Appendix 15: Waste Futures – Resource Recovery Park Precinct - Interim Social Impact Assessment

Waste Futures – Resource Recovery Park Precinct

Social Impact Assessment – Interim Report

Dunedin City Council

15 March 2024

→ **The Power of Commitment**

Project name		Green Island Landfill Consenting to Closure and RRPP Consenting					
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1. Introduction

1.1 Background

The Dunedin City Council (DCC) has embarked on a Waste Futures Programme to develop an improved comprehensive waste management and diverted material system for Ōtepoti Dunedin. This system includes provision of an enhanced kerbside recycling and waste collection service for Dunedin from July 2024.

Currently disposal of municipal solid waste and hazardous waste occurs at the Green Island landfill (GIL). This facility is coming to the end of its operational life and DCC is currently planning its eventual closure, which based on current waste disposal rates, will occur in 2029/2030.

The site also contains other waste diversion and transfer facilities for the drop off and consolidation of general waste, reusable and recyclable material, green waste, and household hazardous substances. To support the implementation of the new kerbside collection service, the DCC is planning to develop an improved Resource Recovery Park Precinct (RRPP) at GIL.

1.2 Green Island Resource Recovery Park Precinct

As part of the new kerbside collection service, DCC will introduce an organic (food and garden) waste kerbside collection service from July 2024 as part of its wider strategy for waste diversion. The new kerbside collection service will also include the provision of a domestic general waste bin to replace the current black bag system.

The new organics service will require new facilities for receiving and processing organics and recyclable materials, in addition to the upgrade and replacement of existing facilities to meet the changing requirements of Dunedin. To meet this need, DCC is investing in upgrading and expanding the current resource recovery area located at GIL.

Proposed new resource recovery facilities for the RRPP include:

- Organic receivals building (ORB) and processing (composting) facility (OPF) including bunkers and maturation area to support the organic waste kerbside collection;
- Materials recovery facility (MRF) to sort and bale items collected from kerbside mixed recycling bins; and
- Bulk waste transfer station (BWTS) to facilitate the compaction and trucking of waste to landfill.

Additional facilities also include new glass bunkers, staff offices, parking, and breakrooms and associated access roads and truck parking areas. Several existing facilities are to be retained including the Rummage shop, public drop-off areas and the education centre.

The RRPP will be run by EnviroNZ on behalf of DCC and will start operating in July 2024 following commencement of the kerbside collection service and completion of the construction of the ORB, which is currently underway. The OPF and MRF are planned to start operating in mid- late 2025. The construction date for the BWTS is dependent on when Green Island landfill closes, and waste is transported to Smooth Hill or other waste disposal facility.

1.3 The resource consent application

Resource consent applications are being made to Otago Regional Council (ORC) and DCC for activities associated with the RRPP.

The RRPP will require approvals under the Resource Management Act 1991 (RMA) as follows:

- Dunedin City Council – an Outline Plan of Works for construction and operation within the landfill designation, and resource consent for disturbance of contaminated soils during construction.
- Otago Regional Council – resource consents for disturbance of contaminated soil and discharge to air from contaminated soil during construction, discharges to air from composting and ventilation of buildings, and discharge of odour and dust from industrial and trade processes, under the Regional Plan: Waste and Regional Plan: Air; and for diversion of surface water and stormwater, and for the discharge of stormwater via stormwater detention pond to Kaikorai Stream under the National Environmental Standards for Freshwater Management. Regional consents are sought for a period of 35 years.

1.4 Purpose of this report

This Interim Social Impact Assessment (SIA) forms part of the suite of technical assessments that have been prepared to support the resource consent applications and Outline Plan of Works for the development of the RRPP at GIL. The purpose of this interim SIA is to demonstrate that consideration has been given to potential social impacts expected from the construction and operation of the project. This Interim SIA includes:

- Overview of the statutory and policy context and how the project will contribute to the Waste Futures Programme objectives.
- Community profile including baseline demographics and social values of the community.
- Outcomes of engagement undertaken with the community to date (which is still ongoing).
- Identification of potential or likely social impacts, incorporating findings from the technical studies to identify changes (positive and negative) to peoples fear and aspirations, economy, business and employment, amenity and character, social and recreational infrastructure and health and wellbeing.

A final SIA is to be developed post-lodgement to reflect the outcomes of ongoing community engagement as well as any additional technical information that is prepared.

1.5 Table of Abbreviations

Abbreviation/Term	Description
AEE	Assessment of effects on the environment
BWTS	Bulk waste transfer station
C&D	Construction and demolition
CIA	Cultural Impact Assessment
DCC	Dunedin City Council
FDS	Future Development Strategy
GGICN	Greater Green Island Community Network
GIL	Green Island Landfill
GIWWTP	Green Island Wastewater Treatment Plant
MRF	Materials recovery facility
ORB	Organic receivals building
ORC	Otago Regional Council
POORPS	Partially Operative Otago Regional Policy Statement
Proposed RPS 21	Proposed Otago Regional Policy Statement

Abbreviation/Term	Description
RMA	Resource Management Act 1991
RRPP	Resource Recovery Park Precinct
SIA	Social Impact Assessment
WMA	Waste Minimisation Act 2008
WWMP	Waste Management and Minimisation Plan

1.6 Limitations

This report has been prepared by GHD for Dunedin City Council and may only be used and relied on by Dunedin City Council for the purpose agreed between GHD and Dunedin City Council as set out in section 1.4 of this report. GHD otherwise disclaims responsibility to any person other than Dunedin City Council and Council officers, consultants, the hearings panel and submitters associated with the resource consent and notice of requirement process for the project arising in connection with this report.

GHD otherwise disclaims responsibility to any person other than Dunedin City Council arising in connection with this report. GHD also excludes implied warranties and conditions, to the extent legally permissible.

The services undertaken by GHD in connection with preparing this report were limited to those specifically detailed in the report and are subject to the scope limitations set out in the report.

The opinions, conclusions and any recommendations in this report are based on conditions encountered and information reviewed at the date of preparation of the report. GHD has no responsibility or obligation to update this report to account for events or changes occurring subsequent to the date that the report was prepared.

GHD has prepared this report on the basis of information provided by Dunedin City Council and others who provided information to GHD (including Government authorities), which GHD has not independently verified or checked beyond the agreed scope of work. GHD does not accept liability in connection with such unverified information, including errors and omissions in the report which were caused by errors or omissions in that information.

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2. Methodology

2.1 Definition of social impact

SIA is the most accepted and recognised framework used in New Zealand and internationally to manage social impacts. The International Association for Impact Assessment defines social impact assessment as:

'…the processes of analysing, monitoring and managing the intended and unintended social consequences, both positive and negative, of planned interventions (policies, programs, plans, projects) and any social change processes invoked by those interventions' (International Association for Impact Assessment, 2003)[1]*."*

The definition of a social impact according to Vanclay (2002) is a positive or negative change to one or more of the following:[2]

i. People's way of life – that is, how they live, work, play and interact with one another on a day-to-day basis.

ii. Their culture – that is, their shared beliefs, customs, values and language or dialect.

iii. Their community – its cohesion, stability, character, services and facilities.

iv. Their political systems – the extent to which people are able to participate in decisions that affect their lives, the level of democratisation that is taking place, and the resources provided for this purpose.

v. Their environment – the quality of the air and water people use, the availability and quality of the food they eat, the level of hazard or risk, dust and noise they are exposed to, the adequacy of sanitation, their physical safety, and their access to and control over resources.

vi. Their health and wellbeing – health is a state of complete physical, mental, social and spiritual wellbeing and not merely the absence of disease or infirmity.

vii. Their personal and property rights – particularly whether people are economically affected, or experience personal disadvantage which may include a violation of their civil liberties.

viii. Their fears and aspirations – their perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.

2.2 SIA Industry Guidelines

This Interim SIA has been prepared in accordance with the following industry accepted guidelines (refer to Section 11). A complete reference list of documents referred to in this report is also provided in Section 11.

- Environmental and Social Impact Assessment Good Practice Statements prepared by the Environment Institute of Australia and New Zealand (2013).
- Social Impact Assessment: Guidance for Assessing and Managing the Social Impacts of Projects prepared by the International Association for Impact Assessment (2015).
- People, Place and Environment Series: Social Impact Guide prepared by Waka Kotahi (2016).
- Social Impact Assessment Guideline for State Significant Projects prepared by NSW Department of Planning, Industry and Environment (2021).

[1] Vanclay, F. 2003 International Principles for Social Impact Assessment. Impact Assessment & Project Appraisal 21(1), 5-11. Available online: www.tandfonline.com/doi/abs/10.3152/147154603781766491. [Last accessed 19 February 2021]
[2] Vanclay, F. 2003 International Principles for Social Impact Assessment. Impact Assessment & Project Appraisal 21(1), 5-11. Available online: www.tandfonline.com/doi/abs/10.3152/147154603781766491. [Last accessed 19 February 2021]

2.3 Methodology

The methodology outlined below provides an overview of the steps taken to prepare this report. The approach has been developed in accordance with the best practice guidelines outlined in section 2.2. The methodology outlined in Figure 1 and described below has been used to the assess the social impacts during both the construction and operation of the RRPP.

Figure 1 SIA Methodology

2.3.1 Determine the area of influence

The project site and its surrounds were analysed to identify the study area. The communities that live and work in this area and those who visit are considered most likely to be impacted by the project. It is acknowledged that social impacts are not necessarily contained within statistical or geographical boundaries, because people travel across such boundaries regularly as part of their lives.

For this reason, the area of influence comprises three areas relative to the level of impact anticipated for the collective population:

- **Local Study Area** - The local study area is determined to be the geographical area where the proposed project may have the highest direct and indirect impacts on surrounding residents and community members (e.g. amenity, access and connectivity, community values). For the purposes of this SIA, the suburb of Green Island has been determined as the direct area of influence, particularly residents of Clariton Avenue and Brighton Road.
- **District Study Area** - The district study area comprises the suburbs surrounding the site that would have wider indirect impacts such as traffic movements, community values and environmental regulations within the project context. For the purposes of this report, the surrounding suburbs of Waldronville, Abbotsford and Fairfield, have been investigated.
- **Regional Study Area** – The local and district study areas have been compared to the DCC area. The project is being undertaken as part of Council's Waste Futures Programme and therefore it will have benefits to the broader Otago Region.

2.3.2 Development of community profile

The community profile is required to understand the existing social conditions of the areas of impact that may be potentially affected by the project. It provides the basis for predicting and assessing the likely social impacts of the project. The community profile was developed through a review of relevant data sources. The community profile is described with reference to:

- Overview of existing operations at the GIL site, which includes the current conditions of consent, hours of operation and existing site use.
- The demographic profile of the Local Study Area which includes the surrounding suburbs (Waldronville, Green Island, Abbotsford and Fairfield) compared to the wider Dunedin City area and the Otago Region including population, age profile, cultural diversity, income and employment. Detailed demographic information is provided in Appendix A.
- An overview of the Local and District Study Areas including description of the existing amenity of the area, economic and business centres, population characteristics, traffic, transport and active transport connectivity, and community infrastructure. Consideration has been given to how the proposed project will impact on either the operation of, or access to, these facilities.

- An audit of social infrastructure that services the Local Study Area was undertaken. The social infrastructure includes education and childcare facilities, emergency services, open space and recreation, community centres, places of worship, health facilities and local shops. The audit is provided in Appendix B.

2.3.3 Community engagement

Engagement regarding the future of the Green Island landfill site, including the plans for the RRPP, commenced in 2022. Engagement involved informing the community about the Waste Futures Programme, plans for the ongoing operation and closure of the landfill and the proposed facilities required at RRPP to support the new kerbside collection. DCC led the engagement activities with support from the wider project team.

The purpose of engagement was to understand from the community and stakeholders how they perceive they will be impacted by the facilities proposed for the RRPP. The findings from engagement assisted with the identification of potential social impacts as well as the development of mitigation and management methods. The design of the facility and conditions governing its management have been refined following consultation with the community in order to mitigate potential adverse impacts.

Key stakeholders that DCC have engaged with include:

- Te Rūnaka o Ōtākou (via Aukaha).
- Local community organisations, and interest groups.
- Residential neighbours in Clariton Avenue.
- The wider Green Island community and residents.

Engagement will continue post-lodgement of the consent application for the proposed RRPP. The future engagement conversations will help to keep people informed about the RRPP project, as well as plans for the closure of the landfill. We understand that DCC will continue to seek ideas for the future use and enhancement of the site post closure of the landfill. One-on-one engagement will continue with the neighbours in Clariton Avenue, as DCC work in collaboration with interested parties, to agree the plans to enhance the existing screening planting on the southern bund, prior to construction starting and to mitigate views of the MRF building.

2.3.4 Review of technical studies

A review has been undertaken of relevant technical studies that were submitted as part of the resource consent application. Particular focus was given to:

- Landscape and visual assessment, prepared by Boffa Miskell.
- Acoustic assessment, prepared by GHD.
- Integrated traffic assessment, prepared by GHD.
- Air quality assessment, prepared by PDP.
- Stormwater management and assessment of effects, prepared by GHD.
- Groundwater technical assessment, prepared by GHD.

A review was undertaken of mana whenua documents and local Dunedin surveys (summarised in section 5.4) to broadly understand cultural and community values and aspirations for the area and whether the project aligns with these.

2.3.5 Impact identification and assessment.

This Interim SIA identifies the potential social benefits and impacts of the proposed RRPP. Potential impacts have been identified and described based on an initial scoping of potential impacts, stakeholder and community consultation undertaken, a review of the assessment of effects on the environment (AEE) and technical assessments prepared to support the resource consent application for this project.

An initial Assessment of Impacts table has been prepared and is provided in Appendix C, taking into account the impact assessment factors as defined in Table 1.

Table 1 Definitions of the Social Impact Assessment Factors

Impact assessment factors	Definition
Stakeholders	Community who are impacted, particularly in regard to any potentially vulnerable groups as well as directly or indirectly affected people. Assessment of stakeholders takes into consideration the magnitude ranging from: • Many affected – the wider community. • Moderate number – the local community. • Few affected – directly affected owners, occupiers and users of properties.
Positive/negative	Whether the impact will be positive or negative. In this case whether the option has the potential to mitigate an existing social impact (positive) or create a new impact or exacerbate an existing adverse impact (negative).
Duration	During what phase of the project will the effect occur, such as during construction and therefore it will be a temporary impact, or during operation when the impact could be more permanent or ongoing while the RRPP continues to operate. The project phase is also expected to include the closure of the landfill.
Likelihood	Likelihood of the impact occurring based on existing evidence. This is on a scale of: • Almost certain - Definite or almost definitely expected (e.g. has happened on similar proposals) • Likely - High probability • Possible - Medium probability • Unlikely - Low probability • Rare - Improbable or remote probability
Consequence of the impact	This relates to the scale of impact (positive or negative). For example: • Insignificant – Little noticeable change experienced by people in the locality. • Minor – Mild deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people. • Moderate – Noticeable deterioration/improvement to something that people value highly, either lasting for an extensive time, or affecting a group of people. • Major – Substantial deterioration/improvement to something that people value highly, either lasting for an indefinite time, or affecting many people in a widespread area. • Catastrophic – Substantial change experienced in community wellbeing, livelihood, infrastructure, services, health, and/or heritage values; permanent displacement or addition of at least 20% of a community.
Impact assessment ratings	Taking all of the above factors into account, impacts have been assessed and rated based on the following rating scale: • Large positive - Major positive impacts resulting in substantial and long term improvement or enhancements to the existing environment that have a social impact. • Moderate positive - Moderate positive impact, possibly of short, medium, or long term duration. Positive outcome may be in terms of new opportunities and outcomes of enhancement or improvement. • Slight positive - Minimal positive impact, possibly only lasting over the short term. May be confined to a limited area or small population. • Neutral - Neutral – no discernible or predicted positive or negative impact. • Slight negative - Minimal negative impact, possibly only lasting over the short term and definitely able to be managed or mitigated. May be confined to a small area. • Moderate negative - Moderate negative impact. Impacts may be short, medium or long term and are highly likely to respond to mitigation or management actions. • Large negative - Impacts with serious long term and possibly irreversible effect leading to serious damage, degradation or deterioration of the social environment.

