25.6 Lighting and Glare Draft: 02-Dec-2022

25.6 **Lighting and Glare**

25.6.1 **Purpose** This chapter is subject to the following plan changes: Plan Change 9 with proposed new text are underlined with green highlighting

Plan Change 9 with proposed deleted text have strikethrough with red highlighting

Plan Change 9 section 42A recommendations with new text being underlined and deleted text with strikethrough

a. Intrusive Intrusive lighting is lighting that causes a nuisance to other people or indigenous fauna, usually by glare or light spill on to other people or properties. The District Plan manages these effects to protect amenity and safety values and minimise the potential effects of lighting on indigenous fauna in Significant Natural Areas.

25.6.2 Objectives and Policies: Lighting and Glare

Objective	Policies
25.6.2.1 An environment free from the adverse effects of intrusive lighting.	25.6.2.1a Ensure that light spill and glare do not detract from the amenity values of other properties, compromise traffic safety, or have a negative effect on people's health and general welfare, or adversely affect indigenous fauna in a Significant Natural Area.

Explanation

Intrusive lighting may include light from floodlights, security lights and activities such as welding. Light spill and glare have the potential to disturb people's sleep, which could adversely affect their health and general welfare. It also has the potential to adversely affect indigenous fauna, in particular the long-tailed bat, in identified Significant Natural Areas adjoining urban land uses. Unlike other adverse effects of activities, like smoke or noise, which are difficult to contain completely, light spill is reasonably simple to avoid by correct aiming or baffling (shading) of the light source.

[Text to be inserted here by PC5 decisions]

For guidance on addressing adverse effects of light spill on long-tailed bats refer to EUROBATS Publication Series No. 8: Guidelines for consideration of bats in lighting projects (2018).

25.6.3 Rules – General Standards

- a. Artificial lighting shall not result in illumination on transport corridors which may dazzle or distract transport corridor users or train drivers, or interfere with any traffic aids or signals. The relevant clauses of Australian Standard AS4282 1997 Control of the Obtrusive Effects of Outdoor Lighting shall apply with respect to the effect of artificial lighting on traffic.
- b. Lighting designed to illuminate public spaces and transport corridors, including roads, public car parks and amenity areas, shall be designed in accordance with the Australian and New Zealand AS/NZS suite of standards.

Note

1. Acceptable means of compliance for the provision, design and construction of transport corridor lighting is contained within the Hamilton City Infrastructure Technical Specifications.

25.6.4 Rules – Specific Standards

25.6.4.1 Residential, Special Character, Future Urban and Community Facilities Zones

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> a. For any activity in any Residential or Special Character Zones, or the Future Urban or Community Facilities Zones, the spill of light from artificial lighting (excluding street and navigation lights and traffic signals) on to any other site shall not exceed 3 lux (horizontal and vertical) when measured or calculated at points 1.5m within the boundary of any other site.

25.6.4.2 **Open Space Zones**

a. Light spill from artificial lighting (excluding street and navigation lights and traffic signals) used in Open Space Zones shall comply with the following standards.

i. Sport and Recreation, Neighbourhood, and Natural Open Space Zones	Measured horizontally or vertically, at points 1.5m within the boundary of any other site	Maximum 3 lux
ii. Destination Open Space Zone	Measured horizontally or vertically, at points 1.5m within the boundary of any other site, except as stated in iii below	Maximum 10 lux
iii. Destination Open Space Zone	Measured horizontally or vertically, at points 1.5m within the boundary of any site in the Community Facilities Zone and Future Urban Zone or any Residential, Special Character or other open space zones	Maximum 3 lux

25.6.4.3 Major Facilities Zone and Knowledge Zone

- a. The spill of light from artificial lighting (excluding street and navigation lights and traffic signals) in the Major Facilities Zone and Knowledge Zone on to any other site in any Residential. Special Character, Open Space, Community Facilities or Future Urban Zones, shall not exceed 3 lux (horizontal and vertical) when measured at points 1.5m within the boundary of the other site, except as provided for in Rule 25.6.4.3.c and 25.6.4.3.d.
- b. The spill of light from artificial lighting (excluding street and navigation lights and traffic signals) in the Major Facilities Zone and Knowledge Zone on to any other site in any zone not specified in Rule 25.6.4.3.a shall not exceed 10 lux (horizontal and vertical) when measured at points 1.5m within the boundary of the other site, except as provided for in Rule 25.6.4.3.c and 25.6.4.3.d.

