



Mackenzie

DISTRICT PLAN REVIEW

TOMORROW'S MACKENZIE
KA AWATEA HŌU

Plan Change 22 – Decision Report

3 April 2022

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Appendix 1: Amended Provisions

List of submitters addressed in this Report:¹

Ref	Further Submitter	Submitter Name	Abbreviation
01		Amy Menard	
02		Preetha Sreedharan	
03		Rochelle Clarke	
04		Goran Balvan	
05		Ingemar Dierickx	
06		Gavin Loxton	
07		Jill Jenkins	
08		Graham Palmer	
09	Y	Opuha Water Ltd	Opuha
10		Rex Williams	
11	Y	Genesis Energy	Genesis
12		Environment Canterbury	ECan
13		Grant Pearson	
14		Marion Dierickx	
15		Fire and Emergency NZ	FENZ
16		Karen Morgan	
17		Victoria Campbell	
18		Bryan King	
19		Tekapo Landco Ltd and Godwit Leisure Ltd	TL&GL
20	Y	Waka Kotahi	
21		Liz Harpelton	
22		Walter and Zita Speck	
	Y	Mackenzie District Council, Community Services and Facilities Manager	MDC

Abbreviations used in this report:

Abbreviation	Full Text
AMIDSR	Aoraki Mackenzie International Dark Sky Reserve
Council	Mackenzie District Council
MDP	Mackenzie District Plan
MDPR	Mackenzie District Plan Review
NP Standards	National Planning Standards
PC21	Plan Change 21
PC22	Plan Change 22
RMA	Resource Management Act 1991

¹ The submissions from Fire and Emergency New Zealand (15) and Walter and Zita Speck (22) were unrelated to PC22 and are not discussed further in this Report.

1. Purpose of Report

1. Pursuant to section 43(1) of the Resource Management Act 1991 (RMA), the Mackenzie District Council (Council) has appointed a combined Hearings Panel of four independent commissioners² to hear and decide the submissions and further submissions on the Plan Changes which form the Mackenzie District Plan Review (MDPR).
2. This Decision Report sets out the Hearings Panel's decisions on the submissions and further submissions received on Plan Change 22 (Light).
3. The Section 42A Report was:
 - Section 42A Report: Plan Change 22 – Light, Report on submissions and further submissions, Author: Liz White, Date: 15 February 2023
4. In our Minute 1 for PC22 dated 22 February 2023 we posed a number of questions to the PC22 Section 42A Report author (hereafter referred to as Ms White). We received written answers to those questions on 10 March 2023. Ms White provided a verbal reply at the end of the hearing.
5. The Hearing Panel's amendments to the notified provisions of PC22 are set out in Appendix 1. Amendments recommended by Ms White that have been adopted by the Hearing Panel are shown in black font as ~~strike-out~~ and underlining. Further or different amendments made by the Hearing Panel are shown in red font as ~~strike-out~~ and underlining.

2. Hearing and Submitters Heard

6. There were 20 primary submitters of whom three lodged further submissions. There was one submitter (Mackenzie District Council) who only lodged a further submission. In our assessments the further submissions are generally not discussed, because they are either accepted or rejected in conformance with our decisions on the primary submissions to which they relate.
7. The hearing for PC22 was held on Wednesday 22 and Thursday 23 March 2023. Only two submitters wished to be heard:

Submitter Reference	Submitter Name
5	Ingemar Dierickx
1	Amy Menard

8. We note that submitter Amy Menard (1) fully supported the PC22 provisions and sought no further changes to them.
9. We also received tabled evidence from three submitters who chose not to appear at the Hearing:
 - (a) Opuha (9) accepted Ms White's recommendations on their submissions and further submissions. They supported the wording for LIGHT-O1 and Ms White's recommended new rule LIGHT-R4 and suggested that it may be prudent for an advice note to be included in PC22 to confirm that the objectives, policies, and rules in the Light chapter do not apply to pivot irrigators.
 - (b) Genesis (11) considered that Ms White's recommended amendments sufficiently addressed its submission points.
 - (c) Waka Kotahi (20) advised that they were comfortable with Ms White's response to their submission on LIGHT-R1. They also supported Ms White's recommendation for new Rule LIGHT-R4 and her recommendation that a correlated colour temperature of 3000K should be adopted across the entirety of the Mackenzie District.