3. Resource Recovery Park Precinct Site

3.1 Site location and surrounds

The RRPP site is located within the north-eastern corner of GIL as shown in Figure 2. GIL is located at 9 Brighton Road, Green Island. It is located approximately 800 m west of the Green Island town centre, 5.5 km southeast of Mosgiel, and approximately 8.8 km by road from Central Dunedin.

GIL is generally bound by State Highway 1 to the north, Abbotts Creek and the Kaikorai Estuary to the west, the Green Island Wastewater Treatment Plant (GIWWTP) and Brighton Road to the south, and the Clariton Avenue residential area and Green Island industrial area to the east. Primary access to the site is via Brighton Road from the suburb of Green Island.

The landfill is surrounded by extensive screening vegetation largely comprised of mature exotic tree species. This vegetation is of a height and density which reduces views into the operational areas of the site and mitigates the landscape, visual, and natural character effects of the landfill.

Clariton Avenue is the closest residential area to the site, located approximately 200 m southeast of the existing transfer station facilities, and 120 m east of the current landfill footprint. Other residential properties are located to the southeast at Elwyn Crescent. Other residential areas such as Sunnyvale and Fairfield are separated from the site by the State Highway 1 corridor, the Kaikorai Stream and Estuary, and rural and open space land. Properties in Elwyn Crescent and Trudi Place have the most direct views of the site, whereas Clariton Ave has limited views due to the existing buffer of wetlands and mature trees.

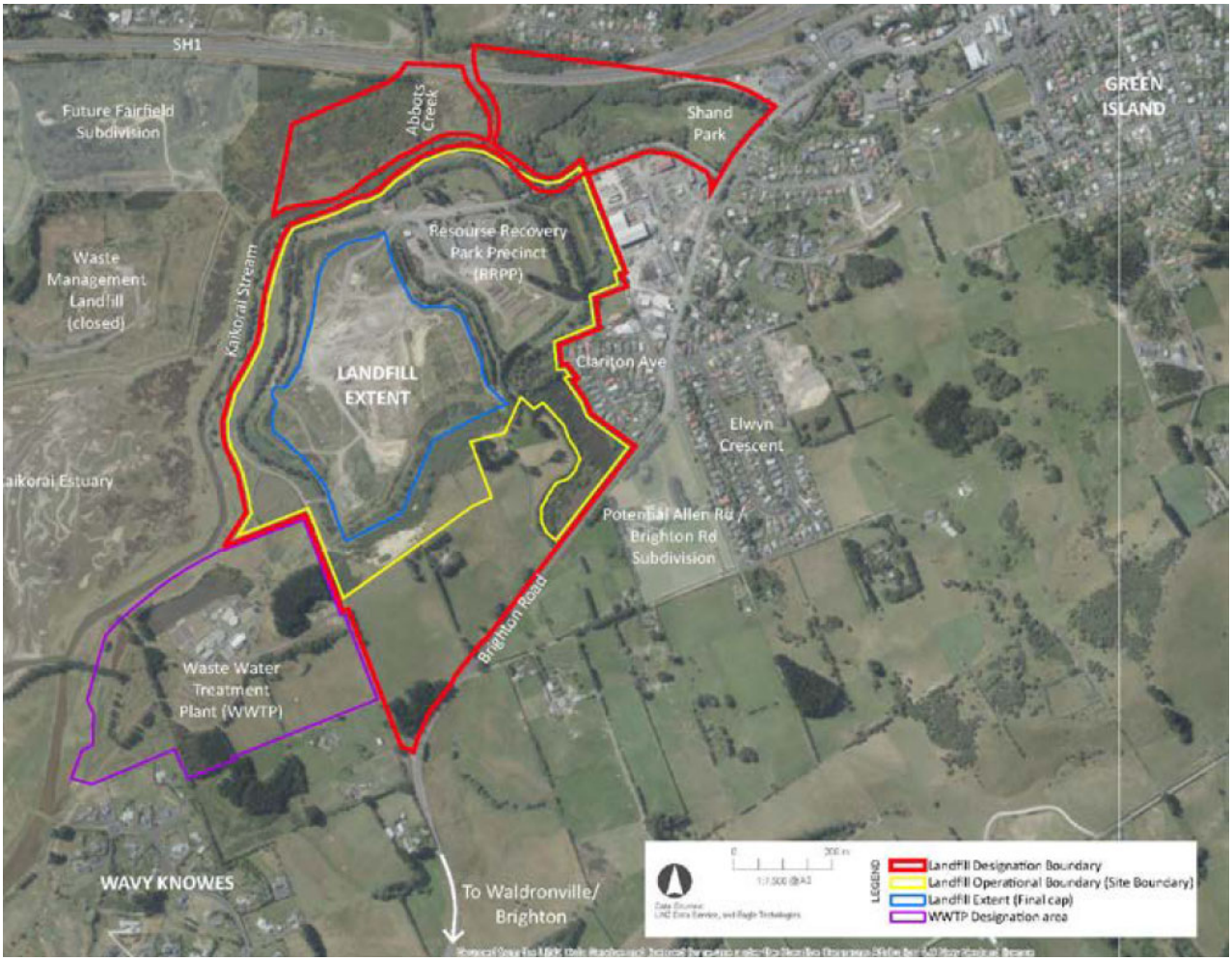

Figure 2 *Green Island Landfill and RRPP site*

3.2 Current operations

Resource recovery operations currently take place at the site, where members of the public drop off waste at the transfer station. The layout of the existing facilities is shown in Figure 3. Customers cross a weighbridge from Brighton Road, where they can then either:

- Drop off recyclable material.
- Drop off donatable items at the Rummage shop.
- Drop off green waste.
- Drop off general waste at the transfer station.

There is also an existing education centre located at the eastern end of the site (not shown in Figure 3).

The site is currently open to the public between 8.00 am – 5.30 pm Monday – Friday and 9.00 am – 5.30 pm Saturday and Sunday. The site is closed Good Friday, Christmas Day, and Anzac Day until 1pm.

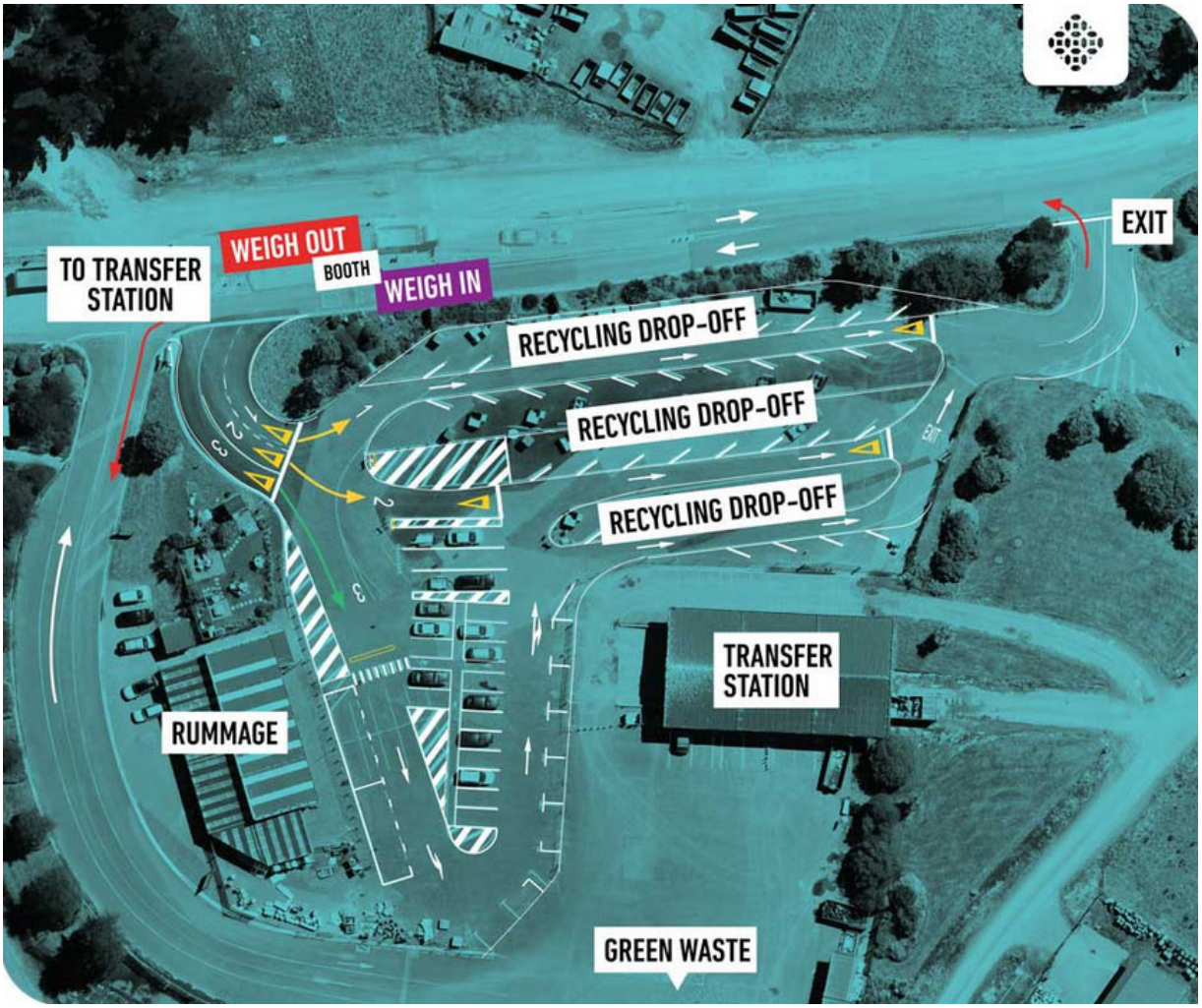

Figure 3 *Existing facilities at RRPP site*

3.3 Description of the proposal

It is proposed to redevelop the site to establish a new RRPP complex, which will include new facilities and buildings, as shown in the proposed RRPP layout in Figure 4. The following new facilities are noted in particular:

- A MRF for sorting comingled recyclables into sorted bales. The MRF facility will be the building located in closest proximity to residential areas. It is proposed to be approximately 200 m from the Clariton Avenue residential properties.
- A BWTS, where members of the public and commercial customers drop off general waste.
- An ORB and associated organics facilities for the processing of organic waste into compost (Organics Processing Facility (OPF). The ORB is subject to a separate resource consent application (due to project timing requirements) and is therefore not considered further within the scope of this Interim SIA.
- A construction and demolition (C&D) sorting pad, where C&D waste is dropped off and sorted.
- Hazardous substance facilities for the sorting and storage of hazardous waste.
- Glass bunkers for the storage of glass.
- In addition to the new facilities, the existing Rummage shop and recycling drop off, transfer station and education centre will be retained.

The publicly accessible areas of the site (including the public drop-off areas and Rummage) will be open to the public between 8.00 am – 5.30 pm Monday – Saturday and 9.00 am – 5.30 pm Sunday. The site will be closed Easter Friday, Christmas Day, and ANZAC day until 1 pm. These hours are consistent with existing site operations.

The non-publicly accessible (operational) areas of the RRPP will be open 8.00 am – 5.30 pm Monday – Friday and at the weekends as required by the operator. The gates at the Brighton Road access will be locked after hours.

Some parts of the RRPP will be in operation 24/7. This will include the mechanical aeration plant of the OPF bunkers and general traffic/other activities as required by operational needs for the new MRF and BWTS.

All operations will comply with the noise limits established for the site through the designation. The noise assessment has been completed for the RRPP to assess both likely day time and night-time operations to confirm compliance with the designation noise condition is achievable.

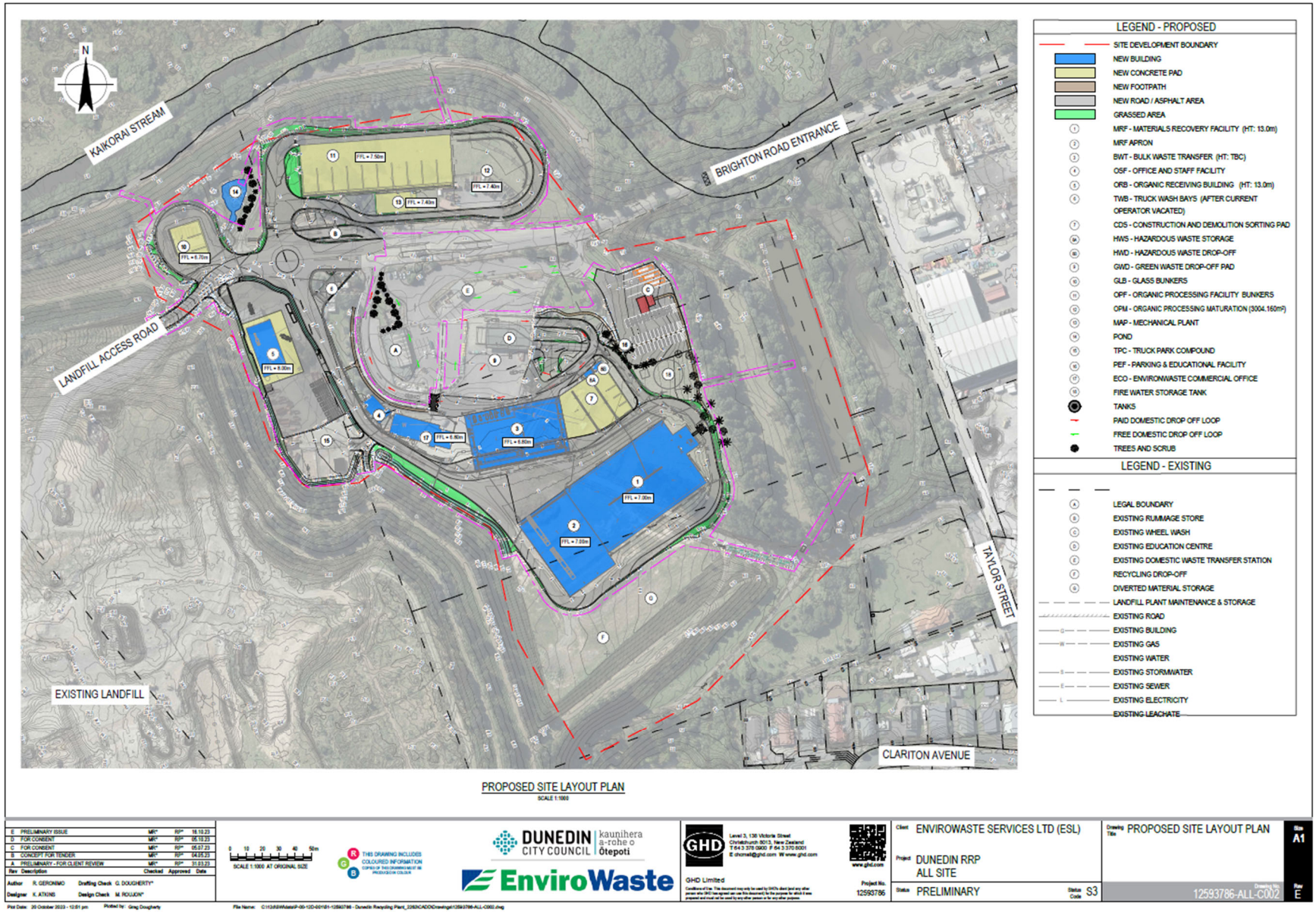

Figure 4 ***Proposed Green Island Resource Recovery Park Precinct layout***

4. Statutory and policy context

There are a number of statutory and non-statutory plans and policies that provide high level context for the project. The summaries below describe strategies and policies relevant to this assessment.

