

LIGHT

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1 Scope of Report

- [1] This Recommendation Report relates to the Light chapter of the PDP and contains the Hearing Panel's recommendations to Council on the submissions and further submissions received on that chapter.
- [2] The Hearing Panel members for the Light chapter were:
- Andrew Willis
 - Gary Rae (Chair)
 - Mark Alexander
 - Raewyn Solomon
- [3] The initial Section 42A Report and the end of hearing Section 42A Right of Reply Report for this topic were:
- Light Chapter, 22 November 2021, Vicki Barker
 - Light Chapter, 10 February 2022, Vicki Barker
- [4] The Panel also received a statement of evidence prepared by a lighting expert, Mr Stephen Muir, dated October 2021 which had informed, and was to be read alongside, the initial Section 42A Report.
- [5] The Section 42A reporting officer also provided a report entitled 'Officer's Response to Questions from The Hearings Panel', dated 13 January 2022.
- [6] The Hearing Panel's recommended amendments to the notified provisions of the Light chapter are set out in Appendix 1. Amendments recommended by the Section 42A Report author that have been adopted by the Hearing Panel are shown in strike out and underlining. Further or different amendments recommended by the Hearing Panel are shown in strike out, underlining and red font.
- [7] We note that some of the numbering of individual clauses in the rule and rule requirement provisions will need to be consequentially amended and not all such amendments are shown in Appendix 1. We understand that will occur in the amended version of the entire PDP that will accompany the release of all of the Recommendation Reports.
- [8] Further submitters are not listed in the tables in this Recommendation Report because further submissions are either accepted or rejected in conformance with our recommendations on the original submissions to which they relate.

2 Hearing and Submitters Heard

- [9] The hearing for the Light chapter was held on 18th January 2022. The submitters who appeared at the hearing (either in person or via Zoom) are listed below, together with an identification of whether they were an original submitter, a further submitter, or both.

Sub #	Submitter	Original	Further
Combined DPR-0358	Rolleston West Residential Limited (RWRL)	✓ ✓	✓ ✓

Sub #	Submitter	Original	Further
DPR-0363	Iport Rolleston Holdings Limited (IRHL)	✓	✓
DPR-0374	Rolleston Industrial Holdings Limited (RIHL)	✓	✓
DPR-0384	Rolleston Industrial Developments Limited (RIDL)		
DPR-0442	Castle Hill Community Association	✓	
DPR-0420	Synlait Milk Limited	✓	

[10] Some of the submitters had expert witnesses appear on their behalf. The witnesses we heard from are listed in Appendix 2. Copies of all evidence (expert and non-expert) received are held by the Council. We do not separately summarise that material here, but we refer to or quote from some of it in the remainder of this Recommendation Report.

[11] We record that we considered all submissions and further submissions, regardless of whether the submitter or further submitter appeared at the hearing and whether they were represented by expert witnesses.

3 Sub-topic Recommendations

[12] In this part of the Recommendation Report we assess the submissions by sub-topic, using the same headings as the initial Section 42A Report.

3.1 Definitions

[13] We note here that the Definitions chapter was subject to its own Hearing (Hearing 2), however there are a number of submissions relating to definitions that were more appropriately considered as part of the other chapters, including the Light chapter.

[14] For the following submitter and their submission point on those provisions we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0422	Federated Farmers of New Zealand - North Canterbury	025

[15] We note that the tabled statement from Federated Farmers¹ accepted the recommendation of the Section 42A report author to retain the definition of 'Artificial outdoor lighting' as notified. There was therefore no evidence in opposition to the Section 42a Report on this point.

3.2 Overview

[16] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author and provide some additional commentary on our reasons.

Sub #	Submitter	Submission Points
DPR-0159	Lincoln Envirotown Trust	005
DPR-0358	RWRL	258
DPR-0363	IRHL	247
DPR-0374	RIHL	253
DPR-0375	Waka Kotahi NZ Transport Agency	114
DPR-0384	RIDL	265
DPR-0422	Federated Farmers of New Zealand - North Canterbury	236

¹ Hearing Statement dated 12 January 2012, paragraph 11

- [17] We consider the Overview appropriately sets the scene for provisions in LIGHT-P1 and LIGHT-P3 which seek to minimise light spill, glare and potential upward light that causes sky glow. Accordingly, there is no need to replace the word ‘minimising’ with ‘managing’ potential adverse effects associated with artificial outdoor lighting.
- [18] In response to HortNZ’s submission, and Ms Wharfe’s evidence in particular, we consider the word ‘work’ was intentionally chosen to be all encompassing of work-related activities such as primary production and industrial developments, and this includes rural production activities. Accordingly, we accept the Section 42A Report author’s recommendation not to amend the Overview to make specific reference to rural production activities.
- [19] However, we note that this matter is addressed further in our consideration of the policy framework, where we have recommended a new policy to recognise that artificial lighting may be required to support the operational needs of activities, including their health and safety requirements, and those needing to operate on a 24-hour basis (see section 3.3.3). This may, in essence, grant partial relief to the submitter.
- [20] In response to the submission of Waka Kotahi, and supported by the Section 42A report, we accept it is appropriate to amend the Overview to specifically refer to adverse lighting effects with respect to roads. We accept the Section 42A Report author’s advice that the scale of change does not require a s32AA evaluation.

