
Sports Floodlighting Policy

Policy Owner: Community Facilities
Contact Person: Manager Community Facilities
Date of Approval: 9 August 2022 (CP06-08/22)

POLICY STATEMENT

The City has a significant number of sporting open spaces (fields and courts) that are used for formal (club-based training and competition) and some informal (recreational) sporting activities such as skate boarding, basketball and BMX pursuits. To ensure that these activities can be undertaken in a safe environment, it is critical that the City provides these facilities with sports floodlighting in line with Australian and other relevant Standards, as far as practicable.

POLICY OBJECTIVE

The objective of this policy is to guide the provision and maintenance of floodlights across the network of sporting open spaces (active reserves) within the City of Wanneroo (**City**).

IMPLEMENTATION

This Policy applies to the City-wide provision of sports floodlighting which must be designed and installed so that the applicable visual tasks can be comfortably performed by both the Participants and the Officials. Requirements for sports floodlighting depend on the nature of the sport, the speed and size of the ball and required speed of performance of user activities. The layout of the playing area, proximity to residents and site constraints will determine the most suitable locations and number of the poles, to ensure illuminance uniformity and minimise glare.

Therefore, the City seeks to provide a standard level of provision for lighting at facilities in line with Australian and other relevant Standards, as far as practicable. Sports floodlighting shall meet the lux level standards set by the Australian Standards for Sports Lighting - Australian Standard AS2560. The City's standard provision for lighting is shown in the table below:

Sport	Level of play	Aust. Standard LUX level	
Hockey/Lacrosse	Training	200 LUX	
	Match*	300 LUX	
Baseball/Softball	Training	Infield 300 LUX	Outfield 200 LUX
	Match*	Infield 500 LUX	Outfield 300 LUX
	Batting Cages	300 LUX	
Bowls	Recreation/Local	100 LUX	

Sport	Level of play	Aust. Standard LUX level		
		Square	Infield	Outfield
Cricket	Class V (Match)	300 LUX	250 LUX	200 LUX
	Batting Cage	300 LUX		
Football (all codes)	Training	50 LUX		
	Match*	100 LUX		
Netball/Basketball	Training	100 LUX		
	Match*	100 LUX		
Tennis	Club Competition and Commercial	Principal Play Area 350 LUX	Total Playing Area 250 LUX	

*Unless otherwise stated, Match level refers to amateur level club competition and match practice. Training refers to amateur level ball and physical training.

Specific lux lighting levels and lighting design shall be to the Australian Standards for the relevant sporting code or use as follows:

Sporting Open Spaces – Large Ball Sports (Football all codes)

The Hierarchy of Provision for floodlighting on the City's Sports Spaces for large ball sports will be as outlined in the table below:

Sports Space Functional Classification	Level of Competition	Level of Lighting (LED)
Neighbourhood	Amateur	Minimum of 50 lux*
District	Amateur/club	Maximum of 100 lux
Regional	Amateur/Semi-Professional	Minimum of 100 lux*

* designed to increase capacity based on meeting the below criteria.

The base level of lighting provided at outdoor multi-use sports playing venues will be determined as Amateur Level 'Ball and Physical Training' level by the City and the level of lighting will be in accordance with AS2560.2:2021.

Where it is deemed appropriate, the City will increase the level of floodlighting provision to Amateur Level 'Club competition and match practice' (100 lux) for Neighbourhood and District Sports Spaces. In this instance, Clubs would not be required to provide their own financial contribution, however grant funding may still be sought by the City.

Provision of floodlighting lux levels above 100 lux at Regional Sports Spaces will be considered via an individual business case. This may occur as a part of the provision of a new floodlighting

installation or as a part of an upgrade of an existing installation and will be assessed based on the following criteria:

- Does the Sports Space currently have 100 lux floodlighting provision, irrespective of luminaire type?
- Is the Sports Space capable of hosting night time competitions?
- Does the Sports Space have the necessary supporting infrastructure such as a Sports Amenities Building or Pavilion to support night time competitions?
- Would the relevant State Sporting Association sanction night time competitions at the Sporting Space?
- Will upgrading the floodlighting at this Sports Space enable the City to manage ground maintenance and allocations more efficiently?
- Is the Sports Space currently being used/is there an existing club?
- Asset life/condition: How old/new is the existing floodlighting infrastructure? (ie. < 15yrs);
- What is the classification of the Sports Space within the Hierarchy of Provision, and/or is the facility being used at a level above its hierarchy of provision?

