

## Section 32A Report

### Resource Management Act 1991 Analysis Report – Proposed Plan Change - Southland District Plan 2018 – ‘Dark Skies’

## 1 Introduction

### 1.1 Purpose of the Report

This report provides an evaluation of the proposed plan change objectives, policies and rules to regulate lighting on Stewart Island/Rakiura. For clarification the proposed plan change does not apply to offshore Islands for example the Titi / Muttonbird Islands, Ruapuke Island and Whenuahou /Codfish Island.

This plan change is initiated by the Southland District Council (SDC) under Section 73(1A) of the Resource Management Act 1991 (the Act) which states that a territorial authority may change a district plan in a manner set out in Schedule 1 of the Act.

### 1.2 Structure of the Report

This report is prepared in accordance with Section 32 of the Resource Management Act 1991. Section 32 requires Council to demonstrate that the objectives, policies and methods (rules) of a proposed plan change have been thoroughly tested against the purpose of the Act. It is expected that the benefits of a proposed plan change and the associated introduction of any new provisions are to outweigh the anticipated costs and risks. Accordingly, this report is set out as follows:

- Section 1 - Introduction and structure of the report.
- Section 2 - Background, context and scope of the proposed plan change and an outline of the resource management issue.
- Section 3 - Proposed changes to the objectives, policies and rules.
- Section 4 - Consultation
- Section 5 – Policy context: the statutory requirements and an assessment of the proposed plan change in relation to other relevant documents, including national policy statements, national environmental standard(s), regional policy document(s) and iwi management plan(s).
- Section 6 – An evaluation of the proposed provisions and alternative planning options.

## 2 Background to the proposed Plan Change

### 2.1 Dark Skies Sanctuary Status

Stewart Island/Rakiura was formally accredited on January 4<sup>th</sup> 2019 with a Dark Sky Sanctuary (DSS) status. A DSS is public or private land that has an exceptional or distinguished quality of starry nights and a nocturnal environment that is protected for its scientific, natural, or educational value, its cultural heritage and / or public enjoyment.

The accreditation is presented by the International Dark Sky Association (IDA) following a formal application process and the overall purpose of the accreditation is to identify and assist communities in the protection of their night sky environment.

A component of the application is the requirement to have lighting controls that are legally binding and enforceable on the land subject to the accreditation. The purpose of lighting controls is to ensure that any subsequent development or activity thereafter will not compromise the existing quality of the night sky.

The Stewart Island Promotion Association (SIPA) is the group responsible for managing the DSS. As part of its scoping exercise before applying for accreditation, SIPA reviewed the existing lighting controls in the Southland District Plan 2018 (District Plan) and considered that in their current form they did not ensure the long term protection of the quality of the existing night sky. Consequently, SIPA requested of Council a change to the existing lighting controls within the District Plan to be line with the DSS requirements. This Plan Change is the result of that request.

## 2.2 Resource Management Issue

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The resource management issue to be addressed is the protection, maintenance and enhancement of the dark night sky on Stewart Island / Rakiura from the adverse effects of lighting associated with development. Currently, the District Plan lighting provisions do not provide categorically for this outcome.

### 2.2.1 Existing environment

The night sky on Stewart Island / Rakiura is typically characteristic of low level lighting and limited light pollution. As part of the accreditation process a technical assessment of the dark night sky quality on Stewart Island / Rakiura was undertaken. Night sky quality was determined by measuring ‘*surface brightness*’; in magnitudes per square arcsecond\*. In summary a measurement of 17.0 was considered to be a poor urban sky quality and 22.0 was deemed to be a night sky quality with limited to no light pollution.

The following quality sky readings were recorded (*Southland Dark Skies Framework, November 2017 prepared by Xyst Sustainable Existence*):

Sky quality readings undertaken by Xyst at Rakiura showed sky quality compared to an ideal dark sky site.

