

Appendix A – Recommended Amendments to the Light Chapter

KEY

Red Underlined – Additions recommended as part of s42A Report

~~Red Strikethrough~~ – Deletions recommended as part of s42A Report

LIGHT - LIGHT

Overview

Artificial outdoor lighting enables work, recreation and *entertainment activities* to occur beyond normal daylight hours. It also enables night-time activities to be conducted safely and provides for site security. Appropriately located and designed artificial lighting contributes to the economic and social ~~wellbeing~~ well-being of the District and can improve health and safety, especially in areas accessed by the public.

Where lighting is poorly designed, selected, controlled or orientated, lighting may adversely affect the amenity of neighbouring properties, result in loss of views of the night sky, and potentially disturb wildlife. This detracts from environmental and / or *amenity values* and can create a hazard or nuisance, especially where located in close proximity to *sensitive activities*, areas of high natural value or *transportation networks*.

Objectives

- LIGHT-O1 Activities are able to use *artificial outdoor lighting* for operational and functional purposes and to provide for the security and safety of people and properties.
- LIGHT-O2 *Artificial outdoor lighting* is located, designed and operated to maintain the character and *amenity values* within zones, and so that it does not adversely affect the health and safety of people, the natural life cycles of indigenous species and the safe operation of the *transport network* and views of the night sky.

Policies

- LIGHT-P1 Enable activities that generate an appropriate level of ~~artificial outdoor lighting~~ artificial outdoor lighting for operational and functional purposes while maintaining the predominant character and amenity of each zone.
- LIGHT-P2 Require artificial outdoor lighting to be located, designed and operated to:

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1. control the maximum level of *light spill* and glare;
2. manage adverse *light spill* and glare effects to:
 - (a) maintain people’s ability to view the night sky and protect intrinsically dark landscapes.
 - (b) protect the health and well-being of people, ecosystems and indigenous species.
 - (c) ensure safe and efficient operation of the *transport network*.
3. ensure safe and efficient operation of *roads* and public *pedestrian* areas by incorporating *Crime Prevention Through Environmental Design (CPTED)* principles.

LIGHT-P3 Enable *artificial outdoor lighting* for a limited duration where it is associated with *temporary activities*, sports and recreational purposes or for public health and safety.

Notes

Note 1	Provisions in Other Chapters
	The provisions in this chapter apply in addition to the provisions of the other chapters in the District Plan and the plan should be read as a whole.
Note 2	Measurement standards
	The standards for light must be measured and assessed in accordance with Standards AS/NZS 4282- ~~2019~~ <u>2023</u> Control of the Obtrusive Effects of Outdoor Lighting.
Note 3	<u>Work or activity of the Crown</u>
	<u>Section 4(3) of the RMA allows certain Crown activity to contravene a District Plan in relation to any work or activity on land held under the Conservation Act 1987 that is consistent with a conservation management strategy, a conservation management plan or management plan and does not have a significant effect beyond the boundary of that land. Accordingly, this chapter does not apply to Department of Conservation activities that meet section 4(3), but does apply to activities that do not meet section 4(3) of the RMA.</u>

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Rules

LIGHT-R1	Emission of <i>artificial outdoor light</i>	
All zones	Activity status: Permitted Where: - Any <i>light spill</i> complies with LIGHT-S1; and - All <i>artificial outdoor lighting</i> is directed downward <u>away from and/or screened from adjoining properties and roads</u> and shielded from above to ensure that all light shines below the horizontal. - There is no external strobe, flashing or other intermittent lighting. Except this rule does not apply to: - Traffic <u>and rail</u> signals and navigation aids; - Lights of vehicles, trains and <i>aircraft</i>; ~~or~~ - Temporary lighting for the purposes of emergency response ~~–or~~ <u>Lighting on wind turbines over 60 metres in height where compliance with Civil Aviation Authority New Zealand lighting standards is required.</u>	Activity status where compliance not achieved with: LIGHT-R1(1): Restricted Discretionary Matters over which discretion is restricted: - The matters within the infringed standard. LIGHT-R1(2) and LIGHT-R1(3): <u>Restricted</u> Discretionary <u>Matters over which discretion is restricted:</u> <u>The matters within LIGHT-S1.</u> <u>The actual or potential risk of any glare from artificial outdoor lighting creating a distraction or other impediment to the safe, effective and efficient operation of the transport network.</u>
LIGHT-R2	Emission of <i>artificial outdoor light</i> from Public Sports Courts and Grounds	
All zones	Activity status: Permitted Where <i>light spill</i> complies with LIGHT-S2.	Activity status where compliance not achieved with: LIGHT-R2(1): Restricted Discretionary Matters over which discretion is restricted:

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Standards

LIGHT-S1	Maximum level of <i>light spill</i>	
General Rural Zone Rural Lifestyle Zone Natural Open Space Zone Māori Purpose Zone Large Lot Residential Zone Settlement Zone Camp Columba Zone Field Days Zone	1. The maximum level of <i>light spill</i> from any <i>site</i> measured at the <i>notional boundary</i> of any dwelling or <i>building</i> accommodating a <i>sensitive activity</i> <u>or the boundary with a state highway</u> must not exceed 5 lux (in both the horizontal and vertical planes).	Activity status where compliance is not achieved with: LIGHT-S1(1), LIGHT-S1(2), and LIGHT-S1(3): Restricted Discretionary Matters of discretion: - Whether the artificial lighting is necessary for operation or functional purposes including the health and safety of people. - Any benefits on the social, economic and cultural wellbeing well-being of the community from the increase in <i>light spill</i>. - Whether the timing, duration, direction, intensity, focus, design, height or type of lighting contributes to avoidable or unnecessary <i>light spill</i>. - The extent to which the predominant character and amenity of each zone is maintained and protected. - The adverse <i>effects</i> on the health and well-being of the occupiers of any residential property including the potential sleep disturbance.
General Residential Zone Medium Density	2. The maximum level of <i>light spill</i> from any <i>site</i> measured at or beyond the <i>site boundary</i> must not exceed 8 lux (in both the horizontal and vertical planes).	- Impacts on indigenous biodiversity within the <i>rural environment</i>. - Adverse <i>effect</i> on views of the night sky and intrinsically dark landscapes and consistency with any relevant guidelines for Dark-Sky protection within the <i>rural environment</i>.

- The matters within the infringed standard.

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Residential Zone		8. The extent to which <i>light spill</i> or <i>glare</i> may impact on activities occurring on an adjoining property.
Neighbourhood Centre Zone		
Sport and Active Recreation Zone		
Local Centre Zone	3. The maximum level of <i>light spill</i> from any <i>site</i> measured at or beyond the <i>site boundary</i> must not exceed 15 lux (in both the horizontal and vertical planes).	9. The ability to mitigate adverse <i>effects</i> through the imposition of <i>conditions</i> such as shielding the light.
Mixed Use Zone		
Town Centre Zone		
Light Industrial Zone		
General Industrial Zone		
Airport Zone		
LIGHT-S2	Artificial Outdoor Lighting from Public Sports Courts and Grounds	
All zones	Artificial Outdoor Lighting from Public Sports Courts and Grounds shall: 1. Be directed downwards and shielded from above to ensure light shines below the horizon; and 2. Have a modelled luminous intensity from any luminaire for any viewing angle at 1.5m above grade level, at a	Activity status where compliance is not achieved: Restricted Discretionary Matters of discretion: 1. Whether the artificial lighting is necessary for operation or functional purposes including the health and safety of people.

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- distance equal to 45m beyond the edge of the field, no greater than 1000 candela (absolute); and
3. Contain luminaires that emit more than 250 lumens in the “Very High” *glare* zone, ranging from 80° to 90° above nadir; and
 4. Have a maximum correlated colour temperature of 5,700K; and
 5. Have a maximum level of *light spill* that does not exceed the horizontal or vertical illuminance level of 10 lux between 06:00 and 22:00 on an adjoining *site* zoned Rural or Residential and 25 lux on an adjoining *site* zoned Commercial, Mixed Use, or Industrial, ~~excluding~~including *roads*; and
 6. Be turned off between 22:00 and 06:00, or dimmed by 75% between 22:00 to 22:30 and turned off between 22:30 and 06:00; and
 7. All *artificial outdoor lighting* not directly required for sporting or recreation activity but associated with the public sports courts and grounds shall be turned off between 22:00 and 06:00, or controlled by occupancy sensors or dimmed by 75% between 22:00 and 06:00.
2. Whether the timing, duration, direction, intensity, focus, design, height or type of lighting contributes to avoidable or unnecessary *light spill*.
 3. The extent to which the predominant character and amenity of each zone is maintained and protected.
 4. The adverse *effects* on the health and well-being of the occupiers of any residential property including the potential sleep disturbance.
 5. Adverse *effect* on views of the night sky and intrinsically dark landscapes and consistency with any relevant guidelines for Dark-Sky protection.
 6. The extent to which *light spill* or *glare* may impact on activities occurring on an adjoining property.
 7. The ability to mitigate adverse *effects* through the imposition of *conditions* such as shielding the light.
 8. Impacts on indigenous biodiversity.
 9. The actual or potential adverse effect of light spill and/or glare on the safe, efficient and effective operation of any road.

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INTERPRETATION

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Definitions

A		
	artificial outdoor lighting	Any exterior or non-residential interior lighting that emits directly into the outdoor <i>environment</i> and includes <u>lighting associated with</u> signs.

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