

Before the Independent Commissioner Hearing Panel

Under the Resource Management Act 1991 (**RMA**)

In the matter of an application by **Dunedin City Council** to develop a landfill at Smooth Hill, Dunedin.

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**Statement of evidence of Rhys James Girvan**

29 April 2022

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**Applicant's solicitors:**

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**anderson  
lloyd.**

## Qualifications and experience

- 1 My name is **Rhys James Girvan**.
- 2 I am a landscape planner and senior principal with Boffa Miskell Limited, a national multi-disciplinary environmental planning and design consultancy. I have a Masters Degree in Landscape Architecture from Lincoln University and a Bachelor of Arts Degree majoring in psychology from the University of Canterbury. I am a Registered Member of the New Zealand Institute of Landscape Architects.
- 3 I have practiced as a landscape planner for around 18 years, having previously worked for Queenstown Lakes District Council and a large multi-disciplinary planning and design practice in the United Kingdom. My experience covers area-wide and project-based landscape assessments within urban, rural and natural areas including several large infrastructure projects. I have been a landscape planning consultant in Boffa Miskell's Christchurch office since 2018 prior to working from Boffa Miskell's Wellington office since 2012, where I primarily provided consultancy services in the central area of New Zealand.
- 4 I have read the Code of Conduct for Expert Witnesses in the Environment Court Practice Note 2014. This evidence has been prepared in accordance with it and I agree to comply with it. I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

## Scope of evidence

- 5 My evidence addresses the potential effects on landscape, natural character and visual effects of the landfill project (**the Project**). This includes:
  - (a) Methodology and Limitations;
  - (b) Existing Landscape and Viewing Audience;
  - (c) The Proposed Activity and associated Landscape Mitigation;
  - (d) Assessment of Natural Character, Landscape and Visual Effects;
  - (e) Response to section 95 Report and relevant submissions; and
  - (f) Response to the section 42A report.

## Executive summary

- 6 The landscape, natural character and visual effects assessment (The Assessment) provides a technical assessment to determine the nature and level of landscape effects that may result from the Project. Such assessment has considered changes in the character and values of the landscape, including potential visual effects. In addition, natural character effects have been assessed in relation to the characteristics and qualities of existing wetlands, streams and their margins, taking account of their existing level of modification.
- 7 The assessment of landscape and visual effects has encompassed a combination of field work and desktop analysis. This has included obtaining representative photography from publicly accessible viewpoints surrounding the proposed landfill for the purpose of preparing visual simulations. Except for the Project site, no access to private property has been obtained. The Assessment has also formed part of an iterative design process, which has sought to avoid, remedy or mitigate adverse effects. This has included input into a reduction in the overall landfill footprint from the original proposal as lodged.
- 8 The Project site and its general location are not part of any outstanding natural feature, outstanding natural landscape or significant natural landscape. The proposed landfill site is situated within an area of undulating rural hill country between the Taieri River Plains and the coastline south of Dunedin and located entirely within designation D659 which anticipates a landfill development. This context enables the Project site to remain relatively enclosed within folded gullies and ridges and largely concealed from external areas. The Project site and much of its immediate vicinity is also managed as exotic forestry that assists further with containing local views. Areas of pasture and pockets of indigenous vegetation, including remnant coastal podocarp forest and kanuka scrub occur in some surrounding areas.
- 9 Waterbodies within the designation are limited to ephemeral streams and an area of swamp wetland which expresses lower levels of natural character in the context of the surrounding working rural land use. Since the initial application was lodged, the proposed landfill has been reconfigured to avoid direct effects on such areas, with indirect effects limited to the potential composition of the existing more modified swamp wetland vegetation within the site.
- 10 Beyond the Project site, upgrades to parts of McLaren Gully and Big Stone Roads are proposed. Since the Assessment was prepared, the proposed

road upgrades have gone through a number of design iterations in order to avoid the impacts on any identified wetlands adjacent to the road corridor whilst avoiding any potential increase in landscape and visual effects. The proposed road upgrade design is explained in the evidence of Andrew Whaley.

