

POSITION STATEMENT CODE:	PSEW19
DIRECTORATE:	Engineering & Works
BUSINESS UNIT:	Parks & Environment
SERVICE UNIT:	Parks Services
RESPONSIBLE OFFICER:	Parks Manager
FILE NO.:	182/002
DATE FIRST ADOPTED:	11 December 2008
DATE LAST REVIEWED:	9 March 2017
ATTACHMENTS:	Yes
VERSION NO.	3

Dates of Amendments / Reviews:	
DAPPS Meeting:	31 January 2013 27 August 2015 23 February 2017
OCM:	14 February 2013 10 September 2015

BACKGROUND:

From time to time the City receives requests to provide shade to playgrounds in public parks and Council owned outdoor facilities.

PURPOSE:

1. To provide direction to officers in their advice to residents and Elected Members as to the most appropriate shade to a playground or other outdoor recreational facility that may be provided; and
2. Adopt best industry practices for protecting users of those facilities from extended exposure to the sun's ultraviolet rays.

POSITION:

1. General

The provision of shade to playgrounds on recreational reserves will be in accordance with the [Shade Sails Strategy 2013 - 2023](#)

The Shade Sail provision criteria contained within the strategy will be applied when an application for shade to a playground is requested.

The applicant will be advised if the request meets the criteria and if it is listed within the 10 year works program.

2. Natural Shade

Where a playground does meet the shade provision criteria, the location of the playground will be in close proximity to existing trees or if no existing vegetation is available a tree planting program will be applied.

3. Demountable Shade

Temporary shade systems are to be utilised for one off or short term use where demountable systems may be arranged to suit the particular events.

4. Permanent Shade Structures

Shade structures are to be designed to complement the footprint of the playground and is to consider potential future alterations

Shade fabric mounted on a steel framework provides the most cost effective shade to playgrounds.

Facilities requiring more robust and/or permanent structures shall be designed in consideration of the specific application, CEPTED principles, embodied energy and capacity for recycling of materials, and amenity.

5. Approvals:

This Position Statement does not circumvent a requirement to obtain the necessary planning and building approvals required for the construction of permanent structures.

PLAYGROUND SHADE SAIL STRATEGY 2013 - 2023



EXECUTIVE SUMMARY

The provision of shade sails over playgrounds in the City's parks and community facilities is useful for extending the time of day during which the community are able to enjoy using the playground.

The need to use playgrounds during the heat of the day is particularly acute in locations designed for hosting family and sporting events.

Shade sails provide protection for the play equipment from Ultraviolet Radiation (UVR). This extends the lifespan of the equipment, and saves on replacement costs.

This strategy reviews the implementation of the 2008 Shade Provision Strategy and provides guidelines for the provision of future shade sails and the integration of natural shade.



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1.0 Background

1.1 Purpose of Strategy

The City currently manages 187 playgrounds with the majority located on parks and small percentage adjacent to or within the surrounding environment of a community facility. The City has attempted to locate these facilities in close proximity or under the shade of mature trees to mitigate the requirement for shade sails and create an environment conducive for play activities during the summer periods.

Due to the likelihood that playgrounds will be used during peak UV light exposure, playgrounds in regional parks, sporting venues, community facilities and small number of neighbourhood parks have an increased need for shade structures.

The City requires a means by which it can prioritise spending and most effectively target its resources. The strategy and prioritisation will demonstrate how it assists in achieving the aims of the recently adopted Strategic Community Plan 2012-2022.

1.2 Why is a Strategy Needed

A Shade Sail Strategy is needed to assess and describe the following;

- Demand for Shade Sails
- Current Provision of Shade Sails
- Extent of Shade Provided
- Prioritisation of locations
- Quality of Shade Provided
- Integration of Tree Planting
- Asset Management & Maintenance
- Implementation Programme



1.3 Strategic Intent

The City of Cockburn mission is “To make the City Cockburn the most attractive place to live, work, visit and invest, within the Perth metropolitan area”. In pursuit of this mission the City has developed a Community Strategic Plan 2012-2022 which provides the foundations for long term planning, aspirations and key strategic priorities for the community. The following drivers contained in the Strategic Plan guide the implementation of park infrastructure throughout the City’s Public Open Space:

Community and Lifestyles

2.6 Promotion of active and healthy communities

Environment and Sustainability

4.2 To protect, manage and enhance our natural environment, open spaces and coastal landscapes

2.0 Assessment of Demand

The City receives numerous requests from the community and interests groups for the provision of shade sails over playground equipment.

