

Appendix 18: Resource Recovery Processing Precinct Site Options Assessment



Dunedin City Council



Resource Recovery Processing Precinct – Site Options Assessment

Dunedin City Council

20 October 2022

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1. Introduction

Dunedin City Council (DCC) is in the process of finalising contracts for kerbside refuse collection and a waste sorting and recycling facility (referred to as a Resource Recovery & Processing Precinct – RRPP) as part of the Waste Minimisation and Management Plan (WMMP) strategic plan to achieve zero waste to landfill by 2040. DCC sought a commercial operator to undertake the collections and waste sorting activities through a formal tendering process. The tender documents that were issued by DCC in 2021 indicated an option to site the RRPP at the existing Green Island Landfill (GI), or the tenderer could propose an alternative site(s).

GHD has been commissioned by DCC to identify any other suitable sites available for the establishment of the RRPP.

1.1 Purpose of this report

Previous work undertaken by Stantec (2021) outlined a series of options for siting the RRPP facilities at GI landfill, with one of the options also identifying locating the organic processing facility at North Taieri. However, we understand that there has been no broad assessment of potential options available to DCC for siting the RRPP elsewhere. To ensure that the DCC has reasonably considered the viable options for selection of a site for the RRPP facilities, a site selection process has been undertaken.

1.2 Scope and 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 1.1 of 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.

The opinions, conclusions and any recommendations in this report are based on assumptions made by GHD described in this report (refer section(s) 1.3 of this report). GHD disclaims liability arising from any of the assumptions being incorrect.

Accessibility of documents

If this report is required to be accessible in any other format, this can be provided by GHD upon request and at an additional cost if necessary.

1.3 Assumptions

To undertake the Spatial MCA scoring, the following assumptions were adopted:

- Only land within reasonable vicinity of Dunedin City was considered.
- A 20-minute travel catchment from two locations was adopted:
 - the intersection of Old Brighton Road and Dunedin City Motorway
 - The intersection of Ravensbourne Road and Anzac Avenue
- A minimum site area of 7 Ha was assumed for the RRPP facility. This was based on information contained with Stantec (2021) on typical site requirements for an RRPP. Any potential aggregation of smaller land

parcels to achieve the 7 Ha indicative site layout requirements was not considered unless there was a potential for easy amalgamation with an existing DCC landholding (i.e. to reduce complexity associated with land transaction and land use consenting).

Separation of RRPP facilities to different sites was discounted (i.e. locating the organics facility in a different location). This was on the basis that the operational efficiency is significantly impacted when individual components of a facility are separated across multiple sites (i.e. costs of operations increase), consenting multiple sites and activities increases the complexity for the owner and operator, and impacts from traffic and other effects are more widely distributed in the community (i.e. effects from multiple sites increases the number of potential impacts on sensitive receptors and the community). Therefore, the assessment was based on the RRPP Concept Design provided by Dunedin City Council (refer to Figure 1). The concept design did not separate RRPP Facilities across multiple sites for the following reasons:

- Operational complexity
 - Land acquisition
 - Consenting and designation requirements
 - Transport costs and increase traffic effects on the road network
 - Management of different sites
 - Potential effects management on more neighbours and stakeholder engagement across different sites
 - Set up costs including environmental management systems development
- Organics processing can be undertaken with minimum odour issues subject to appropriate set back distances.
 - Traffic movements for the RRPP site are approximated by Stantec (2021).

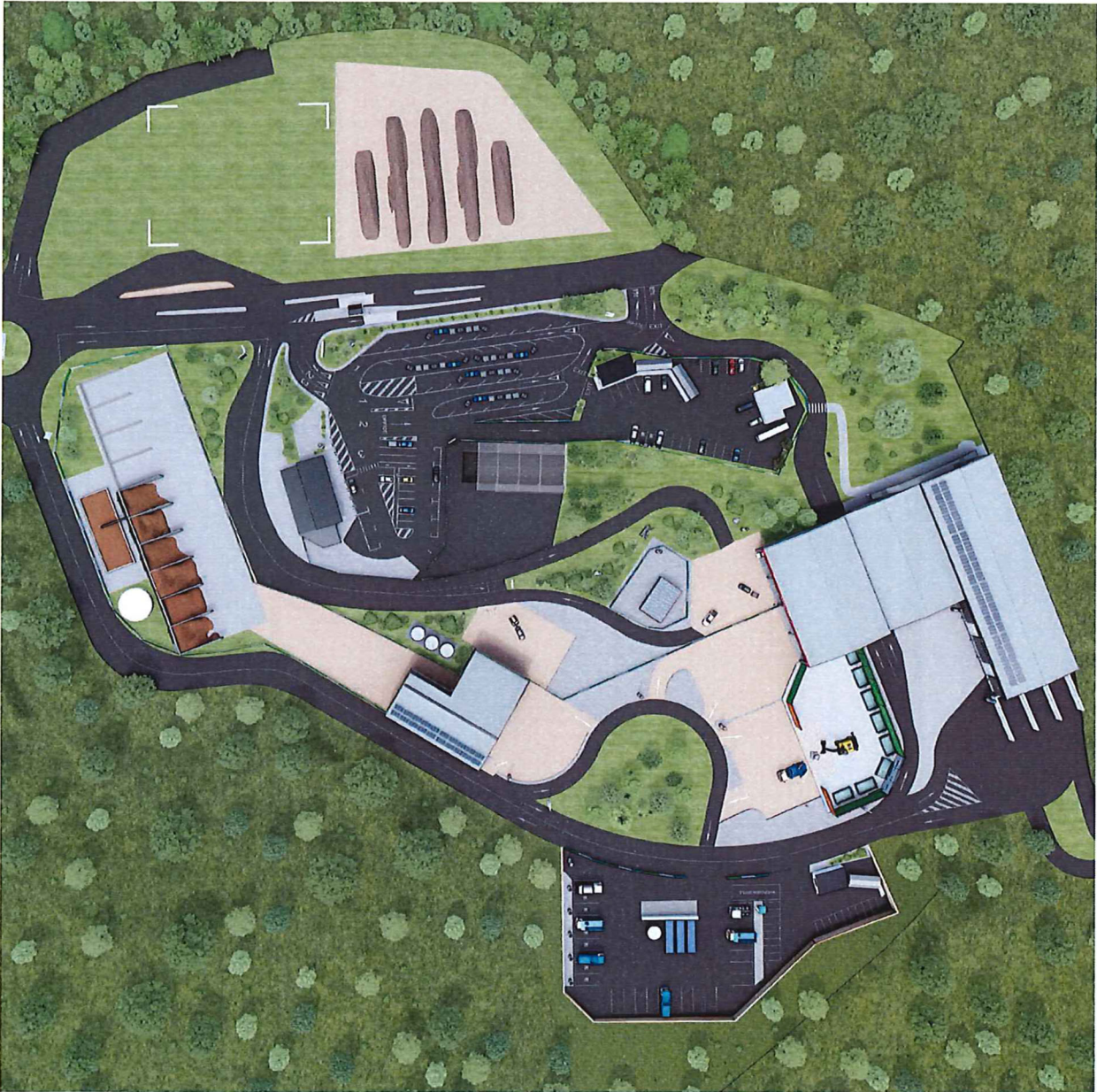


Figure 1 RRPP Concept Design

2. GIS Site Selection

2.1 Spatial Multi Criteria Analysis (MCA) Methodology

Spatial MCA¹ is a proven method for determining appropriate locations for infrastructure development. In this instance, spatial MCA has been used to identify appropriate sites to establish a RRPP facility.

The method uses GIS technology to select optimum locations for infrastructure development based on geographically characterised social, economic, engineering, planning and environmental criteria. Using this method, the criteria are considered in terms of constraints and opportunities for siting and operating a RRPP facility.

¹ Multi Criteria Analysis

The outcome of the spatial MCA is a map which uses different colours to generally represent potential locations as favourable, less favourable, or no-go areas (known as a 'heat map'). For the purpose of this report, it is referred to as the Suitability Map.

The key steps in the method are summarised in Figure 2.

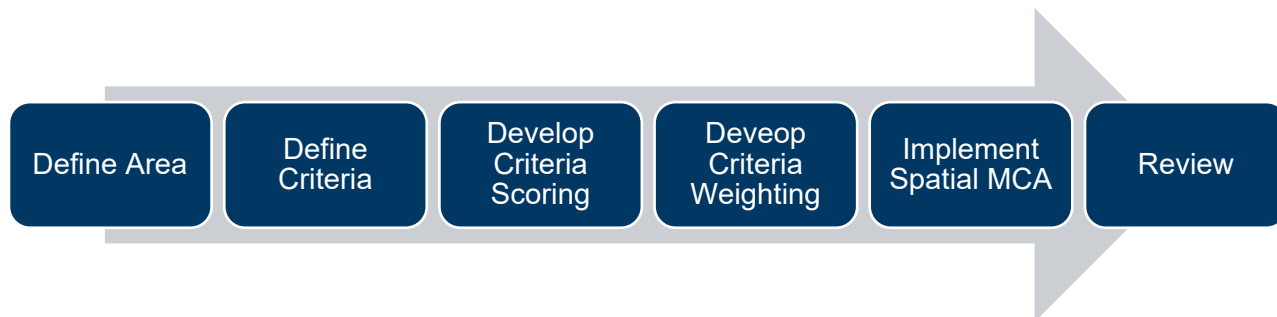


Figure 2 Spatial MCA method summary

The specific methodology developed for this project is explained in detail in the following sections, including an explanation of the:

- Study area
- Selection criteria
- Scoring system
- Data sources

2.1.1 Study area

The study area of the MCA included land within the local vicinity of Dunedin City, south of Pine Hill, North of Henley and East of Outram. For completeness, data has been obtained for the entire area of Dunedin City Council to create the Suitability Map. The study area from which data is collected is shown in Figure 3.

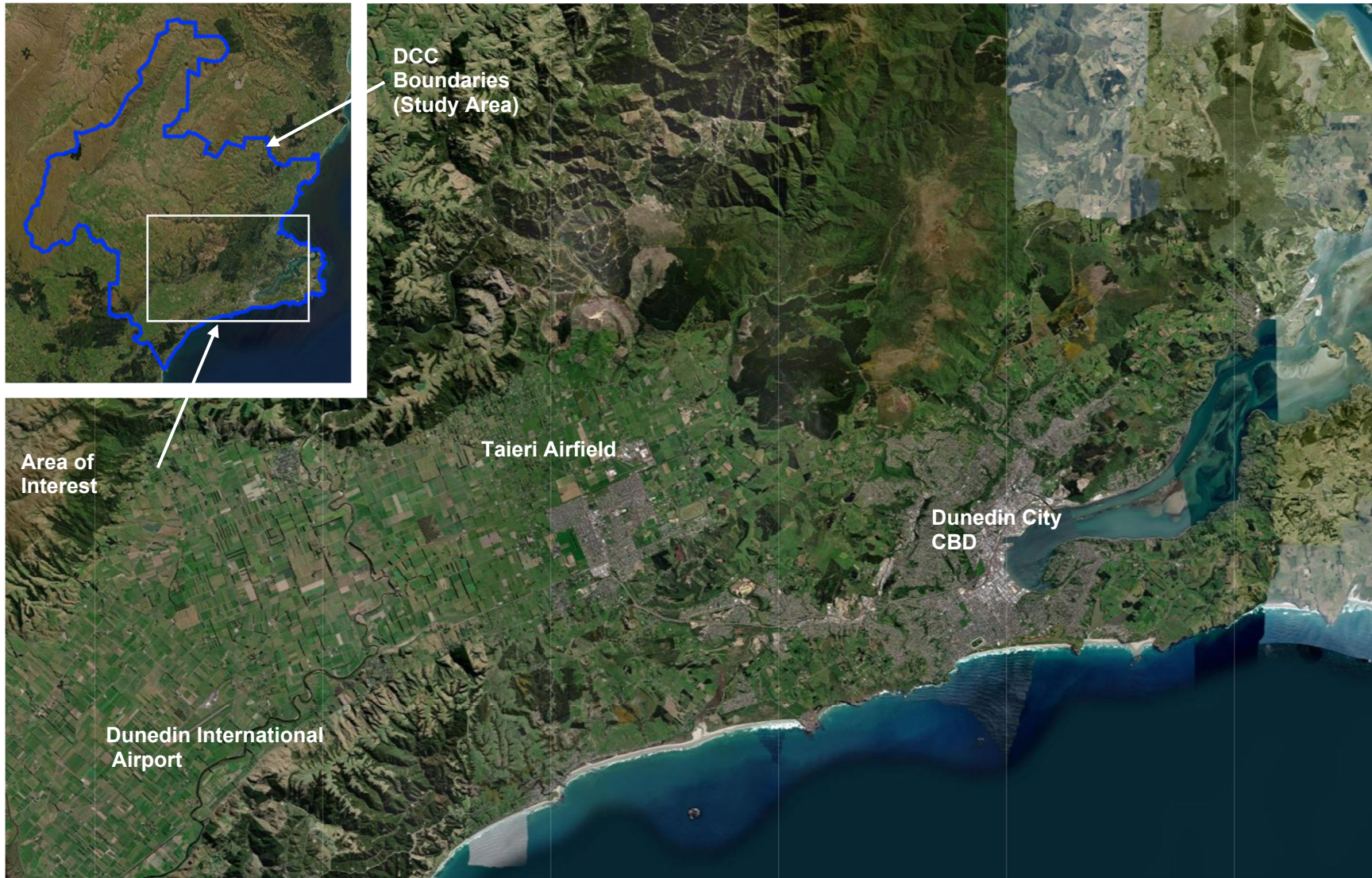


Figure 3 Study Area

2.1.2 Criteria

A range of criteria were selected to quickly identify potentially feasible sites within the study area for the RRPP facility. These criteria are outlined within Table 1. The criteria were assigned a weighting to reflect relative importance of each attribute when considering a suitable site for development.

The weighting for each criterion is presented in Appendix A.

Table 1 Constraints

| Constraint Category | Subcategory | Constraint Criteria |
|--|---|---|
| Building Constraints | Site size | A minimum site size of seven hectares was initially set for the RRPP facilities. |
| | Proximity to Roads and Rail | A 5 m buffer for road parcels and a 20 m buffer for a rail corridor has been adopted |
| | Large infrastructure – National Grid Corridor, Gas Transmission Lines, 450 dia or larger wastewater /water /stormwater pipelines. | A 5m buffer set to allow for appropriate setbacks from significant infrastructure. |
| Environmental Constraints | Topography | Sites with flat or gentle slopes preferred to steeper sloped sites given the potential need for extensive earthworks. |
| | Water bodies | 20m buffers set from edge of rivers, lakes, streams and ponds. |
| | Land cover | NO GO zones identified for indigenous forest, estuaries and waterbodies. |
| | Geology | NO GO areas only identified for high-risk geology such as 'swamp' or 'peat' or areas of instability or geological faults. |
| | Hazards – flood, coastal inundation, liquefaction | Higher constraint scores given to flood hazardous areas including overland flow paths and coastal inundation. |
| | Wells and bores | 20m buffer set from identified wells and bores. |
| Social and Planning Constraints | Land Zoning | Industrial Zones most preferable (score 0) with Rural Zones also considered. Sensitive zones such as Residential and Open Space zones were identified as NO GO. |
| | Heritage Areas | Heritage and waahi tapu areas are identified as NO GO with buffers provided around notable trees and identified archaeological/waahi tapu sites. |
| | Special and Significant Landscapes | These include significant natural areas, outstanding natural features and landscapes as NO GO sites. |

2.1.3 Scoring system

A scoring system was used to assess sites within the study area against the defined criteria. The scores reflect the range of suitability or feasibility for a given criterion. The scoring scale ranges from 0 – no constraints, through to – completely unfeasible (NO GO). The scoring system used for this project is described in Table 2 below.

Table 2 Spatial MCA Scoring

| Constraint | Score | |
|-----------------------|---------|--|
| Low Constraint | 1-60 | |
| Low-Medium Constraint | 60-120 | |
| Medium Constraint | 120-200 | |
| High Constraint | 200-999 | |
| NO GO | 999 | |

2.1.4 Data Sources

Data to input into the MCA was sourced from Dunedin City Council and Otago Regional Council for district and regional data. Data has been extracted from Aurora Energy for the power network and national data has been sourced from Land Information New Zealand and Ministry of Education.

2.2 Spatial MCA Findings

The Suitability Map identified a number of areas of land which might support the establishment of a Resource Recovery & Processing Precinct using the above criteria and scoring system. The desktop assessment of the Suitability Map enabled the identification of a long list of potential site options. Appendix B Shows the suitability Map.

A total of 17 possible sites were identified through the initial Spatial MCA process. These sites were identified as a first cut of possible public and private land that could be suitable from the technical perspective based on the site attributes and weightings (i.e., properties larger than 7 hectares, low to medium constraints and within 20 minutes travel catchment from the intersection of Old Brighton Road and Dunedin City Motorway and the intersection of Ravensbourne Road and Anzac Avenue)

The 17 parcels of land identified in the long list are shown in Table 3.

Table 3 Long list

| | Address | Suitability | Zone | |
|---|--|--------------------------|------------------|------------------|
| | | | Operative | 2GP |
| 1 | 19 Boundary Road Green Island/20 McLeods Road Burnside | Low-Medium Constraint | Hill Slopes | Hill Slopes |
| 2 | 72 Chain Hills Road Taieri | Low Constraint | Hill Slopes | Rural |
| 3 | 408 Chain Hills Road Taieri | Low Constraint | Hill Slopes | Rural |
| 4 | 694 Kaikorai Valley Road Burnside/25 Townleys Road Burnside | Medium Constraint | Rural/Industrial | Rural/Industrial |
| 5 | 712 Kaikorai Valley Road Burnside | Medium Constraint | Rural/Industrial | Industrial |

| | Address | Suitability | Zone | |
|----|---|------------------------|-----------------------------|-------------------------|
| | | | Operative | 2GP |
| 6 | 377 Main South Road Green Island | Low-Medium Constraint | Hill Slopes | Hill Slopes |
| 7 | 101 Milners Road North Taieri | Low-Medium Constraint | Taieri Plan | Rural |
| 8 | 101 Morris Road | Low Constraint | Hill Slopes | Rural |
| 9 | 188 North Taieri Road Taieri | Low Constraint | Hill Slopes | Rural |
| 10 | 50 Old Brighton Road Fairfield | Low -Medium Constraint | Hill Slopes | Industrial |
| 11 | 80 Old Brighton Road Fairfield | Low -Medium Constraint | Hill Slopes | Industrial |
| 12 | 21 Saddle Hill Road Saddle Hill | Low Constraint | Hill Slopes | Rural |
| 13 | 155 Scroggs Hill Road, Brighton | Low-Medium Constraint | Coastal/Rural Residential 1 | Rural/Rural Residential |
| 14 | 149 Silverstream Valley Road North Taieri | Low -Medium Constraint | Hill Slopes | Rural |
| 15 | 748 Taieri Mouth Road Brighton | Low Constraint | Coastal Rural | Rural |
| 15 | 20 Taylor Street Green Island | Low Constraint | Designated Site | |
| 17 | 101 Wairongoa Road North Taieri | Low Constraint | Hill Slopes | Rural |

The findings of the initial MCA were presented in a workshop with the project team. Further constraint criteria were then added to the Suitability Map to identify areas in proximity to the Taieri Airfield and Dunedin International Airport. Sites within 3km of these airfields were considered NO GO areas, areas within 8 km being Low to Medium constraint and areas within 13 km being considered areas with Low constraint for consenting purposes. The suitability Map with the Airport Criteria is presented in Appendix B.