3.3 Objectives and Policies

3.3.1 LIGHT-O1

- [21] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	001
DPR-0142	New Zealand Pork Industry Board (NZ Pork)	034
DPR-0353	HortNZ	210
DPR-0358	RWRL	259
DPR-0363	IRHL	248
DPR-0374	RIHL	254
DPR-0375	Waka Kotahi NZ Transport Agency	115
DPR-0384	RIDL	266
DPR-0422	Federated Farmers of New Zealand - North Canterbury	237

- [22] Consistent with our recommendation on the Overview, we do not consider LIGHT-O1 needs changing to refer to ‘rural production’. The broader term of ‘work’ is also considered preferable in the objective as it provides for all work activities, including rural production and a variety of industry and other business operations that are required to operate at night without singling out one activity and potentially omitting others. However, as noted at paragraph 19, we have recommended a new policy to recognise that artificial lighting may be required to support the operational needs of activities, including their health and safety requirements, and those needing to operate on a 24-hour basis.
- [23] We accept the case made in the submission point by Waka Kotahi, that clarification is required as regards to a specific reference to enable light for ‘transportation’. We accept the

recommendation by the Section 42A Report author to the amended wording and that the scale of the change does not require a s32AA evaluation.

3.3.2 **LIGHT-P1**

- [24] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	002
DPR-0358	RWRL	260
DPR-0363	IRHL	249
DPR-0365	Stuart PC Limited	036
DPR-0370	Fonterra Limited	060
DPR-0374	RIHL	255
DPR-0375	Waka Kotahi NZ Transport Agency	116
DPR-0384	RIDL	267

- [25] In relation to submission points by RWRL, IRHL, RIHL and RIDL, consistent with our recommendation on the Overview, we do not consider LIGHT-P1 needs changing to refer to 'rural production' or to change 'minimise' to 'manage'.
- [26] We also consider that LIGHT-P1 does not need to be amended to:
- make specific reference to infrastructure activity, noting that the General Industrial Zone chapter contains objectives and policies which seek to enable industrial activities and it would duplicate policy in that chapter (i.e., GIZ-O1, GIZ-P1); or to
 - include recognition that different zones have different functional requirements and amenity expectations, as the zone chapters themselves provide this recognition.
- [27] We agree that the policy should be amended to refer to the management of light spill onto adjoining sites including roads, consistent with our recommendations on the Overview, and to include reference to 'effective' in addition to efficient to add clarity, as well as be consistent with a similar change recommended in association with EI-P3. We accept the recommendation by the Section 42A Report author for the amended wording and that the scale of the change does not require a s32AA evaluation.

3.3.3 **LIGHT-P2**

- [28] The Section 42A Report author was asked by the Panel to respond to the submission points by Orion, Fonterra, and Synlait regarding whether 24-hour industrial operations are sufficiently enabled in the objective and policies. We were mindful of the planning evidence of Ms Rykers for Synlait in particular to the apparent confusion between the purpose and roles of LIGHT-P1 and LIGHT-P2, and how they work together.
- [29] The response, in the Reply Report, was that viewed in tandem, LIGHT-P1 is the 'managing' policy with respect to managing the effects of light spill and glare on adjoining sites, and LIGHT-P2 is the 'enabling' policy. The Reply Report noted that the intention of LIGHT-P2 is three-fold: to provide for lighting associated with temporary activities, lighting associated with emergency response, and lighting to provide for health and safety, and that in response to the evidence of submitters LIGHT-P2 should be amended to more clearly express the need to enable lighting associated with health and safety.

- [30] Firstly, we accept there is benefit in amending LIGHT-P2, but rather than including the full text of changes recommended in the Reply Report we consider it is necessary to only replace 'public health and safety' with 'people's health and safety'.
- [31] Secondly, we considered the more substantive points on the policy framework in general (by HortNZ, Orion, Fonterra and Synlait), and with particular reference to the evidence of Ms Wharfe, Mr Bonis and Ms Rykers who had suggested that there is a policy vacuum to the extent that 'work' activities cannot rely on specific policies to provide the 'enabling' anticipated in LIGHT-O1.
- [32] We consider the policies as they were notified do not adequately reflect the needs of 'work' activities such as 24-hour dairy processing operations, ports and agricultural activities which require lit operations primarily to satisfy health and safety requirements.
- [33] Planning experts for Fonterra (Mr Chrystal), Midland Port, Lyttelton Port Company Ltd (Mr Bonis), and Synlait (Ms Rykers) supported changes to LIGHT-P2 and a new policy (which they labelled LIGHT-P4) to accommodate the needs of important infrastructure, as follows:
- LIGHT-P2 Enable artificial outdoor lighting of short duration outside of daylight hours associated with temporary activities, and artificial outdoor lighting for the purpose of emergency response ~~and public health and safety~~.*
- Insert LIGHT-P4 Enable artificial outdoor lighting to support the operational needs of activities including their health and safety requirements and those needing to operate on a 24-hour basis.*
- [34] The Reply Report² considered these changes may tip the balance too much towards being enabling of the light emissions of large infrastructure operations and would then be incongruous with the associated rules which are designed to minimise the effects of light spill and sky glow. We do not consider all associated lighting should be permitted and unrestricted for a business simply by virtue of it being a 24-hour business operation, and recommend that the policy recognises the operational lighting needs of activities rather than enables.
- [35] In considering all of the evidence on this point we accept there is a need to include a new policy (which we have re-numbered as LIGHT-P2A) so that the role of each policy is clear, and that the (now) four policies reflect the intent of LIGHT-O1.
- [36] This will provide for LIGHT-P1 as the policy to manage effects of lighting; LIGHT-P2 as the policy to enable lighting of short duration associated with temporary activities and for emergency response, (new) LIGHT-P2A as the policy to "*Recognise that artificial lighting may be required to support the operational needs of activities, including their health and safety requirements, and those needing to operate on a 24-hour basis*", and LIGHT-P3 as the policy to manage the effects of sky glow.
- [37] Consequently, for the following submitters and submission points our recommendations are set out below.