3. Our Approach

10. In light of the paucity of submitters wishing to be heard and acknowledging Ms White's response to our questions³, this Decision Report is brief. The only matters we assess are those raised by Ingemar

² Andrew Willis, Megan McKay, Rob van Voorthuysen and Ros Day-Cleavin.

³ Ms White recommended wording amendments to LIGHT-MD2(b)(iii) and LIGHT-S1 in response to our questions. We consider those amendments to be within the scope of submissions and we have adopted them.

Dierickx (5) and Marion Dierickx (14) and the tabled evidence of Opuha (9). In all other regards we accept Ms White's assessments and her recommendations and reasons for them. That includes her answers to our written questions. It is therefore essential that readers of this Report also read the PC22 Section 42A Report and the Ms White's Response to Minute 1.

4. LIGHT-R1

4.1 Assessment

11. Ingemar Dierickx (5) and Marion Dierickx (14) sought changes to the language used in LIGHT-O1 and the inclusion of a new provision, or an amendment to LIGHT-R1 as notified, that would ban strobe lights on pivot irrigators and agricultural equipment⁴. No specific wording was provided.
12. Ms White advised that LIGHT-R1 would apply to all outdoor lighting including that on pivot irrigators. Consequently, any such lighting must meet specified standards including directional requirements (LIGHT-S1), shielding from above (LIGHT-S2), limits on the colour temperature of the light (LIGHT-S3) and restrictions on the type of lamp that can be used (LIGHT-S4). Other than that, she was not aware of any specific regulatory requirements regarding flashing lights on pivot irrigators.
13. We heard from Mr Dierickx at the hearing. He presented comprehensive evidence outlining how flashing lights on pivot irrigators detracted from people's enjoyment of the Dark Sky. He also presented evidence supporting his view that flashing lights (particularly strobe lights) were not operationally or functionally needed on pivot irrigators. We found his evidence to be compelling. As far as we can ascertain flashing strobe lights are used because they are more visible in adverse weather conditions. We find the use of 'flashing lights' on pivot irrigators to be contrary to LIGHT-01.1 and LIGHT-P2. We understand that there are likely to be other means of alerting farmers to centre pivot malfunctions.
14. We consider that LIGHT-R1 should be amended to add "flashing lights on self-propelled irrigators" to the list of lighting activities that are excluded from being a permitted activity. We use the term "self-propelled irrigators" because it is conceivable that such irrigators come to be known as something other than a 'pivot irrigator' during the life of the Plan.
15. Having made that finding, we note that in her written answers to our questions Ms White advised that existing lighting (including that on irrigators) which does not comply with the rules proposed in PC22 has existing use rights under s10 of the RMA, provided their it was lawfully established and continues to be of the same in character, intensity and scale. That advice conforms with our own understanding of 'existing use rights' under the RMA.
16. In their tabled evidence Opuha (9) sought for an advice note to be included in PC22 to confirm that the objectives, policies, and rules in the Light chapter did not apply to pivot irrigators. Given our finding on the submissions of Ingemar and Marion Dierickx we reject Opuha's request. We also observe that Opuha's original submission did not request such an advice note and as such it may well be out of scope.
17. We queried Ms White about the meaning of her recommended insertion of the words "not otherwise listed" in the title of LIGHT-R1. In her written response she advised that the intent was to clarify that LIGHT-R1 did not apply to the types of lighting specified in LIGHT-R2, LIGHT-R3 or LIGHT-R4. That was not at all clear to us and so we recommend amending the title to more accurately reflect Ms White's intent.

4.2 Decisions

18. We adopt Ms White's recommendations regarding LIGHT-R1 and the amendments recommended in Appendix 1 to her Section 42A Report, subject to amending the title of the rule as outlined above and adding "flashing lights on self-propelled irrigators" to the list of excluded activities.

