



Green Space Alliance WA Discussion Paper 2017



The Green Space Alliance WA is a voluntary work group engaging stakeholders including government departments, local government authorities and the community to help create a more liveable Western Australia.

MEMBER ORGANISATIONS

Australian Institute of Horticulture WA
Australian Institute of Landscape Architects WA
City of Belmont
Horticulture Media Association Australia WA
Landscape Industries Association WA
Perth NRM
Parks & Leisure WA
Sports Turf Association WA
Tree Guild WA
Turf Growers Association WA

OBSERVER ORGANISATIONS

Food Future WA
Nursery & Garden Industry Association WA
The Department of Water and Environmental Protection
The Department of Local Government, Sport and Cultural Industries
Urban Development Institute of Australia WA
Water Corporation

This is a second edition of the GSA WA Discussion Paper and has been prepared by volunteer members of the Green Space Alliance WA. 22 October 2017



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image courtesy Evgenyatamanenko



PARKS & LEISURE
AUSTRALIA
(WA)



Tree Guild of Western
Australia



Perth's vibrant green spaces, which are crucial to our health and way of life are at risk of being lost as they are increasingly being threatened by urbanisation and degradation. The growth of Perth places great pressure on land space and water resources, and as a result the provision of green space has become a major challenge.



image courtesy Tourism WA

Executive Summary

The Green Space Alliance WA discussion paper 'Improving Urban Liveability', first published 2016, is a living document for ongoing revision to address evolving policy development and the political landscape. The GSA wishes to acknowledge that Local, State and Federal Governments have made significant progress addressing the impacts of declining green space within the urban environment in the past two years.

There is an urgent need for evidence (consistent data) and comprehensive research into the impact of rapid housing densification of our community and its direct correlation with the rapid decline of green infrastructure in both the public and private realms, in Western Australia's urban and suburban areas. Perth's expansion impacts on vulnerable native habitats in the peri-urban areas and adds to cumulative loss of nature and green space from infill development and subdivision. Quantifying the extent of urbanisation and its threat to the global biodiversity hotspot of South West Australia is critical to effective custodianship of Western Australia's natural green spaces. ¹

Australian cities need to plan and provide for the well-being of the next three million urban residents. Whilst our cities have an international reputation for being highly liveable, we cannot afford to be complacent and must plan for a resilient future. ² Our cities need more naturally healthy green spaces; whether its sporting fields, amenity turf or parklands and natural habitats linked by corridors of trees and plants for native flora and fauna to flourish in the urban environment. Together these spaces help to create liveable cities, and area a recognised key contributor to the assessment process for the Economist Intelligence Unit's (EIU) Liveability Index. Recently, the City of Perth scored high in the liveability awards, benefiting from green spaces like Kings Park, which is a historical legacy of the 19th century. However, future proofing these assets is critical as our city's green-scape is vulnerable to a diverse range of threats. Importantly, many of Australia's cities would fall well below the current top 20 if a factor for resilience was taken into consideration.

Valuing the benefits of green infrastructure is complex. Together the social, cultural environmental and economic values provide multiple benefits.

Today it is widely recognised that quality green open spaces contribute to communities' physical and mental health and wellbeing. This results in indirect benefits to the medical system, and improved personal happiness and satisfaction of residents help to stimulate economic productivity. Actively cooling the urban landscape by green infrastructure, helps to reduce energy use and carbon dioxide emissions, and lessens the risk of residents suffering heat stress related illnesses.

Recent studies within Perth, found that properties that retained trees on the street verge and a healthy lawn in its front or back yard increased its median value by more than 8% on average across most metropolitan suburbs. This same research identified that street trees reduce a property's average time on the market by 1.7 days. ³

Sustainable Irrigation of urban greenery should be viewed as an investment in the long-term environmental and social benefits, not as a "waste of water". Our cities need to capitalise on the full use of the abundant water available. Local and state governments around Australia have recognised the value of this asset and are beginning to implement water-sensitive urban design, which retains storm water run-off and provides an alternative to irrigating gardens with valuable drinking water. ⁴

Understanding green infrastructure's value in providing resilience against flood damage and heat waves, as well as, the amenity and recreational needs of human health and welfare is essential. As one of the most urbanised countries in the world Australia could benefit greatly from increasing the extent and quality of its urban green infrastructure.