4.1 Legislation

4.1.1 Resource Management Act 1991

The RMA is the principal statute for the management of natural and physical resources, including air, soil, freshwater and the coastal marine area. Additionally, the RMA regulates land use and the provision of infrastructure. This assessment has been prepared as part of the applications for resource consent sought under the RMA via the relevant planning documents administered by the DCC, ORC and central government. As such, the overarching purpose and principles (Part 5, sections 5-8) of the RMA have been considered and taken into account when undertaking this assessment. Of particular relevance, from a social perspective, are the following:

- Section 5(2): as part of the definition of "sustainable management", at the core of the RMA, enabling 'people and communities to provide for their social, economic and cultural wellbeing and for their health and safety';
- In achieving the section 5 purpose, all persons exercising functions and powers under the RMA "shall have particular regard to":
    - Section 7(b): 'the efficient use and development of natural and physical resources';
    - Section 7(c): 'the maintenance and enhancement of amenity values'; and
    - Section 7(f): 'maintenance and enhancement of the quality of the environment'.

In relation to these section 7 matters, it is noted that this Interim SIA relies on the assessments undertaken by other environmental specialists to inform the assessment of social impacts. This is because while it is acknowledged that the construction and operation of the project involves a variety of environmental effects that have social consequences, separate and specific technical assessments have been completed for these environmental effects and the relevant specialists have considered the social consequences relevant to their discipline.

4.1.2 Waste Minimisation Act

The Waste Minimisation Act 2008 (WMA) is the principal statute for the reduction of waste generation and disposal. Under Section 3, the purpose of the WMA is *"to encourage waste minimisation and a decrease in waste disposal in order to protect the environment from harm; and to provide environmental, social, economic and cultural benefits".*

The WMA places the responsibility on territorial authorities to promote effective and efficient waste management in their districts. Territorial local authorities are required to adopt a Waste Management and Minimisation Plan (WMMP) that includes methods for reducing waste. DCC has prepared a WMMP, as outlined in section 4.4.2. The WMMP makes reference to the future of GIL.

4.2 Otago Regional Council Policy Documents

4.2.1 Partially Operative Otago Regional Policy Statement 2019

The Partially Operative Otago Regional Policy Statement 2019 (POORPS) was declared partially operative on 15 March 2021. The objectives and policies of the POORPS of most relevance to this SIA are outlined in Table 2.

Table 2 Relevant objectives and policies of POORPS 2019

Objective	Policy
Objective 1.1 Otago's resources are used sustainably to promote economic, social, and cultural wellbeing for its people and communities	**Policy 1.1.1 Economic wellbeing** Provide for the economic wellbeing of Otago's people and communities by enabling the resilient and sustainable use and development of natural and physical resources.
	Policy 1.1.2 Social and cultural wellbeing and health and safety Provide for the social and cultural wellbeing and health and safety of Otago's people and communities when undertaking the subdivision, use, development and protection of natural and physical resources by all of the following: a) Recognising and providing for Kāi Tahu values. b) Taking into account the values of other cultures. c) Taking into account the diverse needs of Otago's people and communities. d) Avoiding significant adverse effects of activities on human health. e) Promoting community resilience and the need to secure resources for the reasonable needs for human wellbeing. f) Promoting good quality and accessible infrastructure and public services.
Objective 2.2 Kāi Tahu values, interests and customary resources are recognised and provided for	**Policy 2.2.1 Kāi Tahu wellbeing** Manage the natural environment to support Kāi Tahu wellbeing by all of the following: a) Recognising and providing for their customary uses and cultural values in Schedules 1A and B. b) Safeguarding the life-supporting capacity of natural resources.
	Policy 2.2.2 Recognising sites of cultural significance Recognise and provide for the protection of Wāhi Tūpuna, by all of the following: a) Avoiding significant adverse effects on those values that contribute to the identified Wāhi Tūpuna being significant. b) Avoiding, remedying, or mitigating other adverse effects on the identified Wāhi Tūpuna. c) Managing the identified Wāhi Tūpuna sites in a culturally appropriate manner.
Objective 4.6 Hazardous substances, contaminated land and waste materials do not harm human health or the quality of the environment in Otago	**Policy 4.6.8 Waste storage, recycling, recovery, treatment and disposal** Manage the storage, recycling, recovery, treatment and disposal of waste materials by undertaking all of the following: a) Providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste materials. b) Ensuring the health and safety of people. c) Minimising adverse effects on the environment. d) Minimising risk associated with natural hazard events. e) Restricting the location of activities that may result in reverse sensitivity effects near waste management facilities and services.

4.2.2 Proposed Otago Regional Policy Statement 2021 (Proposed RPS 21)

The Proposed Otago Regional Policy Statement (Proposed RPS 21) was notified on 26 June 2021. With regard to social impacts, the relevant objectives and policies of the Proposed RPS 21 are set out in Table 3.

Table 3 Relevant objectives and policies of Proposed RPS 21

Objective	Policy
MW-O1 – Principles of Te Tiriti o Waitangi The principles of Te Tiriti o Waitangi are given effect in resource management processes and decisions, utilising a partnership approach between councils and Papatipu Rūnaka to ensure that what is valued by mana whenua is actively protected in the region.	**MW-P2 – Treaty principles** Local authorities exercise their functions and powers in accordance with Treaty principles, by: 1) Recognising the status of Kāi Tahu and facilitating Kāi Tahu involvement in decision-making as a Treaty partner. 2) including Kāi Tahu in resource management processes and implementation to the extent desired by mana whenua. 3) recognising and providing for Kāi Tahu values and resource management issues, as identified by mana whenua, in resource management decision-making processes and plan implementation, 4) recognising and providing for the relationship of Kāi Tahu culture and traditions with their ancestral lands, water, sites, wāhi tapu, and other taoka by ensuring that Kāi Tahu have the ability to identify these relationships and determine how best to express them. 5) ensuring that regional and district plans recognise and provide for Kāi Tahu relationships with Statutory Acknowledgement Areas, tōpuni, nohoaka and customary fisheries identified in the NTCSA 1998, including by actively protecting the mauri of these areas. 6) having particular regard to the ability of Kāi Tahu to exercise kaitiakitaka. 7) actively pursuing opportunities for: a. delegation or transfer of functions to Kāi Tahu, and b. partnership or joint management arrangements, and 8) taking into account iwi management plans when making resource management decisions.
	MW-P3 – Supporting Kāi Tahu well-being The natural environment is managed to support Kāi Tahu well-being by: 1) protected customary uses, Kāi Tahu values and relationships of Kāi Tahu to resources and areas of significance, and restoring these uses and values where they have been degraded by human activities. 2) safeguarding the mauri and life-supporting capacity of natural resources. 3) working with Kāi Tahu to incorporate mātauraka in resource management.
HAZ-CL-O3 – Contaminated land Contaminated land and waste materials are managed to protect human health, mana whenua values and the environment in Otago.	**HAZ-CL-P17 – Disposal of waste materials** Provide for the development and operation of facilities and services for the storage, recycling, recovery and treatment of waste materials but only for the disposal of waste materials if those materials cannot be recycled, recovered or treated for re-use.
	HAZ-CL-P18 – Waste facilities and services When providing for the development of facilities and services for the storage, recycling, recovery, treatment and disposal of waste materials: 1) avoid adverse effects on the health and safety of people, 2) minimise the potential for adverse effects on the environment to occur, 3) minimise risk associated with natural hazard events, and 4) restrict the establishment of activities that may result in reverse sensitivity effects near waste management facilities and services

4.3 Dunedin City Second Generation District Plan

An Outline Plan of Works is required to be submitted to DCC's consenting authority for work within the landfill designation, as described in section 1.3. Resource consent is therefore not required under the Dunedin City Second Generation District Plan (2GP). Resource consent from DCC's consenting authority is only required pursuant to the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health. Therefore, an assessment against the objectives and policies of the 2GP is not required. Nevertheless, the following provisions of the 2GP are noted:

Objective 9.2.2

Land use, development and subdivision activities maintain or enhance people's health and safety.

Policy 9.2.2.X

Activities on land that has a history of land use that may have resulted in contamination are managed in accordance with the Resource Management (National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health) Regulations 2011, including by:

a. *at the time of subdivision, land use or when land development activities involving soil disturbance take place, identifying and assessing risk to human health from contaminants in soil, where practicable; and*
b. *if necessary based on the intended use of the land, remediating or managing the contaminants to make it safe for human use.*

4.4 Dunedin City Council Programmes, Plans and Strategies

4.4.1 Waste Futures Programme

The Waste Futures Programme has been developed by the DCC to improve Dunedin's waste system in respect of collection, recycling, reuse and what needs to go to landfill. This initiative aims to achieve zero waste and contribute to reducing Dunedin's net carbon emissions to zero by 2030, supporting the New Zealand Government's direction to work towards a circular economy approach to waste management. The three initiatives that are being addressed by projects under Waste Futures include:

- **Kerbside rubbish and recycling collection:** introducing organic kerbside collections and replacement of kerbside refuse bags with refuse bins.
- **Reviewing our waste goals:** DCC is required to have a plan for waste reduction and management. The goals are reviewed regularly as directed by the WMMP.
- **Green Island Landfill:** the landfill will be closed by 2029, and DCC is planning a new landfill at Smooth Hill, as outlined in the 10 year plan.

These projects will assist Council in achieving the following key goals:

- Reducing and effectively managing the city's waste until the city achieves as close to zero waste as possible.
- Minimising harmful effects of waste.
- Improving how Dunedin manages waste to help the community (e.g. employment, support for and/or industry collaborations that result in reduced waste and/or recovering resources for beneficial use).

4.4.2 Waste Minimisation and Management Plan 2020

DCC developed the Waste Minimisation and Management Plan 2020 as required by the Waste Minimisation Act 2008. The vision of the plan is *"We have a duty to protect and enhance Dunedin's natural environment and resources for those generations who come after us (mō tatou, mō kā uri ā, muri ake nei)."* The goals include providing infrastructure to meet goals and objectives and minimise the harmful effects of waste. Of relevance to

this report is the following target: *Reduce the amount of municipal solid waste disposed to landfill and incineration by at least 50% by 2030 compared to 2015*.

Relevant to this report are the following actions to be taken by DCC to meet future demand, as stated in the Waste Minimisation and Management Plan 2020:

- To ensure Dunedin waste disposal facilities remain operational until the expiry of current consents, DCC will provide transfer station facilities at Green Island and assess other Dunedin sites for suitability. As discussed in section 1.1, the planning around how Green Island and Smooth Hill will transition has been advanced.
- New organic waste processing facilities will be constructed for the processing of organic waste following the introduction of a new kerbside collection system in 2024.
- DCC is preparing for the closure of GIL and will investigate and develop Smooth Hill Landfill to meet the future demand for landfill provision. As discussed in section 1.2, the revised plan is to extend Green Island closure, and, depending on waste volumes, waste acceptance at GIL will now likely occur until approximately 2029.
- DCC will develop the RRPP which will continue the management of waste and recycling following landfill closure.

4.4.3 Future Development Strategy (FDS) for Dunedin 2024-2054

The DCC and ORC are jointly developing a Future Development Strategy (FDS) for Dunedin. The purpose of the FDS is to promote long-term strategic planning by setting out a high-level vision for how Ōtepoti Dunedin will:

- achieve well-functioning urban environments in its current and future urban areas;
- provide at least sufficient development capacity for housing and business land needs to meet expected demand over the next 30 years; and
- help to integrate planning decisions under the RMA with infrastructure planning and funding decisions.

DCC has committed to the development of a green and blue network[3] action plan as part of implementation of the FDS. The action plan will be developed in partnership with mana whenua and ORC. It will identify specific restoration and enhancement projects that connect and expand the green and blue networks. Closure of GIL and the development of the RRPP will enable the development of a trail/track along the edge of the Kaikorai Estuary. This track has been incorporated into the FDS to enhance and connect areas of Dunedin that are important for recreation, particularly around the Kaikorai Stream.

4.4.4 Te Ao Tūroa – Dunedin's Environment Strategy 2016-2026

The purpose of Te Ao Tūroa is to:

- set the direction for a future safe from climate change impacts.
- improve and maintain the health of Dunedin's natural environment.
- give Dunedin people every opportunity to feel connected to and look after the environment.

Goal 01 of Te Ao Tūroa sets out that "*Dunedin is resilient and carbon zero*". Part of achieving this goal is through the minimisation of waste to reduce greenhouse gas emissions and to use resources sustainably. Most of Council's emissions come from GIL. To reduce emissions, Council is focused on a number of initiatives such as minimising household waste and extending recycling collections. Te Ao Tūroa reinforces the aspiration of a zero waste city, which is being taken forward through the Waste Minimisation and Management Plan (refer section 4.4.2).

4.4.5 Social Wellbeing Strategy 2013-2023

Dunedin's Social Wellbeing Strategy 2013-2023 ("the Strategy") sets out pathways for Council to take a leadership role in improving the social wellbeing of Dunedin residents. The Strategy seeks to provide a vehicle for working towards shared responses and solutions with various communities across Dunedin and with other agencies and organisations. The vision of the Strategy is that *"Dunedin is one of the world's great small cities. We are a city with connected people, cohesive communities and quality lifestyles for all".* To achieve this, the Strategy sets out five Strategic Directions. Of relevance to this SIA is Strategic Direction 3: Healthy and Safe People, which includes Council's responsibility to provide for sanitary disposal of waste for the community.