Two further sites were identified as potential sites suitable for the development of the RRPP facilities: 694 Kaikorai Valley Road and 25 Townleys Road Burnside. The Suitability Map initially did not identify the properties meeting the criteria as the sites have been subdivided into sections of less than 7 hectares.

3. Short List

A second workshop was held with DCC to assess further constraints associated with the long-listed sites. Constraints such as access issues, remoteness of the site, availability of services (i.e. power, water, sewer), and proximity to residential areas were considered for each site. This resulted in a short list of nine sites being identified as potentially being suitable for the establishment of the RRPP. Table 4 shows the shortlisted sites.

Table 4 Short Listed Sites

| Address | Legal Description | Land Area | Owner |
|--|--|-----------|---|
| 19 Boundary Road, Green Island | Lot 1 Deposited Plan 428414 | 19.8ha | Burnside Dunedin (2018) Limited |
| 20 McLeods Road, Burnside² | 1/1, Lot 1 Deposited Plan 346118, | 10.9ha | Burnside Dunedin (2018) Limited |
| 694 Kaikorai Valley Road, Burnside | Part Section 46-47 Block V Lower Kaikorai Survey District | 8.3ha | Anzide Properties Limited |
| 25 Townleys Side, Burnside | Section 45 and Part Section 32-33 Lower Kaikorai Survey District | 7.7 ha | Anzide Properties Limited |
| 712 Kaikorai Valley Road, Burnside | Lot 1-2 Deposited Plan 21700 | 23.4ha | Burnside Dunedin 2018 Limited |
| 377 Main South Road, Green Island | Lot 200 Deposited Plan 516662 | 44.3ha | Fulton Hogan Limited |
| 101 Milners Road, North Taieri | Lot 2 Deposited Plan 9055 | 21.4ha | Dunedin City Council |
| 50 Old Brighton Road, Fairfield | Section 3 Survey Office Plan 324240 and Section 1, 4-5 Survey Office Plan 352669 | 8.6ha | Brian Patrick Hailes, Jacqueline Ann Clearwater, Steven Robert Clearwater |
| 80 Old Brighton Road, Fairfield | Part Section 41 Block VII and Part Section 69 Block VII Dunedin & East Taieri Survey District | 9.1ha | Fulton Hogan Limited |
| 21 Saddle Hill Road, Saddle Hill | Section 38 Block VII and Section 39-40 Block VII Dunedin & East Taieri Survey District and Part Section 37 Block VII Dunedin & East Taieri Survey District | 49.3ha | Christine Elizabeth Mitchell, Ross Lancelot Mitchell |
| 20 Taylor Street, Green Island | Part Section 45-47 Green Island Bush Survey District, | 49ha | The Dunedin City Council |

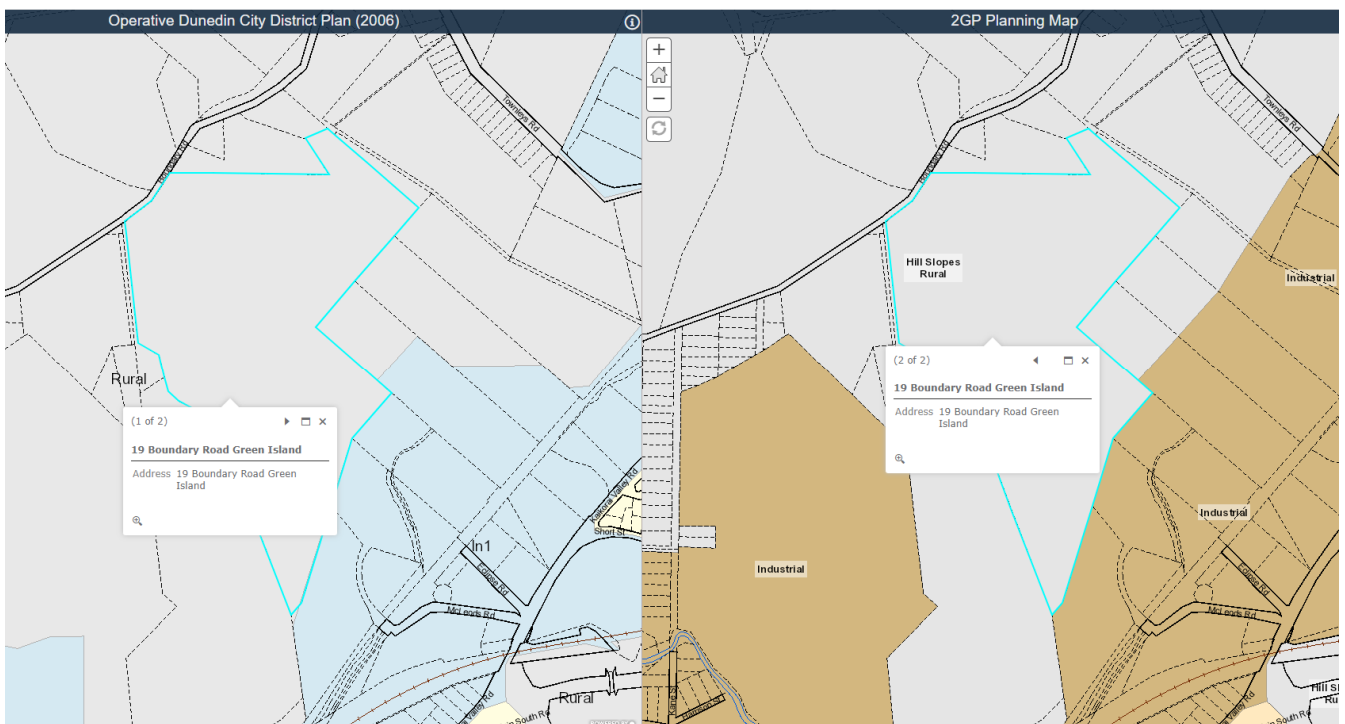
² The properties on 19 Boundary Road and 20 McLeods Road are adjacent to each other, under the same ownership, within the same Zone in the ODP and PDP and therefore are assessed together.

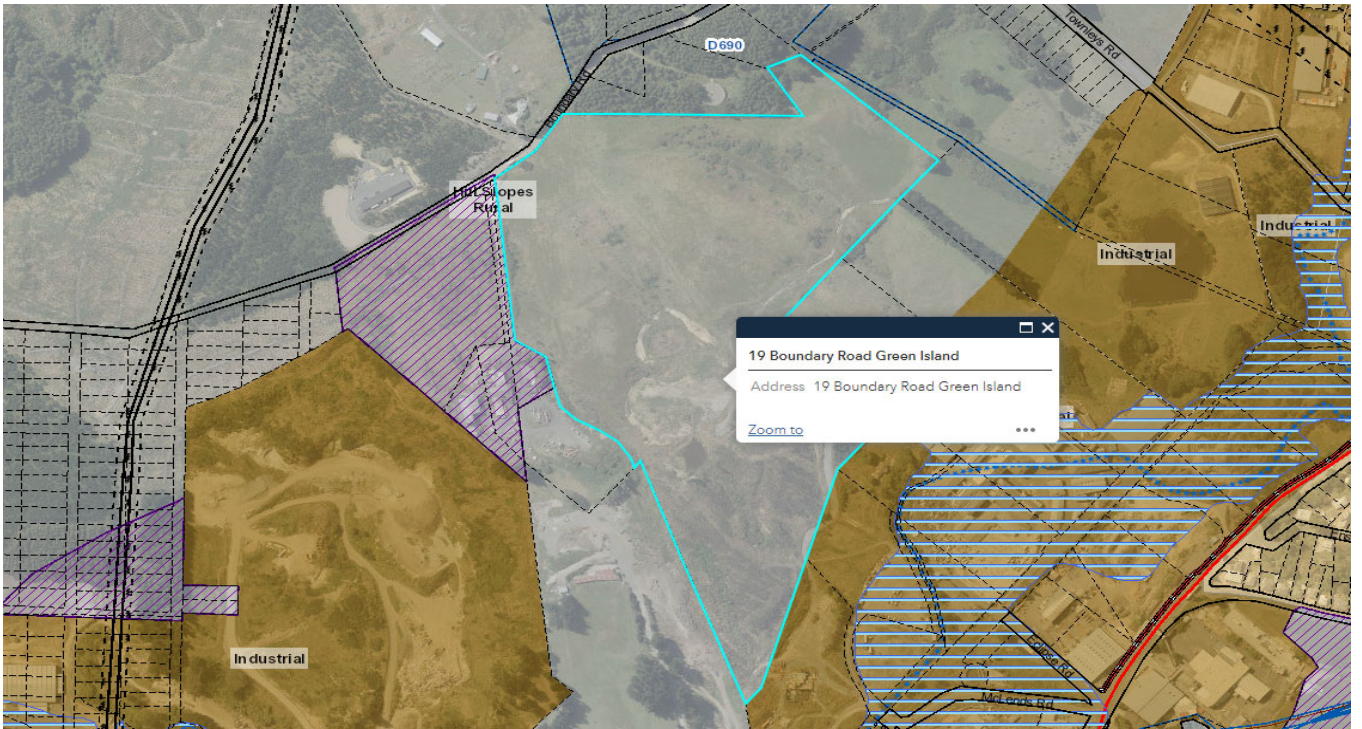
4. Planning Assessment

A desktop planning screening assessment for each of the nine sites is provided within this section. At the end of each site assessment, an outline of the key planning constraints and benefits/opportunities is provided. A more detailed analysis of the relevant rules is included in Appendix B.

4.1.1 19 Boundary Road, Green Island / 20 McLeods Road, Burnside

| Feature | Commentary |
|--------------------|--------------------------------|
| Address: | 19 Boundary Road, Green Island |
| Legal Description: | Lot 1 Deposited Plan 428414 |
| Site Area: | 198,143m ² |
| Operative Zoning: | Rural |
| Proposed Zoning: | Rural Hill Slopes |
| Overlays: | N/A |
| Current Use: | Pasture |

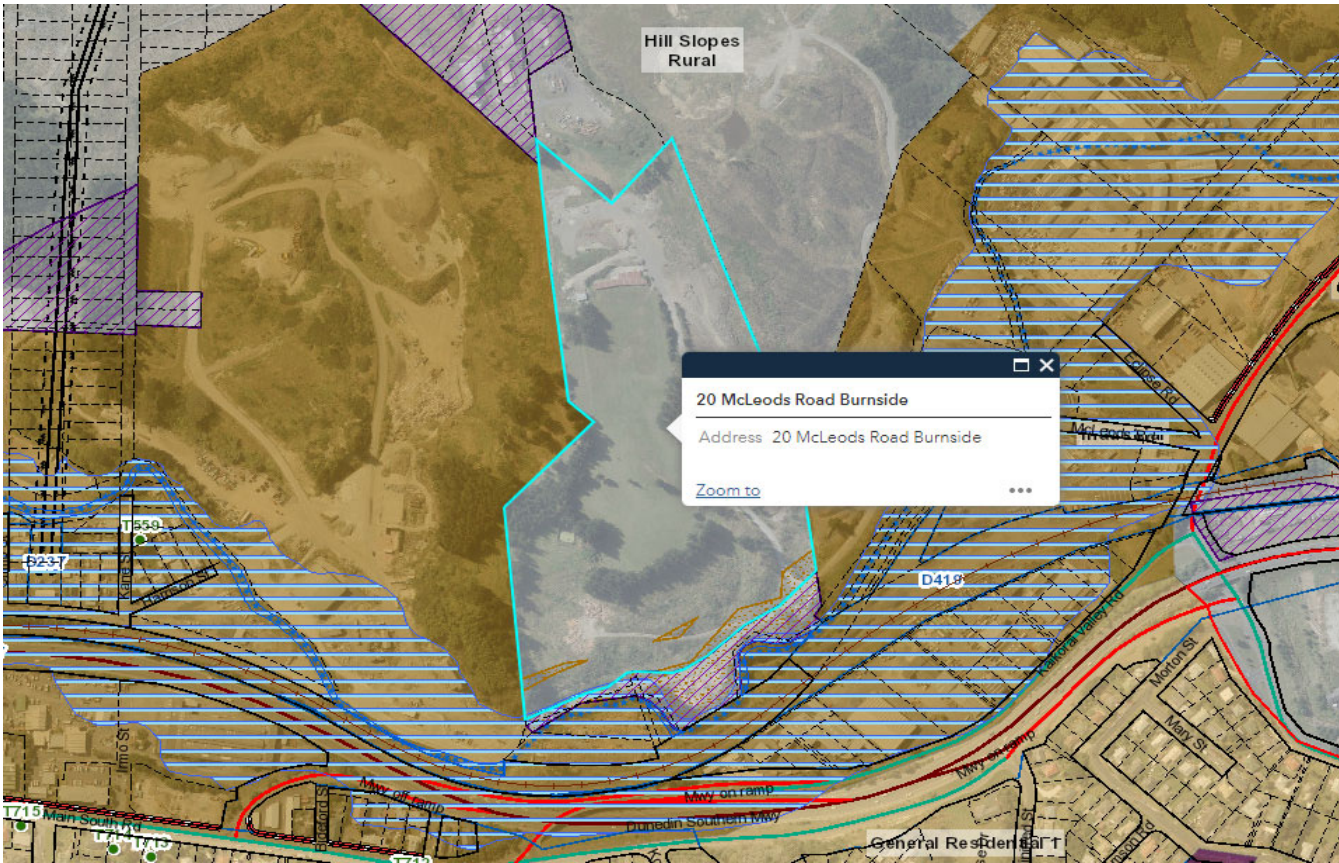
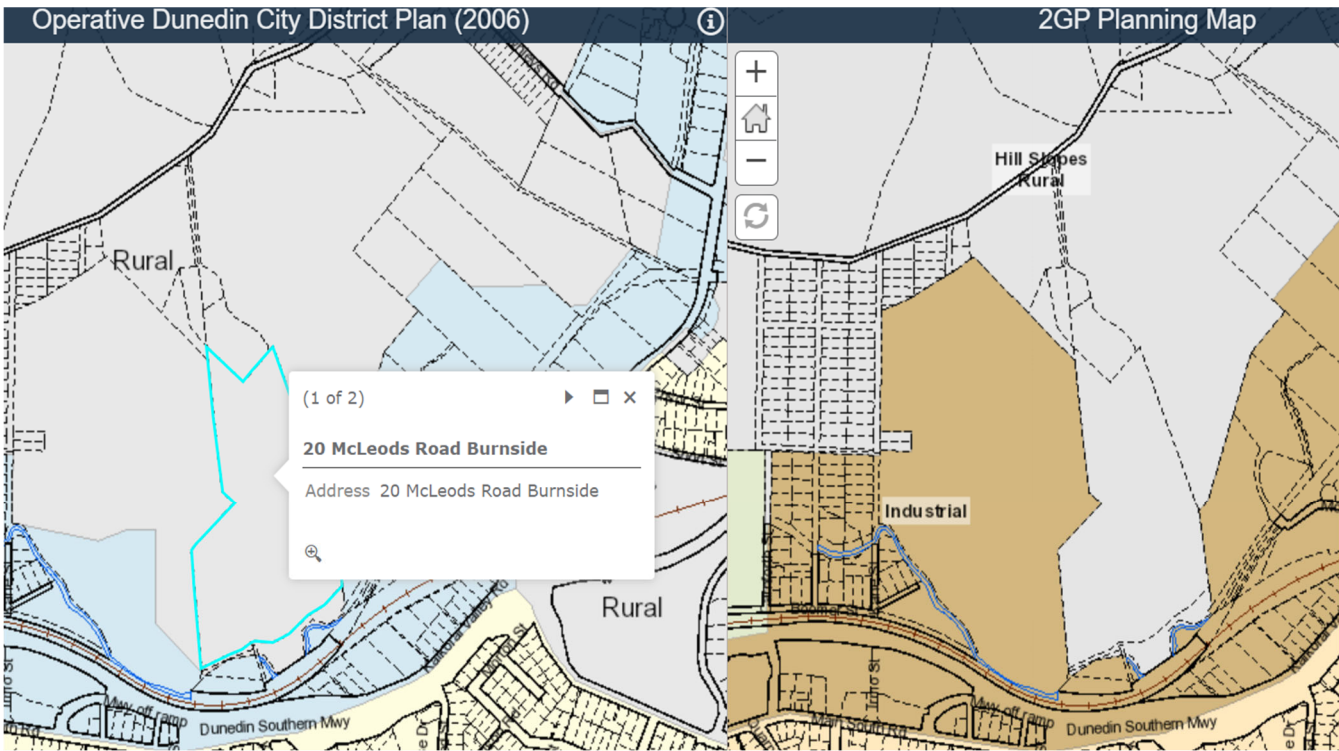




Noting that these two land parcels are adjacent to each other and therefore assessed together

20 McLeods Road, Burnside

| Feature | Commentary |
|---------------------------|---|
| Address: | 20 McLeods Road, Burnside |
| Legal Description: | 1/1, Lot 1 Deposited Plan 346118 |
| Site Area: | 109,360 m ² |
| Operative Zoning: | Rural |
| Proposed Zoning: | Rural Hill Slopes |
| Overlays: | High Class Soils Mapped Area, Industrial Transition Overlay |
| Current Use: | Pasture |



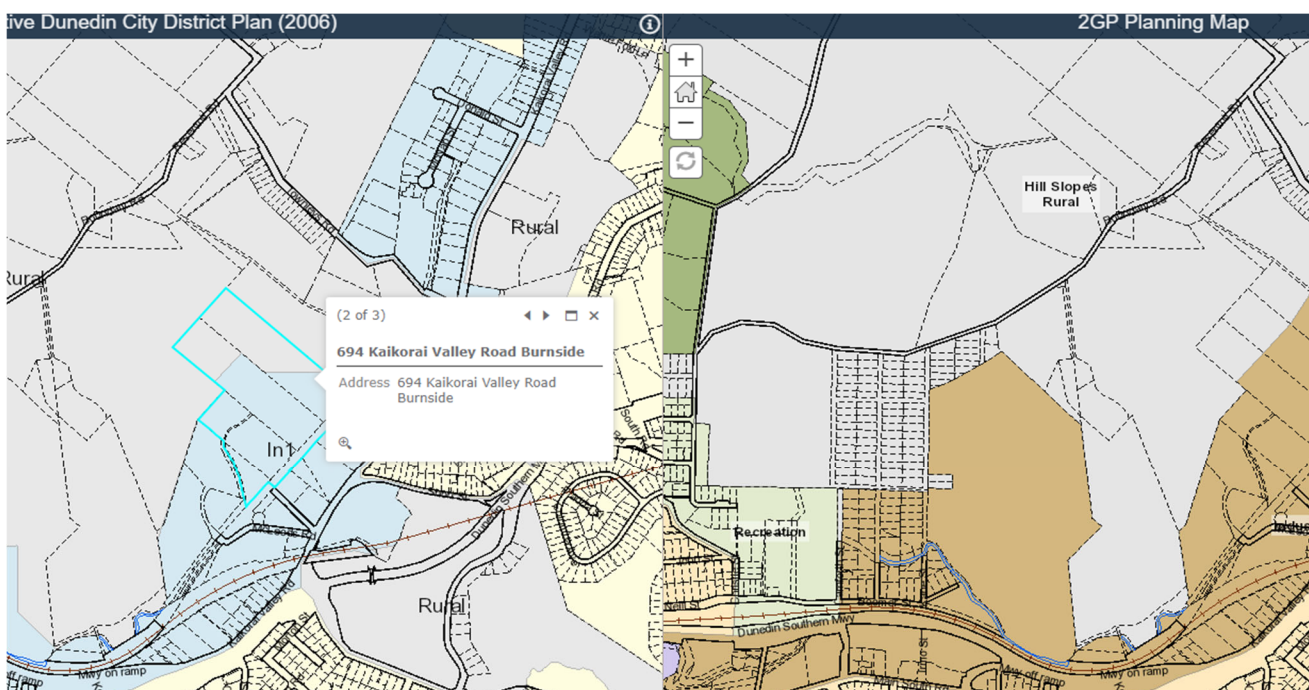
| Relevant Plan or Planning Document | Assessment |
|--|--|
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (2GP) – Hill Slopes Rural | Land use (Rule 16.3.3(46) Non-Complying Activity) requiring consent |
| Earthworks | Permitted volumes of earthworks are based on volume per 100m ² of site and subject to gradient. Where the part of the site in which the earthworks are located is in more than one slope category, the most restrictive volume threshold applies. |
| Traffic | The site has access off McLeod Road and through the adjoining property in the same ownership. The site has easy access to the Southern Motorway for travel in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | The site is not listed within the Hazardous Activities and Industry List (HAIL) indicating Otago Regional Council do not hold information suggesting the site may be contaminated. The site does adjoin several verified HAIL sites and a PSI may be required to inform any additional consenting requirements. |
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Discharge of leachate to land that may result in contaminants entering water is a discretionary activity 7.6.1.2 |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 |
| | Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