⁴ Rex William (submitter 10) also opposed high intensity light sources in rural zones and suggested that lights should only be used for illumination and not signalling (referring to irrigators as an example).

5. LIGHT-R4

5.1 Assessment

19. In response to the submission of Opuha (9), Ms White recommended the insertion of new Rule Light-R4 that would permit temporary outdoor lighting associated with 'emergency events'. In our written questions we suggested alternative wording based on wording in s237C of the RMA. Our alternative wording was supported by Opuha in their tabled evidence.
20. In her answers to our written questions Ms White did not support our alternative wording and she noted RMA s237C related to closing public access to esplanade or access strips. That may be so, but we consider it is the meaning of the words when applied in the context of LIGHT-R4 that is important. We prefer our alternative wording.
21. We do not consider it necessary to include a lengthy new definition for the word "emergency" as was recommended by Ms White. That definition contained a list of 18 'emergency' situations. While appearing to be comprehensive, the risk with such a definition is that it may omit an unforeseen situation that arises during the life of the Plan, resulting in the rule not applying to that situation. We prefer to rely on a common understanding of what an emergency is, namely something that is likely to cause loss of life, injury, or serious damage to property.

5.2 Decisions

22. Insert new rule LIGHT-R4 as set out in Appendix 1.

6. Other Matters

23. In her response to our written questions Ms White agreed with our suggestion to clarify LIGHT-S1. We have included that clarification in Appendix 1 and record that we find it to be within the scope of the submission from Waka Kotahi (20).
24. Ms White also agreed with our suggested amendment to LIGHT-MD2(b)(iii) to ensure consistency with the recommended change to LIGHT-P1(1). We have also included this change in Appendix 1 and record that we find it to be within the scope of the submission from Waka Kotahi.
25. Other than that, no other matters were brought to our attention.

7. Section 32AA

26. Where we have adopted Ms White's analysis of submissions and her recommended amendments to the provisions, we also adopt her section 32AA assessments.
27. Where we have decided on different amendments to those recommended by Ms White, we are satisfied that those amendments are a more efficient and effective means of giving effect to the purpose and principles of the RMA and the higher order statutory instruments.

8. Amended Light provisions

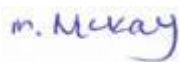
28. The amendments to the notified Light chapter provisions are set out in Appendix 1.



Rob van Voorthuysen (Chair)



Andrew Willis



Megen McKay



Ros Day-Cleavin

Appendix 1: Amended Provisions

Light

Introduction

Artificial outdoor lighting allows people to undertake a range of activities beyond daylight hours, as well as being used for safety and security purposes. However, if not carefully designed, artificial lighting can be a nuisance to the occupiers and users of adjoining sites and cause adverse safety effects on the transport network.

Outdoor lighting can also adversely affect the ability to view the night sky. Mackenzie District is home to the Aoraki Mackenzie International Dark Sky Reserve, one of the world's premiere accredited International Dark Sky Reserves. It attracts local, national and international visitors who come to view the dark night sky. The Reserve is also the site of Mt John Observatory, operated for research in astronomy by the University of Canterbury. The maintenance of dark sky is essential for the accreditation of the Reserve to continue, for the continuation of this tourist attraction and for research activities to continue.

Whilst astronomy, considered a scientific discipline, and astrology, considered to be folklore, are two different things in Western thought, they are often intertwined and interdependent in Māori culture. Ngāi Tahu and local rūnanga believe mountains, lakes and sky (the landscape) are interwoven, binding the earth and sky together not just in the physical sense but also in a spiritual sense. In order to remember, make sense of, and pass on precise astronomical knowledge, it was often woven into stories which adopted the mythical nature of astrology.

