

## LIGHT

### Introduction

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. However, if outdoor lighting is poorly designed, controlled, located or orientated, it may adversely affect the amenity of neighbouring properties and Light Sensitive Areas; result in a loss or reduction of views of the night sky<sup>1</sup>; and potentially disturb wildlife. It may also affect human health and/or safety.

The provisions of the Light Chapter provide for adequate lighting to support night-time activities and site security, while minimising potential adverse effects.

The Port Zone<sup>2</sup> recognises the industrial nature and scale of the Timaru pPort, its strategic importance and 24-hour operation. Due to the nature of operations at the pPort, a Light Management Plan (LMP) has been prepared by PrimePort, the managers and operators of the pPort, in collaboration with Council. It is envisaged that the LMP will act as a tool to minimise adverse effects of light spill on adjoining areas, while recognising the operational requirements of the pPort, many of which are existing. The Port Zone is therefore exempted from some of the provisions of this Chapter, but with some protection to neighbouring residential properties and a reliance on the LMP to minimise effects, particularly where outdoor artificial lighting is adjoining light sensitive areas<sup>2</sup>. While the PrimePort LMP Lighting Management Plan 2022 does not form part of the District Plan, it can be downloaded from the Council website.

### Objectives

#### LIGHT-O1 Artificial outdoor lighting

The benefits of artificial outdoor lighting in allowing provides for the safe and efficient use of the outdoors for a range of night-time activities are recognised<sup>3</sup>, while:<sup>4</sup>

1. is being designed and located to minimise its adverse effects; and
2. is being compatible with the character and qualities of the surrounding area; and and
3. protects the values and characteristics of light sensitive areas<sup>5</sup> minimising adverse effects on long-tailed bats<sup>6</sup>; and
4. not compromising the health and safety of people and communities, including road safety.<sup>7</sup>

#### LIGHT-O2 Benefits of artificial lighting<sup>8</sup>

The benefits of artificial lighting are recognised while any adverse effects generated do not compromise the health and safety of people and communities, including road safety.

### Policies

#### LIGHT-P1 Appropriate artificial outdoor lighting

Provide for artificial outdoor lighting appropriate to its environment<sup>9</sup> that:

<sup>1</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>2</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>3</sup> Further submission of PrimePort – Evidence of Tim Walsh, paras 83-85.

<sup>4</sup> Synlait [163.5]

<sup>5</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>6</sup> Dir. General Conservation [166.8]

<sup>7</sup> Synlait [163.5]

<sup>8</sup> Synlait [163.5]

<sup>9</sup> Clause 10(2)(b) relating to Synlait [163.5]

1. provides for the safe and efficient use of the outdoors for a range of activities, including for night-time working, primary production<sup>10</sup>, recreation activities and entertainment activities; and
2. ~~maintains the character and qualities of the surrounding area; and~~<sup>11</sup>
3. ~~supports the social, cultural, and economic wellbeing and health and safety of people and communities, including road safety~~<sup>12</sup>; and
4. ~~minimises sky glow and light spill, and~~<sup>13</sup>
5. ~~protects the identified values and qualities of light sensitive areas~~<sup>14</sup>.

#### **LIGHT-P2**      **Intensity, location and direction of artificial outdoor lighting**

Control the intensity, location and direction of any outdoor lighting in order to:

- 1A. maintain the character and qualities of the surrounding area<sup>15</sup>; and
1. ~~ensure that any artificial outdoor lighting~~<sup>16</sup> avoids adverse effects on ~~existing light sensitive areas~~<sup>17</sup>, other established uses and the safety of the<sup>18</sup> transport network; and
2. ~~achieve the internalisation of light spill within the site where the artificial outdoor lighting is located, and~~<sup>19</sup> minimise any light spill onto adjoining sites; and
3. ~~minimise adverse effects on views of the night sky and intrinsically dark landscapes; and~~<sup>20</sup>
4. avoid adverse effects on the health and safety of people and communities in the surrounding area, including sleep disturbance; and
5. minimise adverse effects on long-tailed bats<sup>21</sup>.

