



Westland District Council Submitter S181
Westland District Council Further Submitter SF79

16th October 2023

Westland District Council
36 Weld Street
Private Bag 704
Hokitika 7842

Phone 03 756 9010
Fax 03 756 9045
Email council@westlanddc.govt.nz

West Coast Regional Council
PO Box 66
Greymouth

Email: info@tppp.nz

Re: Evidence to support further submission - Dark Sky provisions at Okārito.

Please find attached evidence in support of Councils further submission on the Light provisions within the Proposed Te Tai o Poutini Plan.

Kind regards,

Olivia Anderson
Planning Manager

Thank you for dedicating your time to review our proposal for Okarito to join the International Dark Sky network. We appreciate the opportunity to present our vision and objectives in applying for Dark Sky Community status. We understand the importance of providing comprehensive information to assist you in evaluating the inclusion of Dark Sky Community provisions in the upcoming West Coast District Council plan.

Introduction to Okarito:

Nestled along the pristine oceanfront, Okarito is a small coastal village with a close-knit community of approximately 30 permanent residents. Our village, zoned as a Coastal Settlement (CSZ) within the Westland District Council policy plan, already embraces a night sky unpolluted by artificial light. We proudly uphold a commitment to minimal night lighting, with no street lights and limited commercial spaces necessitating night lighting, notably our community campground, where thoughtful lighting solutions are in place, including sensors for efficient nighttime illumination. This conscious approach aligns with our communal values, prioritizing the preservation of our natural environment and the diverse nocturnal species inhabiting our surroundings.

Maps indicating the remoteness of boundaries of National Park may also help to showcase reasons for preserving our dark skies for the future of our native species. We have also included a link here to a presentation we would like to show at the hearing: <https://youtu.be/LnikqNbv35q>

Preserving Okarito's Unique Character:

Okarito's distinctive character is characterized by its unspoiled night sky quality—a precious asset we aim to preserve through our endeavour to become a Dark Sky Community. With a firm belief in safeguarding our existing attributes, such as minimal light pollution, we seek to fortify our commitment to protecting the night skies that complement the cultural, historical, and natural richness of our locale. By embracing the Dark Sky Community designation, we harmonize with the ethos of responsible environmental stewardship enshrined in the Resource Management Act (Part 2 - noted below) and bolster the safeguarding of our beloved West Coast, ensuring its enduring splendor for generations to come.

Community and Wider Community Support:

We have the full support of the Okarito Community Association and members of the community. We have full support of our nearby communities - Glacier Country Tourism Group - encompassing Fox Glacier, Franz Josef and Whataroa. We have support from Forest & Bird. We have support from Te Rūnanga o Makaawhio. Okarito is currently set to be nominated a Tohu Whenua site and this will align with the values of the heritage of this place. We have full support from Department of Conservation and with our situation, surrounded by National Park and the Tasman Sea, we are poised to align with the values of protecting our native species whilst living amongst them. Letters of support are attached.

Aligning with International Dark Sky Guidelines:

In pursuing Dark Sky Community status, we recognize the International Dark Sky Programme's five-tiered categorization and are focused on achieving the less stringent requirements of a Dark Sky Community. The International Dark Sky Community Program Guidelines stipulate essential criteria to ensure responsible outdoor lighting practices, aligning seamlessly with Okarito's dedication to preserving our night sky quality. Specifically, these guidelines emphasize comprehensive lighting policies and community commitment towards fostering dark skies and illuminative education.

We propose integrating the following key elements from the International Dark Sky Community Program Guidelines into the TTPP to ensure Okarito remains a safeguarded Dark Sky Community for the future.

6.2.1 Part 2 of the RMA

In carrying out a s32 analysis, an evaluation is required of how the proposal achieves the purpose and principles contained in Part 2 of the RMA. Section 5 sets out the purpose of the RMA, which is to promote the sustainable management of natural and physical resources. Sustainable management includes managing the use, development, and protection of natural and physical resources to enable people and communities to provide for their social, economic and cultural wellbeing and for their health and safety. In achieving this purpose, authorities also need to recognise and provide for the matters of national importance identified in s6, have particular regard to other matters referred to in s7, and take into account the principles of the Treaty of Waitangi referred to in s8. A number of provisions have been included in the Light Chapter in response to the requirements in Part 2, including: Section 6, which identifies matters of national importance. Those relevant to this chapter are: (a) the preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development; (b) the protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development; (e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu and other taonga). Section 7, which identifies other matters. Those relevant to this chapter are: (c) the maintenance and enhancement of amenity values; (f) maintenance and enhancement of the quality of the environment.