The above criteria will also be used to prioritise projects which involve increasing the lux levels and in the replacement of existing Metal Halide floodlighting installations with LED floodlighting installations.

Sporting Open Spaces – Small Ball Sports

The provision of lighting for small ball sports will be considered on a case-by-case basis and, if determined necessary by the City, lighting will be provided to meet the appropriate Australian Standard for the particular sport. AS2560.2:2021 captures the following small ball sports:

- Baseball and softball, inclusive of batting cage requirements;
- Hockey. Synthetic hockey fields must have sports floodlighting to a minimum of ball and physical training standard with Regional, State and Club Competition level being considered through a business case; and
- Cricket. The 2021 edition of AS2560 provides the lighting specifications required for both indoor and outdoor cricket facilities.

If deemed acceptable through a business case, lighting of practice cages and wickets may be provided to assist clubs training longer in the summer and during the darker months of the year. “Local” (or Class V for cricket) will be the base level of lighting provided for a batting cage or practice wicket.

Where specific sports such as lacrosse, are not covered by AS2560, lux levels will be assessed against other similar sporting types contained within AS2560 as a benchmark, international standards or sport specific guidance notes and/or regulations.

Outdoor Court Lighting

The level of lighting provided for outdoor court venues (basketball, netball) will be determined as ‘Recreation or Training and Competition with few spectators’ level by the City and the level of lighting will be in accordance with AS2560.2:2021. If the Court provides for multiple sports

such Netball/Basketball and Tennis, it shall be lit to the requirements of the sport with the higher lighting requirement (i.e Tennis).

Bowls

The level of lighting provided for bowling greens will be designated as “Recreation or Local” level by the City and the level of lighting will be in accordance with AS2560.2:2021. This applies to facilities that are under the control of the City and are not subject to a lease agreement.

Tennis Courts

The installation of any tennis courts as a new standalone facility or addition to existing facilities is to have floodlighting that meets with AS2560.2:2021 for ‘Club and Commercial’.

Outdoor Youth Activity Spaces (Skate Parks and BMX/pump tracks)

There are no Australian Standards for the illumination of outdoor 3 on 3 courts, skate parks, cycling tracks/circuits and the like, and therefore lighting standards for these types of outdoor sporting activities must meet a minimum horizontal illuminance of 100 lux at ground level, with a 0.5 uniformity (min/ave). Lighting for these spaces is to be located to ensure there is no shadowing in bowls or glare when users are performing tricks.

Formal BMX/pump tracks are to be lit in accordance in line with the AusCycling Guidelines, which must meet a minimum horizontal illuminance of 150 lux at ground level, with a 0.5 uniformity (min/ave).

The method of illumination is to be LED Luminaires with appropriate control to minimise light pollution (i.e either full cut off or with appropriate shields) with poles located at least 3m from all active areas around the perimeters of the spaces so they do not become an obstruction to the users, noting that the final pole locations will be determined during the design stage to ensure the active functional area illuminated as outlined above.

City Design Requirements

All sports floodlighting infrastructure must be initially designed and constructed to allow for levels of lighting to be increased or improved, in future years.

All sports floodlighting infrastructure must be designed and constructed using LED technology as this will minimise running and whole of life costs, provide a higher quality and distribution of light and provide instantaneous switching (on/off).

Where training and match floodlighting Lux levels are to be provided, the system must be designed to allow switching between the two levels, whether it be by the use of traditional banking of lights, or by the use of dimming.

A lower powered recreational floodlight placed at approximately 12-15 metres of height on half of the floodlight poles shall be considered in all new oval installations. This would provide energy efficient lighting to sporting spaces for passive use when not in use by sporting clubs.

Lighting Audits

As part of the construction process, the City requires that a qualified individual undertakes a lighting audit. The results are to be included as part of the documentation handed over to the City. The City acknowledges that it may be a requirement of some State Sporting Associations (SSA) to inspect the lighting audit prior to accepting a venue for night fixtures. The City will provide a copy of the initial lighting audit for this purpose.