Requests frequently infer shade sails are a “standard” piece of park infrastructure, similar to bins, seats, shelters and so on. The view is often expressed that shade sails should be installed with all new playground equipment.

Frequently requests concern existing playgrounds. Parks Services officers suspect that a degree of this demand is created by developers in new subdivisions within the City of Cockburn and other LGA’s providing shade sails with new playground



equipment, leading the public to assume it must therefore be a reasonable requirement.

In addition to the precedents set by developers the Cancer Council of Australia suggests that 90% of all cancers could be prevented if sun protection measures are adopted.

The amounts of UVR people are subject to will vary with the season, the weather and the time of day. Maximum UVR exposure occurs between 10am and 3pm, playgrounds commonly used at these times, should be considered for shade sails, but consideration should be based on specific criteria and financial considerations.

3.0 Classification of Public Open Space

The classification of public open space (POS) has been developed principally in accordance with the state government's Liveable Neighbourhoods planning policy. In addition to the classification of POS, Community Facilities are included within the strategy due to the location of playgrounds within their confines.

- **District POS**

District Open Space predominately serves the whole municipality and has significance due to its large size, function and diversity. District open space is primary location for structured sport and is typically accessed by the local and wider community.

- **Regional POS**

Regional open space are large signature parks or reserves that are of a high recreational, leisure, social, environmental and tourism value. These



reserves attract people from outside the local government area (LGA) and are not necessarily available in every LGA. Currently Coogee Beach, Manning Park and Bibra Lake are determined as Regional POS within the City of Cockburn.

- **Local/Neighbourhood POS**

Local/Neighbourhood POS are generally small parks that provide a green space in dense urban areas that are easily accessible to the immediately local community. Local/ Neighbourhood parks offer valuable areas for informal recreational activities and social interaction of community members and are easily accessed by bicycle or on foot.

- **Community Facilities**

Community facilities are located on POS or lands owned by the City and are essentially buildings that are accessed by various community groups for specific activities. Community facility also provide fenced off areas for informal recreational activities by the different community groups.

4.0 Review of Current Installations

Since Council's adoption of the 2008 Shade Sail Strategy the provision of shade sails to Public Open Space has been on an inconsistent and ad *hoc* basis in response to customer requests and available budgets. This highlights the 2008 strategy's limitations where there is currently little formal process or guidance given by the Strategy for assessing the merits of customer requests or the needs for shade sails in areas where no requests have been received. In addition, a small percentage of the City's Community Facilities i.e. halls, care centres, senior centres, etc currently provide playgrounds which also have no formal process or evaluation mechanism for shade sails

Currently 20% of the City's playgrounds have shade provision with the Community facilities having the highest number at 66% albeit this category has a small number of playgrounds. District / sporting reserves and Regional Parks have approx 30% of the playgrounds with shade provision which is extremely low based on the high patronage and multi functional elements at these location. Local Parks has the highest representation of playgrounds with 12% having shade provision.

SHADE SAILS PER CLASSIFICATION

5.0 Provision Criteria

The review of existing inconsistencies in the and community requirement for a set of provision of shade developed based on framework, whether provide recreational

existing level of park infrastructure i.e. BBQ's and shade shelters and the potential for high patronage by the local and wider community. The provision of shade sail for each POS classification is outlined below.

Classification	Playgrounds	Shade Sails	Percentage
District POS	26	7	27%
Regional POS	10	3	30%
Local/Neighbourhood POS	133	16	12%
Community Facilities	18	12	66%
TOTAL	187	38	20%

shade sails identified various park classifications facilities which highlighted the criteria to guide the future sails. The criterion has been the POS classification the location is multi use i.e. and social interaction,

5.1.1 District POS

District Parks are accessed all year round with a majority of events running during daylight hours including summer periods when the UVR is very high. Attendance to these events and activities include members of sporting clubs or groups, family members, opposition teams and the general public. Due to the high patronage levels and the existing level of park infrastructure, the provision of shade to the playground is paramount, to ensure the equipment can be utilised during high periods of UVR when patronage to events are at a peak level.