Section 8, where all persons exercising functions and powers under the RMA shall take into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi). The above matters are relevant to the Light chapter because lighting effects can create nuisance and reduction in amenity values as a result of obtrusive light spill and glare. Sky glow can also adversely effect the visibility of the night sky which can reduce opportunities for star gazing and can have an adverse effect on nocturnal species. Celestial darkness is important to tangata whenua and their cultural connection to the environment and is also an important attribute to some outstanding natural features and landscapes within the

West Coast which should be protected.

Section 7.1 of the draft TTPP is a good starting point for district wide criteria. Utilising the already reached and accredited requirements will help the TTPP planners with:

7.3.4 Analysis of combined operative district plan approaches

The operative district plans' provisions are in need of updating. They contain insufficient policy direction to support appropriate light rules. They also do not consider issues of impact of glare on wildlife and in the case of the Westland Plan rules in particular are vague and it would be difficult to determine compliance with these.

International Dark Sky Community Program Guidelines

1) A quality comprehensive lighting policy like the IDA/IES Model Lighting Ordinance² (MLO) that includes all of the following minimum standards for permanent lighting installations^{3,4}:

A) Full shielding⁵ of all lighting fixtures over 1000 initial lamp lumens⁶

B) A limit on the emission of short-wavelength light through one of the following restrictions:

i) The correlated color temperature (CCT) of lamps must not exceed 3000 Kelvins;

OR

²

iii) The luminous/illuminated surface area of an individual sign shall not exceed 200 square feet (18.6 square meters)

G) Outdoor recreational and/or athletic field lighting may be exempted from the strict shielding and short-wavelength emission requirements above provided that all of the following conditions are met:

i) Illuminating Engineering Society (IES) lighting guidelines (RP-6) are followed according to the appropriate class of play

ii) Field lighting is provided exclusively for illumination of the surface of play and viewing stands, and not for any other applications

iii) Illuminance levels must be adjustable based on the task (e.g., active play vs. field maintenance)

iv) Off-site impacts of the lighting will be limited to the greatest practical extent possible

v) A strict curfew requirement (e.g., lights must be extinguished by 10pm/2200h or one hour after the end of play, whichever is later) is observed

vi) Timers must be installed to prevent lights being left on accidentally overnight by automatically extinguishing them

H) Affects an amortization period, applicable to **ALL** publicly **AND** privately owned lighting, to end not more than ten (10) years from the effective date of the outdoor lighting policy, after which all non-conforming lighting extant at the time of enactment must be brought into compliance with the policy.

ii) Allowed lighting must not emit more than 25% of its total spectral power at wavelengths < 550 nanometers; **OR**

iii) The scotopic-to-photopic (S/P) ratio of allowed lighting must not exceed 1.3

C) A restriction on the total amount of unshielded lighting, such as a limit on lumens per net acre or a total site lumen allowance in unshielded fixtures (or equivalent wattages)

D) A policy to address over-lighting, such as lumens per net acre caps (irrespective of shielding state) or maximum illuminance specifications

E) Regulations of new installations of publicly-owned outdoor lighting:

i) A provision that clearly indicates where, when, and under what circumstances new publicly owned outdoor lighting, including street lighting, is warranted and will be permitted; **AND**

ii) A provision that requires that adaptive controls⁷ and/or curfews⁸ be employed in all future installations of public outdoor lighting

F) Restrictions on the installation and operation of illuminated signs⁹:

i) Luminance levels for operation between sunset and sunrise shall not exceed 100 nits (100 candelas per square meter) as measured under conditions of a full white display; **AND**

ii) Sign illumination shall be extinguished completely one (1) hour after sunset, and remain off until one (1) hour before sunrise; **AND**

iii) The luminous/illuminated surface area of an individual sign shall not exceed 200 square feet (18.6 square meters)