Summary of Opportunities and Constraints for 19 Boundary Road, Green Island/20 McLeods Road, Burnside

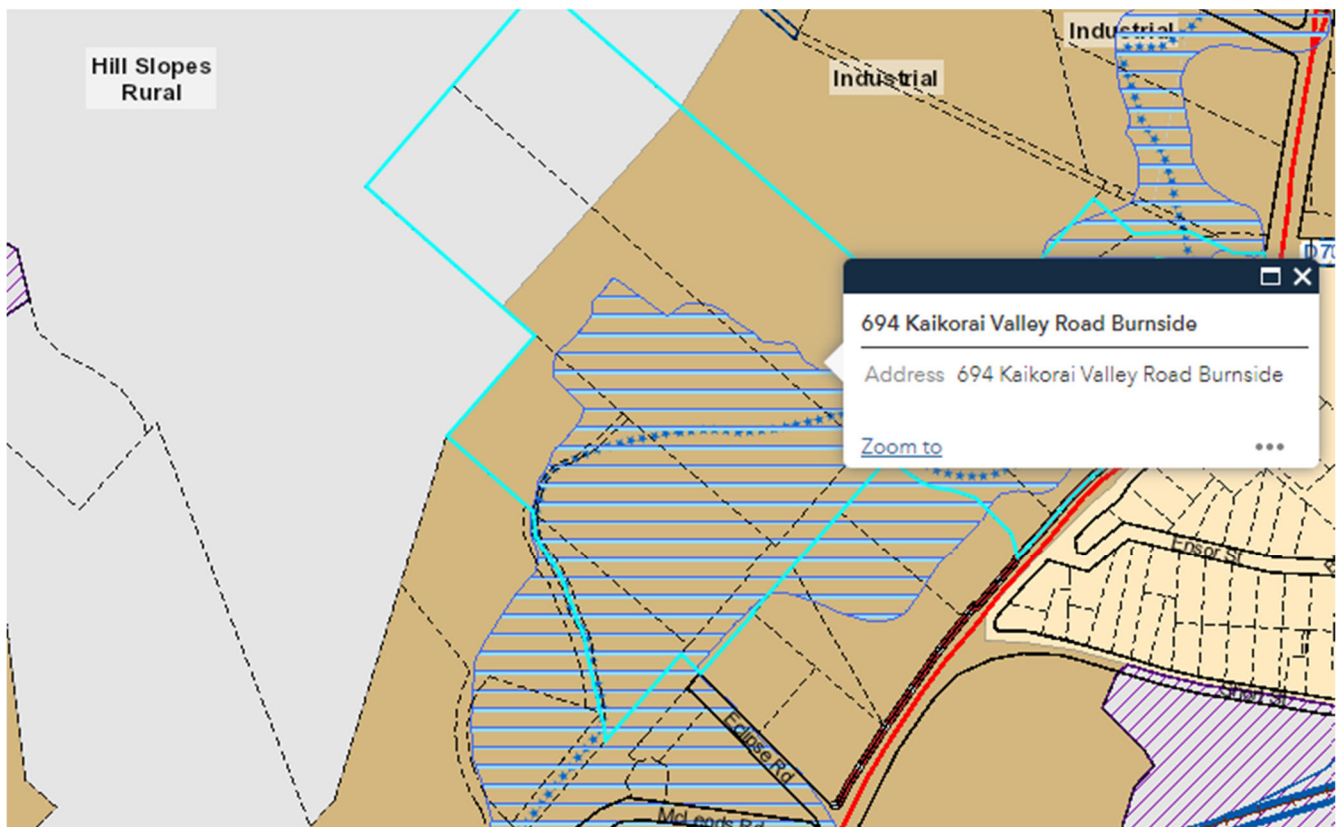
| Opportunities | Constraints |
|---|---|
| <ul style="list-style-type: none"> - Large Sections on Rural Zone - Adjoining Industrial Zone to the east and west - Easy Access - Low likelihood of visual amenity issues from Green Island, Burnside or Concord Communities. - Less amenity issues than other sites - Central location, close proximity to City | <ul style="list-style-type: none"> - Likely to require Land use consent for Non-Complying Activity - Low to Medium Constraint - Potential issues on developing the site due to its steepness - High Quality Soils on McLeods Road Site - Commercial Negotiation - Non-Complying Activity for consenting |

694 Kaikorai Valley Road, Burnside/25 Townleys Road, Burnside³

| Feature | Commentary |
|--------------------|---|
| Address: | 694 Kaikorai Valley Road, Burnside |
| Legal Description: | Part Section 46-47 Block V Lower Kaikorai Survey District |
| Site Area: | 83,365 m2 |
| Operative Zoning: | Industrial/Rural |
| Proposed Zoning: | Industrial/Rural |
| Overlays: | Hazard 2 (flood) Overlay Zone, Kaikoura Stream, Esplanade Reserve |
| Current Use: | Industrial |



³ These properties are under the same ownership and assessed together.

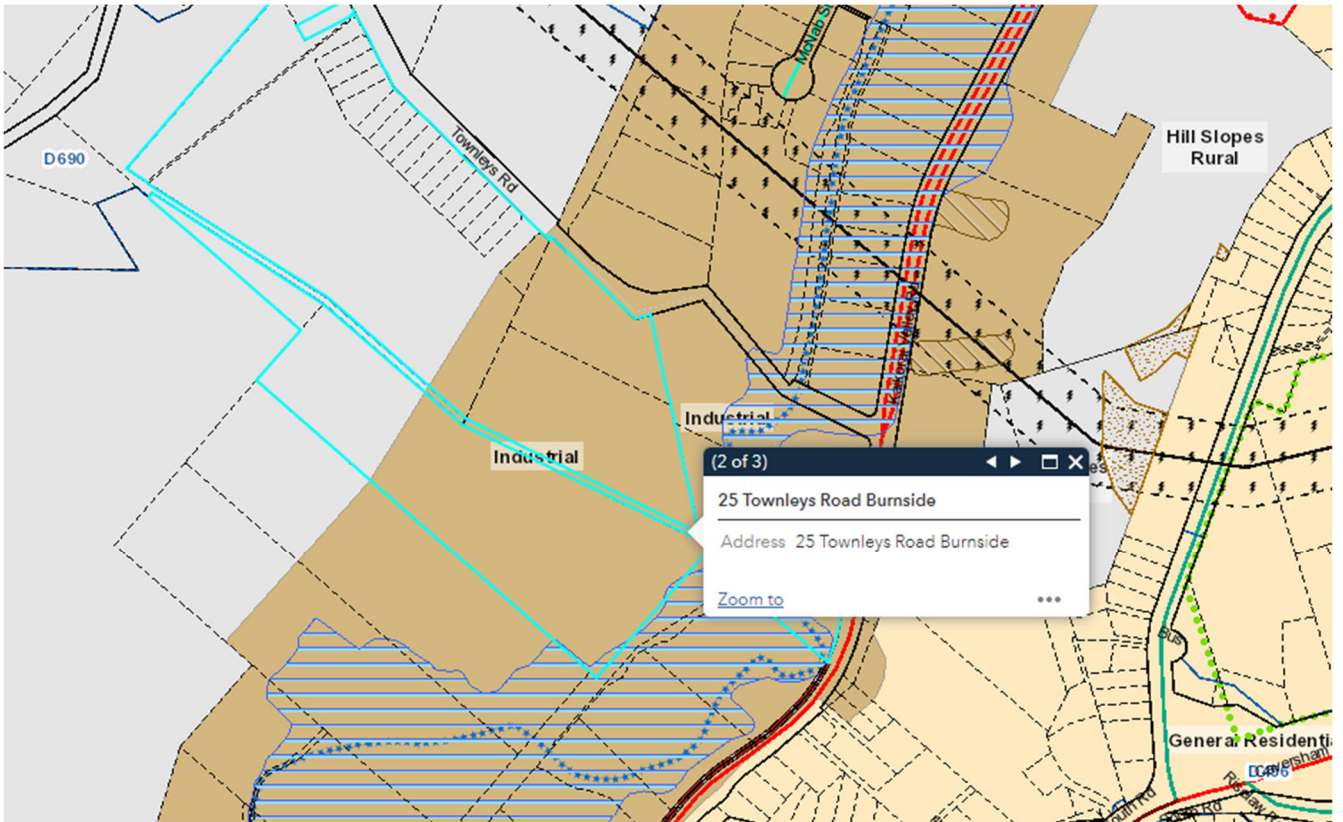
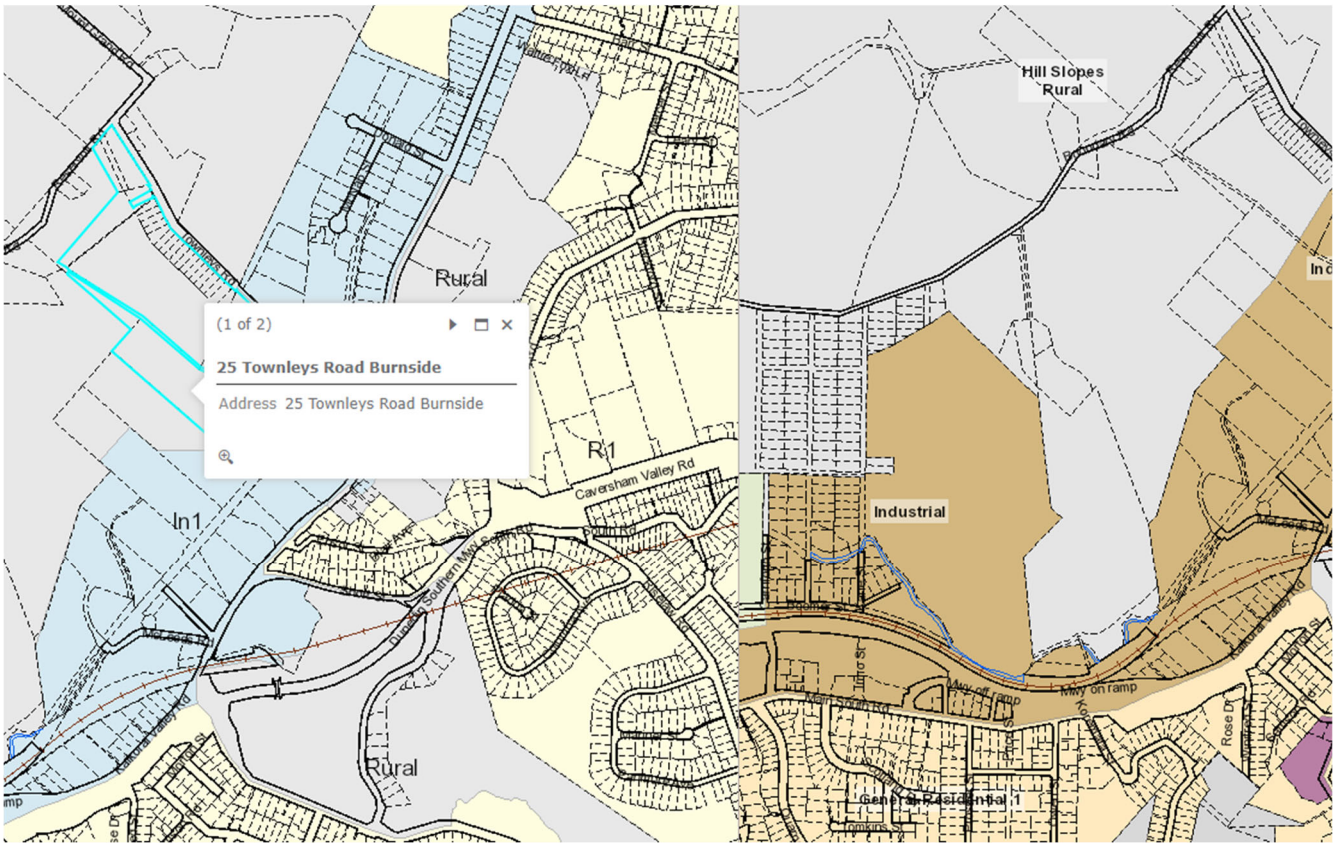


| Relevant Plan or Planning Document | Assessment |
|---|--|
| Operative District Plan (ODP) – Industrial Zone | Land Use (Rule 10.5.5 Non-Complying Activity) -requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) – requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (2GP) – Industrial | Land use Permitted Activities in the Industrial Zone and would not require consent (Rule 19.3.3(3)). |
| Earthworks – Industrial zone | Earthworks exceeding 100m3 these thresholds require consent as a Restricted Discretionary Activity. |
| Traffic | The site has easy access to the Southern Motorway for travel in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for | The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories G3 and E3). A preliminary site investigation (PSI) would need to be undertaken to establish if the NES CS is applicable and a Detailed Site Investigation |

| | |
|--|---|
| Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | (DSI) may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS. |
| Regional Plan: Waste for Otago | Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

25 Townleys Road, Burnside

| Feature | Commentary |
|---------------------------|---|
| Address: | 25 Townleys Road, Burnside |
| Legal Description: | Section 45 and Part Section 32-33 Lower Kaikorai Survey District |
| Site Area: | 77,371 |
| Operative Zoning: | Rural |
| Proposed Zoning: | Industrial/Rural |
| Overlays: | Hazard 2 (flood) Overlay Zone, Kaikoura Stream, Esplanade Reserve |
| Current Use: | Industrial Sheds |



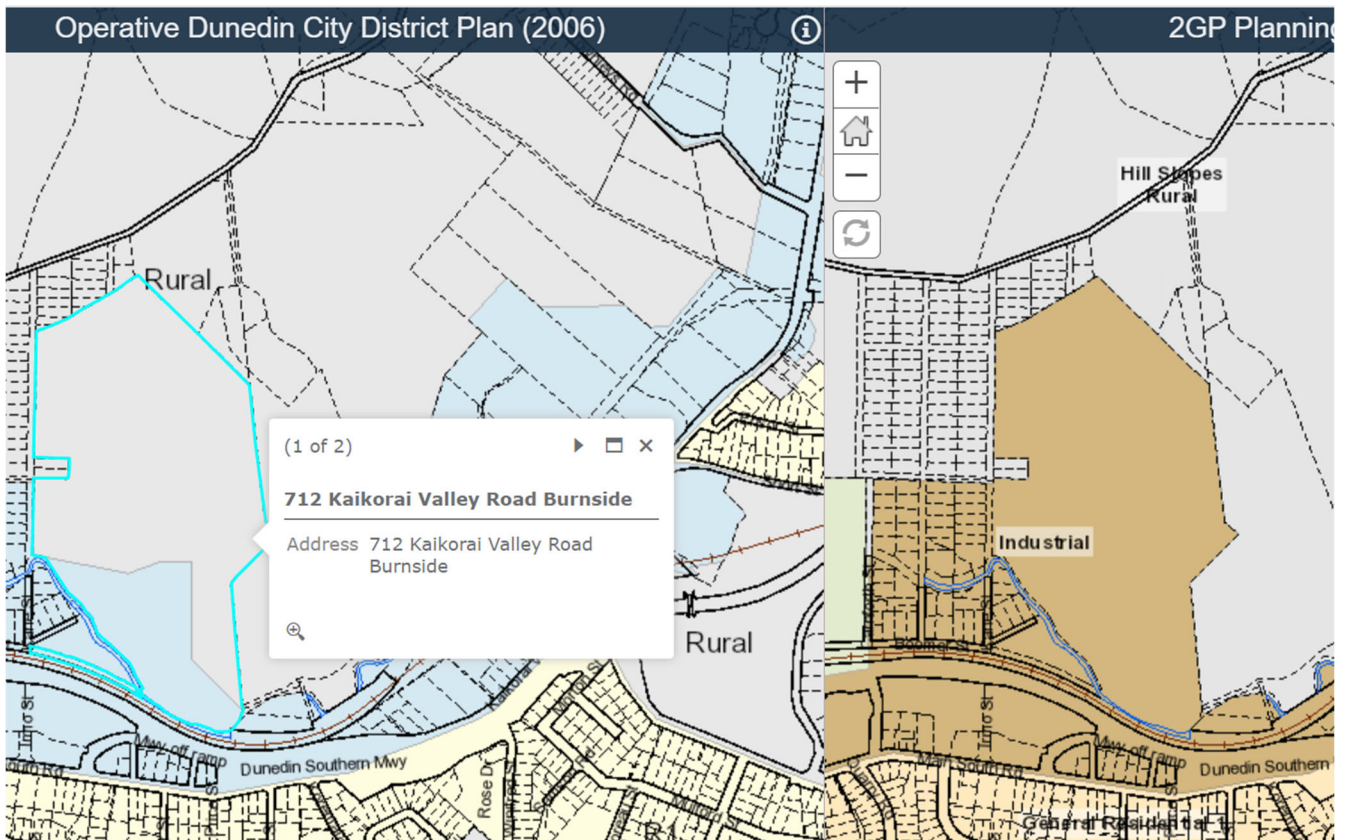
| Relevant Plan or Planning Document | Assessment |
|---|---|
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) – requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (2GP) – Industrial | Land use Permitted Activities in the Industrial Zone and would not require consent (Rule 19.3.3(3)). |
| Proposed District Plan (2GP) – Rural | Land Use (Rule 6.5.7 Non-Complying Activity) - requiring consent |
| Earthworks – Industrial zone | Earthworks exceeding 100m ³ these thresholds require consent as a Restricted Discretionary Activity. |
| Traffic | The site has easy access through Townleys Road for travel in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | The site is not listed within the Hazardous Activities and Industry List (HAIL) indicating Otago Regional Council do not hold information suggesting the site may be contaminated. |
| Regional Plan: Waste for Otago | Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