- 11 Visually, the Project site is well contained by the surrounding landform and established vegetation, including plantation forestry. Within this area of landscape, the potential to observe the proposed landfill operation is largely contained within an internal amphitheatre that restricts potential for external visual effects. Beyond the Project site, potential viewing audiences are primarily limited to transient views from users of adjoining roads, including parts of McLaren Gully and Big Stone Roads. Beyond such areas, views of proposed road upgrades largely occur in transient views from road users. Potential longer distance partial and glimpse views of the Project site may also occur from three dwellings along Big Stone Road; however these are primarily enclosed by intervening plantation forest consistent with this surrounding working rural landscape.
- 12 The proposed landscape mitigation includes establishing a periphery of indigenous screen planting and areas of faster growing exotic vegetation in key areas. These areas will be in addition to the ongoing benefit of screening enabled by maintaining areas of plantation forestry within parts of the Project site during operation. Once perimeter trees have established in accordance with the proposed staged landscape mitigation strategy, any landscape and visual effects generated from beyond the boundary of the Project site will be **low** and no more than minor.

### **My project involvement**

- 13 I was engaged to assess the landscape, visual, and natural character effects of the proposed landfill and associated infrastructure (**the Project**). I visited the site on 24 February 2020 to assess the existing landscape and natural character of the Project site and environs. I am also familiar with the Project area and surroundings within which the potential for landscape, natural character and visual effects may occur. I also revisited the site on 11 March 2022 and accompanied Mr Ben Espie the landscape architect engaged by ORC to undertake a peer review.
- 14 I was the author of the “Smooth Hill: Landscape, Natural Character and Visual Effects Assessment”, dated 20 August 2020 which supported the initial application and larger landfill footprint, and peer reviewed the subsequent track changed assessment, dated 25 May 2021, in response to the reduced landfill extent for which this current application relates.

## Methodology

- 15 The landscape, natural character and visual effects methodology applied is set out in full in **Appendix 1** of the Assessment. This includes assessing the existing natural character and landscape values as part of determining the likely level and nature of landscape and visual effects.
- 16 The Assessment is supported with visual simulations that demonstrate the likely visibility of the landfill before and after mitigation from representative publicly accessible viewpoints. Such visual simulations have been prepared in accordance with industry best practice to provide an accurate two-dimensional view as depicted in a photograph from a defined viewpoint and assist with understanding the proposed magnitude of visual change.

## Site and existing environment

- 17 The Project site is located within a sequence of hills which extend east of the Taieri Plains parallel with the coastline to the south of Dunedin. Locally, the Project site is located approximately 1 kilometre south-east of Smooth Hill which reaches an elevation of 172 metres above sea level (masl), and for which the Project has been named. This surrounding area of hill country accommodates a series of gullies and spurs which generally slope down to the west from a ridgeline along Big Stone Road adjoining the Project site and form part of the upper catchment of Ōtokia Creek. The highest part of the Project site is located in the south-western corner which reaches an elevation of 187 masl. The lowest point is at an elevation of 95 masl and accommodates an existing wetland area surrounded by scrub and recently planted pine trees.
- 18 The Project site is not identified as part of any outstanding natural feature, outstanding natural landscape or significant natural landscape. The nearest such landscapes are Saddle Hill Significant Natural Landscape (SNL) located approximately 2 kilometres to the north of the Project site and contiguous with Saddle Hill Outstanding Natural Feature (ONF) located approximately 9.5 kilometres to the north-east of the Project site. The Saddle Hill SNL primarily encompasses the more open and less developed west facing slopes which form part of the landform backdrop visible from the Taieri Plains to the north of McLaren Gully Road.
- 19 Much of the existing landcover within the Project site is associated with production forestry which has recently been felled and replaced. This landcover and working rural land use is also consistent with much of the surrounding land, accommodating forestry of varying heights and ages, typically pine (*Pinus radiata*). Colonising plants such as gorse, broom and

the native shrub poroporo (*Solanum laciniatum*) are also scattered throughout the Project site, especially at the lowest points in the wetland.