A resourced and gazetted framework to enable Local Government Authorities to confidently address the economic value of green infrastructure with consistent data is the essential next step. This framework, endorsed by the State Government, would enable numerous green space projects to be valued, resourced and implemented. Trees and parks would be deliberated and assessed in a similar manner to roads and buildings as assets for the myriad of benefits they provide to the community over their lifetime.

Improving Urban Liveability' - An Ongoing Discussion

Understanding green infrastructure's value in providing resilience against flood damage and heat waves as well as the amenity and recreational needs of human health and welfare is essential. Research conducted in Australia shows people who live in greener, leafier suburbs tend to be healthier and wealthier. Leafier suburbs tend to increase residents' wellbeing, participating in physical activities and social interactions, creating dynamic and happier communities.

Unfortunately, the amount of urban vegetation is still declining in Western Australia. Large regional parks and open spaces are replaced by pockets of green, often randomly dotted within densely populated redevelopments. In addition, the monetary value of parcels of land being prepared for urban development can often dominate any consideration for retaining and supporting corridors of remnant vegetation as well as planning for adequate community determined green infrastructure. As one of the most urbanised countries in the world, Australia could benefit greatly from increasing the extent and quality of its urban green infrastructure.

Market driven urbanisation has seen Perth communities reflect a growing disparity in social equality. Well-designed green suburbs attract well paid professionals who expect high quality services and infrastructure. In comparison, lower to average income households move to the more 'affordable' city's fringes, places often lacking in social, cultural and environmental infrastructure.

Urban densification policies and real estate trends in Perth have resulted in smaller lots and larger housing footprints, leaving less space for cooling gardens and trees, particularly along the metropolitan outer fringes. Minimal investment in green infrastructure is compounded by limited maintenance and tree mortality. These outer suburbs are often hotter, and the householder's vulnerability is then compounded with the need of having to pay more for electricity to keep cool. Urban heat is a known factor in increased rates of injury, death and reduced productivity.⁵

Some Western Australian communities have identified issues around social inequality, heat island effects and loss of nature and are trying to increase their green cover to create beautiful natural spaces, improve air quality, create habitats for biodiverse wildlife, filter and harvest storm water runoff (rain gardens), and create living buffers to reduce noise in busy city traffic and manufacturing districts. They have recognised their city's public parks and sports fields; remnant native vegetation and wetlands, residential gardens, nature strips, street trees, green roofs, walls and rain gardens, contribute to maintaining a suburb's liveability and effectively combat the heat sinks that combine to generate urban heat islands.

A critical element to sustaining urban greenery is water, and all too often the response to past droughts and water shortages has been to firstly restrict water for green landscapes. Instead our cities need to capitalise on the full use of the abundant water available and readily adopt water-sensitive urban design, which retains storm water run-off from roofs and impervious surfaces and provides an alternative to irrigating gardens and green infrastructure with valuable drinking water. To be effective in the long term there needs a shift in thinking away from the current model of retarding and redirecting stormwater away from our neighbourhoods and urban centres towards treatment plants and ultimately the ocean. Ironically, green infrastructure builds resilience against flood damage and helps to combat localised flash flooding resulting from intense and concentrated summer storms.

Australian Conservation Foundation campaign director **Paul Sinclair** said in a statement, *"Despite Australians' romanticisation of the outback, we are among the most urbanised populations on a planet where more people now live in cities than anywhere else". "Urban Green Infrastructure", provides a wealth of environmental, economic and health benefits to communities."*

¹ Ideas for Australia: City v4.0, a new model of urban growth and governance for Australia, April 20, 2016

² How green is our infrastructure? Helping cities assess its value for long-term liveability, November 13, 2015

³ Pandit (2012) "The effect of street trees on property values in Perth WA" & <http://www.tgawa.com.au/pdf/real-estate-survey.pdf>

⁴ How green is our infrastructure? Helping cities assess its value for long-term liveability, November 13, 2015

⁵ Out in the heat: why poorer suburbs are more at risk in warming cities, October 14, 2016



The need to move beyond the 20th Century concept of urbanisation and housing development is long overdue. Urban greening can go a long way to help the implementation of a low-carbon economy strategy in our urban systems by reducing our over consumption of natural resources.

This discussion paper advocates for

- Public and commercial education campaigns about the benefits of urban greening and improved urban design guidelines to make it easier for developers and community groups to increase their community's greening.
- Better knowledge about species selection in urban environments to reduce tree mortality and maintenance.
- The multiple benefits created by converting under-utilised road reserves and similar spaces into parklands or green / biodiversity corridors.
- Comprehensive plans to guide urban transformation away from land-clearing infill developments that result in extensive areas of hard surfaced areas which function as heat sinks
- Clear regulation and guidance to preserve and extend green space especially within private land ownership, as half of urban vegetation resides within private hands.
- Reassessment of the Building Code of Australia to address climate change challenges and to respond to the social, environmental and economic issues arising from significant loss of tree canopy and green infrastructure.
- Stronger guidance on albedo rates of different materials and surfaces and their thermal conductivity is required.