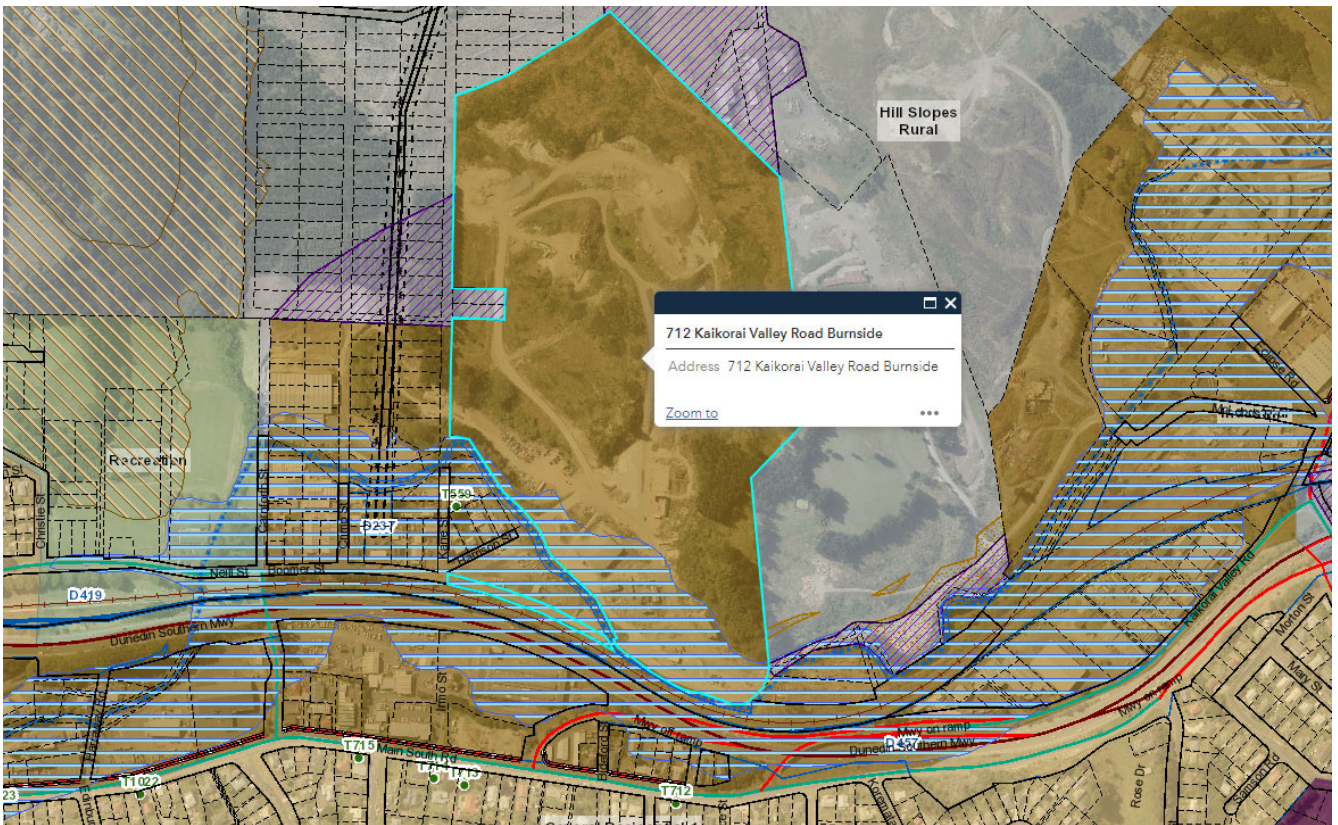
Summary of Opportunities and Constraints for 694 Kaikorai Valley Road and 25 Townleys Road, Burnside

| Opportunities | Constraints |
|---|---|
| <ul style="list-style-type: none"> - Partially Zoned Industrial in the Proposed District Plan - Easy Access - Low likelihood of visual amenity issues from Green Island, Burnside or Concord Communities. - Less amenity issues than other sites - Central location, close proximity to City | <ul style="list-style-type: none"> - Medium Constraint - Likely to require Land use consent for Non-Complying Activity - Potential issues on developing the site due to its size/title composition - Potential Legacy Issues - Availability/Timeliness associated with decommissioning of existing industrial buildings - Commercial Negotiation - Potential issues on developing the site due to its steepness - High Quality Soils on parts of site |

4.1.2 712 Kaikorai Valley Road, Burnside

| Feature | Commentary |
|--------------------|---|
| Address: | 712 Kaikorai Valley Road, Burnside |
| Legal Description: | Lot 1-2 Deposited Plan 21700 |
| Site Area: | 234,143m ² |
| Operative Zoning: | Industrial / Rural |
| Proposed Zoning: | Industrial |
| Overlays: | Hazard 2 (flood) Overlay Zone, Kaikoura Stream, Esplanade Reserve |
| Current Use: | Landfill |





| Relevant Plan or Planning Document | Assessment |
|---|---|
| Operative District Plan (ODP) – Industrial Zone | Land Use (Rule 10.5.5 Non-Complying Activity) -requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) – requiring consent |
| | Earthworks consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (2GP) – Industrial | Land use Permitted Activities in the Industrial Zone and would not require consent (Rule 19.3.3(3)). |
| Earthworks – Industrial zone | Earthworks exceeding 100m3 these thresholds require consent as a Restricted Discretionary Activity. |
| Traffic | The site has access off McLeod Road and through the adjoining property in the same ownership. The site has easy access to the Southern Motorway for travel in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental | The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories G3 and E3). A preliminary site investigation (PSI) would need to be |

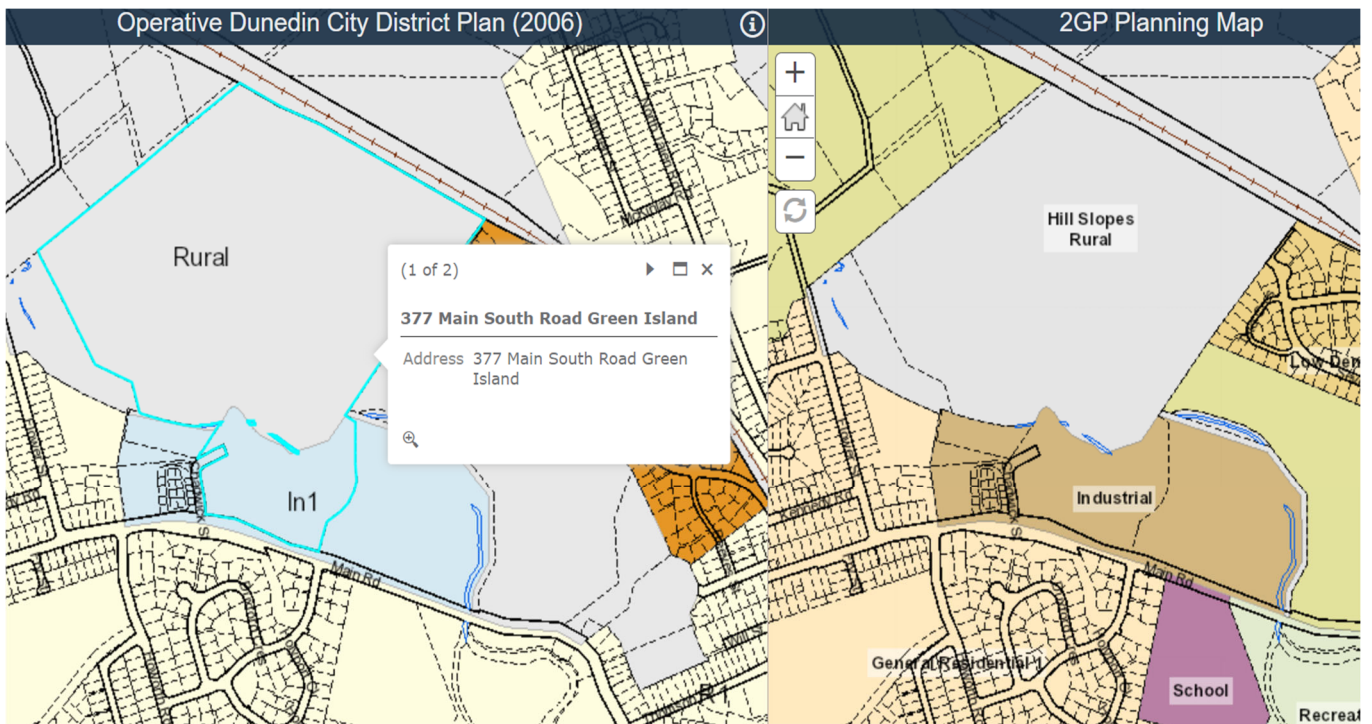
| | |
|---|---|
| Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | undertaken to establish if the NES CS is applicable and a Detailed Site Investigation (DSI) may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS. |
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | <p>Discharge from waste management is discretionary under Rule 16.3.7.3</p> <p>Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1</p> |

Summary of Opportunities and Constraints for 712 Kaikorai Valley Road, Burnside

| Opportunities | Constraints |
|---|--|
| <ul style="list-style-type: none"> – Large Site on Industrial Zoned Land – Medium constraint in the MCA GIS Assessment – Actively working as a landfill site – Easy access – Central location, close proximity to City – There are existing DCC and ORC consents for Landfilling operations on this site. | <ul style="list-style-type: none"> – Questions over available area, the area considered available for this site after considering the steepness of the site is less than 5 ha. – Require commercial negotiation – Visual amenity impacts – Legacy issues from fill |

4.1.3 377 Main South Road, Green Island

| Feature | Commentary |
|--------------------|---|
| Address: | 377 Main South Road Green Island |
| Legal Description: | Lot 200 Deposited Plan 516662 |
| Site Area: | 443,600m ² |
| Operative Zoning: | Rural / Industrial |
| Proposed Zoning: | Rural Hill Slopes / Industrial |
| Overlays: | Hazard 2 (land instability) Overlay, Scheduled Mining Activity (Fairfield Sand Pit), Dunedin Airport Flight Fan, Hazard 2 (flood) Overlay, High Class Soils Mapped Area |
| Current Use: | Quarry |





| Relevant Plan or Planning Document | Assessment |
|--|--|
| Operative District Plan (ODP) – Industrial Zone | Land Use (Rule 10.5.5 Non-Complying Activity) requiring consent |
| | <p>Earthworks</p> <p>consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5).</p> |
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) – requiring consent |
| | <p>Earthworks</p> <p>consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5).</p> |
| Proposed District Plan (G2P) – Rural Hill Slopes | Land use (Rule 16.3.3(46) Non-Complying Activity requiring consent |

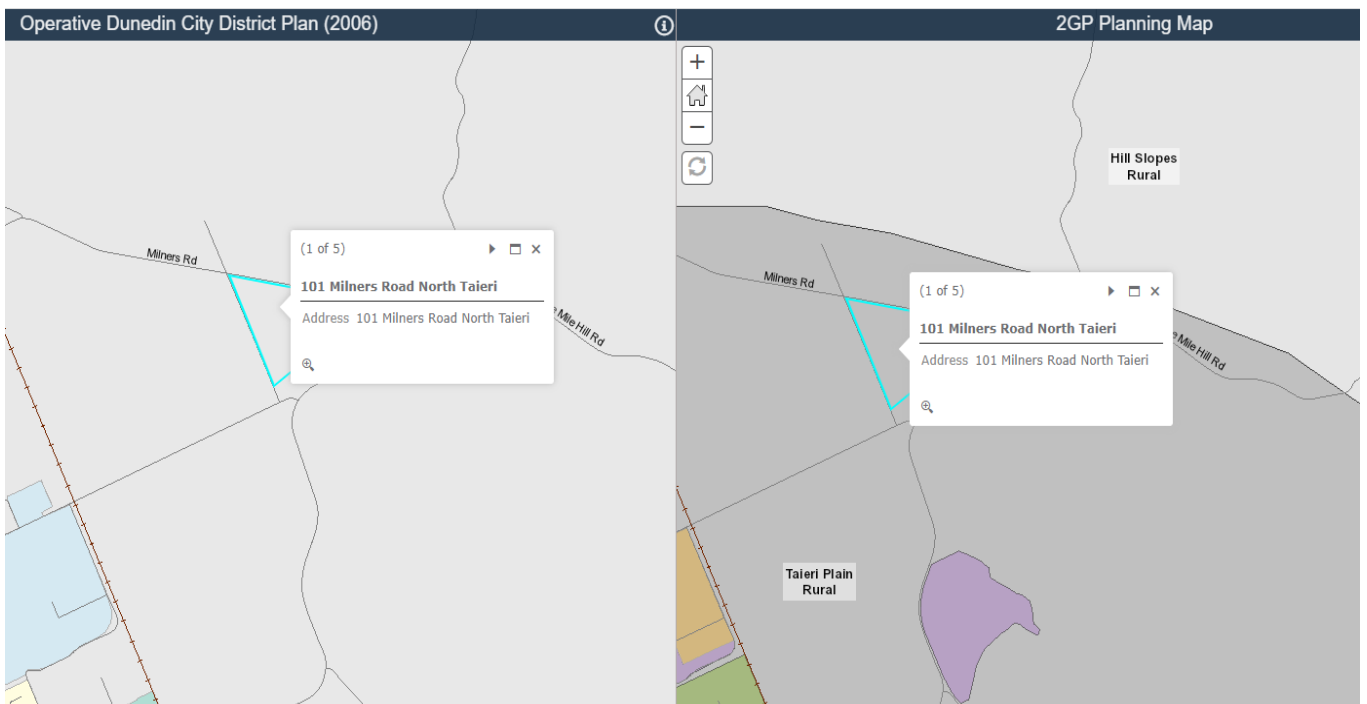
| | |
|--|---|
| Proposed District Plan (2GP) – Industrial | Land use Permitted Activities in the Industrial Zone and would not require consent (Rule 19.3.3(3)). |
| Earthworks | Earthworks exceeding 100m ³ these thresholds require consent as a Restricted Discretionary Activity. |
| Traffic | The site has access off Chadwick Street. The site has easy access to the Southern Motorway in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories A16 and G4). A PSI would need to be undertaken to establish if the NES CS is applicable and a DSI may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS. |
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

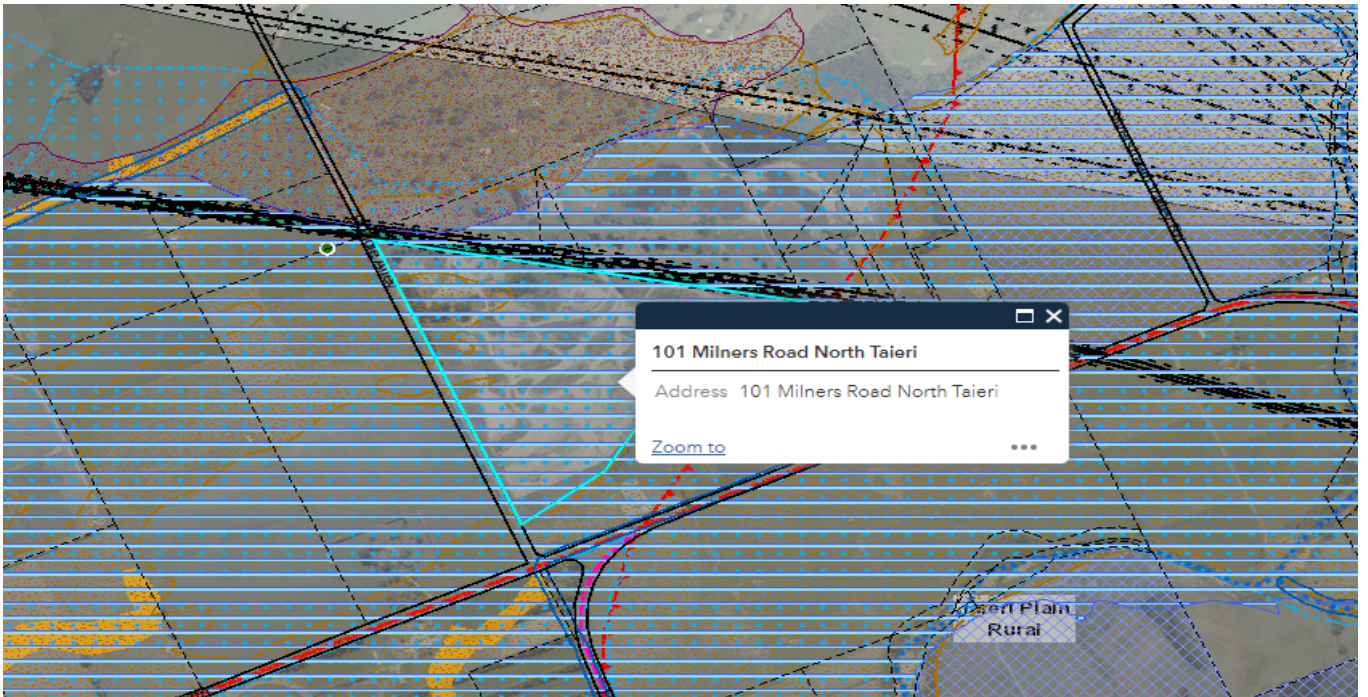
Summary of Opportunities and Constraints for 377 Main South Road, Green Island

| Opportunities | Constraints |
|---|--|
| <ul style="list-style-type: none"> – Area of Historical mining – Close to sewer main – Rural and industrial Land – Commercial negotiations potentially easier due to existing commercial relationship – Low visual and amenity issues – Easy access | <ul style="list-style-type: none"> – Low- Medium Constraint – Within The Taieri aerodrome fan – Potential legacy issues – Potential odour issues for neighbours – Potential geotechnical and stability issues |

4.1.4 101 Milners Road, North Taieri

| Feature | Commentary |
|---------------------------|--|
| Address: | 101 Milners Road, North Taieri |
| Legal Description: | Lot 2 Deposited Plan 9055 |
| Site Area: | 213,699m ² |
| Operative Zoning: | Designated Site (D643) |
| Proposed Zoning: | Designated Site (D643) |
| Overlays: | Groundwater Protection Zone A, Hazard 2 (flood) Overlay Zone, Groundwater Protection, Dunedin Airport Flight Fan, High Class Soils Mapped Area, Wāhi Tupuna Mapped Area (southwest edge of the site) |
| Current Use: | Landfill |





| Relevant Plan or Planning Document | Assessment |
|--|---|
| Operative District Plan (ODP) and Proposed District Plan 2GP – Designation (D643) | <p>Land Use</p> <p>The site is designated to Dunedin City Council - Milners Pit/Closed North Taieri Tip - Hard Fill Disposal, Composting and Quarry.</p> <p>The site is Designated, and the District Plan rules are therefore not applicable. An outline plan will be required to be submitted to the Council's consenting team under the designation for any new facilities to support the RRPP. Reference to refuse processing operations and activities in the Designation Purpose is considered sufficiently broad to capture RRPP activities.</p> |
| Traffic | <p>The site has access off Milners Road. The site is not in close proximity to main arterial routes or motorways.</p> <p>Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment.</p> |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | <p>The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories G3). A preliminary site investigation (PSI) would need to be undertaken to establish if the NES CS is applicable and a Detailed Site Investigation (DSI) may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS.</p> |
| Regional Plan: Waste for Otago | <p>Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1.</p> <p>Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10.</p> <p>Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13.</p> |