G) Outdoor recreational and/or athletic field lighting may be exempted from the strict shielding and short-wavelength emission requirements above provided that all of the following conditions are met:

i) Illuminating Engineering Society (IES) lighting guidelines (RP-6) are followed according to the appropriate class of play

ii) Field lighting is provided exclusively for illumination of the surface of play and viewing stands, and not for any other applications

iii) Illuminance levels must be adjustable based on the task (e.g., active play vs. field maintenance)

iv) Off-site impacts of the lighting will be limited to the greatest practical extent possible

v) A strict curfew requirement (e.g., lights must be extinguished by

10pm/2200h or one hour after the end of play, whichever is later) is observed

vi) Timers must be installed to prevent lights being left on accidentally overnight by automatically extinguishing them

H) Affects an amortization period, applicable to **ALL** publicly **AND** privately owned lighting, to end not more than ten (10) years from the effective date of the outdoor lighting policy, after which all non-conforming lighting extant at the time of enactment must be brought into compliance with the policy.

2) Community commitment to dark skies and quality lighting as shown by:

A) City owned lighting conforming with, or committed to conforming with, the lighting policy (if the latter, a detailed plan with a timeline for completion in no more than five (5) years), **AND**

B) Municipal support of dark skies and quality lighting as demonstrated by city

publications, flyers, public service announcements, funding of lighting upgrades, etc.

3) Broad support for dark skies from a wide range of community organizations such as chambers of commerce, local electrical utilities, IDA chapters, lighting retailers, homeowners associations, and others.

4) Community commitment to dark skies and education as shown by at least one of the following:

A) Planning and execution of at least two (2) community dark sky awareness events¹⁰ per year. This may be organized through a local astronomy club, municipality, school, etc.

B) Inclusion of dark sky awareness documents (IDA brochures or Community-created brochures) with other Community informational documents for residents and visitors.

C) Inclusion of dark sky education in Community schools and curriculum.

5) Success in light pollution control as demonstrated by at least one of the following:

A) Examples of a number of construction projects appropriate to the Community population and amount of new construction and renovation activity, built under the lighting policy and demonstrating its effective application

B) Alternative evidence of success in light pollution control, to be discussed with the International Dark Sky Places Program Manager for compliance.

6) A sky brightness measurement program must be established and maintained either by the Community or by a public or private entity (e.g., university, research center, IDA chapter, astronomy club, etc.) to follow the evolution of light pollution in the IDSC. Applicants are encouraged, but not required, to submit their measurements

¹⁰ Note that astronomy education events such as star parties do NOT qualify as "community dark sky awareness events" unless the presentation explicitly includes a message relating to dark skies and outdoor lighting.

to the citizen science projects such as My Sky At Night (myskyatnight.com) and Globe At Night (globeatnight.org).

7) Once established, the Community must erect and maintain appropriate signage indicating the International Dark Sky Community designation along a roadway entrance, along a footpath entrance if no roadway exists, a public gathering place such as a square or common, or at a municipal government center such as a city or town hall. If approved by IDA, language as an alternative to "International Dark Sky Community" may appear on the signage and in Community communications regarding the IDSC status. Once the sign is erected, a photograph documenting it must be taken and sent to IDA along with a description of its location

OKARITO DARK SKY COMMUNITY



Photo: Ben Sarten Imagery



West Coast Branch

14/06/2023

The West Coast branch of Forest & Bird welcomes the initiative by the Okārito community to preserve and protect the dark skies of Okārito. We fully support the proposal for an accredited Dark Sky Community from the International Dark Sky Association. We also support that the dark sky provisions should be extended to the Okārito township. We look forward to seeing these provisions included in Te Tai o Poutini Plan for the Okārito area.

There are likely other communities across the West Coast that may be interested in dark sky accreditation and we trust TTPP will allow for such opportunities to be progressed going forward. With increasing levels of artificial light trespassing into the night across Aotearoa, we hope that West Coast councils will embrace the benefits to native species and to people's wellbeing by protecting the relatively pristine dark skies that exist in many parts of Tai Poutini.

Suzanne Hills on behalf of West Coast branch of Forest and Bird.