Sub #	Submitter	Submission Point	Accept	Accept in part	Reject
DPR-0116	Robert Glassey	003		✓	
DPR-0358	RWRL	261		✓	

² Reply Report, paragraph 2.10

Sub #	Submitter	Submission Point	Accept	Accept in part	Reject
DPR-0363	IRHL	250		✓	
DPR-0365	Stuart PC Limited	037		✓	
DPR-0367	Orion	119		✓	
DPR-0370	Fonterra Limited	061		✓	
DPR-0374	RIHL	256		✓	
DPR-0384	RIDL	268		✓	
DPR-0420	Synlait Milk Limited	009		✓	
DPR-0453	Midland Port, Lyttelton Port Company Limited	049		✓	

- [38] We consider, that in terms of a s32AA evaluation, this will improve the chapter and is the most effective and efficient way to achieve an appropriate and clear link between the policies and the objective.

3.3.4 LIGHT-P3

- [39] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	004
DPR-0215	Winstone Aggregates	042
DPR-0345	Porters Alpine Resort	029
DPR-0358	RWRL	262
DPR-0363	IRHL	251
DPR-0365	Stuart PC Limited	038
DPR-0374	RIHL	257
DPR-0375	Waka Kotahi NZ Transport Agency	117
DPR-0384	RIDL	269
DPR-0420	Synlait Milk Limited	010

- [40] We accept there is a need to refine LIGHT-P3 to improve its readability, and to add a reference to 'effective' so the effective and efficient operation of roads is considered. We accept the recommendation by the Section 42A Report author to amend the wording and that the scale of the change does not require a s32AA evaluation.
- [41] We have considered the planning evidence of Ms Rykers outlining the concern that this policy may impede the ability for significant infrastructure to operate 24 hours a day especially in terms of the direction to maintain people's ability to view the night sky and to maintain the character and amenity values of the rural zones for instance.
- [42] However, we accept the Section 42A Report's assessment that important infrastructure can generate significant lighting effects including sky glow and the policy should be encouraging of the need to minimise these effects, to also be consistent with the associated rules which are not considered unduly onerous. We note also the policy refers to 'maintaining' the character and views of the night sky and this should not impact on the ability of existing infrastructure to keep operating 24 hours a day.

3.4 Rules

3.4.1 *LIGHT-R1 Artificial Outdoor Lighting*

- [43] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, which result in no changes to LIGHT-R1. We note that the submission points of Stuart PC Ltd and Waka Kotahi relate to LIGHT-REQ1 and not directly to LIGHT-R1, and these are addressed in section 3.5.1 of this report. The other submissions are all in support of LIGHT-R1.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	005
DPR-0358	RWRL	263
DPR-0363	IRHL	252
DPR-0365	Stuart PC Limited	039
DPR-0367	Orion New Zealand Limited	121
DPR-0374	RIHL	258
DPR-0375	Waka Kotahi NZ Transport Agency	118
DPR-0384	RIDL	270

3.4.2 *LIGHT-R2 Artificial Outdoor Lighting: Roads and Public Pedestrian Accessways and Cycleways*

- [44] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, which result in no changes to LIGHT-R2. We note that all of the submission points are in support of LIGHT-R2 as notified.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	006
DPR-0358	RWRL	264
DPR-0363	IRHL	253
DPR-0374	RIHL	259
DPR-0375	Waka Kotahi NZ Transport Agency	119
DPR-0384	RIDL	271

3.4.3 *LIGHT-R3 Artificial Outdoor Lighting – Public Sports Courts and Grounds*

- [45] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0019	Sue Jarvis	002
DPR-0116	Robert Glassey	007
DPR-0345	Porters Alpine Resort	030
DPR-0358	RWRL	265
DPR-0363	IRHL	254
DPR-0374	RIHL	260
DPR-0375	Waka Kotahi NZ Transport Agency	120
DPR-0384	RIDL	272

- [46] We are satisfied that the Section 42A Report author's recommended amendment in response to Waka Kotahi's submission point, to include reference to LIGHT-REQ2 to specifically manage glare from public sports courts and grounds lighting onto adjoining properties and roads, is

appropriate. This would ensure glare onto the transportation network from such lighting is managed, as supported by the evidence of Mr Muir³.

- [47] We did not receive any evidence to support the submission by Porters Alpine Resort for LIGHT-R3 to make provision for outdoor lighting within the SKIZ consistent with the ODP, and we accept the Section 42A Report author's reasons to reject that submission point.

3.4.4 LIGHT-R4 Artificial Outdoor Lighting – Emergency Response

- [48] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, which for all but Orion's submission is in support of LIGHT-R4 as notified.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	008
DPR-0358	RWRL	266
DPR-0363	IRHL	255
DPR-0367	Orion New Zealand Limited	116
DPR-0374	RIHL	261
DPR-0375	Waka Kotahi NZ Transport Agency	121
DPR-0384	RIDL	273

- [49] We note that Orion's submission is seeking to permit lighting for 'urgent repairs and maintenance of important infrastructure'. However, this is not considered necessary as, in the Energy and Infrastructure chapter, the recommendation is to retain, with only minor modifications, EI-R6 which will permit the operation, maintenance or repair of existing above and below ground network utilities, without being subject to any lighting provisions.

3.4.5 LIGHT-R5 Artificial Outdoor Lighting – Temporary Activities

- [50] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	009
DPR-0358	RWRL	267
DPR-0363	IRHL	256
DPR-0374	RIHL	262
DPR-0375	Waka Kotahi NZ Transport Agency	122
DPR-0384	RIDL	274

- [51] We are satisfied that the Section 42A Report author's recommended amendments to LIGHT-R5 in response to Waka Kotahi's submission point, to manage glare in association with temporary activities, and to make a clause 16(2) consequential minor amendment to the activity status column, are appropriate.