Table 3 Sky Quality Readings Rakiura-Stewart Island

Location	Average SQM
Lee Bay	21.66
Horseshoe Bay	21.52
Butterfield Beach	21.85
Mill Creek	21.80
Traill Park	21.81
Observation Rock	21.79
Evening Cove	21.83
Deep Bay	21.79

\*Arcsecond – a unit of angular measurement used in astronomy to describe an objects location in space.

In essence, at identified vista points on Stewart Island / Rakiura the night sky is considered to be of an exceptional dark sky quality.

## 3 Explanation of the Specific Proposed Changes to the District Plan

### 3.1 Summary of what is changing?

The proposed plan change seeks to address the identified resource management issue as discussed in Section 2.2 above. The Plan Change will affect the following sections and policy framework of the District Plan:

- Section 2.12 - Signage
- Section 3.2 - Urban Zone
- Section 3.4 - Industrial Zone
- Section 3.5 - Fiordland / Rakiura Zone
- Section 4 - Definitions
- Section 5 - Schedules
  - Schedule 5.10 Guidelines for Buildings in the Stewart Island / Rakiura Urban Zone

#### 3.1.1 Plan Change Area

The proposed plan change will affect the mainland of Stewart Island / Rakiura only and will exclude any offshore Islands for example the Titi / Muttonbird Islands, Ruapuke Island and Whenuahou / Codfish Island.

It is duly noted that the proposed plan change only applies to the management of development on land. There is the opportunity as part of the Regional Coastal Plan review process that the effects of lightspill from ocean activities can be managed in this capacity for example the lighting effects associated with aqua culture.

#### 3.1.2 Objectives

There are no proposed changes to the overall objectives of the District Plan as these are considered to already facilitate the necessary policy framework for the control of lighting.

#### 3.1.3 Policies

A new policy is proposed within Section 3.2 Urban Zone requiring subdivision, landuse and development to be undertaken in a manner that maintains or enhances the Stewart Island / Rakiura night sky.

#### 3.1.4 Rules

The plan change document attached at Appendix 1 outlines the proposed rule changes in detail however, they are summarised below:

- Rule SIGN.2 – Restricted Discretionary Activities – the requirement that any illuminated signage on Stewart Island / Rakiura (to exclude offshore Islands) is a restricted discretionary activity and

requires a resource consent. At present illuminated signs in the Industrial Zone and Commercial Precincts are permitted subject to meeting performance standards.

- General Signage Standard Rule SIGN.4(5) Illumination – amendment to existing words within the rule to reflect technical accuracy.
- General Urban Standard URB.5(8) Lighting and Glare – the separation of this rule into two parts to provide for a Stewart Island/ Rakiura specific rule.
- General Industrial Standard IND.4(6) Lighting and Glare - the separation of this rule into two parts to provide for a Stewart Island/ Rakiura specific rule.
- General Standard FRZ.5(4) – the addition of a general standard to assess lighting effects on the Stewart Island / Rakiura night sky. Note, this rule excludes offshore Islands.
- Rule FRZ.2 Controlled Activities – the addition of a matter of control to assess lighting effects on the Stewart Island / Rakiura night sky. Note, this rule excludes offshore Islands.
- Section 5.10 Guidelines for Buildings on Stewart Island / Rakiura – the inclusion of an additional ‘material’ item which directs customers to utilise Council’s Lighting Guidance Document when considering the installation of lighting ie what type of lights to install.

## 4 Consultation

### 4.1 Statutory Consultation

In accordance with the provisions of the First Schedule of the Act 1991, Council undertook consultation by forwarding a copy of the proposed plan change to the agencies listed below and via preliminary consultation workshops with key stakeholders held at Stewart Island / Rakiura on 13<sup>th</sup> and 14<sup>th</sup> May 2019.

The Council have consulted with the agencies specified in Clause 3 of the First Schedule, to include:

- The Minister for the Environment
- The Minister of Conservation
- The Tangata whenua of the area, through Te Runanga o Ngai Tahu (iwi authority) and Te Ao Marama Inc (the agency authorised to represent Te Runaka o Awarua, Hokonui Runanga, Oraka/Aparima Runaka and Waihopai Runaka).