Green Space Alliance WA recommendations:

1. Improve liveability by placing greater prominence on green space in the planning process and prioritise the creation of sufficient, quality designed public open space. The Western Australian Planning Commission's current Planning Review for Better Design process should respond to green space concerns by improving planning policy to provide greater protection for existing vegetation, and establish minimum green space needs within new development at lot and precinct scales.

2. Prioritise water resources, improve water management practices and support ongoing research and demonstration of innovative urban water management solutions to sustain quality green space. The Western Australian Government's proposed Water Resources Management Bill should protect potable water resources by developing non-potable water use targets for irrigation to facilitate the uptake of fit-for-purpose water sources to meet green space irrigation requirements.

3. Recognise Perth's unique green space and enhance biodiversity protection and management practices. The Western Australian Government and Local Governments should develop Green Space Strategies which plan for the management of green space and identify green space targets. Management policies, such as bushfire mitigation and roadside vegetation legislation should reflect growing awareness of the value of vegetation and better address linkages to water sensitive urban design.

4. Recognise the value of the health and economic benefits green space generates for WA and ensure appropriate resourcing and funding. In partnership with industry, the Western Australian Government should undertake research that quantifies the value of green space in Perth. Consideration should also be given to allocating sufficient funds towards State and Local Government green space enhancement activities.

5. Promote ground-up engagement and communication across the community, industry and government to increase end-user involvement in urban green space, and support social equity outcomes. The Western Australian Government should undertake transparent consultation with industry and the community to ensure the value of urban green space is embedded in legislation and relevant policy instruments, which considers how green space contributes to health and wellbeing of our communities.

The GSA is calling on you to get behind this initiative and contribute to making our urban environment greener, healthier and more enjoyable for us to live.

Who is the Green Space Alliance WA?

Perth's vibrant green spaces are crucial to our health and way of life however they are at risk of being lost by being increasingly threatened from urbanization and degradation. The continued growth of Perth's metropolitan footprint places great pressure on land space and water resources, and as a result the provision of adequate green space has become a major challenge.

Green spaces are the lungs of our city and keep us connected with nature. These important attributes must be protected now and for generations to come. There is overwhelming evidence demonstrating the benefits of green space, including improved community wellbeing, mental health, ecosystem enhancement and increased property values.

The Green Space Alliance WA (GSA WA), a group of Western Australian amenity horticulture industry bodies and aligned organisations, are working together to promote the benefits of green space in all its forms, including parks and recreational reserves, civic spaces, residential gardens and the urban forest more broadly. The body seeks to advocate to key decision makers and stakeholders for policy reform which will deliver healthy and resilient communities.

Neville Passmore, GSA WA's ambassador, believes, *"Brown parks are not an option for the future of my Perth. Well designed and properly maintained playing fields, passive recreational areas, urban forests, home gardens, even green walls and roof gardens are needed, not only to combat the retained heat of our cities and suburbs, but to make this place we call home - liveable."*

Population growth places great pressure on land, spaces and water resources, and as a result the provision of adequate green space has become a major challenge. A key challenge identified by the GSA WA is that the economic, social and health benefits generated by green space which is not valued, clearly understood or acknowledged. A comprehensive study of the value of green infrastructure is needed and understanding and promoting this information will raise awareness amongst the community, developers and local governments and help to facilitate change.

A result of inadequate guidance, the form, location and quality of new public green space is often inappropriate or insufficient. Whilst public open space and provision of green space is addressed in planning policy it is not prioritised, with public open space. The GSA WA promotes consideration of the provision and maintenance of public green space in all planning decisions

Our planning and water management policies do not sufficiently support the protection of existing green space, nor the creation of adequate new green space, and the quality of existing public open space is significantly compromised by water supply and allocation constraints. The GSA WA urge all levels of government to urgently develop progressive policies which address water and planning challenges and additionally promote an environment of innovation which supports the development of green space in every community.

"As the population increases future generations should not be denied access to unique natural areas due to short term or not fully considered planning decisions," says Sue McDougall, Horticulturist, GSA WA Ambassador and 6PR gardening celebrity.