³ Mr Muir's statement, paragraph 6.19

3.5 Rule Requirements

3.5.1 LIGHT-REQ1 Light Spill

[52] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, including in the Reply Report as discussed further below.

Sub #	Submitter	Submission Points
DPR-0068	MetroPort Christchurch (MetroPort)	017
DPR-0358	RWRL	268, 269
DPR-0363	IRHL	257, 258
DPR-0370	Fonterra	062
DPR-0374	RIHL	263, 264
DPR-0375	Waka Kotahi NZ Transport Agency	123
DPR-0384	RIDL	275, 276
DPR-0442	Castle Hill Community Association Inc.	005
DPR-0453	Midland Port, Lyttelton Port Company Limited	050

[53] We are satisfied that the Section 42A Report author's recommended amendments to LIGHT-REQ1, in response to submissions are appropriate, these being to:

- manage light spill lux levels onto roads and clarify that light spill from road lighting within roads is not a consideration;
- reduce the lux levels applicable to development within Castle Hill Village (SCA-AD2); and
- revise the rule so it is clearer that measurement of light spill is in accordance with AS/NZS 4282:2019 and not at the boundary.

[54] We accept that, based on Mr Muir's evidence in response to Waka Kotahi's submission point, it is important to clarify that LIGHT-REQ1 is intended to extend to control light spill onto roads to address the adverse effects on the safe, effective and efficient functioning of the land transport network. Mr Muir's evidence was that light spill from road lighting itself should not be subject to the light spill levels in LIGHT-REQ1 because road lighting is managed by the AS/NZS 1158 series of standards⁴. Consequential changes are required including an advisory note as explained in the Section 42A Report.

[55] We accept the evidence of the Section 42A Report author, and Mr Muir⁵ that, in response to the submission by the Castle Hill Community Association Inc, the village is unique and has a different level of amenity more akin to a rural zone. We therefore accept that a lower lux level than for a standard residential zone would be appropriate within the Village, and that the specified level should be consistent across Castle Hill Village which is zoned General Residential and Local Commercial.

[56] We considered Ms Clark's planning evidence in support of submission points by RWRL, IRHL, RIHL, and RIDL to amend the rules to apply at the 'notional boundary' or a point 20 metres from the side of any building used for a 'sensitive activity'. We understand that LIGHT-REQ1 does not specifically state that light spill is measured at the boundary but does refer to light spill meeting lux levels specified 'on an adjoining site', the closest point of which is the

⁴ Mr Muir's statement, paragraphs 6.21-6.23.

⁵ Mr Muir's statement, paragraphs 6.25-6.26.

adjoining site boundary. The Reply Report states⁶ that the intention was that the measurement point would be determined by AS/NZS 4282:2019, and so it is agreed that the current wording is not clear enough.

- [57] The evidence of Mr Muir⁷ was that AS/NZS 4282:2019 describes where light spill is measured from and that this is typically only 10 metres from the boundary (or on the building line if the building is located closer than that to the boundary). Therefore, applying measurement at the notional boundary as requested by the submitters would be more lenient and inconsistent with AS/NZS 4282:2019. The Reply Report addressed this further, noting the amendment sought by the submitters would also be inconsistent with the setback in the General Rural Zone which is only 5 metres from internal boundaries.
- [58] Overall, we accept the evidence in the Reply Report, and based on Mr Muir's evidence, which after having assessed four possible options, recommends adding an advisory note to LIGHT-REQ1 to clarify that the approach to measuring light spill is to be undertaken in accordance with AS/NZS 4282:2019. We accept the recommendation by the Section 42A Report author as to the amended wording and that the scale of the change does not require a s32AA evaluation.
- [59] On other submission points we accept the evidence of Mr Muir⁸ in relation to submission points by:
- Metroport, seeking that the 2200 to 0600 lux level for the PORTZ is 10 lux where it adjoins the General Industrial Zone;
 - RWRL, IRHL, RIHL, and RIDL, to request more appropriate and achievable lux levels to sufficiently recognise the health and safety, operational and functional requirements of businesses in the CMUZ and the GIZ, especially for night-time operations;
 - Stuart, PC seeking to amend the Light Spill standard to better enable activities within the GIZ to operate 24/7⁹; and
 - LPC, seeking changes including to increase the lux levels at all times in the CMUZ, GIZ, PORTZ and KNOZ to enable safe lighting for Port activities¹⁰.
- [60] These submissions are essentially seeking the same or similar lux levels as in the Operative District Plan, and in some cases significantly more lenient (such as the 25 lux level between 2200 to 0600 hours originally sought by LPC). However, as noted in the Reply Report¹¹, Mr Muir's evidence was that the maximum lux levels specified in the PDP are based on the new standard (AS/NZS 4282:2019) rather than the standard used in the Operative District Plan. Mr Muir's evidence was that the lux levels as notified are not considered onerous or restrictive, and there are examples of large industry embracing the advances in LED technology to deliver

⁶ Reply Report, paragraph 3.2

⁷ Mr Muir's statement, paragraphs 6.7-6.9

⁸ Mr Muir's statement, paragraphs 6.1-6.6, 6.13-6.18

⁹ Mr Muir's statement does not specifically address this submission point but his statements in relation to the Metroport, RWRL, IRHL, RIHL, RIDL and LPC submissions at paragraphs 6.1-6.18 are also considered applicable to the Stuart PC submission point in that the GIZ light spill standards as notified are appropriate.

¹⁰ Mr Bonis' statement, paragraphs 29 – 32, this submitter is no longer pursuing this relief

¹¹ Reply Report, paragraph 2.11

targeted lighting which enables industry to operate safely and effectively 24 hours a day, and which results in overall energy and costs savings.

