimum dimension is specified it may not provide sufficient space to accommodate the tree.

It should also be noted that the deep soil area requirement can be reduced to 8% of a site area where existing tree are to be retained. This should provide an incentive to retain some existing mature trees on development sites.

### Planting on structures.

The draft policy recognizes that it may not be possible to achieve deep soil areas at ground level including in CBD, high density areas or activity centres, including the Bassendean Town Centre, and in these cases 25% of the site area needs to be planted on the structure itself. This may entail:

- green walls, living walls, or vertical gardens to enable planting in highly constrained spaces;
- wall design that incorporates painting including trellis structures;
- extensive or intensive green roofs particularly where the roofs are visible from the public domain or other parts of the development;
- planter boxes, as shown in the examples below:



**Photo 4.15a** Planting can be integrated into the facade design, via sophisticated detailing and consideration of ongoing care and maintenance required.



**Photo 4.15c** Planting along internal courtyard walls can help create a shaded, attractive space.



**Photo 4.15d** Planters on rooftops can facilitate communal gardening. (PC)

## Conclusion

The new draft apartment design policy should assist local governments in achieving urban forest strategies, particularly in areas designed for medium to high-density development, including mixed use proposals. The apartment design policy stresses the benefits provided by trees, and introduces requirements to:

- Consider existing trees in the design of new apartments;
- Requires trees to be retained, replaced on site, or be subject to an offset where this is not possible;
- Introduces mandatory requirements for a percentage of the site to be used for landscaping, including planting on structures where it is not possible to provide planting at ground level.

However, the policy will only have effect where apartments are intended: The Department of Planning and Western Australian Planning Commission are yet to produce new policies dealing with single houses and grouped dwellings, which is the predominant form of housing in the Town. It will be interesting to see whether these new documents once they are prepared, include controls on tree retention and tree planting.

*Meeting Notes: The Group discussed the report provided by Manager Development Services, Brian Reed, and it was suggested that the report could be referred to by the Group when revising the Draft Urban Forest Strategy.*

## **5.2 Terms of Reference – Task (2)**

*“to identify, review and make recommendations on the Town’s policies affecting trees commencing with the recommendations of the internal staff committee established to review the Town’s Street Tree Master Plan - with the aim of increasing canopy cover, resilience, creating interlinking bio diverse corridors and providing connectivity to parks, wetlands and the river reserves”.*

At the 7 November the UFWG meeting, community members discussed the suite of existing policies and advised that they have no specific comments on the current policies and at this stage, the priority is to finalize the Urban Forest Vision and agreed that the policy review is secondary.

In December 2016, a report was presented to Council concerning the entire list of policies, which affect all operational service areas. Council (OCM - 14/12/16) resolved to adopted a revised policy

framework and to refer all policies to a Councillors' Workshop to be held in early 2017 for review and where necessary, amendment. To date, two Councillor workshops have been conducted on the Governance Policies, with the balance of policies to follow.

*Meeting Notes: With regard to Item 5.2 above, DOS remarked that Council has started to review the policies. As previously advised, there is an opportunity change our streetscape policies. When Council is considering the existing policies, they may determine to put the relevant policies to one side until the strategy and master plan are completed or may take a different approach.*

### **5.3 Terms of Reference – Task (3)**

*“to provide a set of policy guidelines and species selection advice for tree planting and landscaping as a reference tool by;*

- providing a menu of suitable street tree species for each of the following four road reserve scenarios - sandy and clay soils, with and without overhead power lines.*
- considering and adapting verge programs of other municipalities for application in Bassendean. eg City of Vincent's 'Adopt a Verge' program.*
- reviewing Water Sensitive Urban Design principles and practices for applicability in capturing rainwater to sustain the urban forest.*
- engaging with the community to develop programs that will enable residents to select, plant and water suitable street tree to foster ownership, reduce establishment costs to the Town, provide diversity and increase canopy cover.”*

The Town of Bassendean's website includes a quick link to, Greening Bassendean initiatives at:

<http://www.bassendean.wa.gov.au/greening-bassendean.aspx>

This quick link includes specific Council policies located under :

- Town Planning & Built Environment
- Environmental Sustainability and Adaptation to Climate Change
- Open Space Plans

In addition there is information provide on the extensive range of documents, along with the following, which relate to task 3:

- Collective Biodiversity Strategy
- Water Sensitive Urban Design and Water Conservation Policy
- Street Tree Removal, Pruning & replacement Policy
- Street Tree Master Plan – Tree Species Information
- Street Tree Master Plan
- Adopt- A -Tree program

The Greening Bassendean quick link provides residents and developers with copies of relevant Council policies, plans, strategies, programs and general information that includes but not limited to the current Tree Species Information.

For Street Tree Master Plan, the Town's Adopt-a-Tree program, Water Sensitive Urban Design and Water Conservation Policy, Street Tree Removal, Pruning & replacement Policy.

In accordance with the November 2016 meeting notes, the UFWG did not have any comments at the time of the existing policies.

In November 2016, the Town engaged a consultant to spatially, capture all the verge areas within a GIS environment with the intention that the information gathered including location of power lines, localities with underground power, soil types etc. in order to assist with site analysis and the review of the Street Tree Master Plan.

In late February 2017 Asset Infrastructure Management provided the preliminary spatial data and it is anticipated the data set will be finalize and quotes invited in the future from suitably qualified and experienced arborist to review the current tree selection and provide recommendations to the UFWG.

*Meeting Notes: With regard to Item 5.3, DOS pointed out the quick-link (above) to the Town's policies.*

*Consultant was engaged to capture data. Once determined, a consultant will be engaged to review our Street Tree Master Plan and report back to this group.*

## 6.0 Proposed future UFWG meetings

As today's Urban Forest Working Group (UFWG) meeting has been identified by the majority of participants as a convenient time, it is suggested that the following UFWG meetings dates and times be scheduled for the future:

4pm	Thursday	15 June
4pm	Thursday	14 September
4pm	Thursday	14 December

If required, additional meetings can be scheduled, or should these meetings not be required, participants will be advised accordingly.

*Meeting Notes: It was suggested that as soon as the sub-group of the UFWG has completed its review and/or has information available, that an UFWG meeting will be convened.*

*Thursday 20 April was put forward as a potential date should the sub-group of the Urban Forest Working Group request a meeting.*

## **7.0 CLOSURE**

*Meeting closed at 5.25pm*