

Appendix A: Light Chapter – Tracked Changes

Red underline and strike-out: show additions and deletions to the notified He Rohe Te Aho Light Chapter, as recommended in the section 42A Report dated 20 February 2024.

This entire chapter has been notified using the RMA Part One, Schedule 1 process ([P1 Sch1](#)).

Te Aho

Light

LIGHT	Light
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Introduction

Artificial lighting enables work, recreation and entertainment activities to occur beyond normal daylight hours. It also provides additional safety and security to sites and associated activities. However, unless used with care, it can adversely affect people on neighbouring properties or the transport network through light spill and glare. If not appropriately screened or orientated, it can also result in light pollution that adversely affects the night sky. Wildlife can also be affected by artificial lights, particularly in the coastal area where nesting and feeding is common for sea birds.

The provisions for artificial light provide for adequate lighting to support activities and enable safety and security for people and communities, while minimising potential adverse effects beyond the site.

The following activities are exempt from the rules and standards in this chapter:

1. Public street lighting;
2. Temporary emergency activities;
3. Helipad and helicopter lighting;
4. Aviation lighting; and
5. Port lighting

Note: Guidance for installing and assessing lights in coastal wildlife habitats in relation to LIGHT-R2 is available in the National Light Pollution Guidelines for Wildlife Including Marine Turtles, Seabirds and Migratory Shorebirds, Commonwealth of Australia 2020

Other relevant District Plan provisions

It is important to note that in addition to the provisions in this chapter, the following Part 2: District-Wide chapters may also be of relevance, including:

- **Transport** - The Transport Chapter contains provisions relating to transport matters, including traffic generation (TR-R2).
- **Earthworks** - The Earthworks Chapter manages the adverse effects of earthworks on the environment, including visual amenity values and stability of land plus adverse health and safety effects, damage to property and the creation or increase in the risk of natural hazards.
- **Noise** - The Noise Chapter contains specific controls in relation to noise, including effects standards NOISE-S1 (maximum noise levels).
- **Signs** - To ensure signs are compatible with an area, their scale, number, illumination, motion and placement are managed by the Signs Chapter.
- **Infrastructure** - The Infrastructure Chapter contains provisions for the efficient use, development, repair and upgrading of infrastructure.

Resource consent may therefore be required under rules in this chapter as well as other chapters. Unless specifically stated in a rule or in this chapter, resource consent is required under each relevant rule. The steps to determine the status of an activity are set out in the General Approach chapter.

Objectives

LIGHT-O1	Purpose Artificial lighting provides for outdoor activities, safety, and security after dark.
LIGHT-O2	Adverse effects of outdoor artificial lighting The adverse effects of outdoor artificial lighting on sensitive activities, traffic safety, aviation safety, coastal wildlife and the night sky are limited.
Policies	
LIGHT-P1	Allow outdoor artificial lighting Allow outdoor artificial lighting that maintains health and safety, and enables appropriate night-time activities.
LIGHT-P2	Design and location of outdoor artificial lighting Require outdoor artificial lighting to be designed, located and oriented to maintain amenity values, traffic safety, aviation safety and to minimise effects on wildlife in coastal margins.
LIGHT-P3	Ensure safety and security of public and private shared space Ensure the safety and security of shared or publicly accessible spaces by providing appropriate outdoor artificial lighting.
Rules: Land use activities	
LIGHT-R1	Outdoor artificial lighting
All Zones	1. Activity status: Permitted Where: a. The activity complies with: i. LIGHT-S1; ii. LIGHT-S2; iii. LIGHT-S3; iv. LIGHT-S4; v. LIGHT-S5; and vi. LIGHT-S6.
All Zones	2. Activity status: Restricted Discretionary Where: a. Compliance with the requirements of LIGHT-R1.1 cannot be achieved. Matters of discretion are: 1. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standards; 2. The matters in LIGHT-P1, LIGHT-P2; 3. The lighting guidelines in the relevant Design Guide; and 4. Whether there is a risk to aviation safety.
LIGHT-R2	Outdoor artificial lighting in the coastal margin
All Zones	1. Activity status: Restricted Discretionary Where: a. The activity complies with:

	<ul style="list-style-type: none"> i. LIGHT-S1; ii. LIGHT-S2; iii. LIGHT-S3; iv. LIGHT-S4; v. LIGHT-S5; and vi. LIGHT-S6. <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Whether there is evidence the area is used by at risk, threatened or endangered bird species for reproduction, feeding, or nesting; 2. Whether there is a functional need or operational need for the proposed lighting; 3. Whether lights are directed and shielded to avoid light spill; 4. Whether the lowest intensity lighting appropriate for the task is used; 5. Whether adaptive light controls are used to manage light timing, intensity and colour; and 6. Whether lights with reduced or filtered blue, violet and ultra-violet wavelengths are used. <p>Notification status: An application for resource consent made in respect of rule LIGHT-R2.1 is precluded from being publicly notified.</p>
All Zones	<p>2. Activity status: Restricted Discretionary</p> <p>Where:</p> <ol style="list-style-type: none"> a. Compliance with the requirements of LIGHT-R2.1 cannot be achieved. <p>Matters of discretion are:</p> <ol style="list-style-type: none"> 1. Whether there is evidence the area is used by at risk, threatened or endangered bird species for reproduction, feeding, or nesting; 2. Whether there is a functional need or operational need for the proposed lighting; 3. Whether lights are directed and shielded to avoid light spill; 4. Whether the lowest intensity lighting appropriate for the task is used; 5. Whether adaptive light controls are used to manage light timing, intensity and colour; 6. Whether lights with reduced or filtered blue, violet and ultra-violet wavelengths are used; 7. The extent and effect of non-compliance with any relevant standard as specified in the associated assessment criteria for the infringed standards; 8. The matters in LIGHT-P1, LIGHT-P2; 9. The lighting guidelines in the relevant Design Guide; and 10. Whether there is a risk to aviation safety.
Standards	
LIGHT-S1	Measurement methods
All Zones	<ol style="list-style-type: none"> 1. Lighting limits must be measured and assessed in accordance with AS/NZS 4282:2019/2023 Control of the Obtrusive Effects of Outdoor Lighting. In the event of any conflict between AS/NZS 4282:2019/2023 and the District Plan, the District Plan shall prevail; and 2. Where an activity is located on a site which adjoins or is separated by a road from a different zone, the activity on the site must meet the relevant zone standards for light for the adjoining zone at the zone boundary.
	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Whether any constraints make compliance with the standard impractical or unnecessary; and 2. The appropriateness of any alternative measurement methods.
LIGHT-S2	Light spill

<p>General Rural Zone</p> <p>Large Lot Residential Zone</p> <p>Future Urban Zone</p>	<p>1. Outdoor artificial lighting must not exceed the following vertical illuminance levels:</p> <ul style="list-style-type: none"> a. 7.00am – 10.00pm: 5 Lux; and b. 10.00pm – 7.00am: 1 Lux. <p>The vertical illuminance shall be measured at:</p> <ul style="list-style-type: none"> c. Any window of a habitable room of a building used for a sensitive activity on any adjacent site. 	<p>Assessment criteria where the standard is infringed:</p> <ul style="list-style-type: none"> 1. The number, placement, design, height, colour, orientation and screening of light fittings and light support structures; 2. Any Conflict with established uses; 3. Effects on indoor amenity values and sleep quality of any nearby residential units;
<p>Residential Zones</p> <p>Open Space and Recreation Zones</p> <p>Lincolnshire Farm Development Area (Future Urban Zone)</p> <p>Upper Stebbings Glenside Development Area (Future Urban Zone)</p>	<p>1. Outdoor artificial lighting must not exceed the following vertical illuminance levels:</p> <ul style="list-style-type: none"> a. 7.00am – 10.00pm: 10 Lux; and b. 10.00pm – 7.00am: 2 Lux. <p>The vertical illuminance shall be measured at:</p> <ul style="list-style-type: none"> c. Any window of a habitable room of a building used for a sensitive activity on any adjacent site; or d. The minimum setback distance for buildings and structures used for residential purposes for the relevant zone of an adjacent site if that site does not contain a building used for a sensitive activity. The vertical extent of the calculation points for vertical illuminance shall be between: <ul style="list-style-type: none"> i. 1.5m above ground level; and ii. The maximum building height permitted by the relevant zone. 	<ul style="list-style-type: none"> 4. Any positive effects generated from the use of artificial lighting; and 5. The impact effect of lighting on aircraft safety or the safe and efficient functioning of the Airport, including the ability of Air Traffic Control to guide aircraft, or pilots to operate aircraft.
<p>Neighbourhood Centre Zone</p> <p>Local Centre Zone</p> <p>Town Centre Zone</p> <p>Metropolitan Zone</p> <p>Mixed Use Zone</p> <p>City Centre Zone</p> <p>General Industrial Zone</p> <p>Hospital Zone</p> <p>Tertiary Education Zone</p> <p>Airport Zone</p>	<p>1. Outdoor artificial lighting must not exceed the following vertical illuminance levels:</p> <ul style="list-style-type: none"> a. 7.00am – 10.00pm: 25 Lux; and b. 10.00pm – 7.00am: 5 Lux. <p>The vertical illuminance shall be measured at:</p> <ul style="list-style-type: none"> c. Any window of a habitable room of a building used for a sensitive activity on any adjacent site; or d. The minimum setback distance for buildings and structures used for residential purposes for the relevant zone of an adjacent site if that site does not contain a building used for a sensitive activity. The vertical extent of the calculation points for vertical illuminance shall be between: <ul style="list-style-type: none"> i. 1.5m above ground level; and ii. The maximum building height permitted by the relevant zone. 	