#### **LIGHT-P3**      **Health and safety**

~~Avoid all artificial outdoor lighting that does not meet the intensity, type, and direction requirements for light sensitive areas unless it is critical for health and safety reasons.~~<sup>22</sup>

### **Rules**

**Note:** Activities not listed in the rules of this chapter are classified as a permitted under this chapter. For certain activities, consent may be required by rules in more than one chapter in the District Plan. Unless expressly stated otherwise by a rule, consent is required under each of those rules. The steps plan users should take to determine what rules apply to any activity, and the status of that activity, are provided in Part 1, HPW — How the Plan Works - General Approach.

<sup>10</sup> Federated Farmers [182.178], Hort NZ [245.88]

<sup>11</sup> Shifted to LIGHT-P2. Clause 10(2)(b) relating to Synlait [163.5]

<sup>12</sup> Shifted to LIGHT-P2.1. Clause 10(2)(b) relating to Synlait [163.5]

<sup>13</sup> Clause 10(2)(b) relating to Synlait [163.5]

<sup>14</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>15</sup> Shifted from LIGHT-P1.2. Clause 10(2)(b) relating to Synlait [163.5]

<sup>16</sup> Clause 10(2)(b) relating to Synlait [163.5]

<sup>17</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>18</sup> Shifted from LIGHT-P1.3. Clause 10(2)(b) relating to Synlait [163.5]

<sup>19</sup> Clause 10(2)(b) relating to Synlait [163.5]

<sup>20</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>21</sup> Dir. General Conservation [166.8, 166.122]

<sup>22</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

LIGHT-R1	Artificial outdoor lighting <del>outside light sensitive areas</del> <sup>23</sup>	
<b>1.</b> <b>All zones</b> <b>(excluding the</b> <b><del>other than</del><sup>24</sup></b> <b>Port Zone and</b> <b><del>PREC-X</del></b> <b>Clandeboye</b> <b>Dairy</b> <b>Manufacturing</b> <b>Precinct)<sup>25</sup></b> <b>outside Light</b> <b>Sensitive</b> <b>Areas the</b> <b>Long-Tailed</b> <b>Bat Habitat</b> <b>Protection</b> <b>Area Overlay<sup>26</sup></b>	<b>Activity status: Permitted</b>  <b>Where:</b>  <b>PER-1</b> LIGHT-S1 and LIGHT-S2 are complied with <del>;</del> and  <b>PER-2</b> Outdoor artificial lighting that is visible from a Light Sensitive Area must not exceed the illuminance limits for the Light Sensitive Areas stated in Table 22; and <sup>27</sup>  <b>PER-3</b> If the outdoor artificial light is located adjoining a Light Sensitive Area, it must: 1. be fully shielded (see Figure 18 – Lighting Fixtures); and 2. have a colour corrected temperature of no greater than 3000K (warm white); and 3. be installed in a manner that precludes operation between 10pm and 7am the following day; and 4. meet the illumination levels set out in Table 22, when measured at boundary of the Light Sensitive Area. <sup>28</sup>	<b>Activity status when compliance not achieved with PER-1: Restricted Discretionary</b>  <b>Matters of discretion are restricted to:</b> 1. the matters of discretion of any infringed standard  <del><b>Activity status where compliance not achieved with PER-2 or PER-3: Non-complying<sup>29</sup></b></del>
<b>2.</b> <b>Port Zone</b>	<b>Activity status: Permitted</b>  <b>Where:</b>  <b>PER-1</b> All exterior lighting must be oriented so that light is emitted away from any adjoining and adjacent <del>properties zones</del> <sup>30</sup> ; and  <b>PER-2</b>	<b>Activity status when compliance not achieved with<sup>32</sup>: Discretionary</b>

<sup>23</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>24</sup> Evidence of Timonhy Walsh, para 85.

<sup>25</sup> Fonterra [165.101] – Evidence of Susannah Tait, paras 11.3-11.5

<sup>26</sup> Dir. General Conservation [166.8]

<sup>27</sup> Waka Kotahi [143.113], Silver Fern Farms [172.101]

<sup>28</sup> Rooney Holdings [174.69], Rooney, GJH [191.69], Rooney Group [249.69], Rooney Farms [250.69], Rooney Earthmoving [251.69], TDL [252.69]

<sup>29</sup> Waka Kotahi [143.113], Silver Fern Farms [172.101], Rooney Holdings [174.69], Rooney, GJH [191.69], Rooney Group [249.69], Rooney Farms [250.69], Rooney Earthmoving [251.69], TDL [252.69]