The discussion paper, position statement and a video highlighting the importance of green infrastructure can be accessed at <http://www.greenspacealliance.com.au>

Acknowledgements

The GSA WA would like to thank the industry organisations that have promoted and supported the GSA WA throughout the past two years. Specifically the State Government Director Generals who have acknowledged this collaboration of industry and provided ongoing support to work together achieving our vision.

The **Green Space Alliance WA** has identified a set of priority principles to support the creation and management of green space in Perth.

The Green Space Alliance WA believes WA Government policy should:

1. Improve liveability by placing greater prominence on green space in the planning process and prioritise the creation of sufficient, quality designed public open space.
 2. Prioritise water resources, improve water management practices and support ongoing research and demonstration of innovative urban water management solutions to sustain quality green space.
 3. Recognise Perth's unique green space and enhance biodiversity protection and management practices.
 4. Recognise the value of the health and economic benefits green space generates for WA and ensure appropriate resourcing and funding.
 5. Promote ground-up engagement and communication across the community, industry and government to increase end-user involvement, and support social equity outcomes.
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The interlinked nature of these principles provides opportunities for coordinated policy responses which break down the existing policy silos and promote integrated action by government. Engaging key stakeholders across government, industry and the community will be essential for successful policy outcomes.

Updated Action Plan

GSA WA Principle 1

Improve liveability by placing greater prominence on green space in the planning process and prioritise the creation of sufficient, quality designed public open space.

GSA WA Positions

The GSA WA believes government should ensure green space provision is better valued and addressed early in the planning process. Quality design of green spaces needs to be guided by application of the DSR's Public Parkland Planning and Design Guide.

The GSA WA supports the development and implementation of the Design WA Guidelines which addresses the design of green spaces within private and public land, through the varied types of development; Apartment, Housing, Precincts and Neighbourhoods. These guidelines address the impacts of densification and larger scale neighbourhood planning.