- 20 Within the Dunedin City District Plan, the proposed landfill is contained within Designation D659 which requires that an outline plan of works application is submitted prior to construction to address the following designation condition:

*A landscape plan showing proposed initial planting, final landform, and final planting shall be prepared by the Requiring Authority under the direction of a qualified landscape architect prior to the commencement of landfilling operations. Development of the site shall be in accordance with this landscape plan.*

### **Viewing Audience**

- 21 The Project site is visually well contained within the topography of the surrounding hill country. Beyond this, there are no potential views from the Taieri Plains or along the coastline to the south of Dunedin. As such, the potential visual catchment for all but the highest points of the Project site are very restricted and further limited by the nature of intervening vegetation. Beyond the Project site, upgrades to McLaren Gully Road will also be visible in transient views in association with part of this established rural road network.
- 22 Within the surrounding hill country context, the potential to observe the Project site and proposed landfill operation is primarily limited to adjoining areas along Big Stone Roads and parts of McLaren Gully Road. Beyond these roads, there are also potential longer distance private views from elevated areas within the surrounding hill country, including in the vicinity of dwellings located at 513, 689 and 731 Big Stone Road. In reality, potential views from such private areas are typically concealed beyond intervening plantation forestry which is characteristic of much of the surrounding landscape.

### **The proposed activity**

- 23 The proposed landfill will cover a total footprint of approximately 18.6 ha and extends to a maximum height of approximately 40 metres above the existing ground level. Development of a landfill is essentially a dynamic long-term and gradual construction project which is expected to have a life of several decades, coinciding with the ongoing establishment of perimeter landscape mitigation and surrounding plantation forestry. Following preliminary works, the landfill operation will be developed in four formal

stages accommodating daily and intermediate cover largely internalised within the Project site. An overview of the Project including supporting landfill infrastructure and phasing is set out in the Design Report included with the application and supporting evidence of Mr Richard Coombe.

### **Mitigation Planting Embedded in Design**

- 24 Landscape mitigation includes ensuring the final landfill form will appear integrated within the surrounding hill country alongside planting introduced along the site boundary, and along a central spur, to address potential visual effects which may otherwise occur during operation. Such vegetation includes a minimum 10 m wide planted strip along the boundary with Big Stone Road which will continue to establish during operation. This planted strip will include a mix of faster growing exotic plantation species and indigenous trees which will provide an enduring visual screen. The retention of existing areas of plantation forestry within the Project site will also contribute towards limiting the availability of potential views of the landfill operational area.
- 25 Since the Assessment was prepared, planting adjoining the uphill south-east perimeter of the landfill adjoining Big Stone Road has been adapted to include lower flammability indigenous species between the landfill footprint and pine trees proposed along the site boundary and the inclusion of an emergency access point at the south-east corner of the landfill footprint (see **Figure RG1**). Such planting will continue to provide an effective fast-growing visual screen consistent with surrounding forestry along Big Stone Road combined with enduring screen planting adjoining the landfill footprint in accordance with the overall fire mitigation as set out in the evidence of Mr Paul de Mar. This planting will maintain an effective visual screen from adjoining areas through the lifetime of the Project as identified in the Assessment with no expected change in identified landscape of visual effects.

### **Natural character effects**

- 26 Works as part of the proposed landfill will avoid all streams and wetlands that form tributaries to Ōtokia Creek identified within the designation. Any indirect impacts on downstream swamp wetland will remain localised and appear broadly consistent with the range of species already present resulting in very low ecological effects as detailed in the evidence of Dr Morris. Such wetlands occur in the context of an existing modified rural environment which includes extensive areas of plantation forestry and therefore lower levels of natural character. Proposed upgrades to McLaren Gully Road are now proposed to avoid wetlands in their entirety by localized

adjustment of the road alignment within the proposed corridor or by the installation of low walls or retaining below the road edge as identified in the evidence of Andrew Whaley.