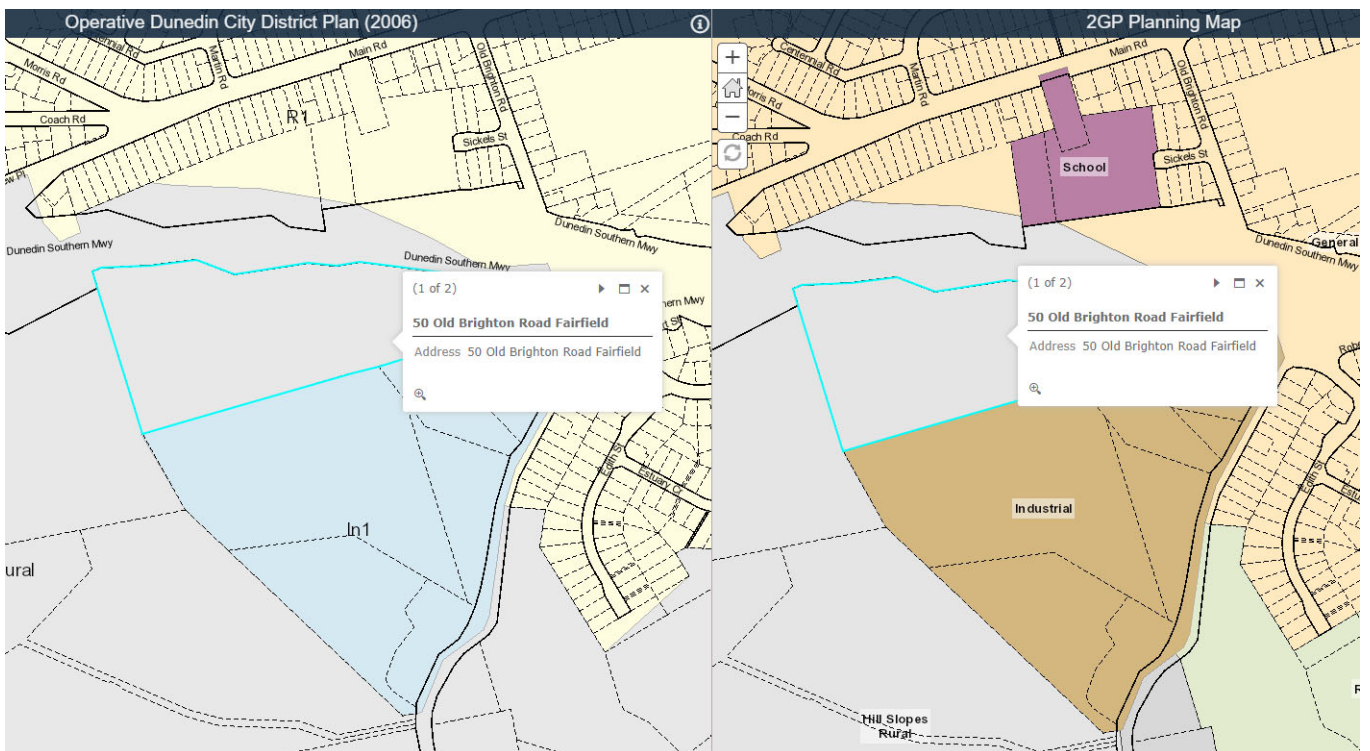
| | |
|---------------------------------------|---|
| Regional Plan: Water for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Discharge of municipal waste and hazardous wastes to land is a discretionary activity 7.6.1.1 – Discharge of leachate to land that may result in contaminants entering water is a discretionary activity 7.6.1.2 – Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Air for Otago | <ul style="list-style-type: none"> Discharge from waste management is discretionary under Rule 16.3.7.3 Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

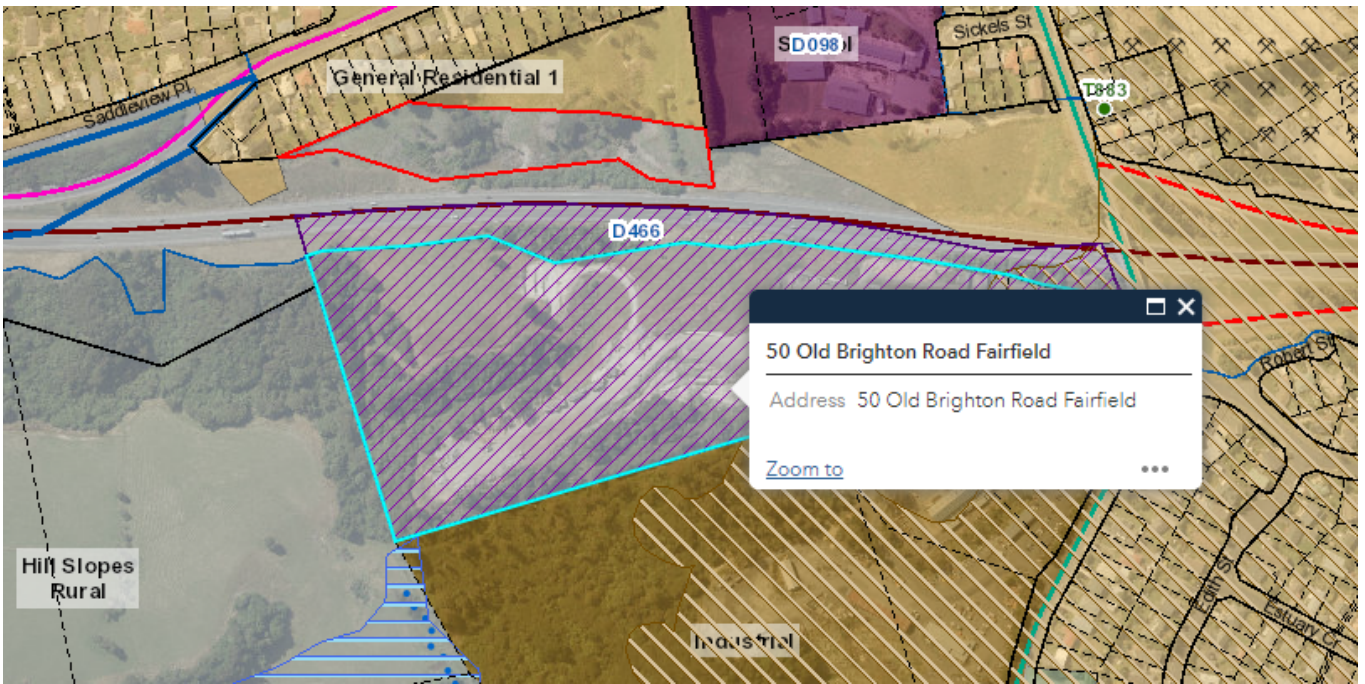
Summary of Opportunities and Constraints for 101 Milners Road, North Taieri

| Opportunities | Constraint |
|---|--|
| <ul style="list-style-type: none"> – The site is designated – Medium Constraint in the Suitability Map – Good access – Relatively far from residential areas – Current use fill disposal and composting facilities | <ul style="list-style-type: none"> – Within the Taieri Airfield constraints area – Risk receiving organics due to proximity with airfield – Would require the establishment of a refuse transfer station in the city – Distant and remote location – Underlying landfill and/or cleanfill |

4.1.5 50 Old Brighton Road, Fairfield

| Feature | Commentary |
|---------------------------|--|
| Address: | 50 Old Brighton Road, Fairfield |
| Legal Description: | Section 3 Survey Office Plan 324240 and Section 1, 4-5 Survey Office Plan 352669 |
| Site Area: | 86,356m ² |
| Operative Zoning: | Rural |
| Proposed Zoning: | Rural Hill Slopes |
| Overlays: | Industrial Transition Overlay, Designation (D466) NZTA Motorway Purposes |
| Current Use: | Industrial depot |





| Relevant Plan or Planning Document | Assessment |
|--|--|
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (G2P) – Rural Hill Slopes | Land Use (Rule 6.5.7 Non-Complying Activity) requiring consent |
| Earthworks | Permitted volumes of earthworks are based on volume per 100m ² of site and subject to gradient. Where the part of the site in which the earthworks are located is in more than one slope category, the most restrictive volume threshold applies. |
| Traffic | The site has access off Old Brighton Road. The site has easy access to the Southern Motorway in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for Assessing and | The site is not listed within the Hazardous Activities and Industry List (HAIL) indicating Otago Regional Council do not hold information suggesting the site may be contaminated. |

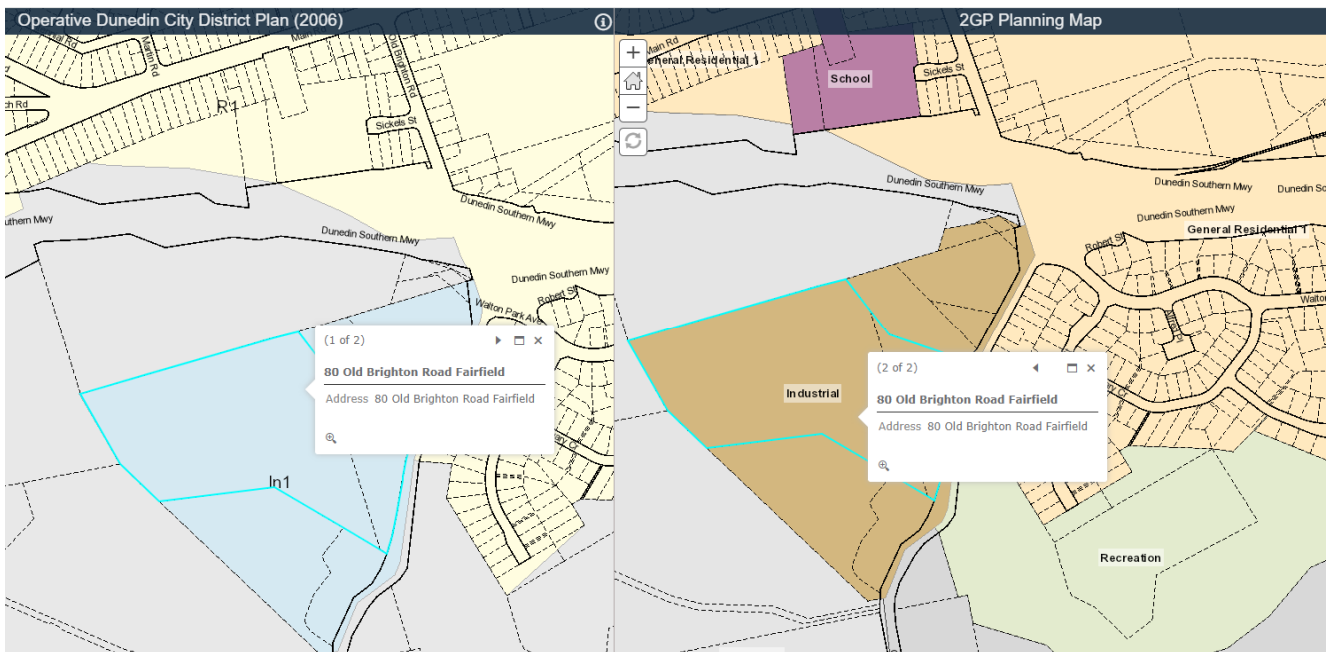
| | |
|--|---|
| Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | |
| Regional Plan: Waste for Otago | Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 |
| | Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

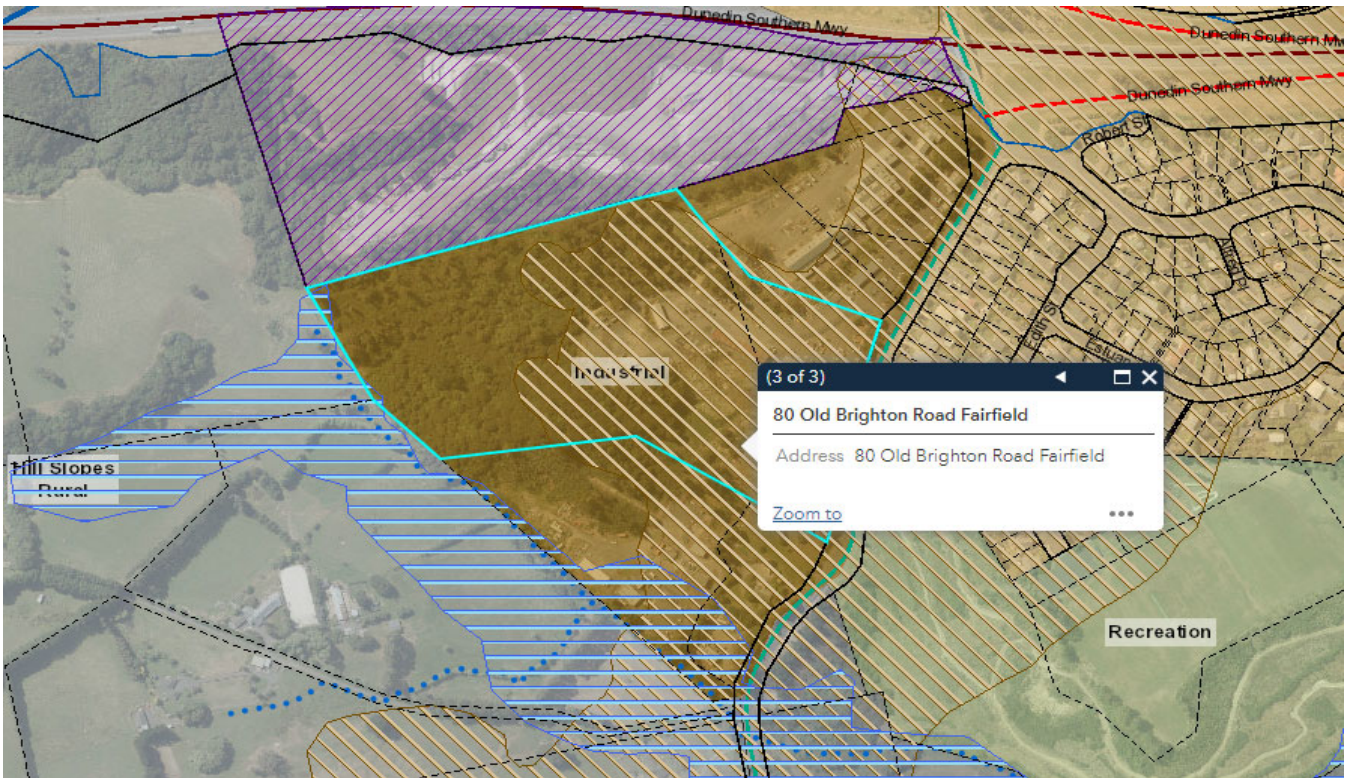
Summary of Opportunities and Constraints for 50 Old Brighton Road, Fairfield

| Opportunities | Constraints |
|---|--|
| <ul style="list-style-type: none"> – Transition to Industrial Overlay in the PDP – Low-Medium Constraint in the Suitability Map – Current land use as a cleanfill site – Proximity to State Highway – Low visual or amenity issues (distance and location) | <ul style="list-style-type: none"> – Significant vegetation removal required – Close to residential areas – Limited area available for development – Potential legacy issues, fill quality and contamination. – Access will require permission by owners of 80 Old Brighton Road – Access will be difficult for large vehicles – Would require significant roading improvements i.e. roundabout – Commercial negotiation |

4.1.6 80 Old Brighton Road, Fairfield

| Feature | Commentary |
|---------------------------|--|
| Address: | 80 Brighton Road, Fairfield |
| Legal Description: | Part Section 41 Block VII and Part Section 69 Block VII Dunedin & East Taieri Survey District, 91,530 m ² |
| Site Area: | 91,530m ² |
| Operative Zoning: | Industrial |
| Proposed Zoning: | Industrial |
| Overlays: | Hazard 2 (land instability) Overlay, Hazard 2 (flood) Overlay |
| Current Use: | Industrial depot |





| Relevant Plan or Planning Document | Assessment |
|---|---|
| Operative District Plan (ODP) – Industrial Zone | Land Use (Rule 10.5.5 Non-Complying Activity) requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (2GP) – Industrial | Land use Permitted Activities in the Industrial Zone and would not require consent (Rule 19.3.3(3)). |
| Earthworks | Earthworks exceeding 100m ³ these thresholds require consent as a Restricted Discretionary Activity. |
| Traffic | The site has access off Old Brighton Road. The site has easy access to the Southern Motorway in either direction allowing for efficient transport of waste to and from the site. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |
| National Environmental Standard for Assessing and Managing | The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories F4, F8 and A17). A PSI would need to be undertaken to establish if the NES CS is applicable and a DSI may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS. |

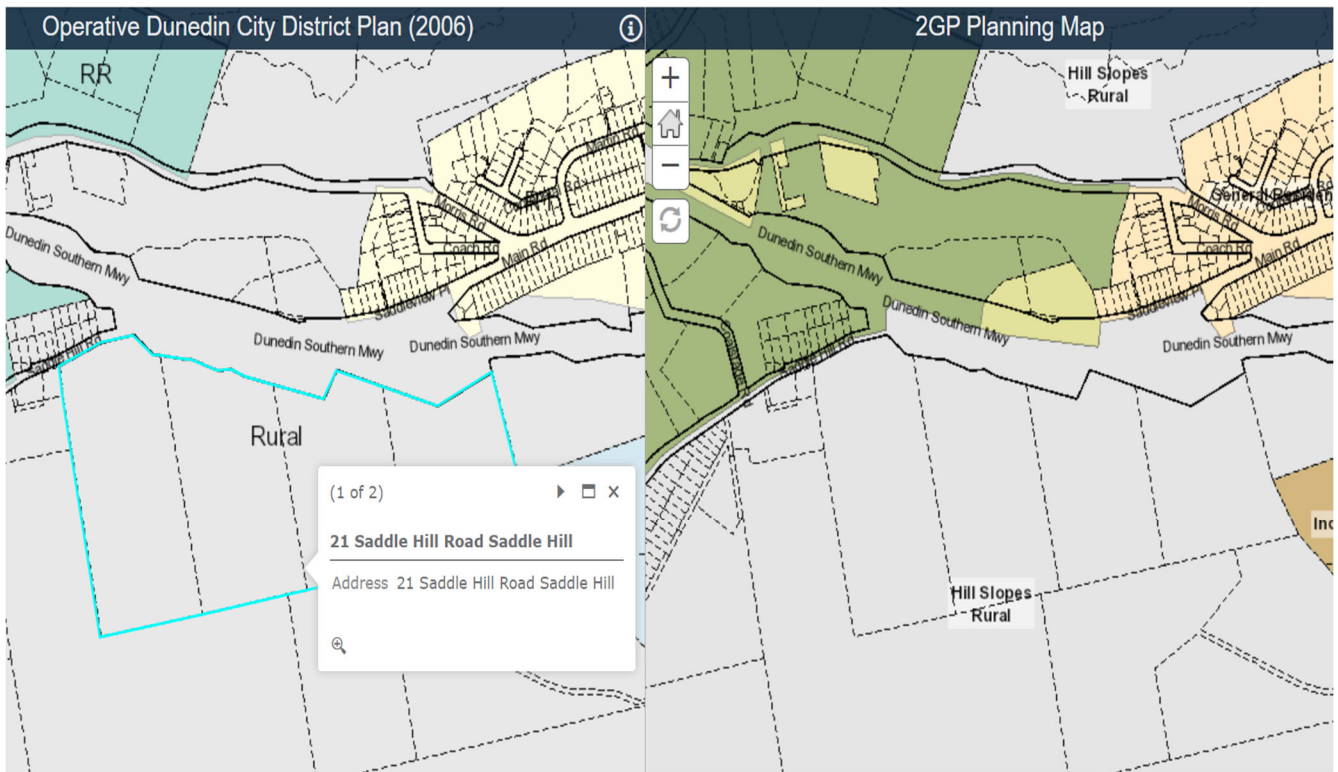
| | |
|---|---|
| Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | |
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Discharge of municipal waste and hazardous wastes to land is a discretionary activity 7.6.1.1 – Discharge of leachate to land that may result in contaminants entering water Is a discretionary activity 7.6.1.2 – Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 |
| | Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