WestCoast.Branch@forestandbird.org.nz

Our community of Okarito has had several discussions regarding the proposal to apply for a Dark Sky Community designation through the International Dark Sky Association. The community has supported continuing the application process. There are rigorous standards for approval and one of the requirements for an application to be successful is the support of applicable government agencies such as Council.

The Okarito Community Association supports Council making a submission for the District Plan that would allow provisions for Dark Sky compliance language should the application be successful. Please let us know if you have any questions.

Nga mihi
Richard Saunders
Chairperson

Okarito Community Association
P.O Box 144, Franz Josef Glacier 7856





Glacier Country Tourism Group Inc.
P O Box 78, Franz Josef Glacier 7856

11th April 2023

Okarito Dark Sky Community
darkskyokarito@gmail.com

Tēnā koutou

Glacier Country Tourism Group would like to express our support for the Okarito Dark Sky Community Project.

The project will provide many benefits for both the community and visitors to Glacier Country, adding to the visitor experience and enhancing the attractiveness of Glacier Country as a destination for both New Zealanders and International visitors.

The project will have a positive impact on the environment and will fit alongside other current conservation projects in the area such as Jobs for Nature and Predator Free South Westland / Zero Invasive Predators. The project will also provide opportunities for employment in nature tourism and give visitors a reason to stay longer in our area and enjoy all Glacier Country has to offer.

We are excited for the potential and give our full support to the Okarito Dark Sky Community Team in getting this initiative progressed.

Ngā mihi

Two handwritten signatures in black ink. The first signature is on the left and the second is on the right, both appearing to be in cursive or a similar fluid script.

Janelle Shaw Mike Nolan

Co-Chairpersons
Glacier Country Tourism Group

3 July 2023

To whom it may concern,

Letter of Support for Dark Sky Community accreditation for the Ōkārito Community

The Department of Conservation fully supports the Ōkārito Community's movement to become designated as a Dark Sky Community through the International Dark Sky Association. We believe initiatives such as these will not only improve local ecosystems, reduce energy waste, preserve night sky heritage and support general human health, but help promote excellent stewardship of our natural resources to both New Zealanders and international visitors.

The Department sees many positive outcomes in the establishment of Ōkārito as a Dark Sky Community for conservation, recreation, regional growth and community resiliency. Our hope would be that the adoption of dark sky provisions encourages other communities to follow suit and informs regional plans, such as the Te Tai o Poutini Plan.

We value the proposed dark sky initiative and look forward to supporting you along the way. We wish you all the best in gaining this unique distinction.

Yours sincerely,



Wayne Costello
Operations Manager
South Westland

Westland Tai Poutini National Park - Okarito Village, Forks, and Franz Josef

Date Printed: 13 October 2023



Legend



- Actuals (Current FY)
- Public Conservation Land**
- National Park
- Conservation Park
- Specially Protected Area
- Reserve
- Stewardship Area
- Marginal Strip
- Wildlife Management Area
- Waitangi Endowment Forest

Okarito Village

Forks Community

Franz Josef Village

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SCALE 1: 72,224



Projection: NZGD_2000_New_Zealand_Transverse_Mercator

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THIS MAP IS NOT TO BE USED FOR NAVIGATION



Okarito Village - PCL and Private Land Boundaries

Date Printed: 13 October 2023



Legend 

- Actuals (Current FY)
- Public Conservation Land
 - National Park
 - Conservation Park
 - Specially Protected Area
 - Reserve
 - Stewardship Area
 - Marginal Strip
 - Wildlife Management Area
 - Waitangi Endowment Forest

SCALE 1: 4,514



Projection: NZGD_2000_New_Zealand_Transverse_Mercator

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The Forks Community - PCL and Private Land Boundaries

Date Printed: 13 October 2023



Legend

- Actuals (Current FY)
- Public Conservation Land
 - National Park
 - Conservation Park
 - Specially Protected Area
 - Reserve
 - Stewardship Area
 - Marginal Strip
 - Wildlife Management Area
 - Waitangi Endowment Forest

SCALE 1: 4,514

0.2 0 0.2 Kilometers

Projection: NZGD_2000_New_Zealand_Transverse_Mercator

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