- [61] Finally, we note that Synlait in its evidence at the hearing considered that manufacturing and processing activities are not adequately recognised in LIGHT-TABLE1 and requested an increase of the DPZ lux levels to the same as PORTZ and referred to 10 lux as the appropriate level for its operations. However, we note that Synlait did not lodge a submission with respect to LIGHT-REQ1 and so we agree its requested relief is out of scope, as addressed in the Reply Report¹².

3.5.2 LIGHT-REQ2 Glare

- [62] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0318	Susan Chaney	002
DPR-0358	RWRL	270
DPR-0363	IRHL	259
DPR-0374	RIHL	265
DPR-0375	Waka Kotahi NZ Transport Agency	124
DPR-0384	RIDL	277

- [63] We are satisfied that the recommended amendment in the Section 42A Report, in response to the submission point by Waka Kotahi, will ensure that all artificial outdoor lighting to which LIGHT-REQ2 applies is managed with respect to glare effects and not just fixed lighting, and we accept the evidence that this scale of change does not require a s32AA evaluation.

3.5.3 LIGHT-REQ3 Sky Glow

- [64] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, including in the Reply Report as discussed below.

Sub #	Submitter	Submission Points
DPR-0104	Lukas Travnicek	008
DPR-0116	Robert Glassey	010-012
DPR-0353	HortNZ	211
DPR-0358	RWRL	271
DPR-0363	IRHL	260
DPR-0374	RIHL	266
DPR-0375	Waka Kotahi NZ Transport Agency	125
DPR-0384	RIDL	278
DPR-0422	Federated Farmers of New Zealand - North Canterbury	240

- [65] We are satisfied that the amendment to LIGHT-REQ3 recommended in the Section 42A Report is required to better enable artificial outdoor lighting associated with agricultural, pastoral and horticultural activities within identified sensitive areas. This is in response to submission points by Lukas Travnicek, Federated Farmers and HortNZ who sought more permissive rules for lighting associated with rural production to operate between 2200-0600 within sensitive areas. We accept the evidence that this scale of change does not require a s32AA evaluation.

¹² Reply Report, paragraphs 2.13 – 2.19

- [66] Ms Wharfe, in planning evidence for HortNZ, supported the intent of the amendment however requested the words 'rural production activities' be used rather than 'agricultural, pastoral and horticultural activities' as recommended by the officer. We do however prefer the recommendation, because as explained in the Reply Report the defined term 'rural production' is too broad as it also provides for aquaculture and forestry activities and includes initial processing as an ancillary activity of commodities and any land and buildings used for the initial processing of commodities¹³.
- [67] It is noted that Ms Foote, planner for Orion, presented evidence requesting changes to LIGHT-REQ3.7 as it was considered the rule requirement unduly restricts any new substations or upgrades to the existing substations at Castle Hill and Arthurs Pass which are in areas of Outstanding Natural Landscapes from operating between the hours of 2200 and 0600. However, Orion did not lodge a submission with respect to LIGHT-REQ3, and so we consider this to be out of scope. We do understand the concern however and note that the Reply Report provided some wording for amendment to the rule requirement to address this, but also considered the relief to be out of scope¹⁴. We highlight this matter here so that Council may wish to consider it as a matter to potentially be advanced for a future plan change.

3.5.4 LIGHT-REQ4 Sky Glow – Roads and Public Pedestrian Accessways and Cycleways

- [68] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, noting that this does not result in any amendments to the rule requirement as notified.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	013
DPR-0358	RWRL	272
DPR-0363	IRHL	261
DPR-0374	RIHL	267
DPR-0375	Waka Kotahi NZ Transport Agency	126
DPR-0384	RIDL	279

- [69] We accept the evidence that there is no need to change LIGHT-REQ4.1 as requested by Waka Kotahi to have the word 'new' inserted as the PDP rules only apply to new development and not existing.

3.5.5 LIGHT-REQ5 Sky Glow – Public Sports Courts and Grounds

- [70] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, noting that this does not result in any amendments to the rule requirement as notified.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	014
DPR-0345	Porters Alpine Resort	031
DPR-0358	RWRL	273
DPR-0363	IRHL	262
DPR-0374	RIHL	268
DPR-0384	RIDL	280

¹³ Reply Report, paragraph 3.13

¹⁴ Reply Report, paragraph 4.9

- [71] We accept the evidence that there is no need to change LIGHT-REQ5 as requested by Porters Alpine Resort to amend the title to delete the reference to 'Public Sports Courts and Grounds' and instead refer to 'Outdoor Recreation'. These provisions have been developed specific to sports courts and grounds and are not suitable when applied to ski field lighting.

3.6 Matters of Control or Discretion

3.6.1 *LIGHT-MAT1 Health and Safety and Amenity*

- [72] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0358	RWRL	274
DPR-0363	IRHL	263
DPR-0374	RIHL	269
DPR-0375	Waka Kotahi NZ Transport Agency	127
DPR-0384	RIDL	281

- [73] We are satisfied that the amendment to LIGHT-MAT1 recommended in the Section 42A Report, in response to Waka Kotahi's submission point to enable consideration of light spill effects in relation to roads consistent with the proposed amendment to LIGHT-REQ1 is appropriate. We accept the evidence that this scale of change does not require a s32AA evaluation.

3.6.2 *LIGHT-MAT2 Transport Safety*

- [74] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0358	RWRL	275
DPR-0363	IRHL	264
DPR-0374	RIHL	270
DPR-0375	Waka Kotahi NZ Transport Agency	128
DPR-0384	RIDL	282

- [75] We are satisfied that the amendment to LIGHT-MAT2 recommended in the Section 42A Report, in response to Waka Kotahi's submission point to recognise that glare also needs to be considered in relation to the 'effective and efficient' operation of the transport network in addition to safe operation is appropriate, with a minor amendment to the relief sought to replace 'the transport network' with 'road'. We accept the evidence that this scale of change does not require a s32AA evaluation.