<sup>30</sup> Fonterra [165.102]

<sup>32</sup> Clause 16(2)

	<p>LIGHT-S-2<sup>31</sup> is complied with; and</p> <p><b>PER-3</b> The horizontal and vertical illuminance levels (above the background level) at the boundary of a residential zone between 10.00pm —and 7.00am do not exceed 5 lux; and</p> <p><b>PER-4</b> The vertical illuminance level at a window of an adjoining <del>site property</del> in a residential zone between 10.00pm and 7.00am does not exceed 5 lux.</p>	
<p><b>3.</b> <b><u>PRECX -</u></b> <b><u>Clandeboyne</u></b> <b><u>Dairy</u></b> <b><u>Manufacturing</u></b> <b><u>Precinct</u></b><sup>33</sup></p>	<p><b><u>Activity status: Permitted</u></b></p> <p><b><u>Where:</u></b></p> <p><b><u>PER-1</u></b> All exterior lighting must be oriented so that light is emitted away from any adjoining and adjacent zones; and</p> <p><b><u>PER-2</u></b> LIGHT-S2 is complied with; and</p> <p><b><u>PER-3</u></b> The vertical illuminance level at a window of any residential unit on an adjoining <del>site property</del> between 7.00am and 10.00pm does not exceed 10 lux; and</p> <p><b><u>PER-4</u></b> The vertical illuminance level at a window of any residential unit on an adjoining <del>site property</del> between 10.00pm and 7.00am does not exceed 1 lux.</p>	<p><b><u>Activity status when compliance not achieved: Discretionary</u></b></p>

<sup>31</sup> Clause 16(2)

<sup>33</sup> Fonterra [165.101] - Evidence of Susannah Tait, para 11.3-11.5

<b>34. Long-Tailed Bat Habitat Protection Area Overlay<sup>34</sup></b>	<p><b>Activity status: Permitted</b></p> <p><b>Where:</b></p> <p><b>PER-1</b>  <u>LIGHT-S1 and LIGHT-S2 are complied with; and</u></p> <p><b>PER-2</b>  <u>The artificial outdoor lighting:</u>  <u>1. is for a temporary activity<sup>35</sup>; or</u>  <u>2. is on a pivot irrigator and is limited to amber or red light only; or<sup>36</sup></u></p> <p><b>PER-3</b>  <u>In any <del>R</del>rural <del>Z</del>zone or <del>O</del>open <del>S</del>space and <del>R</del>recreation <del>Z</del>zone, the exterior artificial outdoor lighting must:</u>  <u>1. be fully shielded (see Figure 18 — Lighting Fixtures) and be installed such that the light emitting surface is facing directly down<sup>37</sup>; and</u>  <u>2. have a colour corrected temperature of no greater than 2700K (warm white), except for floodlighting for sports, yards or security lighting, which must have a colour corrected temperature of no greater than 3000K; and</u>  <u>3. be directed away from any bat roost tree; and</u>  <u>4. not exceed a vertical illuminance of 0.1 lux at any bat roost tree or within 2m of a bat roost tree.<sup>38</sup></u></p>	<p><b>Activity status when compliance not achieved with PER-1: Restricted Discretionary<sup>39</sup></b></p> <p><b>Matters of discretion are restricted to:</b>  <u>1. the matters of discretion of any infringed standard</u></p> <p><b>Activity status when compliance not achieved with PER-2 or PER-3: Discretionary</b></p>
<b>LIGHT-R2</b>	<b>Outdoor artificial lighting for health and safety<sup>40</sup></b>	
<b>Light Sensitive Areas</b>	<p><b>Activity status: Permitted</b></p> <p><b>Where:</b></p> <p><b>PER-1</b>  <u>The lighting is for health and safety purposes; and</u></p>	<p><b>Activity status when compliance not achieved: Non-complying</b></p>

<sup>34</sup> Dir. General Conservation [166.8]

<sup>35</sup> Clause 10(2)(b) relating to Bonifacio, P [36.13], Rooney Holdings [174.70], Rooney, GJH [191.70], Rooney Group [249.70], Rooney Farms [250.70], Rooney Earthmoving [251.70], TDL [252.70]

<sup>36</sup> Joint Witness Statement – Planning, dated 17 June 2025.