c. Seddon Park

- i. The flood lights shall not be used at more than 29 night-time events per year.
- ii. The lights on the lighting towers shall not be used after:
 - 2230 Monday to Thursday inclusive
 - 2300 Friday to Sunday inclusive

However, the lights may remain on for the purpose of crowd dispersal for a period of up to one hour after the event or one hour after the time specified above, whichever is the earlier. Except on New Year's Eve when flood lights may be used for crowd dispersal up to 0030 on the following day (January 1).

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iii. The level of lighting from Seddon Park shall not exceed 100 lux at all property boundaries.

d. Waikato Stadium

- i. The flood lights shall not be used at more than 35 night-time events per year.
- ii. The lights on the lighting towers shall not be used after:
 - 2230 Monday to Thursday inclusive
 - 2300 Friday to Sunday inclusive

However, the lights may remain on for the purpose of crowd dispersal for a period of up to one hour after the event or one hour after the time specified above, whichever is the earlier.

iii. The level of lighting from Waikato Stadium shall not exceed 100 lux at all property boundaries.

25.6.4.4 All Other Zones

- a. The spill of light from artificial lighting (excluding street and navigation lights and traffic signals) on to any other site shall not exceed 10 lux (horizontal and vertical) when measured or calculated at points 1.5m within the boundary of any other site. In the case of contiguous sites held in the same ownership for the same activity, the spill of light shall be measured or calculated at points 1.5m within the boundary of any other site beyond the boundary of the land holding.
- b. The spill of light from artificial lighting (excluding street and navigation lights and traffic signals) on to any site in the Residential, Special Character, Open Space, Community Facilities or Future Urban Zones shall not exceed 3 lux (horizontal and vertical) when measured or calculated at points 1.5m within the boundary of any other site so zoned.

25.6.4.X

Sites adjacent to or within Significant Natural Areas (excluding Peacocke Precinct)

- a. Any part of a new or extended building that is located on a site adjacent to an SNA shall have no light emitting apertures facing the SNA if located within the following setbacks from the SNA boundary:
 - i. For a ground level building 5m from the SNA boundary
 - ii. For each level of a two level building 7.5m from the SNA boundary
 - iii. For each level of a three or more level building 10m from the SNA boundary.
- b. Additional artificial outdoor lighting installed within 20m of a SNA must.
- i. Emit zero upward light:
- ii. Be installed with the light emitting surface facing directly down and mounted as low as practical,
- iii. Be white LED with a maximum colour temperature of 3000K, and
- iv. <u>In the case of exterior security lighting, be controlled by a motion sensor with a short duration timer (5 minutes).</u>
- c. Additional artificial outdoor lighting within an SNA is only permitted for the express use of providing emergency lighting for an essential public service that could require unavoidable maintenance at night e.g. a waste water pumping station. The lighting

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must be white LED with a maximum 2700K colour temperature, installed with the light emitting surface facing directly down, emit zero direct upward light and be mounted as low as practical.

Notes:

- 1. <u>The term "light emitting apertures" means windows, doors, skylights, translucent roofing or similar which emit light.</u>
- 2. The term "additional" with respect to lighting in this context, means additional to lighting that was existing and legitimate when this rule took effect.

[333, 425, 326]

25.6.5 Other Resource Consent Information

Refer to Chapter 1: Plan Overview for guidance on the following.

How to Use this District Plan
Explanation of Activity Status
Activity Status Defaults
Notification / Non-notification Rules
Rules Having Early or Delayed Effect

Refer to Volume 2, Appendix 1: District Plan Administration for the following.

Definitions and Terms Used in the District Plan
Information Requirements
Controlled Activities – Matters of Control
Restricted Discretionary, Discretionary and Non-Complying Activities Assessment Criteria
Design Guides
Other Methods of Implementation

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