

To: Shay McDonald
From: Elizabeth Morrison
Company: Otago Regional Council
SLR Consulting New Zealand
cc:
Date: 5 April 2024
Project No. 875.V15838.00002

**RE: RM24.143 – Green Island Resource Recovery Park Precinct
Ecology Review**

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1.0 Introduction

SLR Consulting NZ (SLR) has been engaged by Otago Regional Council (ORC) to conduct a technical review of the resource consent application (including subsequent attachments) submitted by Dunedin City Council (the applicant, or DCC) for the development and operation of the Green Island Resource Recovery Park Precinct (RRPP) (referred to herein as the site).

As part of improvements to Dunedin’s waste management and kerbside collection services, the applicant is proposing to develop a new RRPP facility at the existing Green Island Landfill which is coming to the end of its operational life.

SLR has prepared a number of Technical Memorandums in relation to the application. This technical memorandum relates to freshwater ecology and bird hazard impacts.

2.0 Scope of the Review

The following key documents, which were submitted as part of the application, have been reviewed in the development of this technical memo:

- Boffa Miskell Limited 2024. Appendix 7: Green Island Landfill Resource Recovery Park Precinct: Ecological Impact Assessment. Report prepared by Boffa Miskell Limited for Dunedin City Council. – RRPP EclA
- Avisure. 2024. Appendix 8: Green Island Resource Recovery Park Precinct Bird Hazard Report
- GHD Limited, 2024. Appendix 20: Resource Recovery Park Precinct – Draft ORC Conditions of Consent.

The scope of this review included:

- Review of the questions posed by ORC as detailed in Section 3.0 of this memorandum;
- Review of sections of the documents listed above considered relevant to the questions posed by ORC (refer Section 3.0) for Ecology; and
- Preparation of this technical memorandum.

3.0 Response

ORC posed the following questions which I respond to in turn in the table below:

#	Query and response
1	<p>Is the technical information provided in support of the application robust, including being clear about uncertainties and any assumptions? Yes, or no. If not, what are the flaws?</p> <p>The EclA relies on investigations undertaken to inform the application for consenting of the wider Green Island Landfill (GIL). The report summarises the methodology as detailed in the ecological assessment of the wider GIL which has been appended to the RRPP EclA. It is accepted that those assessments and field surveys of ecological features and values are suitably robust.</p>
2	<p>Are there any other matters that appear relevant to you that have not been included? Or is additional information needed? Please specify what additional info you require and why. Please explain.</p> <p>Queries raised as part of the pre-application review related to leachate, stormwater management and what information has been used to inform the ecological assessment and have largely been addressed in the ecological assessment submitted with the application. Cumulative effects have been inferred but not specifically discussed as potential ecological freshwater impacts are considered to be reduced associated with the operation of the RRPP. No further information is required to cover ecological matters associated with the application.</p>
3	<p>If granted, are there any specific conditions that you recommend should be included in the consent?</p> <p>The proposed conditions outline appropriate stormwater monitoring and management, erosion and sediment control, integration of eco sourced native species in the Vegetation Management and Restoration Management Plan as well as bird management.</p> <p>No additional ecological conditions, in addition to those already proposed, are recommended.</p> <p>It is noted however that the draft conditions refer to the Draft Southern Black Backed Gull (SBBG) Management Plan by Avisure dated November 2023. This Plan is to be updated as part of the wider Green Island Landfill application, so it is important to ensure that implementation of the finalised report is conditioned in the event that modifications are made to the draft SBBG Management Plan.</p>
4	<p>Does the application adequately describe and assess the potential adverse effects on aquatic ecology/ecological values? Please explain</p> <p>The ecology report outlines the key risks to freshwater ecological values as depletion of the Kaikorai Stream from groundwater drawdown, increased stormwater volumes from increased impervious surfaces, sediment and contaminant discharge to Kaikorai Stream during both the construction and operational phase.</p> <p>The report assesses the level of effect of each of these key risks as no effect. This is based on the groundwater assessment noting no additional groundwater drawdown expected, the introduction of operational stormwater management that will intercept and treat stormwater, the current leachate management in place and introduction of pre-treatment devices.</p> <p>Overall, the ecological assessment accompanying the application indicates no effect to the aquatic environment on moderate-high ecological values. This is provided effects are managed through measures to avoid contaminants entering the Kaikorai Stream through stormwater treatment retention and attenuation and that the sediment detention pond is functioning as intended in addition to the continued operation of the leachate collection system.</p> <p>In terms of bird hazards many of these relate to the closure of the wider landfill operation and birds dispersing from the wider site as food sources reduce. As waste entering the RRPP will mostly be in enclosed buildings followed by composting, birds are less likely to be attracted to</p>



#	Query and response
	the area of the RRPP area and bird-proofing measures can be put in place if required as outlined in the Bird Hazard Assessment. I agree with the adverse effects to birds as described associated with the RRPP construction and operation. The Construction and Operations Management Plan includes birds as pests and specifically notes to implement consultation with the Environmental Advisor or suitable qualified consultant/contractor should bird exclusion measures need to be put in place. This control measure is considered appropriate.
5	Do you agree with the Applicant's assessment of adverse effects on aquatic ecology associated with the construction phase of the RRPP?
	The ecology report outlines the key risks to freshwater ecological values as depletion of the Kaikorai Stream from groundwater drawdown, sediment and contaminant discharge to Kaikorai stream during both the construction and operational phase, and increased stormwater volumes from increased impervious surfaces within the site. I am in agreement that these are the key risks to aquatic ecology from the proposed RRPP development.
6	Are the cumulative effects adequately described and assessed? Please explain.
	Cumulative effects are inferred in some areas but otherwise are not specifically discussed. The ecology report relies heavily on assumptions associated with the wider landfill site application but does not discuss potential cumulative impacts of the RRPP redevelopment and potential risks to the management systems as a result of the redevelopment. The inclusion of discussion of potential cumulative risk would be useful, particularly in relation to increased contaminant loads, changes to stormwater volumes and treatment and the potential for any additive risks to the receiving environments during high rainfall events (from overloading of systems?). Cumulative impacts are discussed in the stormwater and groundwater reports which indicate that the RRPP will not lead to an increase in effects with these likely to decrease.

4.0 Closure

The consent application and additional information provided to support the application and consent conditions as proposed are considered adequate to manage potential ecological impacts on freshwater ecology and avifauna for the proposed development.

Should you have any questions, please do not hesitate to contact the undersigned.

Regards,

SLR Consulting New Zealand



Elizabeth Morrison
 Principal Ecologist