3.6.3 *LIGHT-MAT3 Sky Glow*

- [76] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	015
DPR-0345	Porters Alpine Resort	032
DPR-0358	RWRL	276
DPR-0363	IRHL	265
DPR-0374	RIHL	271

Sub #	Submitter	Submission Points
DPR-0375	Waka Kotahi NZ Transport Agency	129
DPR-0384	RIDL	283

[77] We are satisfied an amendment to LIGHT-MAT3, similar to that recommended in the Section 42A Report¹⁵ in response to submission points by Porters Alpine Resort and Waka Kotahi, will balance the consideration of sky glow effects with the need for their activities to operate in the way and in the locations where they do is appropriate.

[78] We consider the following clause to be appropriate, and it may at least in part meet the relief sought by these submitters.

“2. Whether the artificial outdoor lighting has site specific locational requirements and constraints and is necessary to provide for the safe operation of sites, security for buildings and to enhance the health, safety and wellbeing of people.”

[79] We accept the evidence that this scale of change does not require a s32AA evaluation.

3.7 West Melton Observatory Lighting Overlay

[80] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author.

Sub #	Submitter	Submission Points
DPR-0116	Robert Glassey	016
DPR-0207	Selwyn District Council	106

[81] We are satisfied that the amendments to the Planning Maps to include the West Melton Observatory Lighting Control Overlay as recommended in the Section 42A Report in response to these submission points is appropriate. We accept that there is a sound basis, including in the Light Baseline Report, for the radius of this area to remain at 5 kilometres rather than widening it to 10 kilometres as requested in the submission of Robert Glassey, for the reasons outlined in the Section 42A Report¹⁶. We accept the evidence that this scale of change does not require a s32AA evaluation.

3.8 New Policy and Rules – Rural Production and Activity

[82] Submission points by Federated Farmers request inclusion of firstly a new policy to recognise and enable certain rural and primary activities which may require lighting outside normal working hours, and secondly a new rule to permit normal farming operations for peak seasonal work.

[83] As has been addressed in our discussion on LIGHT-P2 above, we have recommended a new policy (LIGHT-P2A) which we consider will address the first submission point by Federated Farmers. In relation to the second point, we note our recommended amendments to LIGHT-REQ3.7 will provide greater leniency in relation to LIGHT-REQ3.7 with respect to agricultural, pastoral and horticultural activity.

[84] We received no evidence to support Mr Glassey’s submission to include provisions to manage flashing lights associated with irrigators.

¹⁵ Section 42A report, paragraph 25.4

¹⁶ Section 42A Report, paragraph 26.5 -26.7

Sub #	Submitter	Sub Points	Accept	Accept in Part	Reject
DPR-0116	Robert Glassey	001			✓
DPR-0422	Federated Farmers of New Zealand - North Canterbury	238		✓	
DPR-0422	Federated Farmers of New Zealand - North Canterbury	239			✓

3.9 Non-Notification Clauses

- [85] For the following submitters and their submission points we adopt the recommendations and reasons of the Section 42A Report author, noting that this does not result in any amendments to the rule requirements as notified.

Sub #	Submitter	Submission Points
DPR-0358	RWRL	417
DPR-0363	IRHL	437
DPR-0374	RIHL	483
DPR-0384	RIDL	516

- [86] We accept the evidence that there is the potential, with restricted discretionary activities in the Light chapter, for adverse effects to potentially be more than minor and for neighbouring properties, communities, or the wider district to be potentially directly affected. Therefore, the Panel does not support a blanket non-notification clause in the Light chapter.

4 Other Matters

- [87] The recommended amendments to the PDP provisions contained in Appendix 1 are those that result from this Hearing Panel's assessment of submissions and further submissions. However, readers should note that further or different amendments to these provisions may have been recommended by:
- Hearing Panels considering submissions and further submissions on other chapters of the PDP;
 - the Hearing Panels considering rezoning requests, and
 - the Independent Hearing Panel (IHP) considering submissions and further submissions on Variation 1 to the PDP.
- [88] Any such further or different amendments are not shown in Appendix 1 of this Recommendation Report. However, the Chair¹⁷ and Deputy Chair¹⁸ of the PDP Hearing Panels have considered the various recommended amendments and have ensured that the overall final wording of the consolidated version of the amended PDP is internally consistent.
- [89] In undertaking that 'consistency' exercise, care was taken to ensure that the final wording of the consolidated version of the amended PDP did not alter the intent of the recommended amendments contained in Appendix 1 of this Recommendation Report.
- [90] There are no other matters arising from our consideration of the submissions and further submissions or that arose during the hearing.

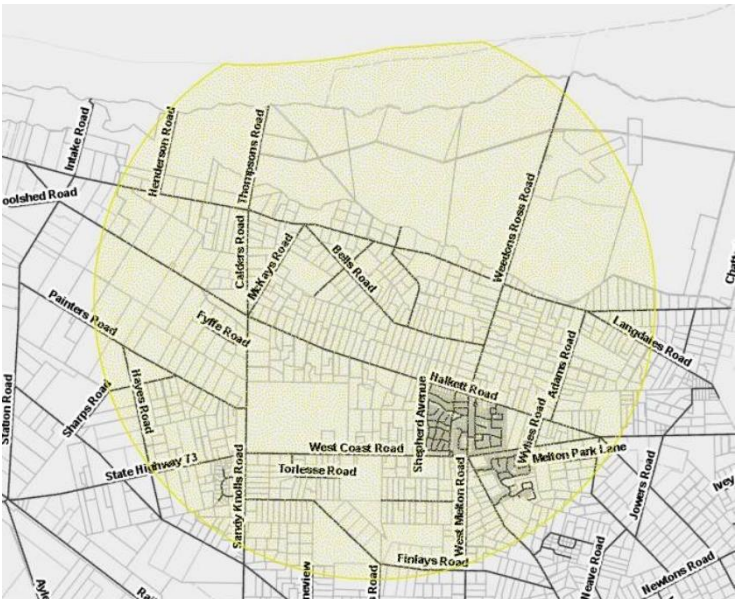
¹⁷ Who is also the Chair of the IHP.