5.1.2 Regional POS

The City currently has a number Regional Parks which are in essence large open spaces with significant environmental features, have historical value and possess a large range of recreational equipment. These Parks attract large community groups for structured or non-structured events, promote "friends of the park" groups, provide annual concerts in the park and are considered a tourist attraction for the wider Perth metropolitan region. Attendance to these parks is predominately during day light hours and are frequented by the families during school holidays summer periods when sun is at its highest UVR concentration. Shade provision for playgrounds located in these Parks is paramount in ensuring the equipment can be

utilised during the peak periods of UVR and create a functional and attractive Park that is a destination point within the City of Cockburn.

5.1.3 Community Facilities

Community Facilities provide a location for numerous community groups i.e. mothers groups, after school care, senior groups, education programs, etc to conduct activities and events within the confines of a building envelop. A large proportion of Community Facilities have a playground located within the building environment and are accessed by all the various groups throughout the year. The provision of shade to these playgrounds will benefit the groups which facilitate child care programs and education programs during school holidays and ensure the area is utilised to its maximum potential.

5.1.4 Local / Neighbourhood POS

A number of Local/ Neighbourhood Parks provide a large range of park infrastructure that attracts community members to engage in social events and general recreational activities. The amenities located within these parks include playgrounds, BBQ's, shelters, seating and have irrigated grass for general recreational pursuits. These parks are distributed throughout the City and are accessed by the local community all year round including periods of high UVR. It is considered that playgrounds located on Parks with this range of infrastructures which has the potential to attract large groups including children have shade provision.

5.1.5 Assessment Table

The table below will guide the future implementation of the shade sail program and provide the evaluation mechanism for requests for shade sails by residents within the community. Where existing shade sails have been installed on Local / Neighbourhood Parks that do not comply with the categories outlined, removal will be carried out at the end of the shade sails useful life.

SHADE SAIL PROVISION CRITERIA

Classification	Multi Use	BBQ	Picnic Shelter	High Patronage	Retention of Shade Sails
District POS	✓	✓	✓	✓	Yes
Regional POS	✓	✓	✓	✓	Yes

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Community Facility	✓	✓	✓	✓	Yes
Local/Neighbourhood POS	X	✓	✓	✓	Yes
Local/Neighbourhood POS	X	X	X	X	No

6.0 Shade Sail Design Guidelines

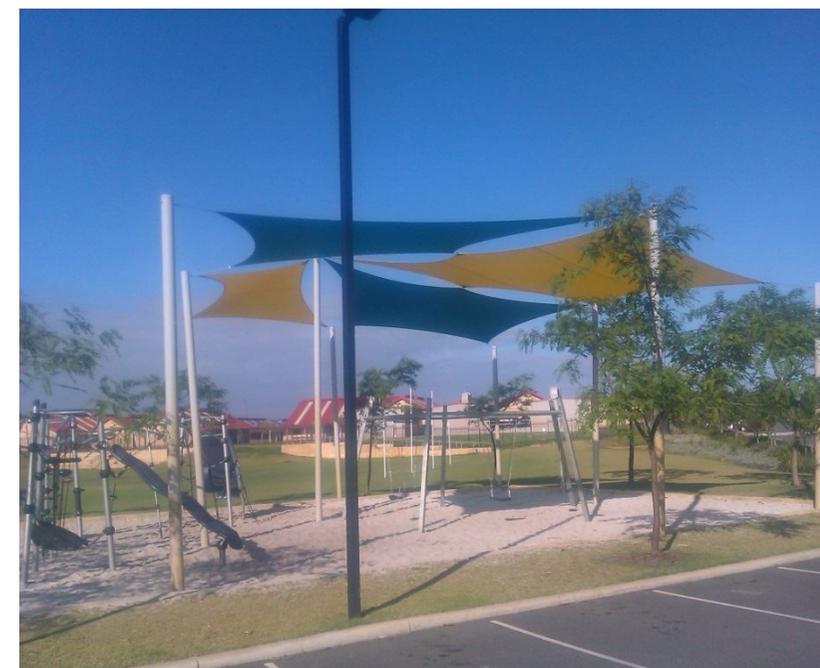
6.1 Design considerations

The designs of shade sails are determined by the shaped and size of the play equipment. Shade sail design must also consider the surroundings and potential for future alterations to the equipment. The shape and form of each shade sail is required to consider the following:

- Complement the appearance of the play equipment;
- Comply with playground design standards;
- Shade more than 90% of UVR in high activity areas between 10am and 2pm;
- Reduce the potential for vandalism/antisocial behaviour occurring on the shade sails;
- Incorporate a “quick release” mechanism to enable removal in winter
- Enable ease future maintenance;

6.2 Materials

The shade sails are generally shade cloth which is knitted fabric with hems containing steel cabling attached to steel upright poles. The knitted fabric stretches to create static hyperboloid shapes. The shade cloth has UV inhibitors added during manufacturing and generally comes with a multi-



POS	SHADE TO PLAYGROUNDS ON RECREATION RESERVES	PSEW19
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year UV degradation warranty. The steel pole supports are constructed to suit each playground. All materials can be coloured to complement the playground equipment.

6.3 Safety Standards

Shade sails are required to comply with Australian Standards for playground design in particular AS4685 – 2004. This covers aspects such as the height of the sails above the play equipment, and where the poles may be located relative to the play structures.

Under the 2012 Regulations of the Building Act (2011) shade sails are required to be provided with a Certificate of Design Compliance as a class 10a Structure greater than 10m² in area. This ensures the sails are structurally safe.

The manufacturer of the shade sail secures this Certificate from a Private Building Surveyor. After submission of the Certificate, the City's Building Services Unit can then issue a Building Permit which allows the structure to be installed.

6.4 Tree planting adjacent to Playgrounds

The integration of trees with playgrounds will be a component of the design process. The playground and shade sail design must anticipate the tree's canopy size and shape at maturity. Trees that provide natural shade to new or existing playgrounds are particularly useful. The playground should always take advantage of any existing shade on the site to reduce the size or even the need for a shade sail.



6.4.1 Location of Trees

The location of the trees is paramount in ensuring the developed canopy will provide sufficient and suitable shade to the equipment. Landscape designs outlining tree locations will be required to identify the following items:

- Proximity to play equipment
- Future/existing canopy spread
- Prevailing environmental conditions
- Maintenance aspects.

6.4.2 Species Selection

Trees selection is an important aspect to the future shade provisions of the play equipment. Native or evergreen trees have foliage all year round and drop leaves continuously, whilst deciduous trees predominately lose their leaves in the winter months. The planting of deciduous trees allow the mild winter sun to fall over the equipment and then provide the shade required in the summer period. As all tree species will provide the required shade over a playground once their canopy is fully developed, the basis for tree selection will be considered on the follow merits:

- Existing Tree Species in proximity to the playground
- Proximity to Natural Areas and water bodies / drainage basins
- Soil structure

8.0 Asset Management & Maintenance

The management and maintenance of shade sails is important for continued public health and safety, and for prolonging the lifespan of the equipment below it. Shade Sails are an asset owned and managed by the City and will be renewed in accordance with the “useful life” allocation set out in the Parks and Environment Asset Management Plan

8.1 Standard Maintenance

Shade sail maintenance requirements include an annual assessment of

- The structural competency of the poles
- The condition of the fabric (UV blocking performance and strength/wear) and wiring of the sail hems



The sails are removed during the winter and stored in the City's operations centre.

8.2 Graffiti and Vandalism

Graffiti and vandalism are variables that the City is unable to mitigate and are managed on a reactive basis. The round nature of the steel upright poles provide a difficult approach for vandals to climb, but does not completely eliminate the potential for scaling. The flexibility of the knitted fabric of the sail provides an opportunity for vandals to jump up and down on, if they are able to climb the steel pole. Manufacturers have recently added a fire retardant to the sail which reduces the potential for the "whole sail" to be burnt.

8.3 Risk Management

The risk and potential for litigation associated with not providing shade sails is minimal as children and parents should be following the Cancer Council of WA guidelines for conducting activities in periods of UV. The City of Cockburn has a "Duty of Care" to ensure the playground equipment complies with Australian Standards but is not required to provide the provision of shade to each playground construction.

9.0 Action Plan

It is recommended that District (Sporting Ovals), Regional Parks and Community Facilities are initially given priority for shade provision due to the high patronage level facilities and the existing range of facilities that are provided. Local/Neighbourhood Parks which have the level of infrastructure that support community interaction but do not have the high level of patronage will be considered a low priority.

9.1 Implementation

The implementation plan has been populated in accordance with the shade sail criteria and the Parks Capital Works 10 year financial playground shade structure program.