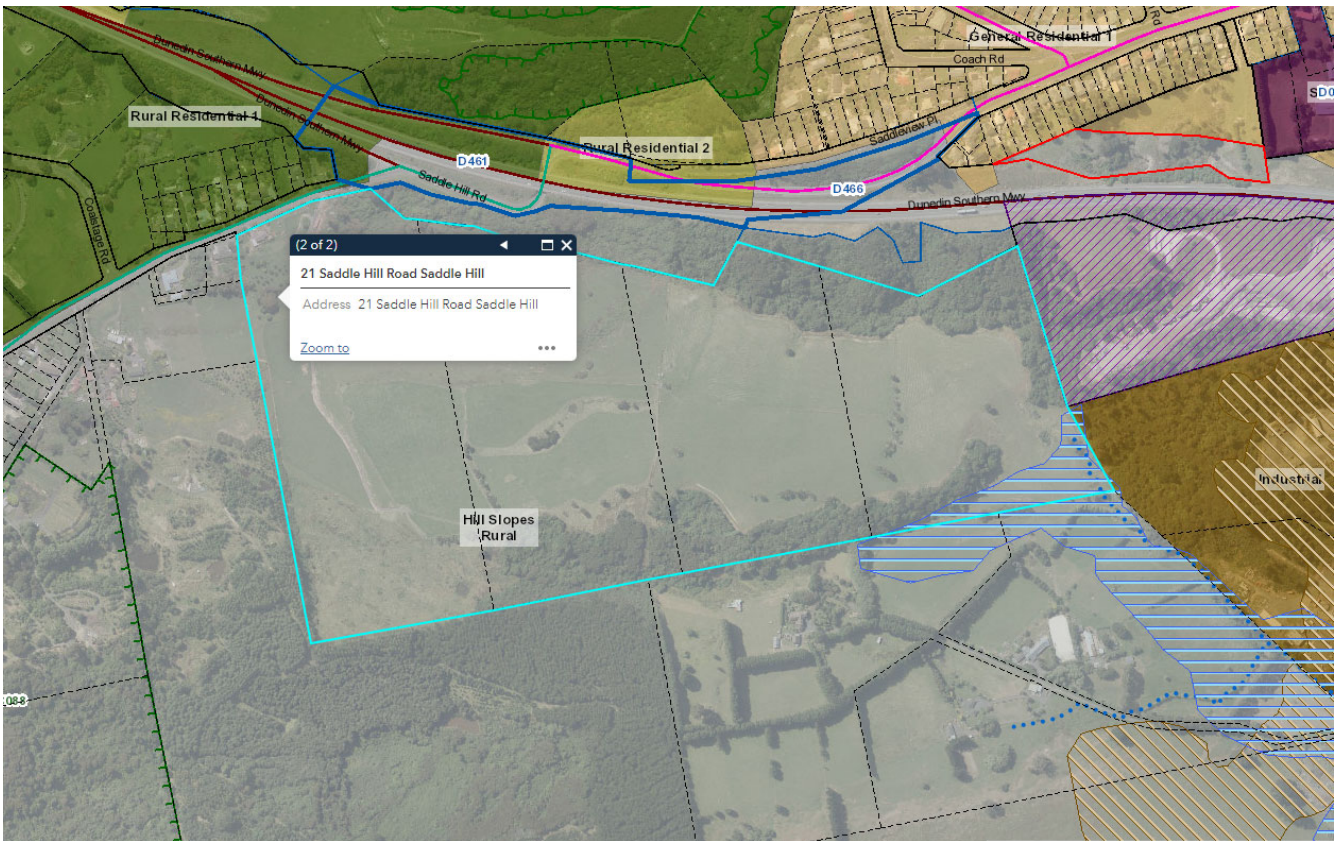
Summary of Opportunities and Constraints for 80 Old Brighton Road, Fairfield

| Opportunities | Constraints |
|---|--|
| <ul style="list-style-type: none"> – Industrial Zoning in the Proposed District Plan – Low-Medium Constraint in the Suitability Map – Current land use as an industrial depot – Easy Access – Proximity to State Highway – Low visual or amenity issues due to distance. – Visual screening in place | <ul style="list-style-type: none"> – Significant vegetation removal required – Close to residential areas – Limited area available for development – Topography challenges – Commercial negotiation |

4.1.7 21 Saddle Hill Road, Saddle Hill

| Feature | Commentary |
|---------------------------|--|
| Address: | 21 Saddle Hill Road, Saddle Hill |
| Legal Description: | Section 38 Block VII and Section 39-40 Block VII Dunedin & East Taieri Survey District and Part Section 37 Block VII Dunedin & East Taieri Survey District |
| Site Area: | 493,109m ² |
| Operative Zoning: | Rural |
| Proposed Zoning: | Rural Hill Slopes |
| Overlays: | Hazard 2 (flood) Overlay |
| Current Use: | Pasture |





| Relevant Plan or Planning Document | Assessment |
|---|---|
| Operative District Plan (ODP) – Rural Zone | Land Use (Rule 6.5.7 Non-Complying Activity) – requiring consent |
| | Earthworks Consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5). |
| Proposed District Plan (G2P) – Rural Hill Slopes | Land use (Rule 16.3.3(46) Non Complying Activity requiring consent |
| Earthworks | Permitted volumes of earthworks are based on volume per 100m ² of site and subject to gradient. Where the part of the site in which the earthworks are located is in more than one slope category, the most restrictive volume threshold applies. |
| Traffic | The site has access off Saddle Hill Road. The site is in close proximity to the Southern Motorway in either direction allowing for efficient transport of waste to and from the site. Vehicles would, however, be required to travel through residential areas. Activities that generate 250 or more equivalent vehicle movements per day will require submission of an Integrated Traffic Assessment. |

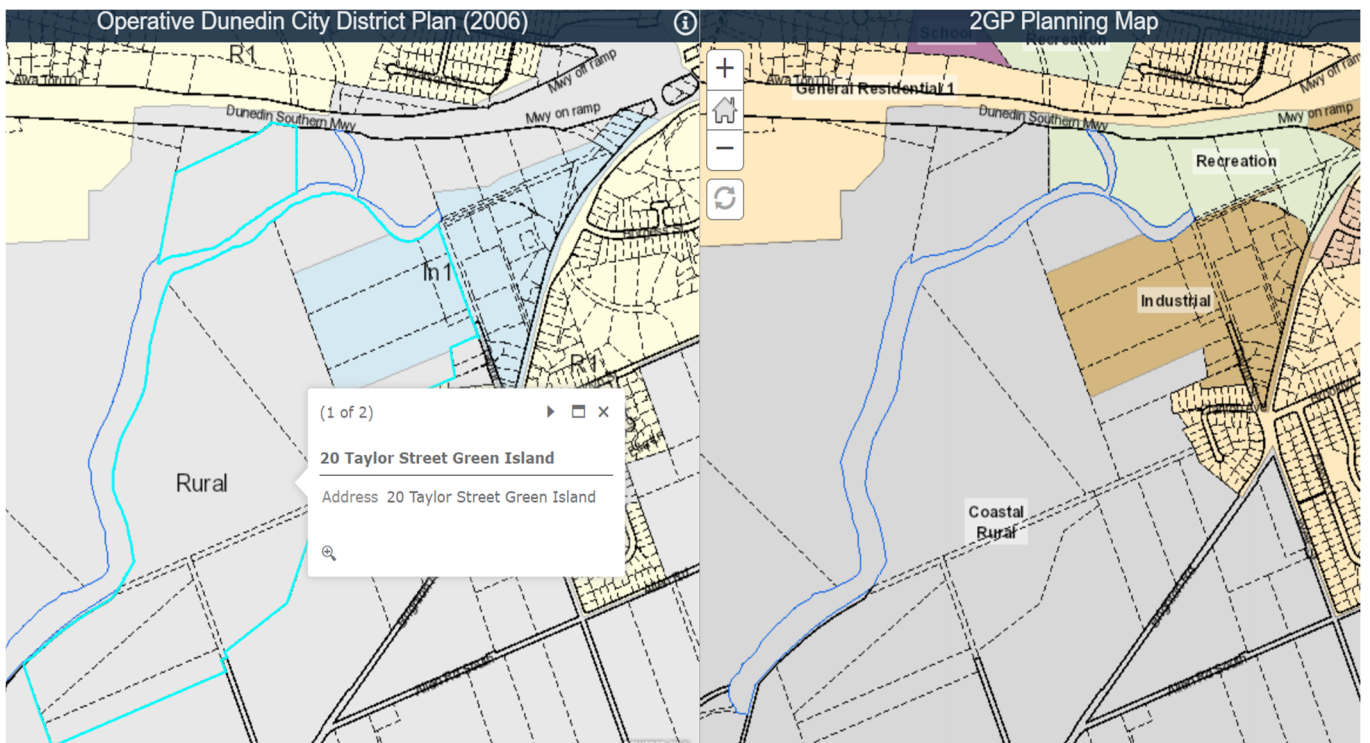
| | |
|--|---|
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | The site is not listed within the Hazardous Activities and Industry List (HAIL) indicating Otago Regional Council do not hold information suggesting the site may be contaminated. |
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13. |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3 Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1 |

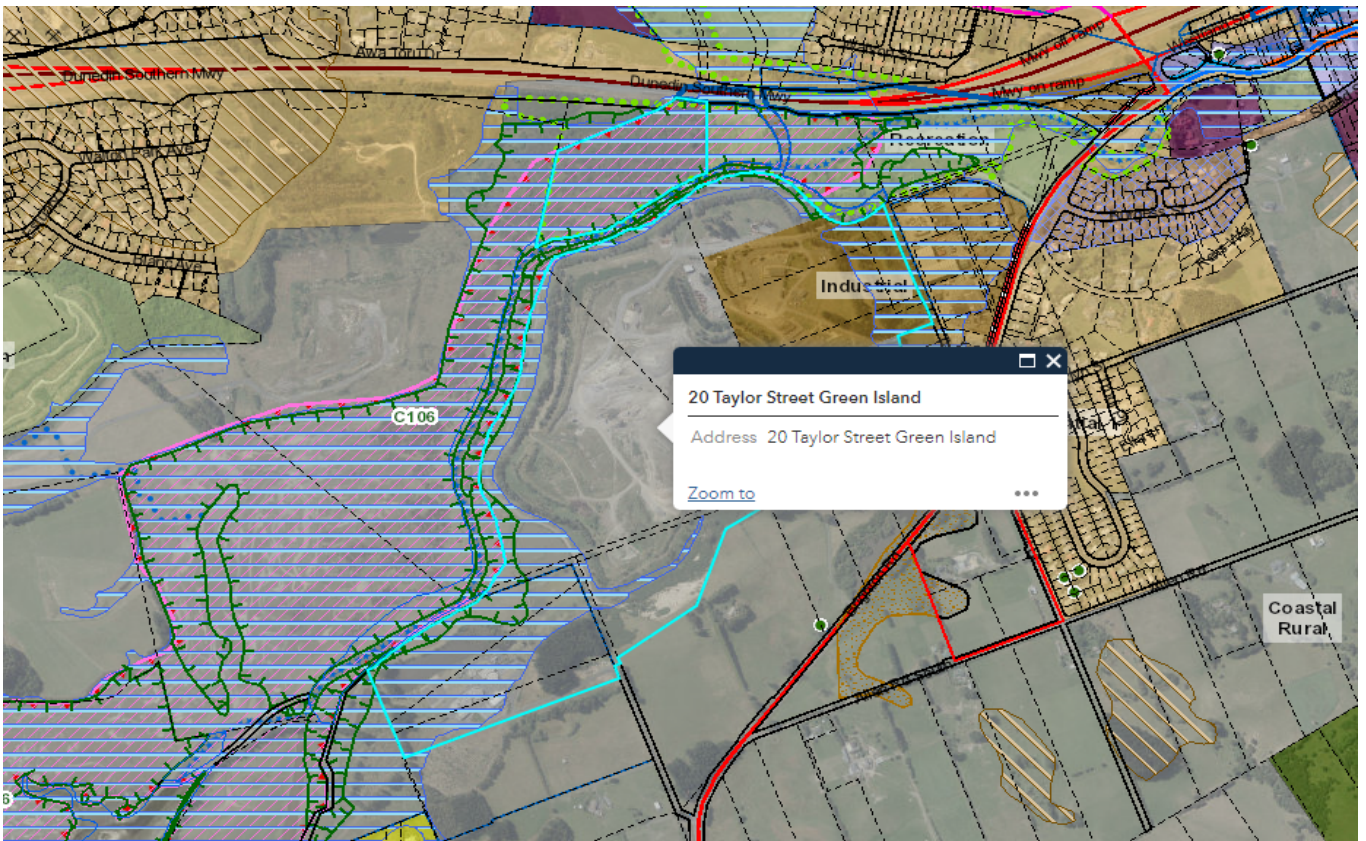
Summary of Opportunities and Constraints for 21 Saddle Hill Road, Saddle Hill

| Opportunities | Constraints |
|---|---|
| <ul style="list-style-type: none"> – Low Constraint in the suitability Map – Rural Land – Large sections – Could be developed in many ways to minimise effects – Relatively far from residential areas | <ul style="list-style-type: none"> – Green field development – Public traffic through Fairfield – Trucks will have to travel further (likely down to Mosgiel roundabout and back up). – Added Operational Costs – Visual effects on lifestyle properties – Costs of acquiring land (large parcel) |

4.1.8 20 Taylor Street, Green Island

| Feature | Commentary |
|---------------------------|---|
| Address: | 20 Taylor Street Green Island |
| Legal Description: | Part Section 45-47 Green Island Bush Survey District |
| Site Area: | 490,242m ² |
| Operative Zoning: | Designated Site (D658) |
| Proposed Zoning: | Coastal Rural / Industrial |
| Overlays: | Hazard 2 (flood) Overlay, Archaeological Alert Layer Mapped Area, Wāhi Tupuna Mapped Area, Area of Significant Biodiversity Value |
| Current Use: | Landfill |





| Relevant Plan or Planning Document | Assessment |
|--|--|
| Operative District Plan (ODP) – Designation (D658) | <p>Land Use</p> <p>The site is designated by Dunedin City Council as Green Island Landfill - Landfilling and Associated Refuse Processing Operations and Activities.</p> <p>The site is Designated, and the District Plan rules are therefore not applicable. An outline plan of works will be required to be submitted to the Council's consenting team for any new facilities to support the RRPP. Reference to refuse processing operations and activities in the Designation Purpose is considered sufficiently broad to capture RRPP activities.</p> |
| Earthworks | <p>As the site is Designated the District Plan rules are not applicable. An outline plan of works will be required to be submitted to the Council's consenting team for any new facilities to support the RRPP.</p> |
| Traffic | <p>The site has access off Taylor Street and adjoining property in the same ownership. The site has easy access to the Southern Motorway in either direction allowing for efficient transport of waste to and from the site.</p> |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | <p>The site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories G3). A preliminary site investigation (PSI) would need to be undertaken to establish if the NES CS is applicable and a Detailed Site Investigation (DSI) may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS.</p> |

| | |
|---------------------------------------|---|
| Regional Plan: Waste for Otago | <ul style="list-style-type: none"> – Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1. – Greenwaste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10. – Discharge of municipal waste and hazardous wastes to land is a discretionary activity 7.6.1.1 – Discharge of leachate to land that may result in contaminants entering water – Is a discretionary activity 7.6.1.2 <p>Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13.</p> |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | <p>Discharge from waste management is discretionary under Rule 16.3.7.3</p> <p>Discharge to air from a composting or green waste landfill is discretionary under rule 16.3.14.1</p> |

Summary of Opportunities and Constraints for 20 Taylor Street, Green Island

| Opportunities | Constraints |
|---|---|
| <ul style="list-style-type: none"> – Designated Site – Easy consenting pathways – Low Constraint in the suitability Map – Existing access – Existing DCC ownership | <ul style="list-style-type: none"> – Potential Odour issues – Potential amenity issues – Close to residential neighbours |

5. Shortlist MCA Assessment

From the short list options a further MCA analysis was undertaken to complete the desktop analysis of preferred sites. The assessment was completed with the information in the high level planning assessment in section 4 and the “soft data” captured in the second workshop with DCC. Each site in the short list was scored for overall suitability with the following criteria:

Table 5 MCA Assessment Criteria

| Investment | Environmental/cultural | Critical Success |
|-----------------------------|-----------------------------|--------------------------|
| Consentability | Impact on the environment | Constructability |
| Affordability/cost -Benefit | Effects on residents nearby | Flexibility |
| Operational Aspects | Community Aspects | Score on Suitability Map |
| | | Legacy Issues |

All options have been scored against the same set of criteria for an objective evaluation of benefits risks and challenges in accordance with the following scoring criteria.

Table 6 Scoring Criteria

| Criterion | Score |
|---|--------------|
| Strongly meets the criteria in all respects | 3 |
| Meets the criteria in most respects | 2 |
| Partially meets the criteria | 1 |
| Does not meet the criteria | 0 |

Table 7 Shows the scores for the shortlisted sites.

Table 7 Short List Scoring

| | 19 Boundary Road, Green Island/20 McLeods Road, Green Island | 694 Kaikorai Valley Road/25 Townleys Road, Burnside | 712 Kaikorai Valley Road, Burnside | 377 Main South Road, Green Island | 101 Milners Road | 50 Old Brighton Road, Fairfield | 80 Old Brighton Road, Fairfield | 21 Saddle Hill Road, Saddle Hill | 20 Taylor Street |
|-------------------------------|--|---|------------------------------------|-----------------------------------|------------------|---------------------------------|---------------------------------|----------------------------------|------------------|
| Investment | | | | | | | | | |
| Consentability | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 3 |
| Affordability/costs/ benefits | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 |
| Operational Aspects | 1 | 2 | 2 | 2 | 1 | 3 | 3 | 1 | 3 |
| Environmental | | | | | | | | | |
| Impact on the environment | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| Effects on residents nearby | 2 | 2 | 2 | 0 | 3 | 2 | 2 | 2 | 1 |
| Cultural Aspects | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 |
| Community Aspects | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | 1 |
| Critical Success | | | | | | | | | |
| Constructability | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | 3 |
| Flexibility | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 |
| Overall MCA Score | 2 | 2 | 3 | 2 | 3 | 3 | 3 | 3 | 3 |
| Legacy issues | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 2 | 3 |
| Total | 19 | 20 | 21 | 17 | 24 | 22 | 24 | 23 | 27 |
| Ranking | 7 | 6 | 5 | 7 | 2 | 4 | 2 | 3 | 1 |

6. Conclusions

The DCC has committed to reducing waste to landfill through the Waste Minimisation and Management Plan (WMMP) strategic plan, which set to achieve zero waste to landfill by 2040. To achieve this plan the introduction of new kerbside collections from 1 July 2023 will occur, with separation of waste into four bins (general waste, FOGO, Plastics and Paper, and Glass). To ensure diversion of this waste from landfill is achieved, a resource recovery and recycling facility is required. The potential location of a new RRPP was considered as part of this site options evaluation study, which used a spatial multi-criteria analysis approach to identify a long-list of site options. This approach identified 18 potential sites which met the initial screening criteria. The list of sites was further interrogated through an interactive workshop with DCC technical staff to reduce the available options to a short-list of eight sites. A high-level planning assessment was then overlaid to further characterise the site suitability, from which a scoring for each attribute was applied to ultimately identify a preferred site.