The key stakeholders that Council has consulted with include:

- Stewart Island Promotions Association
- Department of Conservation
- Venture Southland
- Stewart Island / Rakiura Community Board
- General Stewart Island Community, including parties with fishing interests
- Southport
- Owners and operators of Salmon Farms
- Te Ao Marama Incorporated
- Environment Southland
- Stewart Island Airport owner and operator

#### 4.1.1 Preliminary Consultation Workshop

Overall, the preliminary consultation was positive. All attendees expressed support in principle for the proposed changes to the District Plan and provided feedback in terms of the clarity of the proposed changes along with ways in which Council could better actively engage with the community to interpret the proposed provisions. A clear requirement for Council is to provide a guidance document that will be used by the public and industry to assist in the interpretation and implementation of the provisions.

Council has determined that a guidance document will be prepared, but it is not included as part of this Plan Change because it is an evolving document that needs to be updated readily as and when required. All feedback and proposed amendments to what has been initially proposed are now incorporated into this report and attached proposed Plan Change document.

## 4.2 Non-Statutory Consultation

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Non-statutory consultation with members of the Stewart Island / Rakiura community has been undertaken as part of the Dark Sky Sanctuary application process by Venture Southland, Stewart Island Promotions Association and the Stewart Island Community Board.

This consultation related specifically to whether a DSS application should be lodged in the first instance. It was identified at the time of consultation that an aspect of the application involved regulation on land owners and this was raised as an issue of concern by some respondents.

There have been articles within the media in respect to the DSS during the application process and therefore it is considered to be within the public arena. Whilst this is not considered to be consultation for the purposes of this report, it does provide a level of awareness of the proposal and the associated outcomes from having the sanctuary status ie the requirement to control or regulate lighting for any future development.

## 5 Policy Context

The statutory framework for preparing a plan change and assessing the merits of the proposed provisions is set out in Part 2, Sections 31, 32, 72 and 76 of the Act. Each relevant section is considered below.

### 5.1 Resource Management Act 1991 ('the Act')

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#### 5.1.1 Part 2 – Purpose and Principles of the Act

**Section 5** of the Act sets out the purpose of the Act, which requires an integrated planning approach and direction to promote the sustainable management of natural and physical resources. Guidance as to how the overall sustainable management purpose is to be achieved is provided in the other sections, including sections 6, 7 and 8 of the Act:

**Section 6** of the Act sets out a number of matters of national importance when making decisions.

**Section 7** lists 'other matters' that Council shall have particular regard to when making decisions.

**Section 8** requires that the Council takes into account the principles of the Treaty of Waitangi (Te Tiriti o Waitangi).

In summary the proposed control of lighting on Stewart Island / Rakiura promotes the sustainable management of natural and physical resources as required by section 5; provides for the following matters of national importance as outlined in sections 6(a), (b), (c), and (e); has particular regard to the other matters detailed in 7(aa), (c), (d), (f); and takes into consideration the principles of the Treaty of Waitangi (Te Tiriti o Waitangi) as required by Section 8.

### **5.1.2 Section 31 of the RMA**

The proposed Plan Change has been prepared having regard to Section 31(1) of the Act. Section 31(1) outlines the functions of Council as they relate to the contents and purpose of a District Plan.

### **5.1.3 Section 32 of the RMA**

Section 32 of the Act sets out the requirements for preparing this evaluation report. An evaluation prepared under Section 32 requires the objectives in a plan change proposal to be examined for their appropriateness in achieving the purpose of the Act, and the policies and methods of a proposal to be examined for their costs, benefits, efficiency, effectiveness and risk in achieving the objectives.

Section 32 was amended in 2017 to include Changes to Māori participation, requiring Councils to engage with iwi authorities on draft plans and policy statements prior to notification. Councils must consider iwi authority advice in section 32 evaluation reports and give sufficient time and opportunity to Iwi authorities to respond.