<sup>37</sup> Joint Witness Statement – Planning, dated 17 June 2025.

<sup>38</sup> Joint Witness Statement – Planning, dated 17 June 2025.

<sup>39</sup> Clause 10(2)(b) relating to Alliance Group [173.102, 173.103]

<sup>40</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

	<p><b>PER-2</b> The lighting is for:</p> <ol style="list-style-type: none"> <li>1. a permitted temporary activity; or</li> <li>2. any other temporary activity that has a duration of no longer than six months;<sup>41</sup> and</li> </ol> <p><b>PER-3</b> LIGHT-S1 and LIGHT-S2 are complied with.</p>	
<b>LIGHT-R3</b>	<b>Outdoor artificial lighting within Light Sensitive Areas not listed in LIGHT-R2<sup>42</sup></b>	
<b>Light Sensitive Areas</b>	<p><b>Activity status: Permitted</b></p> <p><b>Where:</b></p> <p><b>PER-1</b> LIGHT-S1 and LIGHT-S2 are complied with; and</p> <p><b>PER-2</b> The outdoor artificial lighting must:</p> <ol style="list-style-type: none"> <li>1. be fully shielded (see Figure 18 – Lighting Fixtures); and</li> <li>2. have a colour corrected temperature of no greater than 3000K (warm white); and</li> <li>3. be installed in a manner that precludes operation between 10pm and 7am the following day.<sup>43</sup></li> </ol>	<b>Activity status when compliance not achieved: Non-complying</b>

## Standards

<b>LIGHT-S1</b>	<b>General lighting standards</b>	
<b>All zones (excluding the Port Zone)</b>	<ol style="list-style-type: none"> <li>1. All exterior lighting must be oriented so that light is emitted away from any adjoining and adjacent <u>sites properties</u>; and</li> <li>2. <u>All</u> artificial outdoor lighting must comply with: <ol style="list-style-type: none"> <li>a. the horizontal and vertical illuminance levels for the relevant <u>Zone</u> or <u>Area</u> set out in Table 22 – Horizontal and vertical illuminance levels; and</li> </ol> </li> </ol>	<p><b>Matters of discretion <u>are</u> restricted to:</b></p> <ol style="list-style-type: none"> <li>1. whether the artificial outdoor lighting is necessary, suitably designed and adequately mitigates the effects on the character and amenity <u>values</u> of the surrounding area; <u>and</u></li> <li>2. the number, type, placement, design, height, correlated colour temperature (CCT), orientation and screening of any lighting minimises light spill, glare, and artificial sky glow; and</li> </ol>

<sup>41</sup> Bonifacio, P [36.13], Rooney Holdings [174.70], Rooney, GJH [191.70], Rooney Group [249.70], Rooney Farms [250.70], Rooney Earthmoving [251.70], TDL [252.70]

<sup>42</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>43</sup> Bonifacio, P [36.12, 36.14], Alliance Group [173.103], Rooney Holdings [174.71], Rooney, GJH [191.71], Rangitata Island Dairy [221.4], Rooney Group [249.71], Rooney Farms [250.71], Rooney Earthmoving [251.71], TDL [252.71]

	<p>3. <del>Where</del> where conformance with the limits set in Table 22 — Horizontal and vertical illuminance levels is to be determined by calculation, the calculation must be undertaken by a person who is professionally qualified and competent in the discipline of illumination engineering and be based upon:</p> <ul style="list-style-type: none"> <li>a. a maintenance factor of 1.0 (i.e., no depreciation); and</li> <li>b. the horizontal plane be calculated for a series of points along the property boundary at no greater than 2m spacings; and</li> <li>c. the vertical plane be calculated for a series of points along the property boundary at no greater than 2m spacings horizontally and vertically from ground level to a height equal to the height of 10m; and</li> </ul> <p>4. <del>Where</del> where conformance with the limits set in Table 22 — Horizontal and vertical illuminance levels is to be determined by measurement, illuminance measurements must take place at the boundary at a height of 1.5m; and</p> <p>5. <del>Where</del> where measurements of any illuminance above background levels from the use of artificial lighting cannot be made because the artificial lighting cannot be turned off, measurements may be made in areas of a similar nature that are not affected by the artificial lighting. The result of these measures may be used for determining the effect of the artificial lighting.</p> <p><b>Note:</b> <i>Where a development is located on a site, which adjoins or is directly across a road from a different lighting category, the most sensitive classification of the two categories will apply when measured at their common boundary.</i></p>	<p>3. the extent to which the amount of light emitted beyond the site between sunset and sunrise is minimised to control effects on indoor amenity values and sleep quality; and</p> <p>4. whether it is consistent with best practice.</p>
<b>LIGHT-S2</b>	<b>Traffic safety on roads</b>	
<b>All zones</b>	<p>1. Outdoor artificial lighting operating on any site between sunset and sunrise must not exceed the threshold increment limit stated in Table 23, on any state highway, arterial or principal</p>	<p><b>Matters of discretion <u>are</u> restricted to:</b></p> <ul style="list-style-type: none"> <li>1. any adverse effects of artificial outdoor lighting, including glare and light spill on the safety of road users.</li> </ul>