[3] Green and blue networks are connected natural areas that support diverse ecosystems and help to maintain a resilient natural environment. Green networks include parks, bush and urban trees. Blue networks include streams, rivers, wetlands and the coastal environment.

4.5 Iwi Management Plans

4.5.1 Kāi Tahu ki Otago Natural Resource Management Plan 2005

The Kai Tahu ki Otago Natural Resource Management Plan 2005 is the principal planning document for Kai Tahu ki Otago (Kai Tahu). The Plan has been developed to:

- Provide information, direction and a framework to achieve a greater understanding of the natural resource values, concerns and issues of Kai Tahu;.
- Provide a basis for which Kai Tahu participation in the management of the natural, physical and historic resources of Otago is further developed. .
- Provide the basis for, but not substitute, consultation and outline the consultation expectations of Kai Tahu.

The kaupapa of this plan is “Ki Uta Ki Tai (Mountains to the Sea)”, which reflects the Kai Tahu philosophy to natural resource management. This kaupapa emphasises holistic management of the interrelated elements within and between catchments, from the air and atmosphere to the land and the coastal environment, for which implementation will require a collaborative approach.

Green Island is located within the “Otago Harbour” catchment, for which key issues relate to Wai Maori and Wai Tai; Wahi Tapu; Mahika Kai and biodiversity; and cultural landscapes.

Green Island Landfill Cultural Impact Assessment 2023

Aukaha Ltd (Aukaha) was contracted by DCC to prepare a Cultural Impact Assessment (CIA) to support replacement consents for the operation closure and aftercare of GIL. Aukaha is a Kāi Tāhu Rūnaga based consultancy that represents five Papatipu Rūnaga across the broader Otago Region. These Rūnaga include Te Rūnanga o Ōtākou which has mana whenua rights in relation to the RRPP site and the Kaikorai Estuary.

Although the scope of the Green Island Landfill CIA is far greater than the proposal for the development of the RRPP, the CIA has identified key mana whenua values and the potential impacts that the proposal could have on these cultural values. This CIA should be read alongside the affected party approval letter from Aukaha regarding the RRPP, dated 14 March 2024.

The Kaikarae (Kaikorai) Estuary and its associated waterways hold great significance for mana whenua. Mana whenua have longstanding concerns over the degradation of the Estuary due to past and current land uses which include landfilling and industrial discharges. The on-going operation of the landfill until 2029/2030 and closure requires careful management to mitigate potential adverse effects on wai māori, taoka species and indigenous biodiversity.

The long-term aspiration of mana whenua is to restore the Kaikarae Estuary and surrounding waterways to their traditional state as abundant mahika kai sources and a place where taoka species thrive, and to reflect mana whenua values and pūrākau associated with the Kaikarae Estuary in a tangible way through a co-design process.

The Green Island landfill CIA has made the following recommendations for works proposed on GIL.

- All practicable measures are taken to prevent discharges entering water, including preventing, where possible leachate from entering groundwater and surface water.
- That effects on mauri and whakapapa from alteration of the existing hydrology and contaminants entering water are offset by mitigation measures including riparian planting and pest management.
- Protection of habitats and the wider needs of mahiki kai and taoka species is sought by mana whenua including indigenous plant and animal communities, protecting and enhancing wetlands, requiring management of hazardous operations.
- The protection of the values of wāhi tūpuna is sought by mana whenua including the protection of the full range of landscape features, ensuring that the interpretation of Kāi Tahu histories associated with the Kaikarae Estuary and Pukemakamaka is undertaken by Te Rūnana o Ōtākou, encouraging the use of traditional place names and requiring site rehabilitation plans for land contaminated by landfills.

5. Community profile

In developing the community profile, the SIA has investigated the areas most likely to be impacted by the project as described in section 2.3.1 and illustrated in Figure 5.

In developing the community profile, this report has focused primarily on the Local Study Area to understand the characteristics of the potentially affected communities including the demographics, social infrastructure, and community aspirations to understand how positive and negative impacts may be perceived or experienced. The characteristics of the Local Study Area are compared to the District and Regional Study Area.

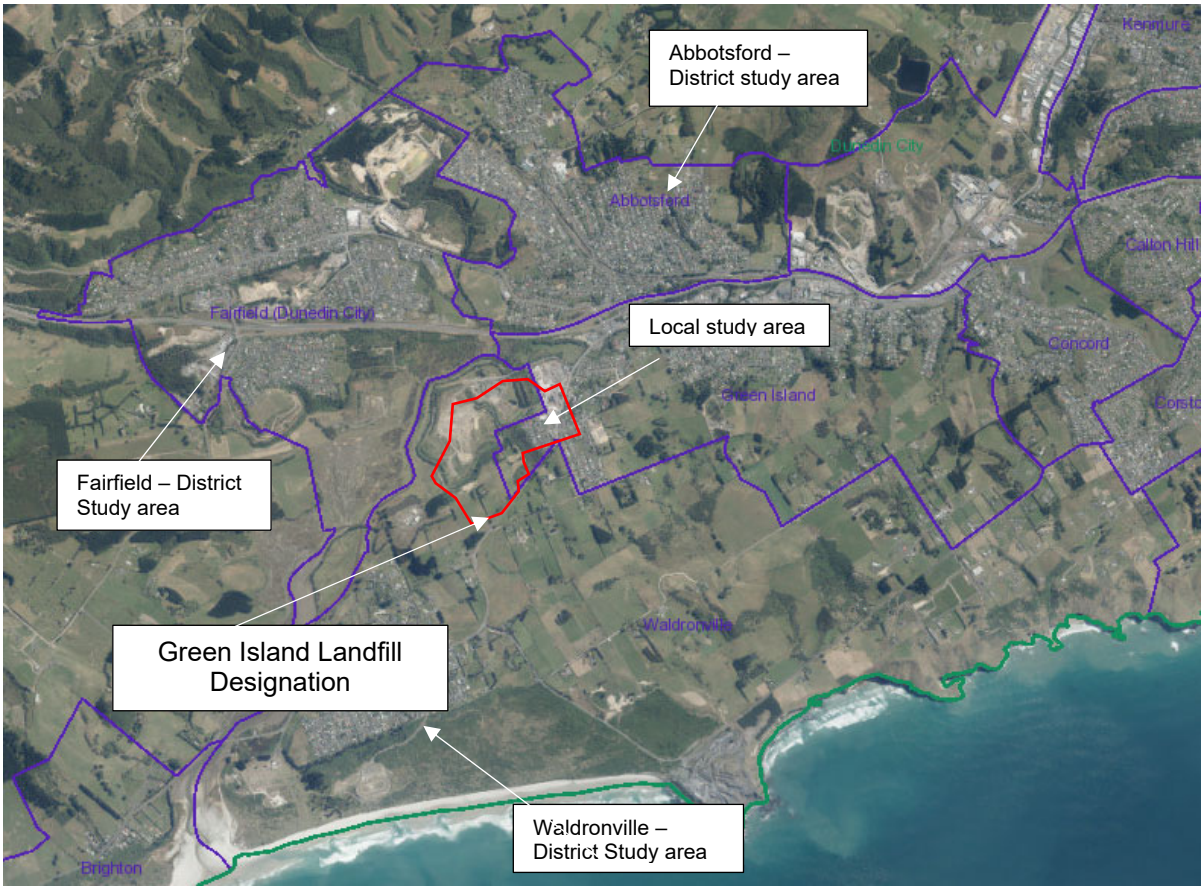

Figure 5 Local and District study areas

5.1 Green Island

Green Island is the closest residential suburb to the site, located to the east of Brighton Road. It is located approximately 6.5 km southwest of the Dunedin CBD and is accessed primarily from State Highway 1. Green Island was established prior to 1863, and its predominant economic activity is a mixture of light and heavy industry. Green Island is well-serviced, with medical centres, a supermarket, small-scale retail and food outlets. It also contains a church, community centre, parks, early childhood education facilities, and two primary schools, which service the Waldronville and Abbotsford populations. The industrial activity generally sits between State Highway 1 and Main South Road, with residential streets located to the south.

5.2 Demographic profile

The following section presents a comparison of demographic statistics between the local, district and regional study areas to gain an understanding of the community characteristics and values. The demographic data has been obtained from Stats NZ 2018 Census place summaries and NZ.Stat[4], and is based on the usual residential population. 2018 census data has been used because 2023 data is not available yet and is anticipated to be released in May 2024. For further details , refer to Appendix A.

Table 4 Population and area of the areas of social influence

Area of social influence		Area (km^2)	Population
Local (Statistical Area 2)	Green Island	3.64	2,319
District (Statistical Area 2)	Waldronville	9.54	1,299
	Abbotsford	2.36	2,817
	Fairfield	3.96	2,511
Regional (Dunedin City)		3,286.27	126,255

Dunedin City's population is projected to increase to 141,417 by 2033, with the over 65 years population predicted to be the second-largest group by 2038. This will be a population increase of 12% from 2018.

In terms of age of the population, Green Island has a slightly higher median age than the population within the broader Dunedin City area (38.9 in comparison to 36.8). The median ages for the district areas range from 38 in Waldronville to 44.3 years in Fairfield. Waldronville and Abbotsford have higher proportions of population under 15 years (23% and 20% respectively) than the other suburbs, and Dunedin City at large. The population over the age of 65 is 16% in Dunedin City and 16% in the Otago region, and 17% in Fairfield. Waldronville has 10% of its population over the age of 65.

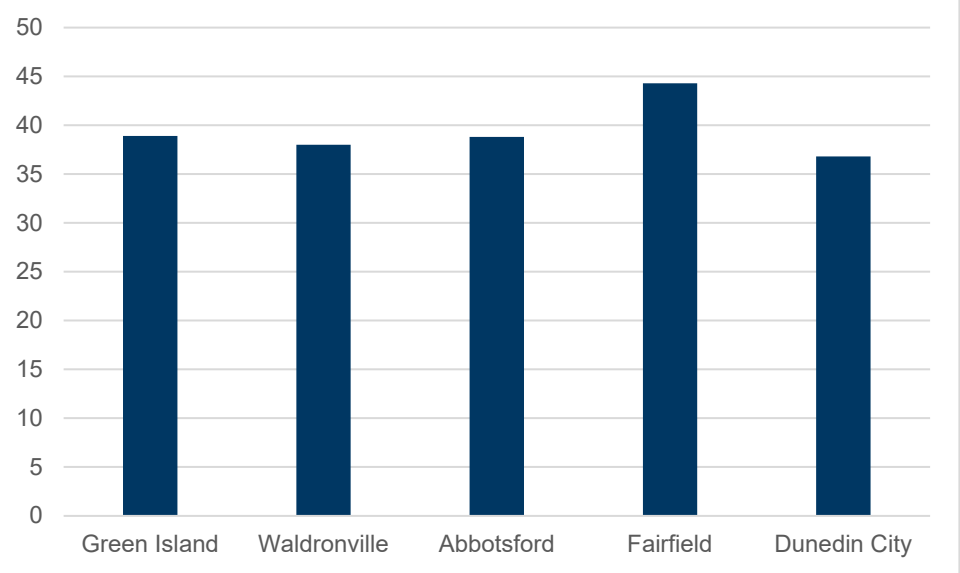

Figure 6 Median age of population in areas of influence

The predominant household composition across Waldronville, Abbotsford and Fairfield are couples with children, with this household type comprising 46%, 55% and 38% of households respectively. In Green Island and Dunedin City, single person households are more prevalent than other family types, comprising 30% of households in both statistical areas.

The most common ethnicity amongst Green Island, Waldronville, Fairfield and Abbotsford is NZ European, which makes up a minimum of 91% of the population. In comparison, the NZ European population in Dunedin City is

[4] https://nzdotstat.stats.govt.nz/wbos/Index.aspx

87%. The second largest ethnic group across all population scales is Māori, ranging from 7% in Fairfield to 10% of the population in Green Island.

Employment within the suburbs noted above is higher than Dunedin City. This reflects the large student population within Dunedin City. Unemployment ranges from 2% in Fairfield to 4% in Green Island. Employment in 'professional' occupations is most prevalent in Waldronville (23%) and Fairfield (22%), this compares to Dunedin City (26%). In contrast, technician and trade occupations are the most prevalent in Green Island (16%) and Abbotsford (18%). The proportion of the population that is employed as labourers ranges from 7% in Waldronville to 13% in Green Island. Machinery operators and drivers are the least prevalent occupation categories across all statistical scales.

For people aged 15 and over, the median incomes in Dunedin City are $25,500. These median incomes are lower than the the local and district study areas, which range from $32,300 in Green Island to $40,300 in Waldronville. Green Island has the lowest population proportion earning over $50,000 (28%), compared to Waldronville (40%), Abbotsford (34%) and Fairfield (39%). Over 40% of the Dunedin City population earns less than $20,000 annually; in comparison, 33% of Green Island's population earns less than $20,000.

Dwelling ownership within the local areas is relatively high (e.g. Fairfield at 67.8%), compared to Dunedin City (54.0%). Rental occupation is highest within Green Island (23.7%) amongst the four suburbs, but is less than the district and regional scales (32.9% and 32.0% respectively). Waldronville has the lowest proportion of households living in rental properties at 5.4%. Of those who rent, the median rent paid is lowest in Green Island at $250 weekly and highest in Waldronville ($360), in comparison to the median rents of $280 in Dunedin City and $290 in the Otago region. The proportion of population that has remained within the suburbs ranges from 80.9% in the same house for a year in Abbotsford to 74.3% in Green Island. 52.7% of the population in Fairfield has remained in the same residence for five years, while 45.3% in Waldronville have remained in their residences for five years.

5.3 Social infrastructure

An audit was undertaken of social infrastructure located within 2 km of the site in order to understand the potential impacts of the proposal on wellbeing and quality of life of the local residents. Social infrastructure identified included community facilities, education and childcare, emergency services, healthcare, places of worship, supermarkets and open space and recreation facilities. A full list, and map, of social infrastructure is included in Appendix B.

The identification and analysis of these facilities provides an understanding of where the local communities access local services and the potential for the project to impact access to or even the operation of these facilities. Although there is distribution of social infrastructure across the four suburbs surrounding the site, Green Island is the primary local centre providing a supermarket, two primary schools, a community centre as well as small scale retail and food outlets. Residents in the suburb of Waldronville travel along Brighton Road, in close proximity to the landfill site, on a regular basis in order to access services and facilities in Green Island.

Social infrastructure close to the site includes two primary schools (Peter Chanel School and Green Island School), two early childcare centres (Crackerjax Early Learning Centre and Green Island Kindergarten), two medical facilities, a supermarket, community garden, and a civic hall. Other social infrastructure in close proximity to the site includes Shand Park and the Elwyn Crescent Playground. These facilities have the potential to be impacted by the continued operation of the site.