¹⁸ Who chaired one stream of hearings.

Appendix 1: Recommended Amendments

Note to readers: Only provisions that have recommended amendments are included below. All other provisions remain as notified. Amendments recommended by the Section 42A Report author that have been adopted by the Hearing Panel are shown in strike out and underlining. Further or different amendments recommended by the Hearing Panel are shown in strike out, underlining and red font.

Amendments to the PDP Maps

Map Layer	Description of recommended amendment
General District-Wide Matters	<p>Insert the West Melton Observatory Lighting Control Overlay Map and include in the list of Map Tools as the 'West Melton Observatory Lighting Overlay' under the General District-Wide Matters tab.¹⁹</p> 

¹⁹ DPR-0116.016 Robert Glassey and DPR-0207.106 SDC

Amendments to the PDP Text

Part 2 – District Wide Matters

General District Wide Matters

LIGHT – Light

LIGHT-Overview	
...	
There are three main types of obtrusive or adverse lighting effects that can cause nuisance to nearby residents, users of adjacent areas <u>and roads</u> , ²⁰ and to astronomical observation. These are:	
...	

LIGHT-Objectives and Policies

LIGHT-Objectives	
LIGHT-O1	Artificial outdoor lighting enables work, <u>transportation</u> , ²¹ recreation, and entertainment activities to occur beyond daylight hours, while: 1. maintaining the health, safety, and amenity values of people; and 2. protecting the District’s natural darkness and natural features.
LIGHT-Policies	
LIGHT-P1	Manage new artificial outdoor lighting to minimise light spill and glare onto adjoining sites and glare onto roads to provide for the health and safety of people and the safe, <u>effective</u> and efficient operation of the land transport network. ²²
LIGHT-P2	Enable artificial outdoor lighting of short duration outside of daylight hours associated with temporary activities, and artificial outdoor lighting for the purpose of emergency response, and public ²³ <u>to provide for people’s</u> ²⁴ health and safety.
LIGHT-P2A	<u>Recognise that artificial lighting may be required to support the operational needs of activities, including their health and safety requirements, and those needing to operate on a 24-hour basis.</u> ²⁵
LIGHT-P3²⁶	Minimise potential upward light that causes sky glow, <u>whilst ensuring the safe, effective and efficient operation of roads, public pedestrian access and public sports courts and grounds</u> , by controlling new artificial outdoor lighting to: 1. maintain people’s ability to view the night sky; and

²⁰ DPR-0375.114 Waka Kotahi

²¹ DPR-0375.115 Waka Kotahi

²² DPR-0375.116 Waka Kotahi

²³ DPR-0370.061 Fonterra and DPR-0420.009 Synlait

²⁴ DPR-0370.061 Fonterra, DPR-0420.009 Synlait and DPR-0453.049 LPC

²⁵ DPR-0370.061 Fonterra, DPR-0420.009 Synlait and DPR-0453.049 LPC

²⁶ Clause 16(2) consequential numbering amendment

	2. maintain the distinct character and amenity values of the district's night sky; and 3. protect the health and well-being of people and ecosystems; and 4. ensure the safe and efficient operation of roads and public pedestrian access, and public sports courts, and grounds while minimising sky glow. ²⁷
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LIGHT-Rules

LIGHT-R3 Artificial Outdoor Lighting - Public Sports Courts and Grounds		
All Zones	Activity status: PER 1. Artificial outdoor lighting for public sports courts and grounds Where this activity complies with the following rule requirements: <u>LIGHT-REQ2 Glare</u> ²⁸ LIGHT-REQ4 Sky Glow – Public Sports Courts and Grounds	...
LIGHT-R5 Artificial Outdoor Lighting - Temporary Activity		
All Zones	Activity Status: PER 1. Artificial outdoor lighting for any temporary activity which operates between 0700 and 2200 only, otherwise LIGHT-R1 applies Where this activity complies with the following rule requirements: <u>LIGHT-REQ2 Glare</u> ²⁹	Activity status when compliance not achieved: When compliance with any of LIGHT-R5.1 is not achieved: Refer to the Rule Requirements relevant to LIGHT-R1. <u>3. When compliance with any rule requirement listed in this rule is not achieved: Refer to Light-Rule Requirements</u> ³⁰

LIGHT-Rule Requirements

LIGHT-REQ1 Light Spill		
All Zones	1. The maximum level of light spill from artificial outdoor lighting shall not exceed the horizontal or vertical illuminance levels outlined in LIGHT - TABLE1 below on an adjoining site, excluding <u>including</u> roads ³¹ . Advisory notes: <ul style="list-style-type: none"> <u>LIGHT-REQ1 shall not apply to light spill from road lighting within roads.</u>³² 	...