For completeness, this plan change has been prepared having regard to the above.

### **5.1.4 Section 72 of the RMA**

Section 72 of the Act confirms that the purpose of a District Plan is to assist the Council to carry out their functions to achieve the purpose of the Act.

### **5.1.5 Section 76 of the RMA**

Section 76 of the Act provides for Council to include rules within its District Plan for the purpose of carrying out its functions under the Act.

Overall, the proposed Plan Change meets the requirements as outlined in Part 2, Sections 31, 32, 77 and 76 of the Act.

## **5.2 Other Relevant National Legislation or Policy Statements**

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### **5.2.1 Section 14 of the Local Government Act 2002**

Section 14 of the Local Government Act 2002 (LGA) sets out the principles that territorial authorities must follow whilst performing their role. These principles are of relevance in terms of policy development and decision making in this instance because it ensures fairness, robustness, and sustainable management of natural resources and the environment which is also a prerequisite of the Act.

## 5.2.2 Regional Policy Statements

Section 74 of the Act requires that a District Plan prepared by a territorial authority must “give effect to” any operative Regional Policy Statement. In this instance the proposed plan change will give effect to the relevant provisions as detailed within Chapter 5: Rural Land / Soils, Chapter 6: Biodiversity, Chapter 17: Urban of the Southland Regional Policy Statement 2017.

## 5.2.3 Iwi Management Plans

Section 74(2A) of the Act states that Council’s must take into account any relevant planning document recognised by an Iwi authority and lodged with the territorial authority, to the extent that its content has a bearing on the resource management issues of the district.

The relevant Iwi management plan in this instance is ‘The Cry of the People, Te Tangi a Tauira: Ngāi Tahu ki Murihiku Natural Resource and Environmental *Iwi Management Plan 2008 (MNRMP 2008)*’.

Overall the control of lighting will give effect to Kaitiakitanga (Guardianship) of the natural environment which is at the core of the aforementioned iwi management plan as well as the Outstanding Natural Landscape of Stewart Island / Rakiura as identified in the Regional Policy Statement.

## 6 Evaluation of Proposed Plan Change Objectives and Provisions – pursuant to Sections 32(1)(a) and 32(1)(b) of the Act:

The following is an evaluation of the proposed Plan Change objectives, policies and rules as required by the Act.

### 6.1 Section 32(1)

#### 6.1.1 Section 32(1)(a) - Are the objectives the most appropriate way to achieve the purpose of the Act?

As detailed above in Section 3.2 no additional new objectives are proposed in this instance. This is because the existing relevant objectives of the District Plan are deemed to facilitate the desired outcome of the proposed plan change being the protection, maintenance and enhancement of the night sky quality from the adverse effects of development.

The existing objectives are therefore considered to be the most appropriate way in which to achieve the purpose of the Act because the objectives recognise the potential for development to adversely affect the natural environment. Subdivision, land use and development is required to be undertaken in a manner that maintains the life supporting capacity and productive value of the land resource; maintains or enhances residential amenity; and protects outstanding natural landscapes and wilderness qualities.

#### 6.1.2 Section 32(1)(b) – Are the proposed provisions the most appropriate way to achieve the objective?

Section 32(1)(b) requires Council to examine and assess whether the provisions in the proposal are the most appropriate way in which to achieve the overall objective of the proposal by identifying other

practicable options. In this instance, the other practicable options for achieving the objective are as follows:

- Do nothing (maintain the status quo)
- Non regulatory measure
- Impose provisions on public land only and exclude private land

#### **6.1.2.1 Do nothing (maintain the status quo)**

The existing quality of the night sky on Stewart Island / Rakiura is considered exceptional. By opting to ‘do nothing’, as long as no future development occurs on Stewart Island / Rakiura with large scale external artificial lighting, the current night sky quality may be maintained. However, this is not considered an appropriate option as it does not categorically ensure that the night sky quality will be protected, maintained and/or enhanced.