Port Zone		
Stadium Zone		
LIGHT-S3	Glare	
General Rural Zone	<p>1. Outdoor artificial lighting on any site adjacent to a road, or adjacent to a site which contains a building used for a sensitive activity, must be selected, located, aimed, adjusted and/or screened so that the luminous intensity does not exceed the following:</p> <p>a. 7.00am – 10.00pm: 7,500 cd; and</p> <p>b. 10.00pm – 7.00am: 1,000 cd.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Safety of the transport network; 2. Effects on indoor amenity values and sleep quality of any nearby dwellings; 3. The number, placement, design, height, colour, orientation and screening of light fittings and light support structures; 4. Any positive effects generated from the use of artificial lighting; and 5. The effect-impact of lighting on aircraft safety or the safe and efficient functioning of the Airport.
Large Lot Zone		
Future Urban Zone		
Residential Zones	<p>2. Outdoor artificial lighting on any site adjacent to a road, or adjacent to a site which contains a building used for a sensitive activity, must be selected, located, aimed, adjusted and/or screened so that the luminous intensity does not exceed the following:</p> <p>a. 7.00am – 10.00pm: 12,500 cd; and</p> <p>b. 10.00pm – 7.00am: 2,500 cd.</p>	
Open Space and Recreation Zones		
Neighbourhood Centre Zone	<p>3. Outdoor artificial lighting on any site adjacent to a road, or adjacent to a site which contains a building used for a sensitive activity, must be selected, located, aimed, adjusted and/or screened so that the luminous intensity does not exceed the following:</p> <p>a. 7.00am – 10.00pm: 25,000 cd; and</p> <p>b. 10.00pm – 7.00am: 2,500 cd.</p>	
Local Centre Zone		
Town Centre Zone		
Metropolitan Zone		
Mixed Use Zone		
City Centre Zone		
General Industrial Zone		
Hospital Zone		
Tertiary Education Zone		
Airport Zone		
Port Zone		
Stadium Zone		
LIGHT-S4	Effects on road users	

General Rural Zone	1. Outdoor artificial lighting must not exceed a 15% threshold increment (based on adaption luminance of 1 cd/m ²) when calculated in the direction of travel within each traffic lane of any public road.	Assessment criteria where the standard is infringed: 1. The safety of the transport network; 2. The number, placement, design, height, colour, orientation and screening of light fittings and light support structures; and 3. Any benefits from the artificial lighting.
Large Lot Zone		
Future Urban Zone		
Residential Zones	2. Outdoor artificial lighting must not exceed a 15% threshold increment limit (based on adaption luminance of 2 cd/m ²) when calculated in the direction of travel within each traffic lane of any public road.	
Open Space Zones		
Lincolnshire Farm Development Area		
Upper Stebbings Glenside Development Area	3. Outdoor artificial lighting must not exceed a 15% threshold increment limit (based on adaption luminance of 10 cd/m ²) when calculated in the direction of travel within each traffic lane of any public road.	
Neighbourhood Centre Zone		
Local Centre Zone		
Town Centre Zone		
Metropolitan Zone		
Mixed Use Zone		
City Centre Zone		
General Industrial Zone		
Hospital Zone		
Tertiary Education Zone		
Airport Zone		
Port Zone		
Stadium Zone		
LIGHT-S5	Sky glow	