This systematic approach to site identification can produce different results depending on the weighting and scoring applied to the attributes used in the MCA process. However, the approach is considered to be robust, transparent, and repeatable (given the assumptions).

The key findings of the analysis were:

- Land that is already designated for waste facilities is at a significant advantage to establish RRPP facilities. There were two designated sites at 20 Taylor Street and 101 Milners Road. The designations are sufficiently broad to accommodate to capture RRPP activities.
- Industrial Zones are best suited for the establishment of a RRPP. However, there are limited pockets of sufficiently sized Industrial Zone land within reasonable proximity to Dunedin City.
- Rural sites are considered suitable and a viable option for the establishment of a RRPP. However, the contractual negotiations to acquire the land and potential environmental effects add further constraints.
- For consenting purposes in the Rural Zone, Non-Complying Activity consents are likely to be required. However, a Notice of Requirement to Designate the site is a viable option. This approach would require time to achieve an outcome, which may not align with the timeframes for the implementation of an RRPP.
- Based on the MCA assessment, the most favourable site for the establishment of the RRPP is the site at **20 Taylor Street Green Island**.
 - The site is designated and therefore an Outline Plan (OPW) would be required to be submitted to the Council's consenting team under the designation for any new facilities to support the RRPP. Regional consents will be required for discharges to Air and Water under the Otago Regional Plans Waste and Water. However, all the sites considered will require regional consents.
 - A more detailed planning assessment is recommended should DCC decide to proceed with the establishment of the RRPP facilities at 20 Taylor Street, Green Island.
- Two alternative sites were identified for the establishment of the RRPP facilities (i.e. these sites scored second equal in the MCA process): **80 Brighton Road Fairfield** and **101 Milners Road Taieri**.
 - Environmental, consenting and cost constraints have been identified for the development of the site at 80 Brighton Road, including DCCs ability to obtain a commercial arrangement with the current owner Fulton Hogan Limited within timeframes to meet the kerbside collection process. In addition, it is likely that further consents are required for vegetation removal and upgrades for the access.
 - Part of the site of the site at 101 Milners Road is designated to Dunedin City Council for the Milners Pit/Closed North Taieri Tip - Hard Fill Disposal, Composting and Quarry. However, the main constraints for the site are the proximity to the Taieri Airfield and the remoteness of the site from the city urban areas. This will then likely require the establishment of a Resource Transfer Station within the city bounds.

Based on the site options evaluation approach adopted for this study the site at 20 Taylors Road, Green Island, which is on the existing GI Landfill site, is preferred. It has the necessary site requirements to achieve operational efficiencies now and into the future, the proximity to main road network is very good, existing utilities are availability (power, sewer, water), it is deemed to be consentable (as it has existing designations), the site is

owned by DCC and the facility can be constructed in the timeframes required, and the impacts to the environment are likely to be acceptable.

Appendix A

Spatial MCA Constraint Scoring

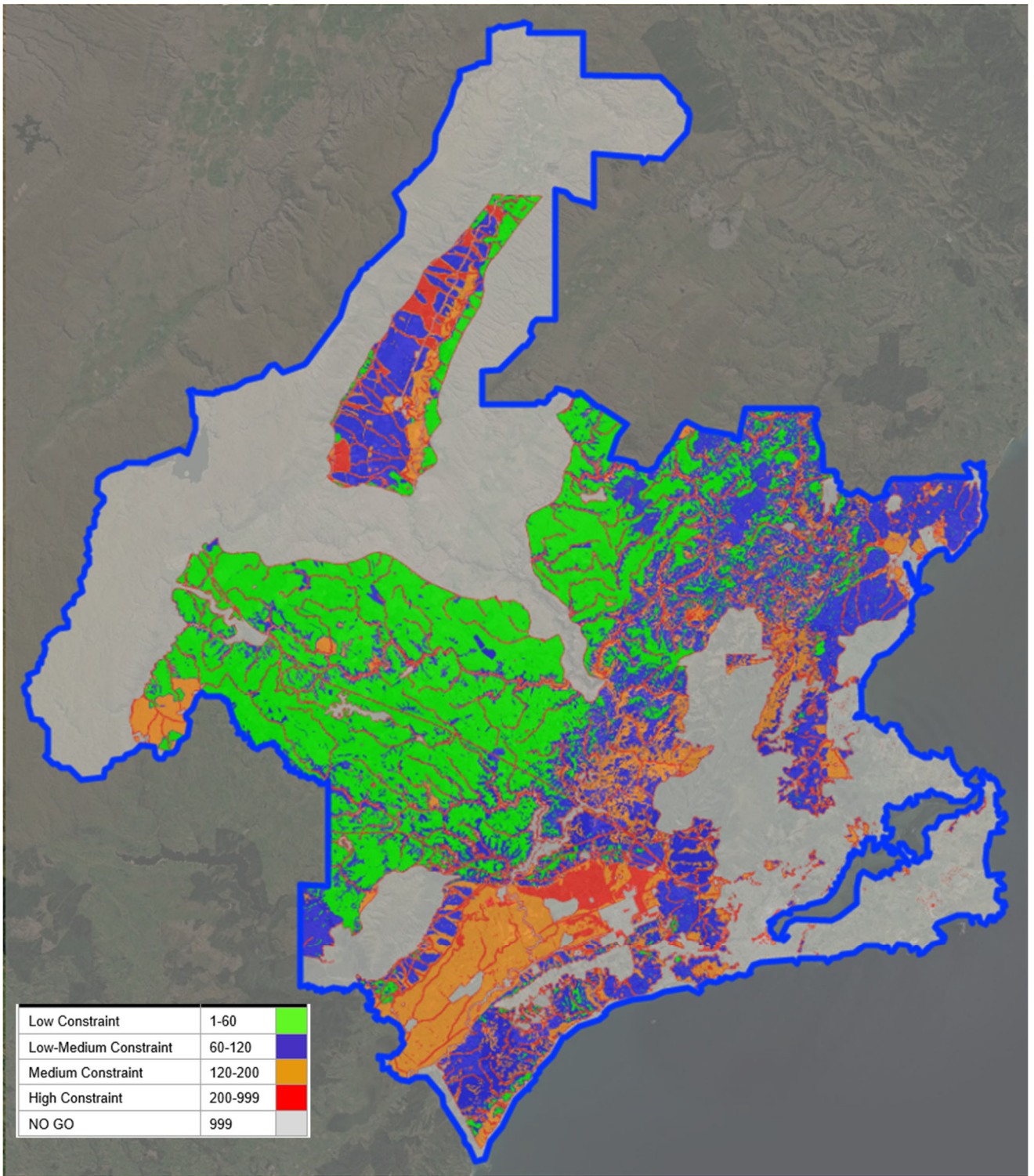
Spatial MCA Constraint Scoring

| CATEGORY | ORDER | GIS CONTENT | GIS ITEMS FOR SCORES | BUFFER WHEN NEEDED | SCORING - v2 |
|----------------------------------|---|--|---|--------------------|--------------|
| BUILT CONSTRAINTS | B01 | LINZ Building Outlines | LINZ Building Outlines | 20m | 40 |
| | B02 | Proximity to Road | Proximity to Road Parcels | 5m | 20 |
| | B03 | Proximity to Railway | Proximity to Railway | 20m | 20 |
| | B04 | Water Pipes | Water Pipes - Trunk | 5m | 100 |
| | B05 | Wastewater Pipes | Wastewater Pipes - Trunk | 5m | 100 |
| | B06 | Stormwater Pipe | Stormwater Pipe - Trunk | 5m | 100 |
| | B07 | Gas line | Gas line | 5m | 999 |
| | B08 | PowerLine | Transpower Line | 5m | 999 |
| ENVIRONMENT/ PHYSICAL | E01 | DOC_Public_Conservation_Land | | | 999 |
| | E02 | Landcare Land Cover (2018) | Alpine Grass/Herbfield | | 100 |
| | | | Broadleaved Indigenous Hardwoods | | 999 |
| | | | Built-up Area (settlement) | | 100 |
| | | | Deciduous Hardwoods | | 40 |
| | | | Depleted Grassland | | 40 |
| | | | Estuarine Open Water | | 999 |
| | | | Exotic Forest | | 40 |
| | | | Fernland | | 20 |
| | | | Flaxland | | 20 |
| | | | Forest - Harvested | | 40 |
| | | | Gorse and/or Broom | | 20 |
| | | | Gravel or Rock | | 100 |
| | | | Herbaceous Freshwater Vegetation | | 80 |
| | | | Herbaceous Saline Vegetation | | 80 |
| | | | High Producing Exotic Grassland | | 0 |
| | | | Indigenous Forest | | 999 |
| | | | Lake or Pond | | 999 |
| | | | Landslide | | 999 |
| | | | Low Producing Grassland | | 0 |
| | | | Manuka and/or Kanuka | | 20 |
| | | | Matagouri or Grey Scrub | | 20 |
| | Mixed Exotic Shrubland | | 100 | | |
| | Orchard, Vineyard or Other Perennial Crop | | 80 | | |
| | Sand or Gravel | | 20 | | |
| | Short-rotation Cropland | | 80 | | |
| | Sub Alpine Shrubland | | 80 | | |
| | Surface Mine or Dump | | 0 | | |
| | Tall Tussock Grassland | | 100 | | |
| | Transport Infrastructure | | 999 | | |
| | Urban Parkland/Open Space | | 999 | | |
| | E03 | | NZL_GNS_250K_faults | 50m | 999 |
| | E04 | NZL_GNS_250k_Geological_Units (SimpleName) | Basement (Eastern Province) metamorphic rocks | | 20 |
| Early Pleistocene river deposits | | | | 80 | |
| Holocene human-made deposits | | | | 20 | |
| Holocene river deposits | | | | 60 | |
| Holocene shoreline deposits | | | | 100 | |
| Holocene swamp deposits | | | | 999 | |
| | | Holocene windblown deposits | | 80 | |

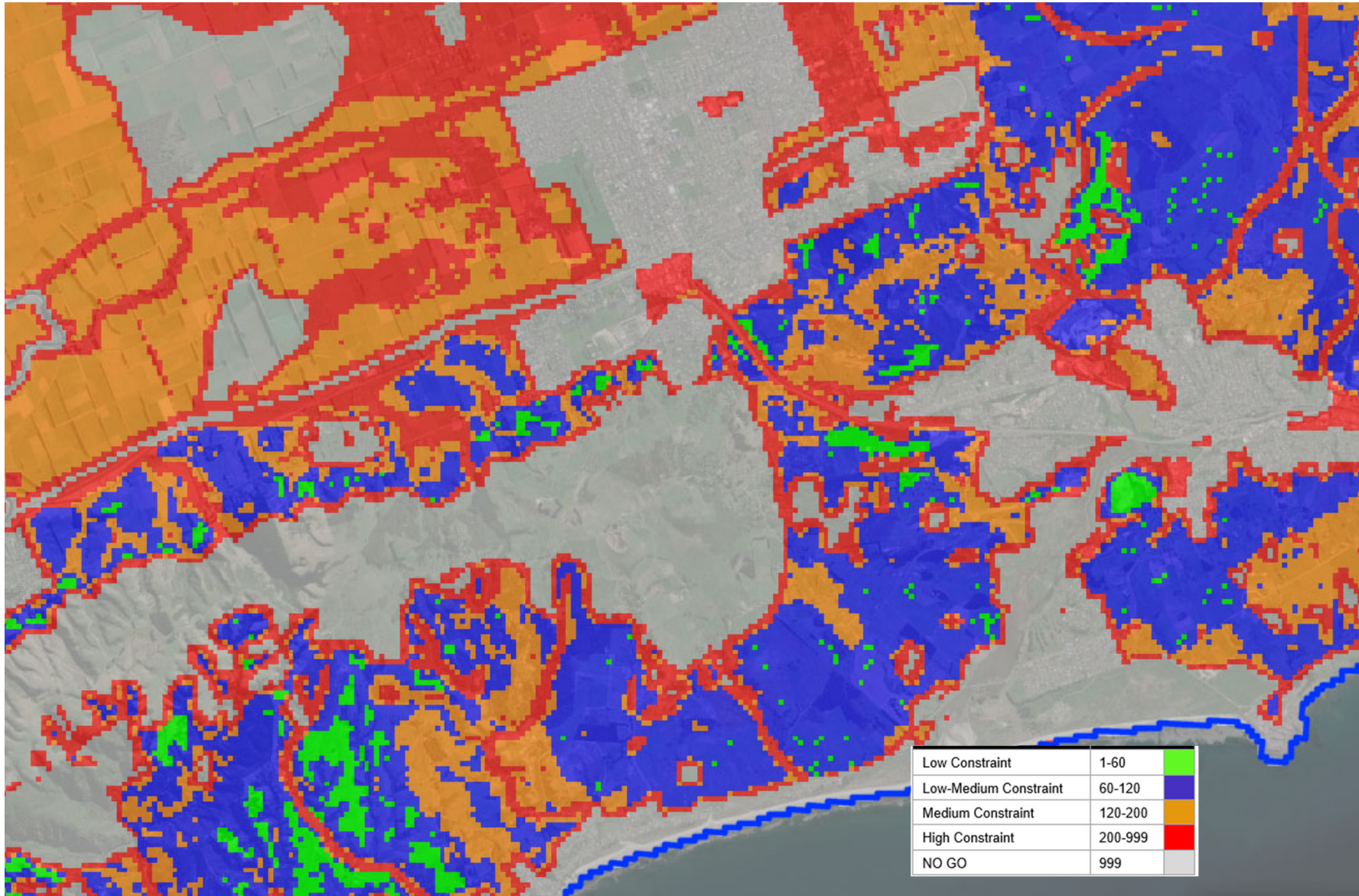
| CATEGORY | ORDER | GIS CONTENT | GIS ITEMS FOR SCORES | BUFFER WHEN NEEDED | SCORING - v2 |
|---------------------------|--|---|---|--------------------|--------------|
| | | | Late Cretaceous - Paleogene sedimentary rocks | | 40 |
| | | | Late Cretaceous sedimentary rocks | | 40 |
| | | | Late Pleistocene - Holocene river deposits | | 80 |
| | | | Late Pleistocene river deposits | | 80 |
| | | | Late Pleistocene shoreline deposits | | 100 |
| | | | Middle Pleistocene river deposits | | 80 |
| | | | Middle Pleistocene shoreline deposits | | 100 |
| | | | Neogene igneous rocks | | 40 |
| | | | Neogene sedimentary rocks | | 40 |
| | | | Paleogene - Neogene sedimentary rocks | | 40 |
| | | | Paleogene sedimentary rocks | | 40 |
| | E05 | Water Body (LINZ) | River Centreline / Drain | 20m | 999 |
| | | | River Body | 20m | 999 |
| | | | Lake, Pond, Swamp | 20m | 999 |
| E06 | Flood Hazard Area | Flood Hazard floodplain | | 100 | |
| E07 | 1m LiDAR - Topography for slope | 0-15 degrees | | 0 | |
| | | 15-30 degrees | | 20 | |
| | | >30 degrees | | 100 | |
| | | | | | |
| SOCIAL CONSTRAINTS | S01 | Proposed District Planning Zones | Commercial and Mixed Use | | 999 |
| | | | Industrial | | 20 |
| | | | Major Facility | | 999 |
| | | | Recreation and Open Space | | 999 |
| | | | Residential | | 999 |
| | | | Rural | | 20 |
| | | | Rural Residential | | 80 |
| | S02 | Archaeology | GP2A_Archaeology_Alert | 20m | 999 |
| | | | GP2A_Archaeology_Site | 20m | 999 |
| | S03 | Heritage | GP2A_Heritage_Precinct | 20m | 999 |
| | | | GP2A_Heritage_Site | 20m | 999 |
| | S04 | Scheduled Trees | GP2A_Trees | 20m | 999 |
| | S05 | Designation | GP2A_Designation | | |
| | S06 | Landscape | GP2A_Coastal_Landscape | | 999 |
| | | | GP2A_Landscape | | 999 |
| S07 | School Locations | Schools_Directory | 200m | 100 | |
| | Property Boundary | Lot Size >= 2h | | | |