The Kaikorai Estuary is an extensively modified, moderate-sized tidal lagoon. The surrounding catchment is dominated by pasture (48%) and urban areas (21%).

5.4 Community values

Community values relate to the affinity that the local community has to the area in which they live and work. This affinity contributes to the vision they have for the future of their local area and is important to understand when considering the impact that a proposal could have on their way of life, culture, community and also fears and aspirations. A review has been undertaken of mana whenua documents, and local community surveys in order to gain a high-level understanding of the local community and cultural values.

5.4.1 Mana Whenua Values

DCC have acknowledged their Treaty of Waitangi responsibilities and are committed to their partnership with mana whenua to provide opportunities for Māori to contribute to decision making processes and have an active role in the City's development. There is an operational partnership with Aukaha to ensure that mana whenua perspectives and mataawaka views are represented in decisions about the city, its community capacity and natural and physical resources.

Cultural values are also protected by the Kāi Tahu ki Otago Natural Resource Management Plan 2005 (refer section 4.5.1). The plan covers mana whenua perspectives on issues such as water management, protection of rivers, mahika kai, air and atmosphere, coastal environments, wāhi tapu and cultural landscapes. Effective participation is promoted via partnerships with ORC and DCC.

The Kaikorai Estuary, Stream and other associated waterways make up an area which has immense traditional significance to mana whenua. Mana whenua seek to restore the estuary and its associated waterways to its traditional state.

Saddle Hill (made up of the two peaks of Pukemakamaka and Turimakamaka) is a distinctive landform approximately 4 km to the west of the RRPP Site, also considered to hold important values.

Four values have been identified by mana whenua in the GIL CIA that will inform the progressive closure of the GIL and restoration of the Kaikorai Estuary and Stream.

1. Whakapapa – the ancestral rights which give mana whenua the mana and kaitiaki responsibilities. It is important there be opportunity to share the whakapapa of place and people explored through the project to enhance a collective sense of place and identity.
2. Mauri – the observable measure of environmental health and wellbeing. The protection of mauri should inform the project design with consideration given to the protection and enhancement of water quality, biodiversity and social wellbeing.
3. Mana – the authority that mana whenua hold over their takiwā. Mana will be recognised through a working relationship where mana whenua values are appropriately expressed throughout all aspects of the project.
4. Tapu – Mana whenua should guide discussions and lead the appropriate procedures and protocols regarding wāhi tapu sites, archaeological findings and the treatment of and knowledge relating to taoka.

5.4.2 Greater Green Island Community Survey 2016

The Greater Green Island Community Network (the GGICN) was established in January 2013 including communities within the suburbs of Abbotsford, Fairfield, Green Island and Waldronville. The GGICN was established to support locally led projects and improvements within the Greater Green Island Area. There has been initial engagement with the GGICN as part of the planning for the future of GIL and this will be ongoing. A community survey was undertaken in 2016 to understand community values in each of the local suburbs and to use this information to support local projects. Table 5 provides a summary of findings for each of the suburbs surrounding GIL.

Table 5 Greater Green Island Community Survey 2016 results

Suburb	Community value	Key statistics
Green Island	"When you walk into the shopping area, you nearly always meet someone you know, in other words you are not anonymous."	• 85% know the names of their next-door neighbours. • 96% feel safe walking around the city in the daytime. • 89% say Green Island is a good place to live. • 64% agree and 18% disagree that there are sufficient public spaces for residents to meet and socialise. • 45% are concerned about vehicles dominating public spaces and streets. • 38% are concerned about ugly or poorly maintained buildings.
Waldronville	"I love how safe it is, my children play on pavements, love walking to the beach and quiet nights. Even like watching the car racing every now and then."	• 85% know the names of their next-door neighbours. • 96% say Waldronville is a good place to live. • 92% feel safe walking around the city in the daytime. • 24% say the most significant problem for Waldronville is the difficulty for pedestrians or cyclists to get around. • 20% say noise from neighbours is a concern.
Abbotsford	"Friendly people, nice climate, good safe place for kids to play on the street and good schools."	• 80% know the names of their next-door neighbours. • 98% say it is a good place to live. • 84% feel that the quality of life is high. • 69% agree and 14% disagree that there are sufficient public spaces in our neighbourhood for residents to meet and socialise. • 67% think housing is affordable. • 29% state that the most significant problem for Abbotsford is vehicles dominating public spaces and streets.
Fairfield	"The people and just far enough away from town to relax but still super quick to get to town, best of both worlds."	• 87% know the names of their next-door neighbours. • 99% say it is a good place to live. • 99% feel safe walking around the city in the daytime. • 40% agree there are sufficient public spaces to meet and socialise (37% disagree). • 26% state that the most significant problem for Fairfield are vehicles dominating public spaces and streets.

5.4.3 Quality of Life Survey 2020

Council participated in the 2020 Quality of Life survey which was undertaken in the major metropolitan areas of New Zealand. This was a survey of residents' perceptions of quality of life and included questions on topics such as quality of life, built and natural environment, health and wellbeing, crime and safety. The results are used by Council to monitor the city's progress towards its goals.

The survey was conducted in 2020 and involved 675 respondents, 73 were from the Green Island area. Key highlights from the survey relevant to this report are:

- 90% of residents rate their overall quality of life positively. Reasons for quality of life improving or worsening were related to: work, financial wellbeing, health and wellbeing, and lifestyle.
- 86% of respondents think that Dunedin is a great place to live, but 29% believed that the city is worse compared to 12 months prior to the survey. Community spirit and amenities were believed to have improved, but dissatisfaction with government systems, parking and housing were reasons why Dunedin worsened. Problems noted in Dunedin included traffic, water pollution, noise pollution and air pollution. Of the Green Island respondents, 81% believed that traffic congestion was a problem, 57% believed water pollution is a problem, 24% believed noise pollution was an issue, and 25% believed air pollution was a problem.
- Of the respondents, 76% believe they are in good physical health and 72% believe they are in good mental health.
- 67% of respondents believe a sense of community in their neighbourhood is important, and 54% felt a sense of community.
- 30% of the respondents are confident in the local council's decision making. The same amount believe that the public has an influence on council decision-making.
- Of those employed, 67% are satisfied with their jobs, and 63% are satisfied with their work-life balance.

5.5 Summary of community profile

The site sits between the suburbs of Green Island, Fairfield, Waldronville and Abbotsford. Each of these suburbs are small in population, accommodating no more than 2,500 residents. Green Island is the primary local centre providing a supermarket and the majority of social infrastructure that services the area. All of the suburbs offer affordable housing south-west of the Dunedin CBD, where it is anticipated most of the residents commute for work. The suburb closest to the site, Green Island, has the cheapest rent and also a high level of dwelling ownership. This indicates that people may have moved into the area taking advantage of the cheaper house prices.

The predominant household type is that of couples with children. The area has a semi-rural character, created by the Kaikorai Estuary. Properties are large in size with many offering rural-life style properties. Overall, residents are very happy with where they live, which suggests that the operation of GIL has had minimal impact on their lifestyle. 90% of residents rate their overall quality of life positively. Reasons for quality of life improving or worsening were related to work, financial wellbeing, health and wellbeing, and lifestyle. Within the suburb of Green Island, 89% say it is a good place to live.

6. Community engagement

The following section provides an overview of community engagement undertaken to date on the future of GIL and ideas for the use of the site post closure. In addition, consideration has been given to current impacts of operations of the site on the surrounding community as documented in complaints received about the site.

6.1 Review of community complaints on current operations

A review of the site's odour complaint history was undertaken as part of the Air Quality Assessment by PDP. In summary, between July 2017 and June 2023 there were 166 complaints relating to odour from GIL, with the number of complaints peaking in 2018 and 2019 with 45 and 48 complaints respectively. This peak in complaints was attributable to the construction of fifteen new landfill gas extraction wells that disturbed historical waste, resulting in odour release.

Of the 166 odour complains, almost all have been attributed to the landfill operations, with only six complaints associated with composting operations, and there appear to be no complaints related to the operation of the transfer station. The composting operation currently on site utilises traditional windrows and this is quite different to that being proposed at the RRPP. It is anticipated that what is proposed will reduce any potential for off-site odour effects from composting.

Other issues were also raised in local media. Traffic queues in Green Island were reported in January 2022 after a weighbridge was temporarily not functioning, which slowed the disposal of rubbish to the landfill (Marshall, 2022). An alert was also sent out in 2016 due to toxic smoke risks arising from a fire at the landfill, which required. residents to stay inside (Chamberlain, 2016).

6.2 Engagement on the future of RRPP

Engagement regarding the future of GIL and plans for the development of the RRPP commenced in 2022. Consultation involved informing the community about the Waste Futures Programme and the proposed facilities required as part of the RRPP to support the new kerbside collection. DCC led the engagement activities with support from the wider project team.

The following section provides an overview of engagement with the stakeholders and community as well as findings of relevance to this SIA.

6.2.1 Te Rūnaka o Ōtākou (via Aukaha)

DCC initially engaged with Aukaha and Te Rūnaka o Ōtākou on the Waste Futures Programme, in mid-2019. There have been a series of hui to discuss the Smooth Hill resource consent application as well as plans for the future of GIL, including the RRPP.

As technical work continued to inform the plans for the new RRPP facilities, a further design hui was held with DCC, the project team, EnviroNZ and representatives from Aukaha in September 2022, to ensure whānau concerns and aspirations continued to be considered as part of the future plans for the RRPP site. Since then, there has been ongoing engagement with Aukaha via regular hui to:

- assist Aukaha with the development of the CIA for the GIL closure.
- seek Te Rūnaka o Ōtākou input into the ORB consent application.
- inform the design, and the scopes and outcomes of the technical assessments required for the AEE, including the assessments in relation to ground water quality, air quality, ecology and landscape and visual effects.

Engagement with Aukaha and the rūnaka has continued since 2022, and is ongoing, including throughout the development of the design for the new RRPP facilities and the preparation of the supporting consent application. Through this process, feedback from Te Rūnaka o Ōtākou has focused on the extent to which the GIL closure CIA recommendations have been addressed. In addition, a number of RRPP-specific issues have been raised including:

- the management of run-off from the composting area and parking areas; and
- erosion and sediment control during construction.

On 14 March 2024, Te Rūnaka o Ōtākou (via Aukaha) provided an affected party approval letter for the construction and operation of the proposed RRPP facilities, subject to DCC adopting the applicable recommendations of the cultural impact assessment prepared for the operation, closure and aftercare of the Green Island Landfill and the proposed RRPP conditions of consent. These recommendations are summarised later in this report.

6.2.2 Key stakeholders, organisations and interest groups

Regular briefings and meetings have been held with the following stakeholders and interest groups:

- Otago Regional Council;
- Dunedin City Councillors;
- Mosgiel – Taieri Community Board;
- Saddle Hill Community Board; and
- Dunedin International Airport Ltd and New Zealand Airline Pilots Association.

These stakeholders were most interested in understanding how the Waste Futures Programme will contribute to DCC zero-waste and carbon reduction objectives, the potential ongoing effects of the GIL operation and closure on the local community and environment, the future development of the RRPP and use of the site post-closure, as well as funding options for the project. Engagement with these stakeholder groups will be ongoing.

6.2.3 Greater Green Island Community and Residents

With support from Boffa Miskell, DCC began community engagement on the RRPP facilities as part of the engagement on future operation and closure of the GIL in February 2023. A range of different types of engagement collateral was developed. This included flyers, public drop-in sessions banners, and handouts to support and promote the engagement activities. The purpose of the community engagement was to inform neighbours and the wider Green Island community and residents about the plans for the future of the GIL, including:

- The wider Waste Futures Programme and Dunedin's wider commitment to reducing carbon emissions and reducing waste going to landfill.
- The roll-out of an enhanced kerbside recycling and waste collection service for the city from July 2024 and that the new service will include collection of food and green waste as well as a new bin to collect general rubbish.
- The staged closure of the landfill itself and the consent application process.
- Plans for the new RRPP facilities and opportunities for future public access to the site and surrounding environment, including Kaikorai Stream and Estuary post closure.

Key feedback from the community of most relevance to this SIA was:

- The community appreciated being informed about the future of GIL, including plans for development of the new RRPP facilities.
- The community is interested to understand the need for the new RRPP facilities to support the new kerbside collections service and that people would be able to continue to use the new RRPP facilities, even once the landfill itself is closed.
- There is support for keeping the RRPP open to the public in the long-term as it was felt that having people coming to the site, particularly at weekends, resulted in people spending time at Green Island shops/centre.
- People liked the idea that the area around the Green Island site could provide recreation opportunities in the future, such as tracks and trails, when the landfill closed.
- Some community members expressed concerns for the health of the Kaikorai Stream and Estuary and enquired whether there were plans to improve the health of the waterway, including action needed to stop illegal dumping of waste.

6.2.4 Surrounding residential properties

Over 100 flyers were delivered to neighbours' houses in Clariton Avenue, Taylor Street, Wavy Knowes and parts of Walton Park on 18 and 19 February 2023. The purpose of the flyers was to invite neighbours to attend a series of information sessions to find out more about the plans for the future of GIL, meet the DCC team and ask questions.

Online information sessions, via Zoom, were held in February and March 2023. The meetings were attended by the DCC Group Manager Waste and Environmental Solutions and key members of the project team who presented imagery that explained the plans for GIL, including the staged closure of the site and the new RRPP facilities. Seven people took the opportunity to attend the online sessions. Areas of interest included ongoing management of the landfill up to closure, including odour, noise and potential for increased views of the landfill as it continued to fill up.

Following the online information sessions, a number of neighbours who attended the sessions expressed interest in being kept informed about the plans for the RRPP. Regular one-on-one meetings (six over the course of 2023/2024) were subsequently held with these neighbours to discuss the plans for the RRPP in detail, hear their concerns and provide opportunities to ask questions.

Input was also sought from the neighbours in relation to plans for enhancing the planting on the south bund, to help mitigate the visual effects of the MRF, whilst limiting shade and maintaining long-distance views.

The DCC have also held an information evening for Clariton Ave neighbours on site at Green Island landfill to provide more information about the RRPP project, the resource consent process, and an opportunity to ask questions and meet the team.

The neighbours involved in the one-on-one meetings and the information evening were appreciative of the ability to meet regularly with the DCC team and ensure a ‘no surprises’ approach about the consenting process. Key issues raised by the neighbours at these meetings included:

- The management of the composting facilities to ensure odour effects are minimised
- Noise during construction and operation of the RRPP, including noise from glass sorting and the recycling facilities.
- The potential impact of the MRF on their long-distance views, ability to enjoy their gardens and outdoor areas and overall natural character of their surrounding environment.
- Opportunities for the RRPP consent process to address concerns regarding loss of views to Pukemakamaka Saddle Hill.
- How neighbours can continue to work in collaboration with DCC, to agree the plans to enhance the existing screening planting on the southern bund, to mitigate views of the MRF building prior to construction starting.
- How neighbours will. be kept informed about the plans for the RRPP, its construction and its ongoing operation.
- Ability for neighbours to be able to easily raise concerns/complaints about the day-to day operations with DCC once the RRPP is open and be assured of a response (clear complaints resolution process).

