

# Lighting (NL)

## Overview

Artificial lighting enables a variety of activities to occur beyond daylight hours. Lighting is provided to illuminate work areas and to provide for recreational and entertainment activities such as sporting events. Artificial lighting is also important to maintain security and support the safe use of areas after dark. Lighting infrastructure, such as street lighting, is necessary for traffic safety and efficiency and the well-being of people and communities. Unless appropriately managed, lighting can adversely impact on other properties due to light spill and glare. If lighting is not screened or appropriately angled, it can also result in 'light pollution' which can adversely affect the ability to view the night sky.

The artificial lighting provisions in this chapter both manage and require artificial lighting, in order to support the health and safety of people and to ensure that lighting levels are compatible with the existing lighting character of the surrounding environment and that the amenity of the night sky is preserved.

Measurement of artificial lighting can be undertaken both in relation to light spill and in terms of glare. Light spill is generally measured using lighting lux levels while glare can be measured in intensity (candelas) or against a surrounding background darkness (candelas per square metre).

## Objectives

NL-O1 – Provision of Lighting	Artificial lighting is provided to enable activities to occur outside of daylight hours and to support the health, safety and security of people, communities, and their property.
NL-O2 – Adverse Effects	Artificial lighting maintains, and where appropriate enhances, the amenity and character of the surrounding environment while avoiding, remedying and mitigating adverse effects associated with light spill and glare.
NL-O3 – Lighting Infrastructure	The subdivision and development of land provides artificial lighting infrastructure to support the safety of people and property and to maintain public pedestrian and traffic safety.

## Policies

NL-P1 – Amenity and Character	To maintain, and where appropriate enhance, the amenity and character of each zone by controlling the intensity, location and direction of artificial lighting.
NL-P2 – Health and Safety	To enable the use of artificial lighting where it is required for health and safety reasons, traffic and pedestrian safety or navigational purposes.
NL-P3 – Mineral Extraction	To provide for the use of artificial lighting where it is required as a functional or operational component of mineral extraction activities, while ensuring any adverse effects of the artificial lighting are minimised.

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NL-P4 – Safety	To enable safe and efficient use of areas which will be accessed by the general public after daylight hours by requiring artificial lighting to be provided when developing or redeveloping these areas.
NL-P5 – Road Network	To support the safe and efficient use of the roading and pedestrian network while maintaining the character and amenity of the surrounding environment by requiring street lighting to be provided at the time of subdivision.

### Rules

<b>NL-R1</b>	<b>Any Activity Not Otherwise Listed in this Chapter</b>
	<p>Activity Status: P</p> <p>Where:</p> <ol style="list-style-type: none"> <li>Resource consent is not required under any rule of the District Plan.</li> <li>The activity is not prohibited under any rule of the District Plan.</li> </ol>

<b>NL-R2</b>	<b>Any Artificial Lighting</b>
	<p>Activity Status: P</p> <p>Where:</p> <ol style="list-style-type: none"> <li>The artificial lighting is shielded so that light emitted by the luminaire is projected below a horizontal plane running through the lowest point on the fixture as represented in NL Appendix Illustration of District Wide Lighting Standard.</li> <li>The light is static and is not moving or flashing.</li> <li>The artificial lighting is located in the Active Sport and Recreation Zone or the Open Space Zone and it complies with the AS/NZS 1158 series of standards.</li> <li>The added illuminance onto any other site or a road reserve, measured at the boundary, does not exceed the following limits: <ol style="list-style-type: none"> <li>All zones (excluding the Active Sport and Recreation Zone and the Open Space Zone): <ol style="list-style-type: none"> <li>Artificial lighting measured at the</li> </ol> </li> </ol> </li> </ol>
	<p>Activity Status when compliance not achieved: RD (Restricted Discretionary)</p> <p>Matters of discretion:</p> <ol style="list-style-type: none"> <li>The effects of artificial lighting and glare on the amenity values and the character of the zone or surrounding environment.</li> <li>The effects of lighting on traffic and pedestrian safety.</li> </ol>

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- receiving allotment boundary with a road reserve – 15 Lux.
- ii. Artificial lighting measured at the receiving allotment boundary other than with a road reserve – 10 Lux.
- b. Active Sport and Recreation Zone and Open Space Zone:
  - i. Artificial lighting measured at the receiving site boundary with a road reserve – 15 Lux.
  - ii. Artificial lighting measured at the receiving allotment boundary with the Residential, Conservation, Rural Living, Rural Village Residential and Rural (Urban Expansion) Zones – 10 Lux.
  - iii. Artificial lighting measured at the receiving site boundary with all other zones – 20 Lux.

*Note: The limits identified do not apply to internal allotment boundaries where multiple allotments are held in the same ownership.*

- 5. The activity complies with REQ-01.

NL-R3	Any Artificial Road Lighting	
	Activity Status: P Where: 1. The artificial lighting is erected by a road controlling authority (or their authorised representative).	Activity Status when compliance not achieved: RD Matters of discretion: 1. The effects of artificial lighting and glare on the amenity values and

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2. The artificial lighting is for the purpose of traffic control or public safety.
3. The artificial lighting is located within the road reserve.
4. The artificial lighting complies with the AS/NZS 1158 series of standards.