POS	SHADE TO PLAYGROUNDS ON RECREATION RESERVES	PSEW19
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Park Name	Classification	Priorit y Rating	Current Year (12/13)	Year 1 (13/14)	Year 2 (14/15)	Year 3 (15/16)	Year 4 (16/17)	Year 5 (17/18)	Year 6 (18/19)	Year 7 (19/20)	Year 8 (21/22)	Year 9 (22/23)	Year 10 (23/24)	Works Beyond 10years
Anning Park 1	District	1	\$20,000											
Anning Park 2	District	1		\$20,000										
Bakers Square Netball Grounds 1	District	1	\$20,000											
Bakers Square Netball Grounds 2	District	1		\$20,000										
Beale Oval	District	1		\$20,000										
Beelair Reserve	District	1			\$20,000									
Dubove Park	District	1			\$20,000									
Edwardes Park	District	1			\$20,000									
Enright Reserve	District	1				\$20,000								
Goodchild Reserve	District	1				\$20,000								
Hopbush Park 1	District	1				\$20,000								
Hopbush Park 2	District	1					\$20,000							
Mellar Reserve 1	District	1					\$20,000							
Mellar Reserve 2	District	1					\$20,000							
Santich Park 1	District	1						\$20,000						
Santich Park 2	District	1						\$20,000						
Santich Park Play Facility	District	1						\$20,000						

POS	SHADE TO PLAYGROUNDS ON RECREATION RESERVES	PSEW19
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Park Name	Classification	Priorit y Rating	Current Year (12/13)	Year 1 (13/14)	Year 2 (14/15)	Year 3 (15/16)	Year 4 (16/17)	Year 5 (17/18)	Year 6 (18/19)	Year 7 (19/20)	Year 8 (21/22)	Year 9 (22/23)	Year 10 (23/24)	Works Beyond 10years
								0						
Tempest Park	District	1							\$20,000					
Watson Reserve	District	1							\$20,000					
Bibra Lake Reserve 1	Regional	2								\$20,000				
Bibra Lake Reserve 2	Regional	2								\$20,000				
Bibra Lake Reserve 3	Regional	2									\$20,000			
Bibra Lake Reserve 4	Regional	2									\$20,000			
Bibra Lake Reserve 5	Regional	2									\$20,000			
Park Name	Classification	Priorit y Rating	Current Year (12/13)	Year 1 (13/14)	Year 2 (14/15)	Year 3 (15/16)	Year 4 (16/17)	Year 5 (17/18)	Year 6 (18/19)	Year 7 (19/20)	Year 8 (21/22)	Year 9 (22/23)	Year 10 (23/24)	Works Beyond 10years
Manning Reserve 4	Regional	2							\$20,000					
Manning Reserve 5	Regional	2								\$20,000				
Banjup Community Hall	Community Facility	3										\$10,000		
Ethel Cooper Kindy	Community Facility	3										\$10,000		
Senior Citizens	Community Facility	3										\$10,000		
South Coogee Reserve Ag Hall	Community Facility	3										\$10,000		
South Lake Child Activity Centre	Community Facility	3										\$10,000		
Yangebup C.C	Community Facility	3										\$10,000		
Atwell Reserve (Tapper)	Local	4											\$20,000	
Chorus Reserve	Local	4											\$15,000	

POS	SHADE TO PLAYGROUNDS ON RECREATION RESERVES	PSEW19
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Park Name	Classification	Priority Rating	Current Year (12/13)	Year 1 (13/14)	Year 2 (14/15)	Year 3 (15/16)	Year 4 (16/17)	Year 5 (17/18)	Year 6 (18/19)	Year 7 (19/20)	Year 8 (21/22)	Year 9 (22/23)	Year 10 (23/24)	Works Beyond 10years
Goodwill Reserve	Local	4											\$15,000	
Jan Hammond Reserve	Local	4											\$15,000	
Kevin Bowman Reserve	Local	4												\$15,000
Magnolia Gardens	Local	4												\$15,000
Peregrine Park	Local	4												\$15,000
Reeves Park	Local	4												\$15,000
Richmond Reserve	Local	4												\$15,000
Rinaldo Reserve	Local	4												\$15,000
Turnberry Park	Local	4												\$15,000
			\$40,000	\$60,000	\$65,000	\$105,000								