Moreover, research undertaken by the Royal Society Te Aparangi into the adverse effects of artificial light on human, animal and plant health surmises that the control of lighting is the best practice for the overall health and wellbeing of a community\*. Subsequently, from a community health and wellbeing perspective to do nothing is not considered an appropriate option in this instance.

Finally to ‘do nothing’ risks losing the DSS accreditation altogether as future development could have the potential to erode the existing dark quality of the night sky.

#### **6.1.2.2 Non regulatory measure**

The objective of the plan change could be met via voluntary agreements with private and public property owners that set lighting controls. However a non-regulatory approach cannot guarantee that the objective of the plan change will be met because should a party opt out of the voluntary agreement process, then any subsequent development thereafter could erode the existing night sky environment.

#### **6.1.2.3 Regulate on Public Land only**

Stewart Island / Rakiura is made up of 85% public land, being predominantly the DOC administered Rakiura National Park and SDC administered reserve land. It may be possible to meet the objective of the plan change via adherence to existing relevant District Plan zone rules and / or by seeking non-regulatory voluntary agreements with the Department of Conservation and SDC to implement lighting controls. However, it is expected that the majority of development will occur within the privately owned urbanised areas on Stewart Island / Rakiura and it is this level of development that could compromise the existing quality of the night sky. The regulation of public land only cannot guarantee the objective of the plan change being achieved.

#### **6.1.2.4 Conclusion of alternatives**

Whilst there are a total of three alternative non-regulatory planning options to protect, maintain and enhance the existing quality of the night sky on Stewart Island / Rakiura, there is the risk that, development which is not subject to the proposed lighting controls will adversely affect the night sky quality. It is considered therefore that the only way to categorically achieve the objective of this plan change is to amend existing District Plan lighting provisions to be applicable to all property on Stewart Island / Rakiura.

\*Blue Light Aotearoa – Impacts of artificial blue light on health and the environment, Royal Society Te Aparangi



## 6.2 Section 32(2)

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### 6.2.1 Section 32(2)(a) – Assessment of Benefits and Costs of implementing the proposed provisions

Section 32(2)(a) of the Act requires consideration of the benefits and costs of the provisions when assessing the efficiency and effectiveness of the proposed plan change. Consideration has been given to the potential environmental, social, cultural, benefits and costs and is detailed in the following table.

6.2.1.2 Environmental, Cultural, Social and Economic Benefits and Costs of proposed plan change

<b>AFFECTED GROUPS</b>	<b>BENEFITS</b>	<b>COSTS</b>
<p>Residents who live in privately owned dwellings on Stewart Island being either owner occupier or occupier (tenant).</p>	<ul style="list-style-type: none"> <li>• Health benefits associated with the maintenance of natural circadian rhythms eg hormone production, sleep/wake quality, blood pressure, digestive functions, immunity and mood.</li> <li>• Reduction in health related costs associated with imbalance of natural circadian rhythms.</li> <li>• Increase in visual amenity of night sky.</li> <li>• Better astronomical observation opportunities.</li> <li>• Opportunities for participation in leisure, recreation and astro-tourism activities.</li> <li>• Benefits from attracting new residents to Stewart Island as business start-ups and community members.</li> <li>• Employment opportunities.</li> <li>• Energy efficient lighting with associated cost savings.</li> <li>• Achieves purpose of the Resource Management Act 1991 by promoting the sustainable</li> </ul>	<ul style="list-style-type: none"> <li>• Cost to property owner(s) for the installation and maintenance of lighting that is compliant with the District Plan.</li> <li>• Consenting costs if resource consent required.</li> <li>• May be difficult to locate ‘places’ in the dark if signs are not well lit ie traffic safety issue.</li> <li>• Owners needing to be familiar with regulations and processes and if not the consequences of non-compliance ie required to obtain resource consent retrospectively and having to exchange existing lighting for alternatives at their cost.</li> <li>• Monitoring costs associated with a resource consent.</li> </ul>