²⁷ DPR-0215.042 Winstone Aggregates and DPR-0375.117 Waka Kotahi

²⁸ DPR-0375.120 Waka Kotahi

²⁹ DPR-0375.122 Waka Kotahi

³⁰ DPR-0375.122 Waka Kotahi (cl 16(2) amendment within scope)

³¹ DPR-0375.123 Waka Kotahi

³² DPR-0375.123 Waka Kotahi (cl 16(2) amendment within scope)

	<ul style="list-style-type: none"> Measurement of light spill is to be undertaken in accordance with AS/NZS 4282:2019 Control of the obtrusive effects of outdoor lighting.³³ 																
	LIGHT-TABLE1 – Maximum Light Spill from Artificial Outdoor Lighting																
	<table> <tr> <th>Zone of the adjoining site receiving light spill</th><th>2200 to 0600</th><th>Hours of darkness from 0600 to 2200</th></tr> <tr> <td>GRUZ SCA-AD2³⁴</td><td>1 lux</td><td>5 lux</td></tr> <tr> <td>GRUZ adjoining DPZ or PORTZ SKIZ</td><td>3 lux</td><td>5 lux</td></tr> <tr> <td>RESZ (<u>excluding SCA-AD2</u>) MPZ GRAZ TEZ</td><td>2 lux</td><td>10 lux</td></tr> <tr> <td>CMUZ GIZ PORTZ KNOZ</td><td>5 lux</td><td>25 lux</td></tr> </table>	Zone of the adjoining site receiving light spill	2200 to 0600	Hours of darkness from 0600 to 2200	GRUZ SCA-AD2 ³⁴	1 lux	5 lux	GRUZ adjoining DPZ or PORTZ SKIZ	3 lux	5 lux	RESZ (<u>excluding SCA-AD2</u>) MPZ GRAZ TEZ	2 lux	10 lux	CMUZ GIZ PORTZ KNOZ	5 lux	25 lux	
Zone of the adjoining site receiving light spill	2200 to 0600	Hours of darkness from 0600 to 2200															
GRUZ SCA-AD2 ³⁴	1 lux	5 lux															
GRUZ adjoining DPZ or PORTZ SKIZ	3 lux	5 lux															
RESZ (<u>excluding SCA-AD2</u>) MPZ GRAZ TEZ	2 lux	10 lux															
CMUZ GIZ PORTZ KNOZ	5 lux	25 lux															
LIGHT-REQ2	Glare																
All Zones	<p>1. Fixed artificial outdoor lighting is directed away from and/or screened from adjoining properties and roads.³⁵</p> <p>...</p>	...															
LIGHT-REQ3	Sky Glow																
ONL VAL Coastal Environment West Melton Observatory Lighting Overlay	7. All non-residential artificial outdoor lighting, excluding <u>that associated with agricultural, pastoral and horticultural activities and public amenity buildings</u> that require lighting for security and safety purposes, shall not operate between 2200 and 0600. ³⁶	...															

³³ DPR-0358.269 RWRL, DPR-0363.258 IRHL, DPR-0374.264 RIHL and DPR-0384.276 RIDL

³⁴ DPR-0442.005 Castle Hill Community Association

³⁵ DPR-0375.124 Waka Kotahi

³⁶ DPR-0104.008 Lukas Travnicek, DPR-0353.211 HortNZ and DPR-0422.240 Federated Farmers

LIGHT-Matters for Control or Discretion

LIGHT-MAT1	Health and Safety and Amenity
 6. The actual or potential risk of spill light from artificial outdoor lighting creating a distraction or other impediment to the safe, effective and efficient operation of any road. ³⁷
LIGHT-MAT2	Transport Safety
	1. 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 any road the transport network. ³⁸
LIGHT-MAT3	Sky Glow
	<p>1. Whether the timing, duration, intensity, direction, location, type, design, and operation of the artificial outdoor lighting contributes to avoidable or unnecessary sky glow which impacts on the character and amenity values of the district's night sky.</p> <p>2. Whether the artificial outdoor lighting <u>has site specific locational requirements and constraints</u> and <u>is necessary to provide for the safe operation of sites, security for buildings and to enhance the health, safety and wellbeing of people</u>.³⁹</p> <p>2. 3. The proximity of the proposed artificial outdoor lighting to, and any potential effects on any: Outstanding Natural Landscape; Visual Amenity Landscape; Coastal Environment; and the West Melton Observatory Lighting Overlay.</p> <p>3. 4. Reference shall be made where appropriate to Australian/New Zealand Standards AS/NZS 11581.2:2010 (Lighting for roads and public spaces) and AS/NZS 4282:2019 (Control of the obtrusive effects of outdoor lighting) to limit light levels and obtrusive lighting effects.</p> <p>4. 5. The effects of artificial outdoor lighting on people's health and amenity values, including whether the proposal has the potential to result in sleep disturbance.</p>

³⁷ DPR-0375.127 Waka Kotahi

³⁸ DPR-0375.128 Waka Kotahi

³⁹ DPR-0345.032 Porters Alpine Resort and DPR-0375.129 Waka Kotahi

Appendix 2: List of Appearances and Tabled Evidence

Hearing Appearances

Sub #	Submitter	Author	Role
Combined DPR-0358 DPR-0363 DPR-0374 DPR-0384	RWRL IRHL RIHL RIDL	Amy Clark	Planner
DPR-0420	Synlait Milk Limited	Ewan Chapman Nicola Rykers Yves Denicourt	Counsel Planner Company
DPR-0442	Castle Hill Community Association	Rick Hill	Representatives

Tabled Evidence

Sub #	Submitter	Author	Role
DPR-0353	HortNZ	Lynette Wharfe	Planner
DPR-0367	Orion	Melanie Foote	Planner
DPR-0370	Fonterra	Dean Chrystal	Planner
DPR-0422	Federated Farmers of NZ	Dr Lionel Hume	Policy Advisor
DPR-0453	Midland Port, Lyttelton Port Company Ltd	Matt Bonis	Planner