- 27 Within the designation, approximately 0.49ha of additional ecologically appropriate wetland and tree species is proposed, representing a substantial net gain. Overall, any impacts on natural character in the context of existing wetlands and streams are considered to remain commensurate with the existing modified working rural character and will result in some localised low beneficial natural character effects.

### **Landscape effects**

- 28 In physical terms, the proposed landfill footprint will cover a total area of approximately 18.6 ha contained within an overall operational extent of approximately 33 ha. The landfill has been located within the designation area to become integrated within the existing topography and surrounding vegetation to the extent possible, which will limit potential landscape effects. During operation, the landfill will substantially modify the existing landform within the Project site as this is lined then gradually filled and capped during the life of the Project. As each successive stage is developed, the resultant landform will gradually rise to reach a maximum elevation of approximately 150 masl and approximately 40 metres above existing ground level. This is equivalent to about 5 vertical metres above adjoining areas of Big Stone Road, resembling a smoothed ridgetop form.
- 29 During enabling works, boundary planting will be established along Big Stone Road along the length of the Project site and adjoining the proposed landfill operational extent. This includes a mix of native vegetation and fast-growing plantation species which will replace areas of recently cleared plantation forestry adjoining the proposed landfill footprint to re-establish an effective screen. As proposed planting becomes established, views into the Project site will become increasingly contained ensuring that potential landscape effects remain largely internalised.
- 30 Prior to the landfill entering operation, enabling works include upgrading McLaren Gully Road and Big Stone Road from the intersection with State Highway 1 to the Project site access. This proposed road upgrade will form a sealed two-lane carriage width of 7 metres for the majority of the road with swales similar to that already existing on either side. To accommodate this work, some existing roadside landform and vegetation will be disturbed with roadside cut and fill batters, typically ranging between 2 and 4 metres in height. In two areas, cut batters will reach up to 7.6 metres on account of avoiding wetlands and reflect a comparatively greater, albeit localised,



modification in the context of the existing undulating rural road. Such work will initially reveal an exposed earth surface which is proposed to be hydroseeded and will become increasingly naturalised and integrated along this established road corridor.

- 31 In landscape character terms the proposed landfill will become integrated within a contained area of rural landscape within which an existing designation anticipates such land use. Within this context, the Project includes landscape and ecological mitigation embedded in the design to ensure potential landscape and natural character effects are localised and remain visually well contained. During operation, the Project will remain embedded within a working rural context which supports a dispersed development pattern and recurrent plantation forestry accessed along an upgraded rural road network. Landfill activity will become increasingly concealed beyond perimeter vegetation and continued areas of plantation pine consistent with surrounding areas.
- 32 Given the relative enclosure of the Project site which will be increasingly reinforced by perimeter trees during operation, any wider landscape character effects of the proposed landfill will effectively be contained. Some temporary localised adverse effects will occur as a result of proposed earthworks necessary to upgrade McLaren Gully Road, however such effects will remain associated with an established road corridor and gradually reduce as exposed surfaces become naturalised and areas of proposed hydroseeding become established. During operation, the Project will not appear prominent within views or uncharacteristic within the receiving landscape, thereby generating localised **moderate-low** adverse landscape character effects.
- 33 Once proposed landfill works are completed, the Project site will be reinstated with grass and form part of a wider productive rural landscape not dissimilar to that which currently exists. Given this more modified rural context subject to an existing designation; the proposed location and form of the landfill footprint, and inclusion of proposed planting including enduring perimeter vegetation, is considered to have localised and limited potential landscape effects. At completion, the Project is expected to result in little material loss of, or modification in terms of, landscape character and generate **low adverse** effects.