7. Review of technical studies

A review was conducted of technical studies that supported the resource consent application for the RRPP. Table 6 provides an overview of the technical studies and their relevance to the Interim SIA.

Following lodgement of the resource consent applications, it is expected that this Interim SIA will be updated with an addendum once reporting on the ongoing engagement has been completed:

Table 6 Summary of technical reports and relevance to this SIA

Technical Study	Information of relevance to this SIA
Landscape Assessment	**Natural Character Effects** • Existing level of natural character within the site is highly modified. Natural character of adjacent waterways is higher, particularly in relation to birdlife and scenic qualities. • The proposal will not reduce abiotic or biotic aspects of natural character further within the site or the wider context. Quality and quantity of operational stormwater will be mitigated prior to discharge; and dewatering activities are not anticipated to generate any detectable effects on the Kaikorai Stream. Activities will remain within existing perimeter bunds and vegetation. Therefore, active beds and river margins are not expected to be impacted. • Experiential aspects of natural character may be temporarily impacted during construction, and there may be very small long-term impacts from the increase in built form. However, this will be within the context of an existing designated landfill site and underlying Industrial Zone. • The implementation of a Vegetation Management and Restoration Plan will increase natural character overall. • Overall, natural character effects are assessed as very low, with opportunity for positive effects over time. **Landscape Effects** • There may be higher levels of effect during construction, however this will be temporary and will be mitigated through the proposed staging, wherein activity will be focussed on different locations at different times. • Taking into account the context of the existing modified site, effects of physical change on landform and landcover are considered very low. The proposed Vegetation Management and Restoration Plan will provide opportunity for gradual increase in ecological connectivity and positive landcover effects. • The contrast of the scale of the proposed buildings is reduced when taking into consideration the variety of land uses within the wider landscape, including other industrial areas with large-scale buildings. Landscape effects are further mitigated through the proposed distribution of buildings; design detailing and colour; and existing and proposed planting. • Overall, it is considered that on completion, the proposal will generate low adverse effects on the landscape. **Visual Effects** • Visual effects from surrounding public vantage points (e.g. nearby roads, motorways and recreational areas) are considered very low to low, once mitigation is established. • Greatest potential visual effects are to the residential properties along Clariton Avenue. The proposed MRF building itself will screen most movement within the site (such as vehicle movements). Once planting is established over 3-5 years, visual effects will reduce to low and very low for most properties on Clariton Avenue, with the exception of 12 Clariton Avenue, for whom effects are assessed moderate-low within approximately five years, but reducing to low over time.

Technical Study	Information of relevance to this SIA
Acoustic Assessment	**Construction Noise** The predicted noise levels comply with the NZS6803 criteria of 70 dB LAeq and 85 dB LAmax between 7:00 am to 6.00 pm Monday to Saturday at all surrounding receivers as well as the Designation D658 Condition of 55 dBA at the site boundary. **Construction Vibration** As all the surrounding vibration sensitive receivers/buildings are further than 36 metres from the construction footprint, vibration levels are predicted to comply with Category A (daytime) requirements at all surrounding receivers. **Operational Noise** • The predicted results indicate compliance with the noise criteria is achieved at all sensitive receiver locations during the daytime period, with one exceedance predicted on the eastern boundary shared with an industrial premise. • Predicted operational noise levels at the most impacted noise sensitive receptors are below the operational noise criteria during the daytime period. One predicted exceedance of designation condition noise criteria. • A 2 m high noise barrier was modelled along the shared eastern boundary with Taylor Street South to reduce noise levels at the boundary to comply with the designation condition. • Predicted noise results with barrier in place will be compliant at all locations.
Integrated Transport Assessment	• It is recommended to allow for mobility parks at the educational facility and for workers facilities and EnviroNZ office. • It is recommended that a separated path be provided on the access road for pedestrians and cyclists, who currently must share the road with heavy vehicles. • It is estimated that existing traffic on Brighton Road and the surrounding road network will increase by about 7.6% and will likely have a small to negligible impact on existing vehicle delays at intersections. This impact is assessed to be less than minor. • There are no changes proposed to the existing road network that could potentially create a road safety issue compared to existing. It is acknowledged that an increase in traffic does increase exposure to road safety risk. The existing crash record on Brighton Road and key intersections that connect to the site and the state highway network is reported as low. • A large portion of the traffic generated is heavy commercial vehicles. The proposed activity typically provides separation between heavy commercial vehicles and light domestic use vehicles and provides adequate space for heavy traffic to safely and efficiently unload and load waste.
Air Quality Assessment	**Odour Effects** • Based on the predicted meteorological data for the area, the nearest receptors, which are residential properties and some industrial properties would only be downwind of the site when wind speeds are less than 3 m/s at a frequency that would be considered infrequent or moderately frequent. Based on the varied emission rates from the composting operations and waste transfer facilities, there is a low probability of higher odour emission rates occurring at the same time as poor dispersive conditions in the direction of these receptors. • There is a reasonable separation distance between the proposed RRPP operations and the nearest sensitive receptors. The closest receptor is approximately 130 m from the MRF (210 m from the BWTS and 360 m from the ORF), however it is considered the MRF has a lower odour potential compared to both the BWTS and OPF. Based on these separation distances, any odour that might be generated by these operations should be sufficiently diluted. • The site has demonstrated good compliance around its current composting operations, with only a small number of odour related complaints received in recent years. While the proposed volume of material will increase, the new location of the composting plant will be further away from nearby receptors and will adopt better technology, with sophisticated monitoring and management techniques for odour.

Technical Study	Information of relevance to this SIA
	• A composting facility management plan has been provided in support of the application which sets out arrangements for managing odour effects and dealing with complaints from the public. • Particularly odorous loads will not be accepted to the RRPP (noting odorous loads are anticipated at GIL, with robust management measures in place to avoid the generation of offensive odour beyond GIL boundaries), greatly reducing the potential for odour. If odorous material is received, mitigation measures will be implemented, such as covering with inert material, use of odour suppressants, and prioritising the loadout of waste to a landfill. A misting system will provide odour mitigation for the BWTS. • When considering the current landfilling operation and the potential for combined effects, there is the potential for an increase in frequency of odour experienced off-site. However, given the locations of the potential odour sources relative to the nearby receptors, it is considered there will be no increase in intensity or offensiveness from potential combined effects. There is limited potential for some increase in combined odour duration, however this can only occur when new activities are established. Given the landfill has a limited lifespan and it will be a number of years until composting will occur on the site, and even longer until the BWTS is established, the combined duration will be limited. **Dust Effects** • Even with little to no mitigation, the majority of the nearby receptors are at a sufficient distance to be unaffected by dust from site operations. • Based on meteorological data for the area, the nearest receptors, which are residential properties and some industrial properties would only be downwind of the site during high wind speeds (greater than 5 m/s) at a frequency that would be considered infrequent. As dust emission rates from the site are low, there is an even lower probability of high dust emission rates occurring at the same time as dust transporting wind speeds blowing in the directions of these receptors. • Particularly dusty loads will not be accepted to the site, greatly reducing the potential for dust emission. If dusty material is received, mitigation measures will be implemented, such as covering with material or dampening down the material. A misting system will provide dust mitigation for the BWTS. • All refuse material will be placed inside the receivals buildings (BWTS and ORB). Therefore, even if loads are dusty, wind speeds within the building should be sufficiently low to prevent dust from becoming airborne. • It is considered there will not be any combined dust effects from the landfill operations and the proposed RRPP, as the tipping face and cover placement will occur at least 300 m from the RRPP. At this distance, combined effects are unlikely.
Aukaha affected party approval letter recommendations regarding RRPP	To manage impacts on the values associated with Wai Māori (mana, mauri, whakapapa, rakatirataka and kaitiakitaka, tapu, utu, taoka), the following recommendations are set out in the letter from Aukaha: • That all practicable measures are taken to prevent discharges entering water, including preventing, where possible, leachate from entering groundwater and surface water. • That effects on mauri and whakapapa from alteration of the existing hydrology and contaminants entering water are offset by mitigation measures, including riparian planting and pest management. • Proposed offsetting or mitigation management plans need to be provided to mana whenua for review and consultation prior to implementation. To manage impacts on values associated with mahika kai and biodiversity (mana, whakapapa, wāhi tupuna, mauri, utu, mahika kai and taoka), the following recommendations are set out: • The protection of habitats and the wider needs of mahika kai and taoka species is sought by mana whenua, including: • Indigenous plant and animal communities and the ecological processes that ensure their survival are recognised and protected to restore and improve indigenous biodiversity. • Creating networks of linked ecosystems. • Requiring the management of hazardous operations to avoid impacts on mahika kai values. To manage impacts on values associated with Wāhi Tūpuna (mana, whakapapa, rakaihautu, matamata, wahi tupuna, mauri, utu, oraka, tapu, tikaka, tapatapa, kaika, ara hikoi, ara tawhito, mahika kai, taoka), the following recommendations are set out:

Technical Study	Information of relevance to this SIA
	• Protecting the full range of landscape features of significance. • Ensuring that the interpretation of Kai Tahu histories associated with the Kaikarae Estuary and Pukemakamaka is undertaken by Te Rūnanga o Ōtākou. • Requiring a site rehabilitation plan for land contaminated by the landfill.

8. Assessment of Impacts

In considering the social impacts of the project, it is important to acknowledge the existing operations of the GIL. The site has been operating as a landfill since the 1950s. These operations, as outlined in Section 3, have created existing social impacts on the surrounding community, some of which have been documented in Section 6.1. The assessment of the potential social impacts from the development of areas of the site as the RRPP has focussed on the potential for an increased or decreased impact on the existing and future social environment.

Analysis of the proposal, supporting technical studies and community profile has identified the following key themes with regard to potential impacts. The SIA has identified impacts within each of these themes that could occur during the construction and operation phases of the project. The key themes are:

- **Amenity and character** – Changes to amenity can impact people's way of life, and what people value about their community.
- **Health and wellbeing –** Changes in the surrounding environment as a result of the proposal could have an impact on the health and wellbeing of the surrounding population.
- **Fears and aspirations** – The community's perceptions about their safety, their fears about the future of their community, and their aspirations for their future and the future of their children.
- **Way of life –** Impacts to how the community, live, work, play and interact with each other on a day-to-day basis.

Although this interim report has identified potential social impacts, these will be refined to incorporate the feedback from ongoing engagement with the community.

An Assessment of Impacts table has been provided in Appendix C. The following sections describe in detail the anticipated social impacts.

8.1 Amenity and character

GIL has been operating as Dunedin's main landfill since 1981 and is part of the community which has grown since the landfill was established. For this reason, it is not anticipated that the proposal will have any significant impact on the character of the area. Nevertheless, the proposed RRPP facilities have the potential to impact the amenity of the surrounding area, particularly with regard to visual impact, odour, noise and litter.

Clariton Avenue is the closest residential area to the site, located approximately 200 m southeast of the existing transfer station facilities, and 120 m east of the current landfill footprint. Residents of Clariton Avenue have the potential to be the most impacted by any change in amenity caused from the proposal. The proposed MRF in which comingled recyclable waste is sorted into bales will be located in closest proximity to the residential areas that adjoin the GIL site boundary. This proposed building will be located approximately 200 m from the Clariton Avenue Residential area.

The project team have held a number of meetings with some residents of Clariton Avenue in order to discuss the potential impacts of the facility on the surrounding area, particularly the visual impact of the MRF building created from the proposed height of the facility. Residents expressed concern that the MRF will impact their long distance views, ability to enjoy their gardens and outdoor areas as well as impact the overall natural character of their surrounding environment. The Landscape and Visual Effects Assessment Report (Boffa Miskell Feb 2024) acknowledges that the RRPP site is located in a basin that is largely screened from close views by earth bunds and established trees around the landfill perimeter. However, there are five residential properties along Clariton Avenue that are close to the site and located where there is a gap in the perimeter vegetation.

The implementation of a Vegetation Management and Restoration Plan (VMRP) as recommended in the Landscape and Visual Effects Assessment Report will increase natural character overall. It will tidy up the site, increasing overall visual amenity with additional planting both around and within the site. The VMRP will include a plan for mitigation planting that will be developed in consultation with the potentially impacted residents. Once planting is established over 3-5 years, visual effects will reduce to low and very low for most properties on Clariton Avenue, with the exception of 12 Clariton Avenue, for whom effects are assessed moderate-low within approximately five years, but reducing to low over time.

In landscape character terms, the development of the RRPP will avoid any outstanding natural features and landscapes and highly valued amenity landscapes. During construction, there may be some impacts to the local landscape however this will be temporary in nature. The buildings that are proposed as part of the RRPP will integrate with the landscape setting through the design detailing and colour as well as the existing and proposed planting. Mana Whenua in their Cultural Impact Assessment have requested that the exterior cladding of the buildings be finished in a neutral colour that will integrate with the natural surroundings.

There is the potential for litter to be deposited around the site or beyond the site boundary particularly during the transport of waste to the site or off-loading of vehicles. This has the potential to impact on the local amenity, particularly for local residents. In order to mitigate this, Enviro NZ as part of their Operations Management Plan should have litter nuisance practices in place such as requiring waste carriers to avoid litter escaping from their vehicles, requiring offloading to occur inside a purpose-built building, and use of litter pickers for wind-blown litter where required.

For mana whenua the development of the RRPP site will need to protect the values of wāhi tupuna. This involves protecting the landscape features of significance so that the proposed buildings will not obstruct the existing views of Pukemakamaka/Saddle Hill from the site and immediate adjacent areas such as Clariton Avenue. Similarly the landscape planting that has been proposed as part of the VMRP should be managed so that views to Pukemakamaka/Saddle Hill are maintained.

Overall, for the category of amenity and character the impacts of the project are considered to be slightly positive. Views to the site will be improved through the additional planting and landscaping. Any negative impacts can be mitigated through the Vegetation Management and Restoration Plan as well at the Operations Management Plan.

8.2 Health and wellbeing

There is the potential that the proposal will have environmental impacts that would have the indirect consequence of impacting the overall health and wellbeing of the surrounding community. These impacts include odour and dust that has the potential to impact air quality and the potential to create a health hazard particularly for those a risk of respiratory issues including children and elderly residents.

The most common complaint from the community regarding the existing operation of the landfill relates to odour being emitted from the site, as documented in section 6.1. This was a concern expressed by the local residents regarding the RRPP proposal. Overall, the site has demonstrated good compliance around its current composting operations, with only a small number of odour related complaints received in recent years. While the proposed volume of waste material will increase, the new location of the composting plant will be further away from nearby receptors and will adopt better technology, with sophisticated monitoring and management techniques for odour.