	<p>management of the natural and physical environment.</p> <ul style="list-style-type: none"> <li>Proposed provisions easily met with good lighting design, lights can be purchased at local retailers.</li> </ul>	
Business owners on Stewart Island	<ul style="list-style-type: none"> <li>Opportunities for astro-tourism.</li> <li>Increased visitors / residents to the Stewart Island / Rakiura.</li> <li>General employment opportunities for residents as a result in the increase in visitor/resident numbers.</li> <li>Energy efficient lighting with associated cost savings.</li> <li>Promotion of Stewart Island / Rakiura to wider New Zealand.</li> </ul>	<ul style="list-style-type: none"> <li>Cost to property owner(s) for the installation and maintenance of lighting that is compliant with the District Plan.</li> <li>Costs of consenting if required.</li> <li>Traffic safety issue as it may be difficult to locate 'places' in the dark if signs are not well lit for example.</li> <li>Business owners need to be familiar with regulations and processes and if not the consequences of non-compliance ie the burden of additional regulation.</li> <li>Monitoring costs associated with a resource consent if held.</li> <li>Ongoing maintenance costs associated with the prescribed lighting.</li> <li>Potential costs to upgrade airport if an increase of visitors to the Island results.</li> </ul>
Fauna and Flora	<ul style="list-style-type: none"> <li>Maintenance of natural circadian rhythms aiding the reproductive processes of flora and fauna.</li> <li>Achieves purpose of the Resource Management Act 1991 by promoting the sustainable management of the natural and physical environment.</li> </ul>	<ul style="list-style-type: none"> <li>Costs associated with additional pest management which will be required as pests flourish alongside an increase in flora fauna populations (food source).</li> </ul>

Iwi	<ul style="list-style-type: none"> <li>• Meets objectives and policies of Iwi Management Plan being <i>'The Cry of the People – Te Tangi a Taurira'</i></li> </ul>	<ul style="list-style-type: none"> <li>• Additional resourcing costs for Te Ao Marama Inc on behalf of the Iwi to participate in any resource consenting process.</li> </ul>
Southland District Council	<ul style="list-style-type: none"> <li>• Goes towards implementing the Territorial Authorities (TA) responsibility under the Resource Management Act 1991 to protect the natural and physical environment.</li> <li>• Potential for the administering body of the DSS to take ownership of community education around lighting. This would support Council's strategic vision for community involvement and working together with Council for a better Southland.</li> </ul>	<ul style="list-style-type: none"> <li>• Additional monitoring and enforcement burden and associated costs which may not be fully recovered by the Territorial Authority.</li> <li>• Human resources ie the time spent providing information to public.</li> <li>• Pressure placed upon public infrastructure from additional capacity ie tourists or new residents going to Stewart Island / Rakiura.</li> </ul>
International Dark Sky Association	<ul style="list-style-type: none"> <li>• Enables the status (accreditation) to be maintained.</li> </ul>	<ul style="list-style-type: none"> <li>• Costs to Council and Community associated with upkeep of Sanctuary Status if ongoing.</li> </ul>
Stewart Island Promotions Association	<ul style="list-style-type: none"> <li>• Encouraging and facilitating community ownership of a project being the DSS.</li> </ul>	<ul style="list-style-type: none"> <li>• Costs and human resources required to manage the DSS accreditation now and in the future.</li> </ul>

## 6.2.2 Section 32(2)(c) – Assessment of risk of acting or not acting if there is insufficient information about the subject matter of the provisions

The Act requires Council to assess the risk of acting or not acting if there is uncertain or insufficient information about the subject matter. It is considered that there is sufficient information available to develop these proposed District Plan provisions. Moreover, given the provisions will only affect the Stewart Island / Rakiura area and that the proposed provisions are deemed to be achievable through careful lighting design it is considered that there is little risk in progressing this plan change.

The risk in not acting is that any future development has the potential to adversely affect the existing quality of the night sky environment.