### **Visual effects**

- 34 During operation, parts of the Project site will be visible from nearby locations, most typically transient views from people in vehicles passing in the vicinity of the Project site along parts of Big Stone Road and McLaren

Gully Road. Such observers may see infrastructure including operational plant, and vehicles within or accessing the landfill operation. In addition, the visual contrast of bare ground associated with landfill activity may be visible across parts of the Project site, most typically associated with the preparation of the landfill footprint or creation of stockpiles prior to vegetation within the Project site becoming established.

- 35 Immediately adjacent to the Project site along Big Stone Road, a minimum of 10 metres of perimeter planting is proposed and configured to provide an effective visual screen in both the short and longer terms. For the neighbour at 689 Big Stone Road accessing onto Big Stone Road, a proposed fast-growing pine shelter belt will provide for a more rapid visual screen consistent with surrounding areas of forestry. Beyond this perimeter, lower flammability native vegetation will contain and limit ongoing views of the landfill footprint and associated fencing throughout the operation. Once perimeter planting reaches 2-3 metres (year 3-4), potential transient views from the vicinity of Big Stone Road will become increasingly concealed and reduce some initial temporary **moderate-low** adverse effects from adjoining areas to no more than **low** adverse visual effects during operation.
- 36 Views of proposed upgrades to McLaren Gully Road and part of Big Stone Road will primarily be limited to transient views from users of these roads. No residential dwellings will have direct views of larger areas of cut or fill which may otherwise increase visual effects. Given the established more modified context of this existing road network and associated measures to assimilate associated earthworks within its surrounding working rural context, any initial adverse visual effects associated with earthworks will become increasingly integrated within the existing road corridor.
- 37 The location and physical nature of the Project site within a folded gully system essentially contains and mitigates most potential visual effects of the landfill and associated access upgrades from within the surrounding landscape. Views of the landfill from dwellings are limited to long distance partial views and most typically remain concealed by intervening plantation forestry characteristic of much of the surrounding area. Once perimeter planting has established and exposed areas of cut along McLaren Gully Road become increasingly naturalised and revegetated then any temporary visual effects will be reduced, ensuring no more than localised **low adverse** visual effects.

## **Response to issues in ORC S95 Report**

*Otago Regional Council*

- 38 Otago Regional Council (ORC)'s notification report relied on the peer review of landscape planner Mr Ben Espie. No requests for further information were received and the peer review of the Assessment did not find any gaps, flaws or implausibility in the Assessment or conclusions.
- 39 The Assessment notes that some physical landscape effects will inevitably occur within the Project site however such effects occur within the confines of the operational extent and are considered consistent with any potential landfill development that may otherwise be anticipated given the underlying designation. The peer review agrees that any wider landscape and visual effects will be more limited and assessed as **moderate-low** which will be effectively reduced as mitigation including identified perimeter planting becomes established.

#### *Dunedin City Council*

- 40 As part of Dunedin City Council's (DCC's) Notification Report, the landscape and visual effects of the proposed realignment and upgrades of McLaren Gully Road and Big Stone Road were reviewed by DCC's Landscape Architect. This peer review agrees that earthworks required as part of the proposed road upgrades and realignment will create some temporary adverse effects, largely restricted to transitory views available to passing motorists. In natural character terms, the removal of previously identified wetland to accommodate widening of McLaren Gully Road has now been avoided. The assessment also identifies that an area of gum trees to be removed near 108 or 109 McLaren Gully Road does not appear to compromise a critical visual screening function for the adjoining residents.
- 41 In response to identified landscape and visual effects, DCC's landscape architect has recommended that hydroseeding is attempted on all cut and batter surfaces as proposed, noting the establishment of vegetation may prove difficult in some areas. Overall, DCC's consideration of landscape and visual effects concurs with the Assessment and considers such effects to be no more than minor.

#### **Response to any issues in section 42A report**

- 42 DCC's section 42A identifies that landscape and visual effects of the proposal will be acceptable, subject to a consent condition requiring hydroseeding as soon as possible following construction of cut faces as proposed. The avoidance of loss of any wetlands as now proposed further reduces the nature of natural character effects.