In instances where a Club requests an additional lighting audit to be undertaken as a requirement from a State Sporting Association, these works shall be the responsibility of the Club. The works shall be in accordance with the requirements under AS2560, with the Club being responsible for the audit and booking costs. If the City completes an audit for any other purpose, it may provide a copy upon request.

Transition from Metal Halide to LED Installations

In recognition of the greater energy efficiency of LED floodlighting and reduced life cycle costs, the City will seek to undertake a program to replace existing metal halide floodlighting installations with LED floodlighting installations, to 100 lux as outlined within the standards identified above. This program will be undertaken subject to budget capacity in any given year.

Sports Floodlighting Installed by Developers

On occasions when developers install sports floodlighting on open spaces at their expense, the City will work with the developer to ensure the installation is consistent with the Australian Standards and the intent of this policy.

Additional Levels of Sports Floodlighting

Clubs may apply to the City through the City's User Funded Upgrade application process for approval to increase or improve illumination levels beyond the specific standard. Additional lighting is to be in accordance with Australian Standards 2560 and 4282. The application should detail:

- The proposed standard of lighting;
- Reasons for requesting the change;
- A plan for the courts/grounds to be changed detailing the proposed locations of the new lighting poles and a lux diagram of the proposed;
- Sources of funding; and
- Acknowledgement from the Club/User Group that it is bound by the City's Fees and Charges for the use of the higher levels of lighting

Applications will be considered by the Manager Community Facilities (or other authorized person).

If approved, the cost of the installation of additional floodlights over and above that of the City's standards for any sport will be the responsibility of the applicant club or clubs. These costs may include, but is not limited to new or modified poles, luminaires, conduits, cables, fuses and switch boxes, cabinets, upgraded or modified power to site, consulting engineering fees for investigation and design, pavement and surface reconstruction costs and all other capital and project management costs for the works.

The ongoing operating cost of the upgrade installations beyond the specified standard shall be charged to the user groups, at a cost per hour as defined with the City's Schedule of Fees and Charges to cover the cost of the additional power provider charges. The charges for the additional power are not subject to any subsidies or fee waivers, and will be charged for all usage at the additional lighting levels.

The City shall undertake all works associated with the upgrades, with the required infrastructure becoming the property of the City. The City retains the right to use and hire out the additional lighting as required.

ROLES AND RESPONSIBILITIES

This Policy is the responsibility of the Manager Community Facilities.

DISPUTE RESOLUTION

Disputes in regard to this policy will be referred to the Manager Community Facilities in the first instance. In the event that an agreement cannot be reached, the matter will be escalated to the Director Community and Place.

EVALUATION AND REVIEW PROVISIONS

The Policy will be reviewed every three years, i, and will take into account any feedback received from external stakeholders.

DEFINITIONS

DEFINITIONS: Any definitions listed in the following table apply to this document only.	
Participant	Someone who takes part in an activity
Official	Umpire, Referee, Club, Coach, Timekeeper
Sports Spaces	Provide for formal structured sporting activities, as defined by the Department of Local Government, Sport and Cultural Industries.
Recreation Spaces	Provide for informal play and physical activity, relaxation and social interaction, as defined by the Department of Local Government, Sport and Cultural Industries.

RELEVANT POLICIES/MANAGEMENT PROCEDURES/DOCUMENTS OR DELEGATIONS

Nil

REFERENCES

Australian Standards:

- 2560.1: 2018 Sports Lighting Part 1: General Principles;
- 2560.2.:2021 Sports Lighting Part 2: Specific Applications; and
- 4282:2019 Control of the obtrusive effects of outdoor lighting

RESPONSIBILITY FOR IMPLEMENTATION

Manager Community Facilities

Version	Next Review	Record No:
29 June 2010, Resolution No. CD05-06/10 (Revokes Floodlighting Policy and Tennis Courts Floodlighting Policy – both last reviewed in September 2005)	June 2012	10/16815
CS05-08/12	August 2014	12/91944
Resolution No. CS11-11/14	November 2016	12/91944
9 May 2017 CE02-05/17	May 2019	12/91944[v2]
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