Appendix B

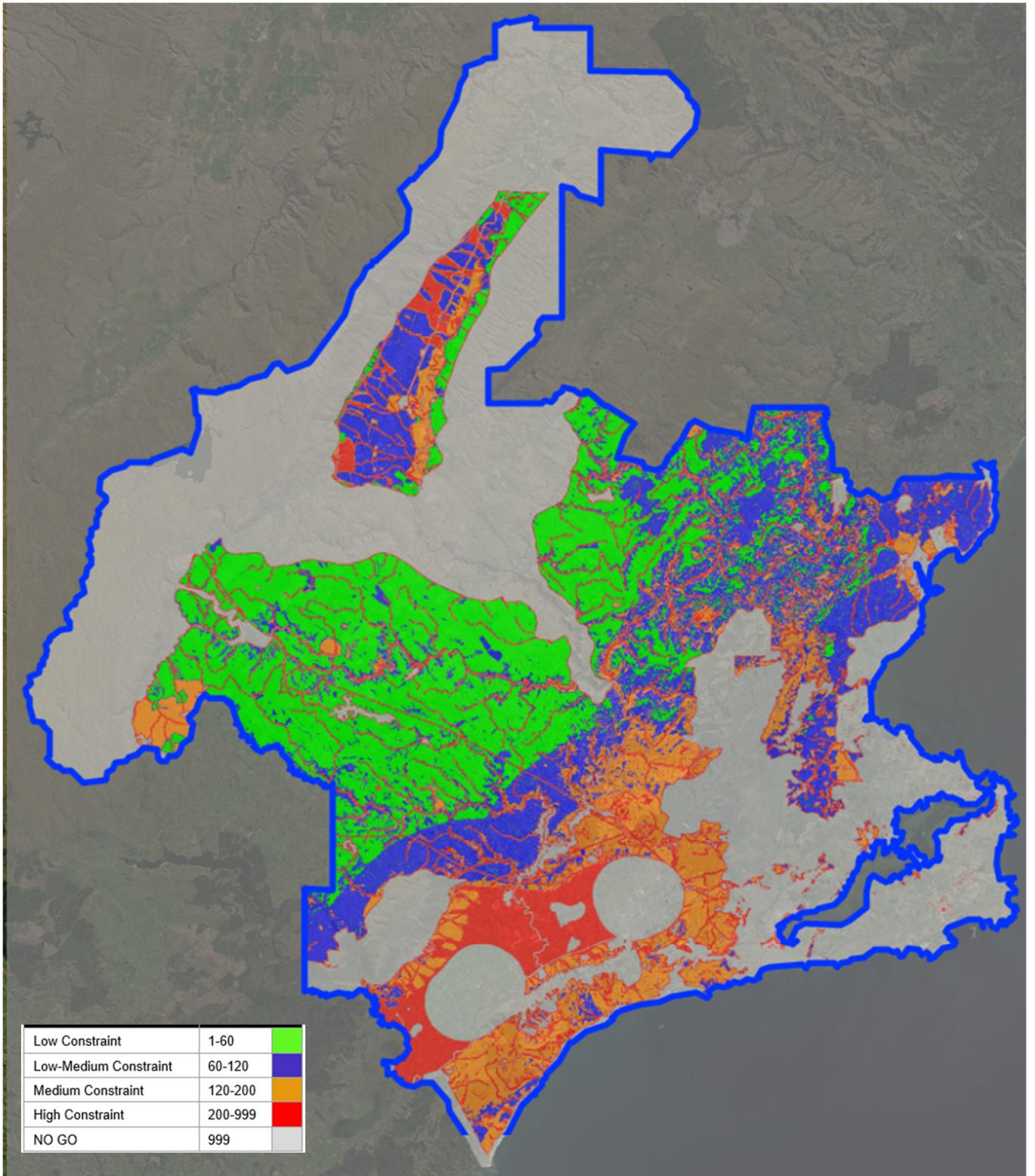
Suitability Maps



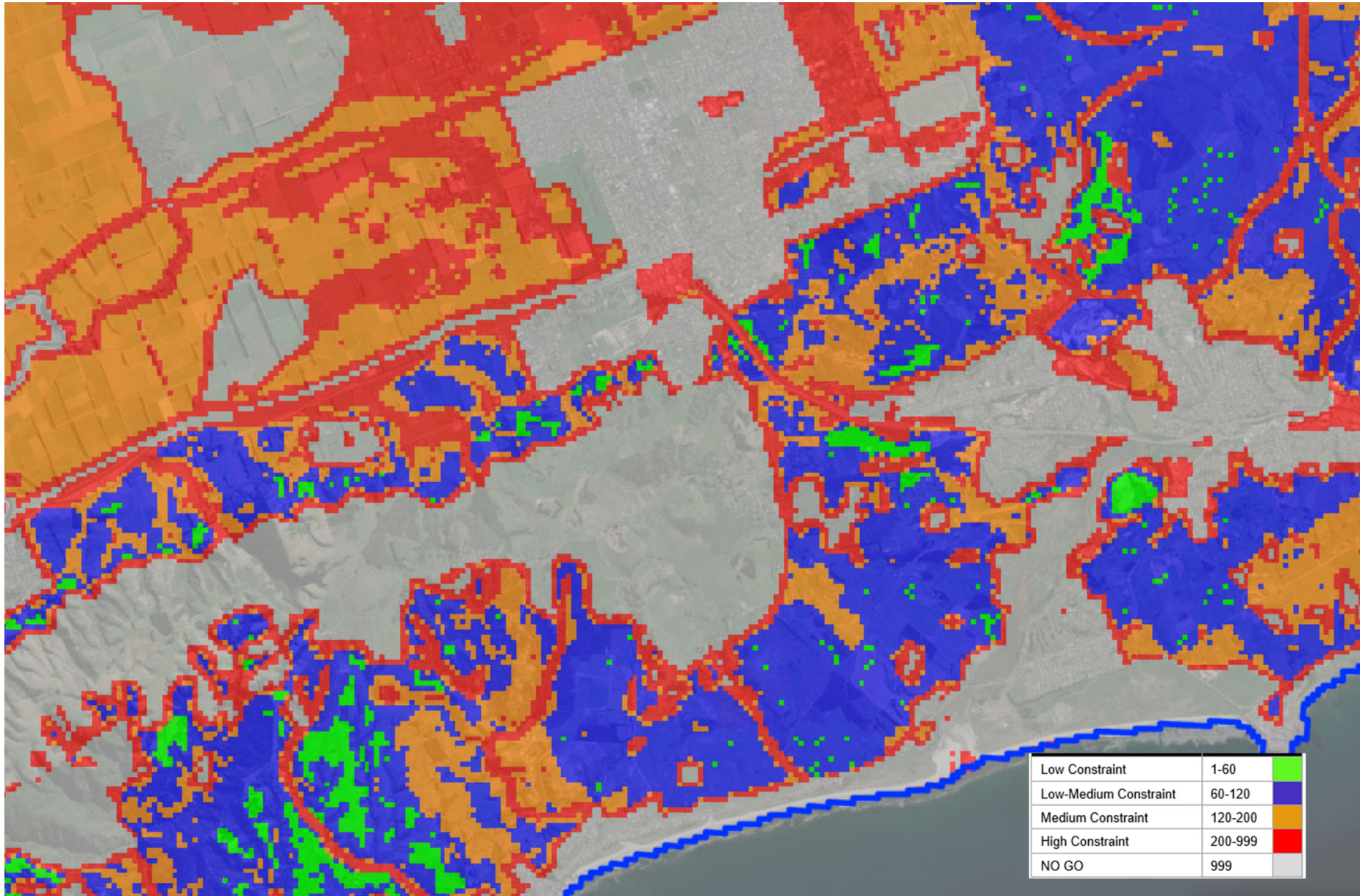
Suitability Map without Airport Criteria



Suitability Map for the Area of Interest (without Airport Criteria)



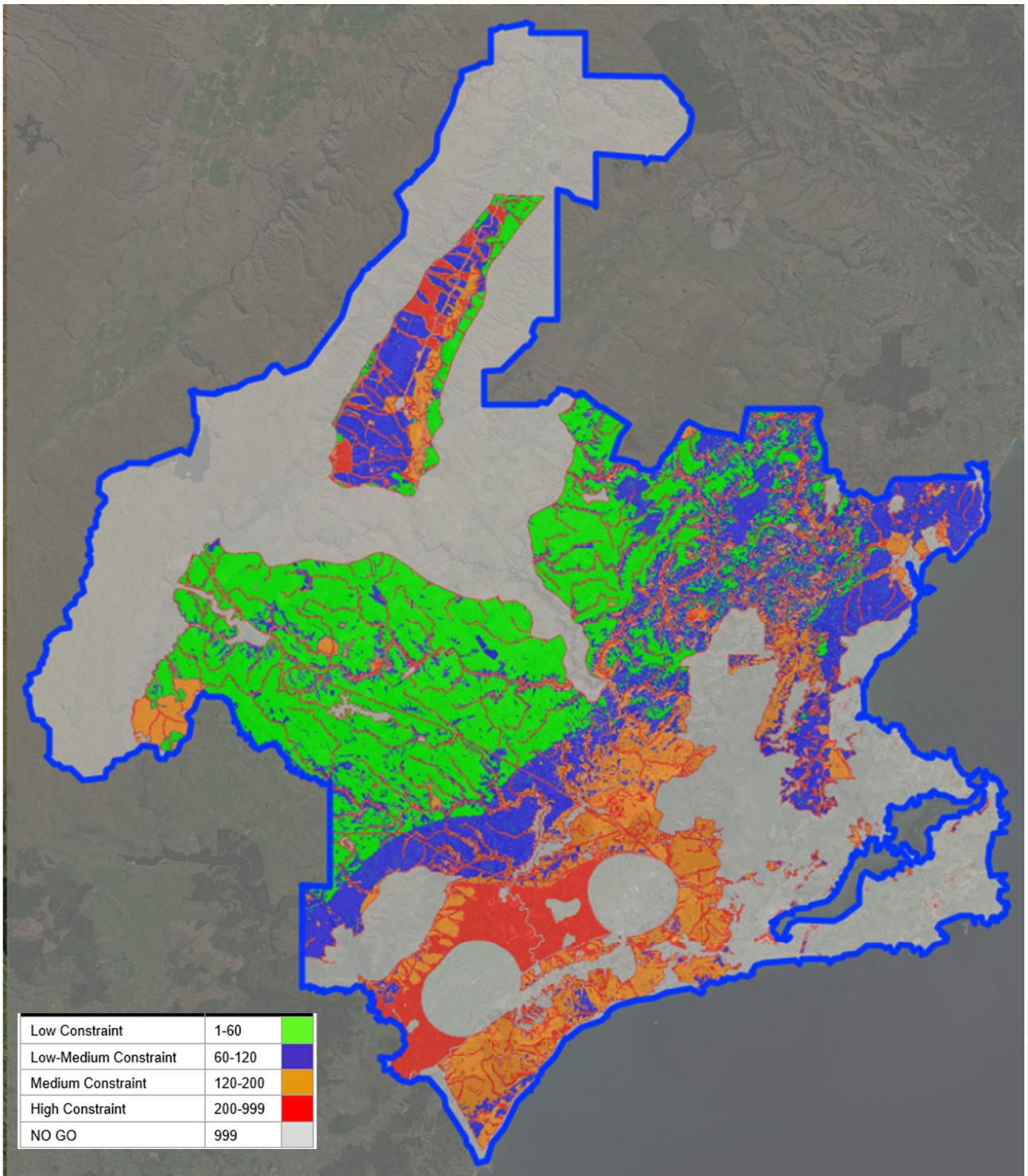
Suitability Map with Airport Criteria



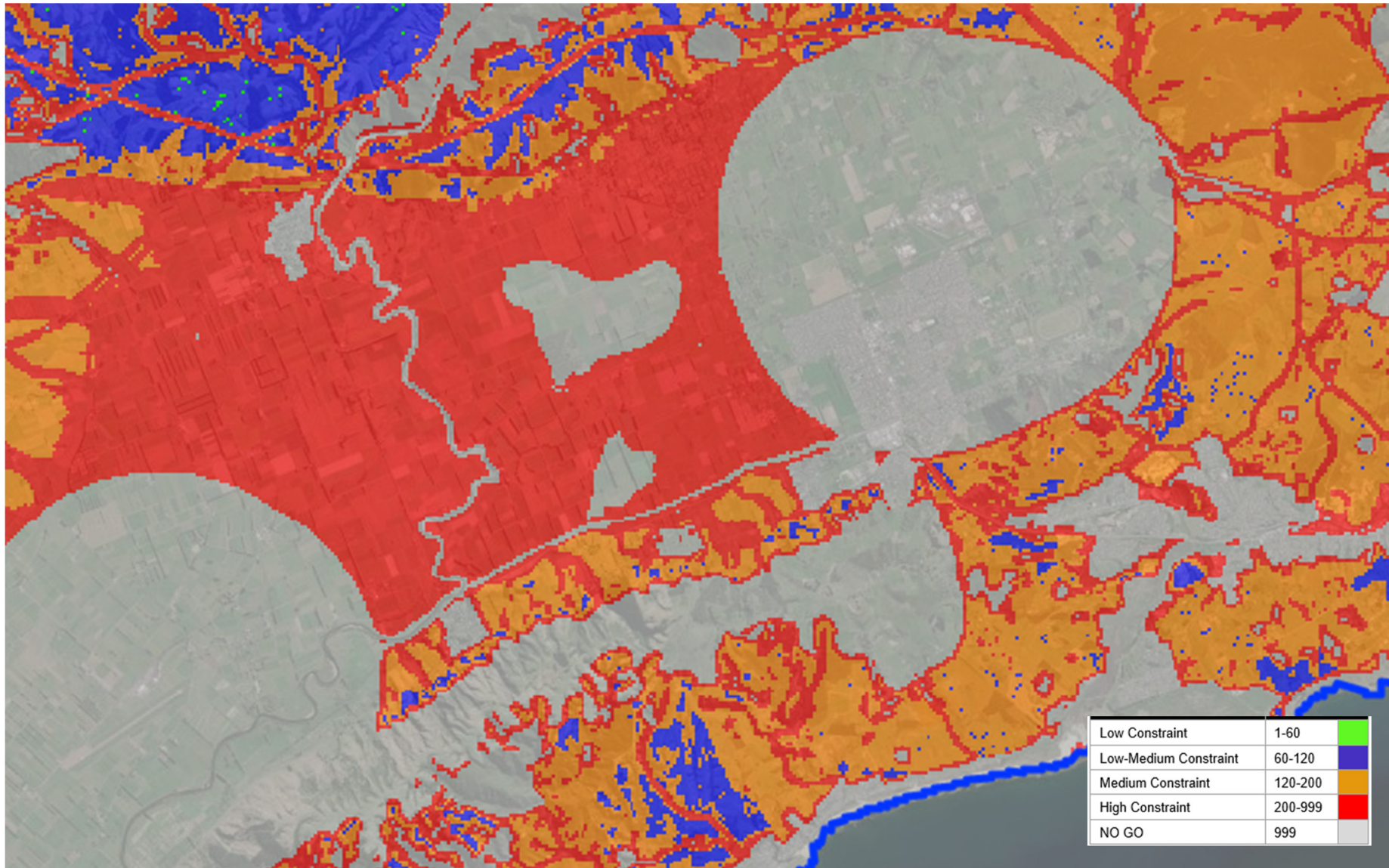
Suitability Map for the Area of Interest (without Airport Criteria)

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Suitability Map with Airport Criteria



Suitability Map for Area of Interest (with Airport Criteria)

Appendix C

High Level Planning Rules Assessment

Table C.1 below outlines the high-level planning assessment relevant for the sites situated in the rural zones and industrial zones under the Dunedin City Council Operative District Plan and Proposed Regional Plan.

Table C.1 High-level rule assessment – District Rules

| Relevant Plan or Planning Document | Assessment |
|--|--|
| Operative District Plan (ODP) – Industrial Zone | <p>Land Use (Rule 10.5.5 Non-Complying Activity)</p> <p>Waste management facilities are not specifically identified as Permitted, Controlled, Restricted Discretionary or Discretionary activities in the ODP. A RRPP would therefore be considered a Non-Complying Activity under the ODP and would require resource consent. Standards such as noise, traffic and access would also need to be assessed against the relative rules within the ODP to identify any additional resource consent implications.</p> |
| | <p>Earthworks</p> <p>Excavation for green waste landfills⁴ is referred to the Otago Regional Council Waste Plan (discussed below). However, earthworks for construction of the shed and carparks will need to comply with the permitted activity standards in 17.7.3 to be permitted under the plan. Under this rule maximum earthwork volume is 200 m³ as such it is considered consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5).</p> |
| Operative District Plan (ODP) – Rural Zone | <p>Land Use (Rule 6.5.7 Non-Complying Activity)</p> <p>Waste management facilities are not specifically identified as Permitted, Controlled, Restricted Discretionary or Discretionary activities in the ODP. A RRPP would therefore be considered a Non-Complying Activity under the ODP and would require resource consent. Standards such as noise, traffic and access would also need to be assessed against the relative rules within the ODP to identify any additional resource consent implications.</p> |
| Proposed District Plan (2GP) – Industrial | <p>Earthworks</p> <p>Excavation for green waste landfills⁵ is referred to the Otago Regional Council Waste Plan (discussed below). However, earthworks for construction of the shed and carparks will need to comply with the permitted activity standards in 17.7.3 to be permitted under the plan. Under this rule maximum earthwork volume is 200 m³ as such it is considered consent will be required as either a controlled activity (Rule 17.7.4) or discretionary activity (17.7.5).</p> |
| Proposed District Plan (2GP) – Rural Hill Slopes | <p>Land use</p> <p>Waste management facilities including refuse transfer and recycling stations are included within the definition of ‘all other industrial activities’ category in the Proposed 2GP District Plan. All other industrial activities are Non-Complying Activities in all Rural Zones (Rule 16.3.3(46)).</p> |

⁴ Defined by Otago Regional Council as – “Landfill: A site used for the deposit of solid waste onto or into land” Greenwaste: “Vegetive material”

⁵ Defined by Otago Regional Council as – “Landfill: A site used for the deposit of solid waste onto or into land” Greenwaste: “Vegetive material”

| | The council must be satisfied that the effects of a Non-Complying Activity will be minor or less, and that the activity is not contrary to the relevant objectives and policies of the District Plan. | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|---|------------------|--|--|---------------------------|--|--|--|--|------------------|--------------|--|--|--|--|---|-----------------|
| Earthworks | <p>Permitted volumes of earthworks are based on volume per 100m² of site and subject to gradient. Where the part of the site in which the earthworks are located is in more than one slope category, the most restrictive volume threshold applies.</p> <table border="1"> <thead> <tr> <th rowspan="2">Location</th> <th colspan="6">Slope</th> </tr> <tr> <th>Less than or equal to 12°</th> <th>Greater than 12° but less than or equal to 15°</th> <th>Greater than 15° but less than or equal to 20°</th> <th>Greater than 20° but less than or equal to 26°</th> <th>Greater than 26° but less than or equal to 35°</th> <th>Greater than 35°</th> </tr> </thead> <tbody> <tr> <td>i. All zones</td> <td>30m³ per 100m² of site</td> <td>25m³ per 100m² of site</td> <td>15m³ per 100m² of site</td> <td>10m³ per 100m² of site</td> <td>0m³ fill, 5m³ cut per 100m² of site</td> <td>0m³</td> </tr> </tbody> </table> <p>Earthworks exceeding these thresholds require consent as a Restricted Discretionary Activity. Earthworks within 5m of a waterbody in excess of 1m³ will also trigger consent as a Restricted Discretionary Activity. Earthworks are further restricted on areas covered by the Hazard 2 (land instability) and Hazard 2 (flood) Overlay's.</p> | Location | Slope | | | | | | Less than or equal to 12° | Greater than 12° but less than or equal to 15° | Greater than 15° but less than or equal to 20° | Greater than 20° but less than or equal to 26° | Greater than 26° but less than or equal to 35° | Greater than 35° | i. All zones | 30m ³ per 100m ² of site | 25m ³ per 100m ² of site | 15m ³ per 100m ² of site | 10m ³ per 100m ² of site | 0m ³ fill, 5m ³ cut per 100m ² of site | 0m ³ |
| Location | Slope | | | | | | | | | | | | | | | | | | | | |
| | Less than or equal to 12° | Greater than 12° but less than or equal to 15° | Greater than 15° but less than or equal to 20° | Greater than 20° but less than or equal to 26° | Greater than 26° but less than or equal to 35° | Greater than 35° | | | | | | | | | | | | | | | |
| i. All zones | 30m ³ per 100m ² of site | 25m ³ per 100m ² of site | 15m ³ per 100m ² of site | 10m ³ per 100m ² of site | 0m ³ fill, 5m ³ cut per 100m ² of site | 0m ³ | | | | | | | | | | | | | | | |
| National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 (NES CS) | For sites site is listed as a verified Hazardous Activities and Industry List (HAIL) site (Categories F4, F8 and A17). A PSI would need to be undertaken to establish if the NES CS is applicable and a DSI may then also be required which would include soil testing to establish the level of contamination. The PSI and DSI would determine if a resource consent would be required under the NES CS. | | | | | | | | | | | | | | | | | | | | |

Table C.2 outlines the relevant rules under the Otago Regional Plans.

Table C.2 High-level rule assessment Regional Rules

| Relevant Plan or Planning Document | Assessment |
|--|---|
| Regional Plan: Waste for Otago | <p>Disturbance of land at a contaminated site is a discretionary activity under rule 5.6.1.</p> <p>Green waste landfills are a permitted activity under rule 7.6.10 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.10.</p> <p>Composting is a permitted activity under rule 7.6.12 subject to conditions. If any conditions are not met consent is required as a discretionary activity under rule 7.6.13.</p> |
| Regional Plan: Water for Otago | Discharge of stormwater from a non-reticulated system is likely to be permitted under rule 12.B.1.9 as it is considered the standards can be met. If these cannot be met, consent will be required as a restricted discretionary activity under Rule 12.B.3.1. |
| Regional Plan: Air for Otago | Discharge from waste management is discretionary under Rule 16.3.7.3. |
| National Environmental Standards for Freshwater | Consent may be required for works in proximity to any wetlands. This is specifically relevant to the Green Island site. |



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