- 43 ORC's section 42A report relies on the formal peer review prepared by landscape architect Ben Espie. This supports the findings and conclusions of the Assessment and raises no additional material issues. Proposed consent conditions ensure screen planting, which assists with visually containing the proposed landfill, will be implemented during enabling works at the commencement of the project to ensure effective ongoing landscape mitigation will become established and remain during operation.

### **Submissions**

- 44 A total of 285 submissions were received of which one has direct relevance to impacts on landscape and natural character with a further two submissions raising specific concerns with effects on visual amenity.

#### *Impacts on Landscape and Natural Character*

- 45 The submission of P L Hasler (submission 70) for Cycling Otago refers to impacts on landscape and natural character and states, "*The proposal for a landfill in a landscape that clearly has citywide importance should be opposed.*"
- 46 As stated in the Assessment, the proposed landfill is not located within any outstanding or highly valued natural feature or landscape in either the Operative or Proposed Regional or District Plans. Landscape character areas (LCAs) within Dunedin were previously identified as part of the Dunedin Landscape Management Area Review completed in 2007<sup>1</sup>. Within this Review, the Project site forms part of the broader Taieri Slopes LCA which comprises the larger series of rural hills that encircle the Taieri Plains identified with citywide importance, to which the submission of Cycling Otago refers.
- 47 Subsequent to the Dunedin Landscape Management Review, the specific landscapes of this broader Taieri Slopes LCA which have either significant or outstanding landscape value have been identified and mapped as part of the Proposed Dunedin City District Plan 2GP. This includes the Saddle Hill ONF and SNL as summarised in paragraph 17 above. As such, landscape classifications which denote greater city-wide importance do not apply to the Project site which is not visible from the Taieri Plains.

#### *Rural Character and Visual Amenity*

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<sup>1</sup> Boffa Miskell (2007) Dunedin Landscape Management Area Review

48 The submission of Big Stone Forestry (Submission 207) identifies the potential for significant effects on rural character and amenity in addition to the submission of Sally Turner (submission 192) who refers to concern about spoiling the area visually. In the context of the Project site, the existing character is recognised as part of a wider rural landscape which occupies the sequence of hills separating the Taieri Plains from the coast. In accordance with the RMA, amenity values are understood to mean<sup>2</sup>:

*those natural or physical qualities and characteristics which contribute to people's appreciation of 'its pleasantness, aesthetic coherence, and cultural and recreational attributes.*

49 Under this definition, amenity values also include consideration of other factors such as noise and air quality. Whilst I recognise that these values have some relationship with an overall appreciation of rural character, an understanding of the specific impact on such values has been addressed in the evidence of Christian Vossart and Peter Stacey respectively. In landscape terms, potential effects have largely considered potential impacts on "visual amenity".

50 In visual amenity terms, the character of a working rural landscape reflects a combination of natural and human introduced elements. The type of rural activity and settlement patterns that overlay them are also factors which contribute to their character. In a typical rural landscape, natural systems operate but, in places, are manipulated to enhance their productivity or utility. Human induced patterns and processes are predominantly related to productive land uses such as agriculture, horticulture and forestry, typically in association with some enclosure and visual containment within shelterbelts, wood lots and forest blocks.

51 In comparison with urban areas, the patterns of human activity in rural areas are generally large scale and reflect a lower density of settlement with few structures and often a sense of spaciousness. Rural landscapes are also inhabited landscapes – not to be confused with "wilderness" or "natural" landscapes where human presence is minimally present or absent. Such presence of enduring human activity remains directly related to the Project site accommodating productive forestry which extends through surrounding areas and is accessed along an established rural road network along McLaren Gully and Big Stone Roads.

52 In terms of amenity effects within the context of this rural landscape, I consider that the character of the Project site will continually change

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<sup>2</sup> Resource Management Act (1991) Part 1 Interpretation and application.