According to the air quality assessment, the nearest sensitive receptors are 130 m from the MRF and would only be downwind of the site when wind speeds are less than 3 m/s at a frequency that would be considered infrequent or moderately frequent. Based on the varied emission rates from the composting operations and waste transfer facilities, there is a low probability of higher odour emission rates occurring at the same time as poor dispersive conditions in the direction of these receptors. The assessment has determined that there is limited potential for significant odour generation. To mitigate any potential for odour impacts, it is recommended that particularly odorous loads not be accepted to the site and the OPF is operated in accordance with the Enviro NZ Operations Plan. This plan outlines mitigation measures for odour such as covering loads with inert material, use of odour suppressants, and prioritising the loadout of waste to a landfill.

Some residents expressed concern regarding the potential impact of noise during operation, particularly given the processing of glass onsite. The Acoustic Assessment investigated the impact of noise at all sensitive receiver locations during the daytime period, when RRPP would be in operation. The assessment anticipated that there

was only one potential exceedance predicted on the eastern boundary which is shared with an industrial premise. A 2 m high noise barrier was modelled along the shared eastern boundary which will mitigate this potential exceedance when the RRPP is in operation. The Acoustic Assessment anticipates that during construction, noise and vibration levels will comply with the day-time criterion, it recommends that works should only be undertaken between 7:30am and 6:00pm Monday to Saturday and that a community engagement programme including complaints handling procedure be established.

There is a risk, as with any landfill site, that vermin such as rats, mice and feral cats can be brought to the site in loads of waste or that these pests are attracted by the food source and migrate from surrounding areas. The best practice operational procedures of the site aim for fast turn-around of incoming and outgoing organic waste streams. Nuisance caused by vermin (e.g., flies or rodents) is not expected to be exacerbated by the proposed RRPP. An accredited pest control contractor will be engaged to establish and service an ongoing pest control programme. Buildings will be designed in a way that minimises opportunities for vermin entry. This will include sealing any gaps or openings in the facility's structure, ensuring doors and windows are properly screened. Additionally, should control measures be required for birds, these will focus on excluding birds from buildings, and/or roosting and loafing sites. For example, the MRF, BWTS and hazardous substance buildings will be fully enclosed and internally lined to avoid perching spots for birds.

Overall, within the category of health and wellbeing the impacts of the project are considered to be Slight Negative. This is provided that appropriate mitigation measures are implemented to minimise the adverse impacts.

8.3 Fears and aspirations

The consultation undertaken with the community and key stakeholders demonstrated that there is support for the Waste Futures Programme and Dunedin's commitment to reducing carbon emissions and waste going to landfill. The development of the RRPP will enable the kerbside collection of food scraps and garden waste which is required in order to achieve the aims of Waste Futures.

Feedback from the community obtained through the consultation process demonstrated a high level of support for the site being able to provide recreation opportunities in the future as well as restoration of the Kaikorai Stream and Estuary. The Quality of Life Survey found that of the Green Island respondents, 81% believed that traffic congestion was a problem, 57% believed water pollution was a problem, 24% believed noise pollution was an issue, and 25% believed air pollution was a problem. Closure of the GIL site will enable the development of a trail/track along the edge of the Kaikorai Estuary. This has been identified as one of the restoration and enhancement projects that will connect and expand the green and blue network across the DCC area.

The Kaikorai Stream and Estuary, and other associated waterways, make up an area which has traditional significance to mana whenua. According to the GIL CIA , that has been prepared for the landfill extension and closure and discussed in section 0, the aspiration of Te Rūnanga o Ōtākou is to incorporate mana whenua values and pūrākau associated with the Kaikorai Estuary in a tangible way through restoration of mahika kai and biodiversity values and through design opportunities. The Project Team have identified future enhancement opportunities around the site these include:

- Enhancing the environment to improve the site's flora and fauna and improve the ecological values of the Wāhi Tūpuna – Kaiakarae (Kaikorai Estuary).
- Connecting local communities through new public paths and tracks around the edge of the landfill site to the Kaikorai Estuary and the Coast.
- Providing interpretation and activities to tell people more about the history of the site and the wider landscape and environment, it use as a landfill and recycling facility and how it has changed over time.
- Providing more opportunities for recreation around the site, enhancing access to the water and surrounding parks and open spaces.

Te Rūnanga o Ōtākou have prepared an affected party approval letter for the RRPP which sets out a series of recommendations regarding mitigating and managing the impact that the proposal will have on Wai Maori, Mahika Kai and biodiversity. These concerns relate more specifically to the runoff of stormwater and leachate entering the Kaikorai Stream. They recommend that all practical measures are taken to prevent discharges entering water including leachate from entering groundwater and surface water.

At the local level, residents expressed concern about how the proposed work on site will impact their properties. Ongoing engagement with the surrounding neighbours, particularly those on Clariton Avenue, has assisted in understanding their concerns and fears for the site. It is recommended that engagement continues so that the neighbours are kept informed about the plans for the RRPP as well as its construction and ongoing operation. This will partly be achieved through the establishment of a Community Liaison Group for the Green Island Landfill site, which has been proposed in the application for consent for the extension and closure of the GIL. It is proposed that the terms of reference for this group explicitly provide for this group to address matters relating to both the landfill and the RRPP. In addition, management of the RRPP should include processes for surrounding residents to be able to raise concerns or complaints about site operations.

For the category of fears and aspirations, the impact is assessed as Moderate Positive because the RRPP will facilitate the Waste Futures Programme which will reduce carbon emissions and waste going to landfill. In addition, redevelopment of the site provides a number of opportunities to improve environmental values in the surrounding area as well as the provision of new paths and trails. Ongoing consultation will enable the local community to be informed about the project so that their concerns can be addressed in future plans for the site.

8.4 Way of life

The impacts regarding way of life refer to the potential that a proposal could have on how the community, live, work, play and interact with each other on a day-to-day basis. For the regional Community, the development of the RRPP will facilitate a change in waste practice. In accordance with the Waste Futures Programme, development of the RRPP will enable the kerbside collection of food waste and garden waste. This programme aims to achieve zero waste and contribute to reducing Dunedin's net carbon emissions to zero by 2030, supporting the New Zealand Government's direction to work towards a circular economy approach to waste management.

Local impacts on way of life are anticipated to be minimal. There are no changes proposed to the existing road network that could potentially create a road safety issue. It is estimated that existing traffic on Brighton Road and the surrounding road network will increase by about 7.6% and will likely have a small to negligible impact on existing vehicle delays at intersections. It is acknowledged that an increase in traffic does increase exposure to road safety risk. The existing crash record on Brighton Road and key intersections that connect to the site and the state highway network is reported as low.

Given that the site is currently operating as a landfill, any economic impact to the region is anticipated to be minimal. Consultation with the Green Island Business Association and the Greater Green Island Community Network identified support for the RRPP being maintained as a facility that is open to the public. The facility does attract people to the area, particularly on the weekends, and therefore supports commercial activity in the Green Island shops.

Overall, for the category of Way of Life the impact is assessed as moderate positive because it supports existing activities within the area and aligns to Government policy regarding changes in waste management.

9. Recommendations

Throughout the various technical assessments prepared to support the RRPP resource consent applications, the technical experts have made recommendations regarding mitigation measures that would reduce the potential negative social impacts of the proposal. This SIA supports the recommendations made in the other technical reports including:

- Recommendations in the Landscape Assessment, particularly regarding the implementation of a Vegetation Management and Restoration Plan that will increase natural character overall.
- Recommendations in the Acoustic Assessment, particularly the construction of A 2 m high noise barrier along the shared eastern boundary to reduce noise levels at the boundary to comply with the designation noise condition.
- Recommendations made in the Air Quality Assessment regarding management of odour, which include that particularly odorous loads are not accepted to the site. If odorous material is received, mitigation measures are to be implemented, such as covering with inert material, use of odour suppressants, and prioritising the loadout of waste to a landfill.
- Recommendations made in the Air Quality Assessment regarding management of dust, which include that particularly dusty loads are not accepted to the site, reducing the potential for dust emission. If dusty material is received, mitigation measures are to be implemented, such as covering with material or dampening down the material. All refuse material should be placed inside the receivals building to prevent dust from becoming airborne.
- Implementation of the Composting Facility Management Plan in respect of the ORB and OPF.
- Ensuring that the terms of reference for the GIL Community Liaison Group explicitly provide for this group to also address matters related to the RRPP. This will be to help inform the future plans for the GIL and RRPP moving forward and enable a forum for the affected community to provide feedback to the DCC on issues of concern during construction and operation of the facility.
- Recommendations in the Aukaha affected party approval letter for the RRPP site, these include the buildings being finished in neutral colours and the preparation of a Vegetation Management and Restoration Management Plan that provides screening for the surrounding properties while also maintaining existing view to Pukemakamaka/Saddle Hill.

In addition to the above mitigation measures, this SIA recommends the following:

- Activities onsite only occur during the proposed hours of operation.
- Ongoing engagement with the community with regular updates on the Waste Futures Programme Consultation should also be undertaken with the community as part of the GIL closure phase.
- Existing pest management practices should be maintained. This includes compaction of waste and covering the site, as well as regular inspection by pest control contractors.

Conclusions

Council has embarked on the Waste Futures Programme to develop an improved comprehensive waste management and diverted material system for Ōtepoti Dunedin. This is part of Dunedin's wider commitment to reducing carbon emissions and reducing waste going to landfill. The Waste Futures Programme includes the roll out of an enhanced kerbside recycling and waste collection service for the city from July 2024. The new service will include collection of food and green waste.

The new organics service requires new facilities for receiving and processing organics and recyclable materials, in addition to the upgrade and replacement of existing facilities to meet the changing requirements of Dunedin. To meet this need, DCC are proposing to upgrade and expand the current resource recovery area located at the Green Island landfill site.

The purpose of this interim SIA is to demonstrate that consideration has been given to potential social impacts from the construction and operation of the project.

Development of the RRPP will have moderate positive benefits to the regional and district communities because it will facilitate implementation of the Waste Futures Programme which will reduce carbon emissions and waste going to landfill. In addition, redevelopment of the site provides a number of opportunities to improve ecological values in the surrounding area as well as the provision of new paths and trails.

At the local level, there are number of adverse impacts that need to be mitigated. There are five residential properties on Clariton Avenue that directly adjoin the Green Island property boundary and will be located within 200 m of the proposed MRF. These residences have the potential to experience visual amenity impacts as the facility is visible from these properties. It is recommended that the VMRP be implemented in accordance with the recommendations of the Landscape Effects Assessment report (Boffa Miskell Feb 2024) in order to increase natural character overall as well as mitigate any visual impacts from adjoining properties. It is further recommended the mitigation measures set out in the acoustic assessment, noise assessment and air quality assessment are adopted and implemented.

The recommendations in the Aukaha affected party approval letter for the RRPP site (dated 14 March 2024) should be implemented via mitigation measures incorporated into the design and operation of the RRPP, and conditions of consent.

The proposal is considered to have an overall social benefit to the community. The negative impacts are considered minor given RRPP is proposed within the existing operational landfill site, and the impacts can be mitigated through implementation of the recommendations made in section 9 of this report.

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Appendices

Appendix A

Demographic information

Population count

Table 7 Population count of the SA2s, district and regional statistical areas

Statistical group	2006	2013	2018
Waldronville	861	1,128	1,299
Abbotsford	2,400	2,496	2,817
Fairfield	2,268	2,415	2,511
Green Island	2,283	2,235	2,319
Dunedin City	118,683	120,249	126,255
Otago Region	193,803	202,470	225,186

Sex

Table 8 Sex of population of the SA2s, district and regional statistical areas

	Waldronville	Abbotsford	Fairfield	Green Island	Dunedin City	Otago Region
Males	666	1,401	1,263	1,155	60,762	110,970
Females	636	1,413	1,248	1,164	65,490	114,219

Age distribution

Table 9 Age distribution of the SA2s, district and regional statistical areas

	Waldronville	Abbotsford	Fairfield	Green Island	Dunedin City	Otago Region
Median age	38	38.8	44.3	38.9	36.8	38.2
Under 15	22.9%	19.5%	18.4%	18.8%	15.8%	16.6%
15-29 years	15.7%	18.7%	16.0%	18.4%	26.6%	23.0%
30-64 years	51.9%	47.5%	48.9%	49.1%	41.6%	44.0%
Over 65	9.5%	14.4%	16.8%	15.8%	16.1%	16.5%
Over 85	0.5%	0.01%	1.3%	1.9%	2.2%	2.0%

Ethnic groups

Table 10 Ethnicity of the populations of the SA2s, district and regional statistical areas

	European	Maori	Pacific peopls	Asian	Middle Eastern/Latin American/African	Other
Waldronville	93.1%	7.9%	0.7%	5.1%	0.5%	1.2%
Abbotsford	93.9%	9.1%	1.6%	2.8%	0.2%	1.1%
Fairfield	93.0%	6.8%	1.1%	4.1%	0.7%	1.0%
Green Island	91.3%	10.3%	2.5%	3.1%	1.6%	1.3%
Dunedin City	86.6%	9.3%	3.2%	7.8%	1.5%	1.4%
Otago Region	86.9%	8.7%	2.7%	7.1%	1.8%	1.4%

Employment

Table 11 Employment status of the SA2s, district and regional statistical areas

	Employed part-time	Employed full-time	Unemployed	Not in the labour force
Waldronville	58.9%	17.1%	2.1%	22.2%
Abbotsford	56.2%	14.9%	3.0%	25.8%
Fairfield	53.8%	17.5%	2.0%	26.5%
Green Island	52.8%	13.6%	3.8%	29.8%
Dunedin City	43.2%	16.9%	4.3%	35.7%
Otago Region	49.2%	16.2%	3.2%	31.4%

Occupation

Table 12 Population occupations of the SA2s, district and regional statistical areas

	Managers	Professionals	Technicians and trade workers	Community and personal service workers	Clerical and administrative workers	Sales workers	Machinery operators and drivers	Labourers
Waldronville	18.3%	23.4%	15.5%	7.9%	12.3%	9.5%	6.0%	7.1%
Abbotsford	13.4%	15.4%	18.4%	9.1%	13.9%	11.3%	8.2%	10.2%
Fairfield	16.2%	21.5%	14.5%	9.2%	13.5%	9.2%	6.7%	9.0%
Green Island	13.7%	13.5%	16.1%	9.9%	12.7%	11.5%	9.9%	13.0%
Dunedin City	13.7%	25.7%	12.2%	11.7%	11.0%	10.0%	5.0%	10.7%
Otago Region	17.7%	20.2%	13.2%	10.7%	9.8%	9.6%	5.5%	13.2%