*Note: Road lighting includes street lighting and illuminated traffic signals.*

the character of the zone or surrounding environment.

2. The effects of lighting on traffic and pedestrian safety.

NL-R4	Any Health and Safety or Navigational Artificial Lighting	
	<p>Activity Status: P</p> <p>Where:</p> <ol style="list-style-type: none"> <li>1. Any artificial lighting is limited to that which is required to meet the relevant health and safety standards and complies with the requirements of the relevant standards or legislation.</li> <li>2. Artificial lighting which is a navigational aid or installation is erected or constructed by the relevant authority (or their authorised representative) and operated in accordance with the relevant legislation.</li> </ol> <p><i>Note: Navigational aids may be provided by but are not limited to the following authorities: Maritime New Zealand, Civil Aviation Authority, a Regional Council or a District Council.</i></p>	<p>Activity Status when compliance not achieved: D</p>

NL-R5	Any Artificial Lighting for Mineral Extraction Activities	
	<p>Activity Status: P</p> <p>Where:</p> <ol style="list-style-type: none"> <li>1. Artificial lighting is on vehicles associated with mineral extraction activities and the vehicles are located within an identified Mineral Extraction Area (as identified in the Planning Maps and in QRA Appendix 1</li> </ol>	<p>Activity Status when compliance not achieved: D</p>

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Schedule of Existing Quarrying Resource Areas).

<b>NL-R6</b>	<b>Any Car Parking or Loading Spaces in City Centre, Commercial, Light Industry, Heavy Industry, Waterfront, Marsden Primary Centre – Town Centre South and Industry, Rural Village Centre, Rural Village Industry Zones</b>	
	<p>Activity Status: P</p> <p>Where:</p> <ol style="list-style-type: none"> <li>Artificial lighting is provided for all parking and loading areas associated with an activity that:             <ol style="list-style-type: none"> <li>Is not a residential activity.</li> <li>Operates after daylight hours.</li> </ol> </li> <li>The artificial lighting complies with the AS/NZS158 series of standards.</li> <li>The artificial lighting complies with all standards in NL-R2 for the relevant zone.</li> </ol> <p><i>Compliance standard: All zones not listed in NL-R6 must comply with NL-R2 – R5 for all artificial lighting.</i></p>	<p>Activity Status when compliance not achieved: D</p>

<b>NL-R7</b>	<b>Any Subdivision</b>	
	<p>Activity Status: C</p> <p>Where:</p> <ol style="list-style-type: none"> <li>Artificial lighting is provided for all streets, walkways, cycleways and roads created by the subdivision.</li> <li>The artificial lighting complies with the AS/NZS158 series of standards as listed in REF.1 Referenced Documents at REF.1.2 a.</li> </ol> <p>Matters of control:</p> <ol style="list-style-type: none"> <li>Amenity and character of the surrounding environment.</li> <li>Traffic and pedestrian safety.</li> </ol> <p><i>Note: Lighting and traffic signals which are to be vested in Council may also require additional approvals to be obtained from</i></p>	<p>Activity Status when compliance not achieved: RD</p> <p>Matters of discretion:</p> <ol style="list-style-type: none"> <li>The effects of artificial lighting and glare on the amenity values and the character of the zone or surrounding environment.</li> <li>The effects of lighting on traffic and pedestrian safety.</li> </ol>

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*the Council's roading department in relation to design and construction.*

*Note: Acceptable means of compliance can also be found in the Whangarei District Council Engineering Standards.*

NL-REQ1	Lighting Measurement
	<ol style="list-style-type: none"> <li>1. Unless specified otherwise, lighting shall be measured by calculation with a proprietary lighting design program which details the direct, horizontal and vertical plane illuminance with a maintenance factor set at 1.0 at any point and height of an adjacent property boundary.</li> <li>2. The light intensity shall be measured by calculation with a proprietary lighting design program at a height of 1.5 metres at any point on the adjacent property boundary.</li> <li>3. Road lighting and lighting for parks, reserves, publicly accessible/used areas and pedestrian areas shall be calculated in accordance with the methods described in the AS/NZS 1158 series of standards as listed in REF.1 Referenced Documents at REF.1.2 a. or alternative method of compliance certified in a statement by a suitably qualified and experienced professional (e.g. Chartered Professional Engineer or Independently Qualified Person).</li> <li>4. For illuminated signage, the maximum sign brightness shall be measured by calculation or certified statement by a suitably qualified and experienced professional (e.g. Chartered Professional Engineer or Independently Qualified Person).</li> </ol> <p><i>Note: Measurement of the final installation may be required in order to ensure compliance.</i></p>

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## NL Appendix Illustration of District Wide Lighting Standard

ARTIFICIAL LIGHTING: ALL LIGHT EMISSIONS ARE SHIELDED TO PROJECT BELOW THE HORIZONTAL PLANE RUNNING THROUGH THE LOWEST LEVEL OF THE LUMINAIRE