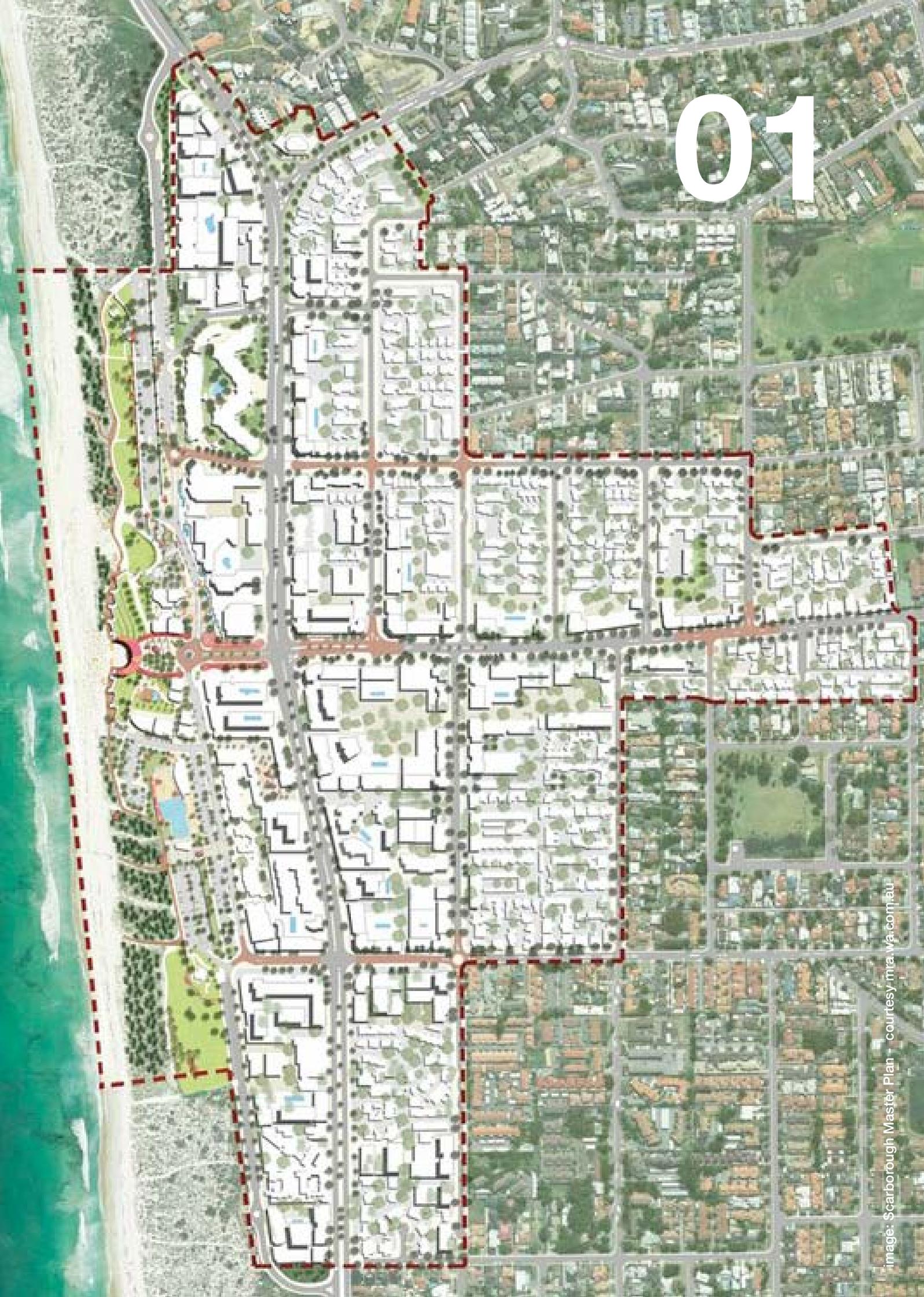
GSA WA Recommendations

The WAPC's current Planning Review for Better Design process provides an opportunity to respond to green space concerns. WA Government and LGAs should seek to:

- Provide greater protection for existing vegetation within development areas through the development of tree retention policies, tree registers, bonds and through evidence based prioritisation planning.
- Development Local and Regional Biosystem Strategies which include Urban Forest Strategies, evidenced based that seek to retain, maintain and grow the tree canopy.
- Establish state and local green space and tree canopy targets and measurements which are articulated and enforced in Local Government's Urban Forest Strategies.

- Review the dated minimum public open space requirements in developments. This can be supported through integrated regional planning and Regional Public Open Space Strategies.
- Establish minimum green space needs within the road reserve. Adopt and reflect within local policy the Global Street Guide, Global Designing Cities Initiative
- Support the provision of increased private garden space by preventing the construction of buildings with excessive footprints within their land envelope through updated design standards for:
 - Minimum block size and building footprints.
 - Minimum building boundary set-backs.
 - Minimum landscape and infiltration requirements.
 - Maximum height restrictions.
- Reuse of storm water runoff
- Regulate the use and colour of building materials
- Educate and engage the local communities on appropriate plant species and soil depths required for green infrastructure
- Prioritise green infrastructure requirements in vulnerable communities

01



02



Updated Action Plan

GSA WA Principle 2

Prioritise water resources, improve water management practices and support ongoing research and demonstration of innovative urban water management solutions to sustain quality green space.

GSA WA Positions

Whilst the WA Government has taken great efforts to secure Perth's water future, there remain numerous opportunities to better use current resources and encourage the uptake of alternative water resources.

GSA WA Recommendations

The Water Resources Management Bill should reflect the following opportunities and actions:

- 'Protect' potable water for use at the most valuable levels, applying fit-for-purpose principles to guide the use of water resources for other appropriate, non-potable applications elsewhere.
- Require the development of non-potable water use targets for open space irrigation to promote the use of water efficient practices and alternative water sources for irrigation.
- Require the application of water sensitive design principles in urban development and infrastructure creation, encouraging the use of industry leading water management practices in green space design and irrigation practices.
- Require the development and monitoring of targets for the use of alternative water resources, including recycled water, within Perth's water management strategies.
- Support the provision of unambiguous community information regarding water management and irrigation practices.
- Adopt and reflect within local policy the Global Street Guide, Global Designing Cities Initiative
- Continue to encourage and deliver programs that reward Local Government which implement good water saving practices, such as the Water Wise Councils.
- Encourage Waterwise programs such as:
 - Garden Centre Program
 - Garden Design Program
 - Garden Irrigation Program
 - Irrigation Design Shop Program
 - Landscaper Program
 - Plumber Program
 - Products Program
 - Water Auditor Program
 - Waterwise Training
- Support initiatives such as New Water Ways, whose aim is to build the water sensitive urban design capacity of Government and Industry to improve the delivery of urban water management and water sensitive cities.
- Promote the works of programs such as the Cooperative Research Centre for Water Sensitive Cities.

03



Updated Action Plan

GSA WA Principle 3

Recognise Perth's unique green space and enhance biodiversity protection and management practices.