Personal income

Table 13 Personal income of the SA2s, district and regional statistical areas

	Waldronville	Abbotsford	Fairfield	Green Island	Dunedin City	Otago Region
Median	$40,300	$36,200	$38,700	$32,300	$25,500	$30,000
Loss	0.3%	0.4%	0.1%	0.6%	0.5%	0.5%
Zero income	6.3%	4.9%	6.0%	4.6%	5.8%	6.8%
$1-$5,000	4.8%	4.0%	4.8%	4.5%	8.5%	5.6%
$5,001-$10,000	3.0%	3.3%	3.2%	3.8%	7.1%	4.7%
$10,001-$15,000	4.8%	6.3%	4.5%	8.0%	8.1%	6.9%
$15,001-$20,000	7.5%	10.1%	10.5%	11.2%	10.6%	9.9%
$20,001-$25,000	4.5%	8.2%	7.5%	9.3%	8.9%	8.1%
$25,001-$30,000	6.3%	6.1%	5.4%	5.9%	5.7%	5.6%
$30,001-$35,000	4.8%	5.2%	4.2%	4.9%	4.7%	4.9%
$35,001-$40,000	7.2%	7.3%	4.8%	6.4%	5.2%	5.6%
$40,001-$50,000	10.8%	10.8%	9.8%	13.4%	8.7%	9.7%
$50,001-$60,000	8.4%	10.1%	9.5%	11.0%	7.2%	8.2%
$60,001-$70,000	8.7%	9.1%	8.6%	7.8%	5.6%	6.2%

	Waldronville	Abbotsford	Fairfield	Green Island	Dunedin City	Otago Region
$70,0001-$100,000	14.4%	10.6%	13.0%	7.3%	8.2%	9.6%
$100,001-$150,000	5.1%	2.9%	6.1%	1.4%	3.4%	4.7%
$150,001 +	3.0%	0.9%	1.5%	0.3%	1.9%	2.9%

Dwellings

Table 14 Dwelling status of the SA2s, district and regional statistical areas

	Occupied dwelling	Unoccupied dwelling	Dwelling under construction	Total private dwellings	Occupied non-private dwellings
Waldronville	441	33	3	474	3
Abbotsford	1095	30	3	1128	0
Fairfield	933	33	0	969	0
Green Island	948	54	3	1005	0
Dunedin City	48627	3906	129	52665	369
Otago Region	86838	14256	1032	102123	1062

Home ownership status

Table 15 Home ownership status of the SA2s, district and regional statistical areas

	Dwelling owned or partly owned	Dwelling not owned and not held in a family trust (rental)	Dwelling held in a family trust
Waldronville	74.1%	5.4%	19.7%
Abbotsford	69.8%	17.9%	12.6%
Fairfield	67.8%	11.3%	20.6%
Green Island	68.4%	23.7%	7.3%
Dunedin City	54.0%	32.9%	13.1%
Otago Region	52.2%	32.0%	15.8%

Family composition

Table 16 Family composition of the SA2s, district and regional statistical areas

	Waldronville	Abbotsford	Fairfield	Green Island	Dunedin City	Otago Region
Single person households	42	240	144	270	12969	21423
Couple with no children	168	705	345	255	13959	28002
Couple with children	204	1482	351	267	11985	21933
Single parent with children	30	255	81	105	4854	7329

Median weekly rent paid

Table 17 Median weekly rent of the SA2s, district and regional statistical areas

	2006	2013	2018
Waldronville	$210	$270	$360
Abbotsford	$170	$240	$280
Fairfield	$190	$280	$340
Green Island	$160	$230	$250
Dunedin City	$190	$250	$280
Otago Region	$180	$250	$290

Average house price (2022)

Table 18 Average house price of the SA2s, district and regional statistical areas

	Price
Waldronville	$682,000
Abbotsford	$620,400
Fairfield	$740,000
Green Island	$595,000
Dunedin City	$650,969
Otago Region	$750,000

Usual residence

Table 19 Usual residence of the SA2s, district and regional statistical areas

	Same residence (1 year)	Same residence (5 years)
Waldronville	79.0%	45.3%
Abbotsford	80.9%	47.5%
Fairfield	77.8%	52.7%
Green Island	74.3%	47.1%
Dunedin City	65.9%	37.7%
Otago Region	65.2%	34.8%

Appendix B

Social infrastructure

Table 20 Social infrastructure within 2 km of the Green Island Landfill (Green Island, Waldronville, Abbotsford, Fairfield)

Social infrastructure	Suburb	Distance from landfill	Potential impact
Community facilities			
Green Island Community Garden	Green Island	905 m	
Janet Cameron Hall		1.05 km	
Green Island Civic Hall		1.20	
Fairfield Community Hall	Fairfield	1.90 km	
Fairfield Scout Hall		1.60 km	
Education and childcare facilities			
St Peter Chanel School	Green Island	900 m	
Crackerjax Early Learning Centre		975 m	
Green Island School		1.15 km	
Green Island Kindergarten		1.25 km	
Otago Playcentre Association	Fairfield	2.0 km	
Fairfield School		1.85 km	
Play & Learn ECE – Fairfield		1.75 km	
Te Kura Kaupapa Maori O Otepoti		995 m	
Abbotsford Kindergarten	Abbotsford	1.10 km	
Abbotsford School		1.15 km	
Emergency services			
Green Island Community Police Station	Green Island	1.40 km	
Medical facilities			
Green island Family Healthcare	Green Island	1.30 km	
Green Island Wellness Centre		1.35 km	
Places of worship			
St Marks	Green Island	1.20 km	
The Lighthouse Baptist Church		1.20 km	
Presbyterian Church	Fairfield	1.75 km	
St Barnabas Anglican Church		1.60 km	
Dunedin Community Baptist Church	Green Island	950 m	
Cemetery			
Green Island Cemetery	Green Island	1.70 km	
Green Park Cemetery	Waldronville	3.20 km	
Supermarkets			
S&B Foods	Green Island	370 m	
FreshChoice Green Island		1.10 km	
Open space and recreation			
Shand Park	Green Island	550 m	
Elwyn Crescent Playground		630 m	
Green Island Memorial Park		1.05 km	
Sunnyvale Park		460 m	
Sunnyvale Sports Centre		610 m	

Green Island Bowling Club		1.50 km	
Island Park Golf Club	Waldronville	1.90 km	
Island Park Reserve		2.00 km	
Otago Pistol Club		2.90 km	
Blackhead Beach		2.50 km	
Beachlands Speedway		2.50 km	
Delta Drive Playground	Fairfield	2.10 km	
Fairfield Skatepark		1.85 km	
Fairplay Street Playground		1.90 km	
Fairfield Bowling Club		1.80 km	
Fairfield Tavern Reserve		1.85 km	
Sunninghurst Reserve		950 km	
Walton Park		1.40 km	
Walton Park Playground		1.40 km	
Matthew Street Playground	Abbotsford	1.55 km	
Green Island Rugby Football Club		1.95 km	
Miller Park		1.80 km	
Severn Street Playground		1.15 km	
Lambert Street Playground		1.65 km	

Appendix C

Assessment of Impacts table

Table 21 Assessment of social impacts

Social impact category	Impacts	Stakeholder	Positive /negative	Consequence	Likelihood	Timing and duration	Impact rating (post mitigation)	Information from supporting technical study	Mitigation
Amenity and character	Decrease in amenity for neighbouring properties due to change in visual impact	Neighbouring properties along Clariton Avenue	Negative	Moderate	Likely	Construction and Operation	Slight negative	There is a gap in the perimeter planting in the vicinity of the bund along the southeast boundary of the site adjacent to five residential properties on Clariton Avenue. There is also a small section where the planting is noticeably thinner at the northeast corner of the site in the vicinity of the entrance.	The effective ongoing maintenance and management of the existing perimeter trees will be important in mitigating potential adverse visual effects. The addition of planting on the southeast bund and at the site entrance is also recommended to reduce visual effects. Once proposed mitigation planting has become established over 3-5 years, visual effects will reduce to moderate low (and minor) for those properties on Clariton Ave that are likely to be most affected.
Amenity and character	Impacts on the natural character of the environment will views of the site be changed as a result of the proposal?	Broader community	Negative	Minor	Likely	Construction and Operation	Slight negative	In landscape character terms, the development of the RRPP will avoid any outstanding natural features and landscapes and highly valued amenity landscapes. The construction stage of the proposed development may generate some higher levels of effect; however this will be staged, with activity focused on different locations at different times, and these impacts will be temporary. The character of the RRPP site will not change in terms of the nature of the land use but primarily comprises an increase in built form and activity.	The distribution of the built form against the landfill embankment, the design detailing and colour, and existing and proposed planting, will assist the development with integrating the mass and height of the buildings into the landscape setting.
Amenity and character	Impact of increase rubbish	Neighbouring properties along Clariton Avenue	Negative	Moderate	Likely	Operation	Slight negative	There is potential for litter to be deposited around the site and beyond the site boundary, particularly during transport of waste to the site, during off-loading from vehicles into the BWTS, or when loading from the BWTS into the load-out vehicles. Enviro NZ will have measures in place firstly to avoid litter nuisance as far as practicable, and to manage any litter nuisance effects that may arise.	Based on other Enviro NZ transfer stations, Enviro NZ will implement the following control measures: • All waste carriers will be required to avoid litter escaping from their vehicles; • Operations will take place inside a purpose-built building, minimising the potential for nuisance litter, with the proposed perimeter fencing acting as an additional barrier; • The refuse loading bay will be swept as required to decrease the amount of loose litter on site. Litter checks of the property will be undertaken by site staff at least daily. Any wind-blown litter will be recorded in the odour and litter assessment form and picked up and returned to the BWTS for recycling or disposal; and, • Any complaints regarding litter nuisance will be investigated and, if required, litter collected as soon as practicable.
Amenity and character including culture	Impact on local cultural values - could the project cause intangible harm through cultural or spiritual loss .	Te Rūnanga o Ōtākou	Positive	Moderate	Likely	Operation	Neutral	Te Rūnanga o Ōtākou have prepared a Cultural Impact Assessment for the RRPP have expressed concern regarding the impact that the proposal will have on Wai Maori, Mahika Kai and biodiversity. These concerns relate more specifically to the run off of stormwater and leachate entering the Kaikouri Stream	The CIA recommends that all practical measures are taken to prevent discharges entering water including leachate from entering groundwater and surface water.

Social impact category	Impacts	Stakeholder	Positive /negative	Consequence	Likelihood	Timing and duration	Impact rating (post mitigation)	Information from supporting technical study	Mitigation
Health and wellbeing	Odour from continued site operation impacts on general amenity of area. If significant emissions, this could have health impacts.	Neighbouring properties along Clariton Avenue	Negative	Moderate	Possible	Operation	Neutral	The site has demonstrated good compliance around its current composting operations, with only a small number of odour related complaints received in recent years. While the proposed volume of material will increase, the new location of the composting plant will be further away from nearby receptors and will adopt better technology, with sophisticated monitoring and management techniques for odour.	Recommendations made in the Air Quality report regarding management of odour, which include that particularly odorous loads not be accepted to the site, reducing the potential for odour. If odorous material is received, mitigation measures are to be implemented, such as covering with inert material, use of odour suppressants, and prioritising the loadout of waste to a landfill
Health and wellbeing	Dust from activities onsite create potential health hazard and impacts on visual amenity	Neighbouring properties along Clariton Avenue	Negative	Minor	Possible	Construction and operation	Neutral	Even with little to no mitigation, the majority of the nearby receptors are at a sufficient distance to be unaffected by dust from site operations.	If an obviously dusty load was to arrive on the site, as with other sites, the Site manager will monitor the transfer. If dust is being emitted, the transfer would be stopped until the load is dampened down with water or if in the opinion of the manager, the load is unacceptable, the transfer would be stopped, and the load rejected.
Health and wellbeing	Noise from construction and operation of RRPP	Neighbouring properties along Clariton Avenue	Negative	Minor	Possible	Construction and operation	Neutral	The predicted noise levels comply with the NZS6803 criteria of 70 dB LAeq and 85 dB LAmax between 7:00 am to 6.00 pm Monday to Saturday at all surrounding receivers as well as the Designation D658 Condition of 55 dBA at the site boundary.	Works and operation to only occur on site between 7:00 am to 6.00 pm Monday to Saturday. A 2 m high noise barrier was modelled along the shared eastern boundary to reduce noise levels at the boundary to comply with the designation condition. Predicted noise results with the barrier in place will be compliant at all locations.
Health and wellbeing	Vermin from the site spread disease	Surrounding properties	Negative	Minor	Possible	Operation	Slight negative	The best practice operational procedures of the site aim for fast turn-around of incoming and outgoing organic waste streams. Nuisance caused by vermin (e.g., flies or rodents) is not expected.	An accredited pest control contractor will be engaged to put in place and service an ongoing pest control programme. Buildings will be designed in a way that minimises opportunities for vermin entry. This will include sealing any gaps or openings in the facility's structure, ensuring doors and windows are properly screened.
Fears and Aspirations	Support for the Waste Futures Programme and Dunedin's commitment to reducing carbon emissions and waste going to landfill.	Broader Dunedin City Council Community	Positive	Moderate	Likely	Operation	Moderate positive	From the consultation with the community there was a high level of interest in the new kerbside collection bin system, including the new bin to collect green and food waste and efforts made by DCC to reduce waste and process recycling.	N/A
Fears and aspirations	Project aligns to mana whenua values	Te Rūnanga o Ōtākou	Positive	Moderate	Likely	Operation	Moderate positive	The Kaikorai Stream and Estuary, and other associated waterways, make up an area which has traditional significance to mana whenua. According to the CIA, completed for the resource consent application for the extension of the landfill footprint at GIL, the aspiration of Te Rūnanga o Ōtākou is to incorporate mana whenua values and pūrākau associated with the Kaikorai Estuary in a tangible way through restoration of mahika kai and biodiversity values and through design opportunities.	N/A

Social impact category	Impacts	Stakeholder	Positive /negative	Consequence	Likelihood	Timing and duration	Impact rating (post mitigation)	Information from supporting technical study	Mitigation
Fears and aspirations	Impact that the development will have on properties and livelihood	Surrounding properties	Negative	Minor	Potential	Construction and operation	Slight negative	At the local level, residents expressed concern about how the proposed work on site will impact their properties.	It is recommended that engagement continue so that the neighbours are kept informed about the plans for the RRPP as well as its construction and ongoing operation. This could be achieved through the establishment of a Community Liaison Group. In addition, management of the RRPP should include processes for surrounding residents to be able to raise concerns or complaints about site operations
Way of life	Increase traffic impacts access to work, school and the local shops	Surrounding properties	Negative	Minor	Potential	Construction and operation	Slight negative	There are no changes proposed to the existing road network that could potentially create a road safety issue. It is estimated that existing traffic on Brighton Road and the surrounding road network will increase by about 7.6% and will likely have a small to negligible impact on existing vehicle delays at intersections.	Standard traffic management procedures should be required during construction.
Way of life	Impact on local economy	Green Island Businesses	Positive	Minor	Potential	Construction and operation	Slight positive	Facility has the potential to attract people to the area supporting local businesses	Maintain public access to the RRPP site.
Way of life	Change in waste practices to be more sustainable	Broader Dunedin Community	Positive	Major	Likely	Operation	Moderate positive	For the broader Dunedin community, the development of the RRPP will facilitate a change in waste practice. In accordance with the Waste Futures Programme, development of the RRPP will enable the kerbside collection of food waste and garden waste.	N/A

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