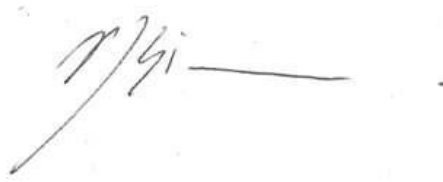
throughout operation entailing sequences of bare ground and vegetation at various stages of reestablishment similar to the ongoing dynamic nature of the existing productive forestry supported by surrounding dispersed built facilities. During earthworks activity, movement of large machinery, and exposed material may also be evident and would be atypical of the scale of normal day to day farming activities that may currently prevail. Outside the Project site, the magnitude of such effects at any one time will depend on the proximity and degree of visibility and on the area of the Project site under construction. However, such views will be increasingly reduced by the proposed visual containment within peripheral vegetation which will provide an enduring visual screen.

- 53 Over the lifetime of the landfill operation, there will also be changes which occur outside the Project site and which contribute to the character and amenity of the surrounding rural landscape. This may include changes in rural land use such as disruption and activity during forestry harvest and re-establishment. From the perspective of the local community, the boundary of the Project site will be planted at the commencement of the operation with vegetation which will continue to establish over the lifetime of the Project. Such planting will reinforce the vegetated character of this surrounding rural landscape and complement screening and native vegetation consistent with existing rural land use adjoining the Project site.
- 54 Given the relative visual containment of the Project site and the associated landscape strategy which contributes to limiting potential views, the effects of the proposed operation on the character and amenity of the landscape are considered **low**. Potential negative visual amenity effects associated with the Project will be increasingly reduced as proposed permitter planting and ongoing forestry within and surrounding the Project site rapidly becomes established. Once established, the form and scale of the proposed landfill will remain part of a contained working rural landscape, not dissimilar to that which already exists.

## Conclusion

- 55 The site is not identified as an outstanding or significant natural feature or landscape and is consistent with a working rural environment supporting a dispersed settlement pattern. The proposed landfill will be established within an existing designation (D659) and includes a landscape plan designed to integrate the nature of a landfill development within the Project site. This will be implemented at the outset of the Project and increasingly address the potential for adverse landscape and natural character effects during operation and at completion.

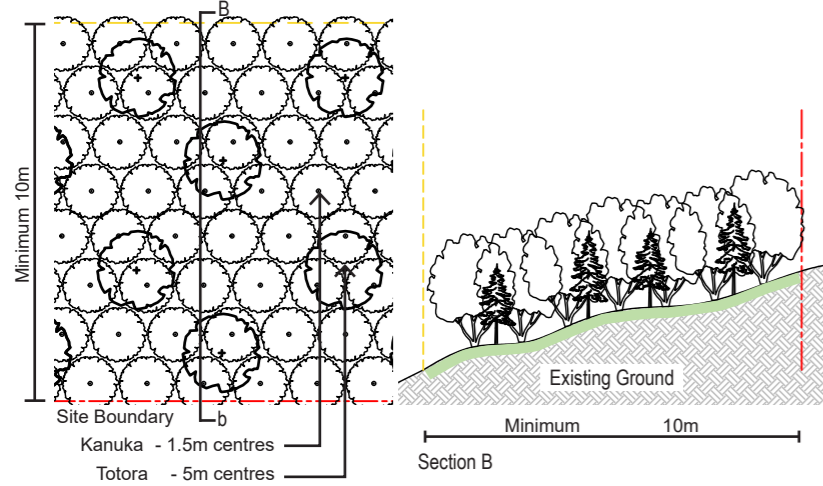
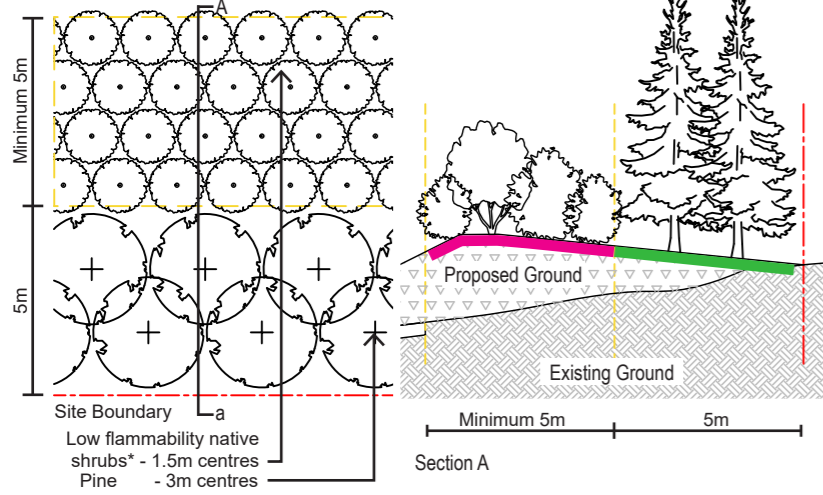
56 The location and physical nature of the Project site, within a folded area of hill country which accommodates large areas of plantation forestry effectively restricts potential views. The proposed upgrades to adjoining roads will become increasingly assimilated within an established rural road network. Beyond this, potential private views towards the proposed landfill are limited to three adjacent dwellings over longer distances and in partial or glimpse views most typically concealed by intervening landform and vegetation. As perimeter trees become established, potential temporary adverse visual effects when passing adjacent to the Project site during its initial establishment will be reduced and an enduring level of enclosure which limits the potential for any longer-term adverse effects will be established.