GSA WA Positions

The WA Government should continue to develop integrated State Greening Strategies (building upon efforts of previous work and aligning to the national and international agenda) to address the value and role of green space in Perth and WA more widely. Likewise, the WA Government should work with LGAs to implement a state planning policy which requires LGAs to develop urban green space policies and strategies, such as the Urban Tree Canopy Framework. These policies should then guide future urban development by establishing minimum green space dimensions and guide the creation and management of green space networks across Perth.

GSA WA Recommendations

The WA Government and LGAs should:

- Mandate the development of WA Government and LGA Green Space Strategies which plan for the management of green spaces and identify green space dimensions.
- Review fire management practices and information, particularly State Planning Policy 3.7, the Guidelines for Planning in Bushfire Prone Areas and the Plant Guide within the Building Protection Zone.
- Update Main Roads WA's Vegetation within the road reserve guidelines to reflect growing awareness of the value of vegetation and better address linkages to water sensitive urban design.
- Seek to protect and enhance our areas of indigenous significance, with greater recognition through state heritage policies.
- Build upon the Public Parkland Planning and Design Guide to develop a best practice guide for the design, construction and management of green space, including specifications for size, location, arrangement, uses, connectivity, accessibility and water sources and efficiency.

Updated Action Plan

GSA WA Principle 4

Recognise the value of the health and economic benefits green space generates for WA and ensure appropriate resourcing and funding.

GSA WA Positions

The interlinked nature of these principles provides opportunities for coordinated policy responses which break down the existing policy silo's and promote integrated action by government. Engaging key stakeholders across government, industry and the community will be essential for successive policy outcomes.

GSA WA Recommendations

In partnership with the green space industry the WA Government should:

- Undertake research that quantifies the value of green space in Perth by placing a monetary value on green infrastructure to illustrate the value of investing in green infrastructure to the public and other stakeholders.
- Explore the ability of the WA Government to allocate revenue from tourism activities (parks entry costs, adventure activities, accommodation etc.) toward WA Government and LGA green space enhancement activities.
- Undertake research which considers the development of royalty collection from private tourism operators, from which funds are distributed via a public grants style program.

04



05



Updated Action Plan

GSA WA Principle 5

Promote ground-up engagement and communication across the community, industry and government to increase end-user involvement, and support social equity outcomes.

GSA WA Positions

The WA Government and LGAs should seek to engage with industry and the local community in the creation of new green space, or the management of existing green space which would generate greater ownership and interest in local green space issues. The WA Government's Public Health Act needs to develop a marketing campaign to raise the public's understanding of the health benefits which green space can provide.

GSA WA Recommendations

The WA Government should undertake transparent consultation with industry and the community to ensure the value of urban green space is embedded in legislation and relevant policy instruments via:

- Creating a Green Space Stakeholders Group, consisting of each relevant authority as well as representatives from LGAs and industry to provide a level of policy guidance and transparency.
 - Promoting innovation in green space management by supporting community based research and demonstration projects.
 - Develop a Public Health Outcomes Framework, which considers how green space contributes to health and wellbeing.
- Prioritise resources for greening of the most vulnerable urban communities (the hotter, lower socioeconomic areas and neighbourhoods with rapid declining or low tree canopy)
 - Developing public health indicators within the Public Health Outcomes Framework under which government reports upon the following matters:
 - Holistic Wellbeing.
 - Mental Health.
 - Physical Health and Activity.
 - The Urban Heat Island Effect and Health Impacts.
 - Urban Density and its Health Impacts.
 - Equitable access to Green Space.



Green spaces are the lungs of our city and keep us connected with nature. These important attributes must be protected now and for generations to come. There is overwhelming evidence demonstrating the benefits of green space, including improved community wellbeing, mental health, ecosystem enhancement and increased property values.



GREEN SPACE ALLIANCE WA

VISION



"To live in a community that values green spaces at its core, which deliver benefits to everyone through improved health, wellbeing and liveability by using innovative water and urban planning solutions."



The Green Space Alliance WA recognises that its supporting organisations, and other industry initiatives, are conducting aligned messaging to support green space, however it does not wish to compete with, replace or dilute any of these activities.

If you wish to provide feedback, ask questions or contribute to the Green Space Alliance WA please contact us at:

green.space.alliance.wa@gmail.com

To learn more about the Green Space Alliance WA and download the Discussion Paper 2017 please visit this link:

<http://www.greenspacealliance.com.au>