<p>General Rural Zone</p> <p>Large Lot Residential Zone</p> <p>Future Urban Zone</p>	<p>1. Outdoor artificial lighting must not exceed an upward light ratio of 1%.</p>	<p>Assessment criteria where the standard is infringed:</p> <ol style="list-style-type: none"> 1. Any positive effects generated from the use of artificial lighting; 2. The number, placement, design, height, colour, orientation and screening of light fittings and light support structures; 3. The effects on visual observation of the night sky;
<p>Residential Zones</p> <p>Open Space Zones</p> <p>Lincolnshire Farm Development Area</p> <p>Upper Stebbings Glenside Development Area</p>	<p>2. Outdoor artificial lighting must not exceed an upward light ratio of 2%.</p>	<ol style="list-style-type: none"> 4. Whether the area is or could be used by at risk, threatened or endangered bird species for reproduction, feeding, or nesting; 5. Whether lights are only lighting the object or area intended and are directed and shielded to avoid light spill; 6. Whether the lowest intensity lighting appropriate for the task is used; 7. Whether adaptive light controls are used to manage light timing, intensity and colour; 8. Whether non-reflective, dark-coloured surfaces are used; 9. Whether lights with reduced or filtered blue, violet and ultra-violet wavelengths are used; and
<p>Neighbourhood Centre Zone</p> <p>Local Centre Zone</p> <p>Town Centre Zone</p> <p>Metropolitan Zone</p> <p>Mixed Use Zone</p> <p>City Centre Zone</p> <p>General Industrial Zone</p> <p>Hospital Zone</p> <p>Tertiary Education Zone</p> <p>Airport Zone</p> <p>Port Zone</p> <p>Stadium Zone</p>	<p>3. Outdoor artificial lighting must not exceed an upward light ratio of 3%.</p>	<ol style="list-style-type: none"> 10. The impact effects of lighting on aircraft safety or the safe and efficient functioning of the Airport.

LIGHT-S6	Externally illuminated surfaces	
General Rural Zone Large Lot Residential Zone Future Urban Zone	1. The average surface luminance for an intentionally artificially lit building façade shall not exceed 5 cd/m ² . Note: The limits shall be determined by calculation or measurement in accordance with CIE 150:2017 Guide on the limitation of the effects of obtrusive light from outdoor lighting installations, Second Edition.	Assessment criteria where the standard are infringed: 1. The safety of the transport network; 2. The number, placement, design, height, colour, orientation and screening of light fittings and light support structures; 3. Conflict with <u>Effects on</u> existing sensitive activities; 4. Effects on indoor amenity values and sleep quality of any nearby residential units; 5. Any positive effects generated from the use of artificial lighting; and 6. Effects on established uses and their operation. 7. The impact of lighting on aircraft safety or the safe and efficient functioning of the Airport.
Residential Zones Open Space Zones Lincolnshire Farm Development Area Upper Stebbings Glenside Development Area	2. The average surface luminance for an intentionally artificially lit building façade shall not exceed 10 cd/m ² . Note: The limits shall be determined by calculation or measurement in accordance with CIE 150:2017 Guide on the limitation of the effects of obtrusive light from outdoor lighting installations, Second Edition.	
Neighbourhood Centre Zone Local Centre Zone Town Centre Zone Metropolitan Zone Mixed Use Zone City Centre Zone General Industrial Zone Hospital Zone Tertiary Education Zone Airport Zone Port Zone	3. The average surface luminance for an intentionally artificially lit building façade shall not exceed 25 cd/m ² . Note: The limits shall be determined by calculation or measurement in accordance with CIE 150:2017 Guide on the limitation of the effects of obtrusive light from outdoor lighting installations, Second Edition.	

Stadium Zone		
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