Māori used astronomy in everyday practices such as food gathering and planting, and it was believed the stars governed their good or bad fortune. Early Māori navigators made use of their understanding of the changing night sky patterns, along with familiarity of natural patterns of clouds, winds, waves, tides and bird movements to navigate their way across the seas and through the land. For Ngāi Tahu and local rūnanga, the stars were an integral part of the journey to Takapō / Lake Tekapo as the patterns resembled specific constellations full of meaning. When Matariki is seen, then game is preserved, for it marked the season when such food supplies were to be procured and preserved in fat for the colder winter months. Therefore, from a Ngāi Tahu and rūnanga perspective, the night sky is an integral part of the natural and cultural landscape.

The provisions for lighting seek to provide for adequate lighting to support activities and provide a safe environment, while protecting the values of the night sky and minimising potential adverse effects beyond the site.

Objectives and Policies

Objectives	
LIGHT-O1	Outdoor Lighting
Outdoor lighting allows activities to occur beyond daylight hours and provides safety and security for activities, while: <ol style="list-style-type: none"> 1. protecting views of the night sky; and 2. managing light spill to maintain amenity values, health and safety⁵ and the safe operation of the transport network. 	

⁵ B. King (18)

Policies	
LIGHT-P1	Managing Outdoor Lighting
Manage the location, design and operation of outdoor lighting to ensure: <ol style="list-style-type: none"> 1. it does not distract or interfere with <u>the safety of road users traffic</u>⁶; and 2. it is compatible with the zone in which any light spill or glare⁷ is received. 	
LIGHT-P2	Night Sky Darkness
Require outdoor lighting <u>and skylights</u> ⁸ to minimise, as far as practicable, the potential for upward light spill that would adversely affect the ability to view the night sky.	

Rules

LIGHT-R1	Outdoor Lighting <u>not specified in LIGHT-R2, LIGHT-R3 or LIGHT-R4</u> ⁹	
All Zones	<p>Activity Status: PER</p> <p>Where:</p> <ol style="list-style-type: none"> 1. The following outdoor lighting may not be used between 10.00pm and 6.00am: <ol style="list-style-type: none"> a. searchlights b. floodlighting of an area that is not in use or of an activity that is not in operation. c. outdoor illumination of any public recreational facility d. outside illumination of any building for aesthetic purposes by floodlight e. any outdoor illumination in which light is produced by metal halide, mercury vapour or fluorescent lighting, unless <u>this lighting was these lamps were</u>¹⁰ installed prior to 1 January 1979 in any Commercial or Residential Zone in Takapō / Lake Tekapo or 1 March 1986 in all other zones. f. <u>flashing lights on self-propelled irrigators</u>¹¹ <p>And the activity complies with the following standards:</p> <p>LIGHT-S1 Direction LIGHT-S2 Shielding LIGHT-S3 Colour Temperature</p>	<p>Activity status when compliance is not achieved: RDIS</p> <p>Matters of discretion are restricted to: LIGHT-MD1</p> <p>Activity status when compliance with standard(s) is not achieved: Refer to relevant standard(s).</p>

⁶ Waka Kotahi (20)

⁷ Waka Kotahi (20)

⁸ TL&GL (19)

⁹ Clause 16(2) amendment to provide clarity

¹⁰ B. King (18)

¹¹ Ingemar Dierickx (5) and Marion Dierickx (14)

	LIGHT-S4 Lamp Types Light Sources ¹² LIGHT-S5 Horizontal and Vertical Illuminance	
LIGHT-R2	Security Lights	
All Zones	<p>Activity Status: PER</p> <p>Where:</p> <p>1. Security lights must be fitted and controlled with a motion sensor.</p> <p>And the activity complies with the following standards:</p> <p>LIGHT-S1 Direction LIGHT-S2 Shielding LIGHT-S3 Colour Temperature¹³ LIGHT-S4 Lamp Types Light Sources¹⁴ LIGHT-S5 Horizontal and Vertical Illuminance</p>	<p>Activity status when compliance is not achieved: RDIS</p> <p>Matters of discretion are restricted to: LIGHT-MD1</p> <p>Activity status when compliance with standard(s) is not achieved: Refer to relevant standard(s).</p>
LIGHT-R3	Skylights	
All Zones	<p>Activity Status: PER</p> <p>Where:</p> <p>1. There is no spill of light through the skylight after 10pm.</p> <p><i>Note: Compliance with this rule may be achieved through use of a blind or other light covering; or by use of glass that does not emit internal light.</i></p>	<p>Activity status when compliance is not achieved: RDIS</p> <p>Matters of discretion are restricted to: LIGHT-MD1</p>
LIGHT-R4	<u>Temporary Outdoor Lighting During Periods of Emergency or Public Risk Likely to Cause Loss of Life, Injury, or Serious Damage to Property</u>	
All Zones	Activity Status: PER ¹⁵	