	<p>road, calculated within each traffic lane in the direction of travel; and</p> <p>2. All exterior lighting must be oriented so that light is emitted away from any state highway or arterial or principal roads, or any oncoming traffic.</p>	
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**Table 22 — Horizontal and vertical illuminance levels**

	<b>Receiving<sup>44</sup> Zones and Areas<sup>45</sup></b>				
	<b>Rural Lifestyle Zone;<sup>46</sup> Natural Open Space Zone; <del>Light Sensitive Areas</del><sup>47</sup></b>	<b>General Rural Zone<sup>48</sup></b>	<b>General Rural Lifestyle<sup>49</sup> Zone; Settlement Zone; Open Space Zone; Māori Purpose Zone</b>	<b>General Residential Zone; Medium Density Residential Zone; Neighbourhood Centre Zone</b>	<b>Town Centre Zone; Local Centre Zone; Large Format Retail Zone; City Centre Zone; Sports and Active Recreation Zone; General Industrial Zone</b>
<b>Horizontal and vertical illuminance above the background level at a site boundary Times: 7.00am — to 10.00pm</b>	2 lux	<u>10 lux</u>	5 lux	10 lux	25 lux
<b>Horizontal and vertical illuminance above the background level at a site boundary Times: 10.00pm — to 7.00am</b>	0.5 lux	<u>5 lux</u>	1 lux	2 lux	5 lux

<sup>44</sup> Clause 16(2) – Evidence of Susannah Tait, para 11.7

<sup>45</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>46</sup> HortNZ [245.89]

<sup>47</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

<sup>48</sup> HortNZ [245.89]

<sup>49</sup> HortNZ [245.89]



Vertical illuminance at a window of an adjoining <del>property site</del> in a residential zone Times: <u>7.00am</u> — <u>to 10.00pm</u>	1 lux	<u>2 lux</u>	2 lux	5 lux	15 lux
Vertical illuminance at a window of an adjoining <del>property site</del> in a residential zone Times: <u>10.00pm</u> — <u>to 7.00am</u>	0 lux	<u>1 lux</u>	1 lux	2 lux	3 lux

Table 23 — Threshold Increment

Threshold increment	Zones and Areas			
	Rural Lifestyle Zone; Natural Open Space Zone; <del>Light Sensitive Areas</del> <sup>50</sup>	General Rural Zone; Settlement Zone; Open Space Zone; Māori Purpose Zone	General Residential Zone; Medium Density Residential Zone; Neighbourhood Centre Zone	Town Centre Zone; Local Centre Zone; Large Format Retail Zone; City Centre Zone; Sports and Active Recreation Zone; General Industrial Zone; Port Zone
	<del>15% percent</del> (based on adaption luminance of 0.1 cd/m <sup>2</sup> )	<del>15% percent</del> (based on adaption luminance of 0.1 cd/m <sup>2</sup> )	<del>15% percent</del> (based on adaption luminance of 1 cd/m <sup>2</sup> )	<del>15% percent</del> (based on adaption luminance of 2 cd/m <sup>2</sup> )

<sup>50</sup> Clause 10(2)(b) relating to Rangitata Dairies [44.1], Dairy Holdings [89.4], Fonterra [165.15], Fenlea Farms [171.2, 171.4], Rooney, A J [177.6], Hort NZ [245.12]

Figure 18 — Lighting Fixtures

## Examples of Acceptable / Unacceptable Lighting Fixtures



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