Standards

LIGHT-S1	Direction	Activity Status where compliance not achieved:
All Zones	<p>1. All fixed exterior lighting shall be directed away from¹⁶ any adjacent roads, residential properties and lakes, <u>with the exception of streetlights which may be directed towards the road that they are intended to illuminate.</u>¹⁷</p>	<p>RDIS</p> <p>Matters of discretion are restricted to: LIGHT-MD2</p>

¹² B. King (18)

¹³ B. King (18)

¹⁴ B. King (18)

¹⁵ Opuha (9)

¹⁶ Waka Kotahi (20)

¹⁷ Waka Kotahi (20)

LIGHT-S2	Shielding	Activity Status where compliance not achieved:
All Zones	1. All outdoor lighting shall be shielded from above in such a manner that the edge of the shield shall be below the whole of the light source, so ¹⁸ that all the light shines below the horizontal.	RDIS Matters of discretion are restricted to: LIGHT-MD1
LIGHT-S3	Colour Temperature	Activity Status where compliance not achieved:
All Zones	1. The correlated colour temperature of outdoor lighting shall not exceed 25300 ¹⁹ K.	RDIS Matters of discretion are restricted to: LIGHT-MD1
LIGHT-S4	Lamp Types Light Source ²⁰	Activity Status where compliance not achieved:
All Zones	1. Only Light-emitting diode (LED) ²¹ , low pressure sodium and high pressure sodium lamps light sources ²² shall be used.	RDIS Matters of discretion are restricted to: LIGHT-MD1
LIGHT-S5	Horizontal and Vertical Illuminance	Activity Status where compliance not achieved:
All Zones	1. The maximum level of light spill from outdoor lighting shall not exceed the horizontal or vertical illuminance levels measured ²³ on any adjoining site in the receiving zone set out in LIGHT – TABLE 1, excluding roads.	RDIS Matters of discretion are restricted to: LIGHT-MD2

¹⁸ TL&GL (19)

¹⁹ B. King (18)

²⁰ B. King (18)

²¹ TL&GL (19)

²² B. King (18)

²³ Waka Kotahi (20)

LIGHT-TABLE 1

Receiving Zone	2200 to 0600	0600 to 2200
Any Rural or Rural-Residential Zone	1 lux	5 lux
Any Residential Zone Any Recreation or Open Space Zone Any Special Purpose Zone	2 lux	10 lux
Any Commercial and Mixed Use or Industrial Zone	5 lux	25 lux

MATTERS OF DISCRETION**LIGHT-MD1**

- a. The individual and cumulative effects on the ability to view the night sky.
- b. The effectiveness and practicality of any measures proposed to mitigate the effects of light spill.
- c. Whether the lighting is necessary for operational or functional purposes.

LIGHT-MD2

- a. Whether the lighting is necessary for operational or functional purposes.
- b. Adverse effects on:
 - i. the amenity anticipated in the receiving zone;
 - ii. the well-being, health and safety of people; and
 - iii. traffic road user²⁴ safety.
- c. The extent to which light spill or glare may impact on activities occurring on an adjoining property.

Add the following definition to 'Definitions' Chapter:

<u>skylight</u>	means a window set in a roof or ceiling. ²⁵
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²⁴ Consequential to Waka Kotahi (20)

²⁵ Genesis (11)