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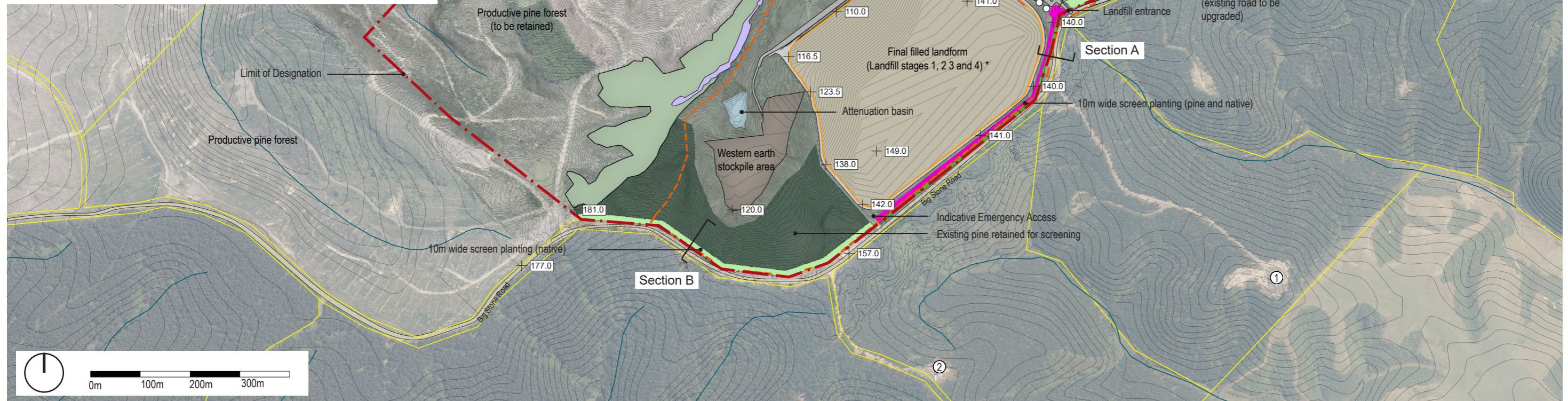
**Rhys James Girvan**

29 April 2022

### 10m Mitigation Planting Scheme



\* Low flammability native shrubs species list: *Fuchsia excorticata*, *Coprosma robusta*, *Coprosma lucida*, *Griselinia littoralis*, *Melicytus ramiflorus*, *Pittosporum eugenioides*, *Aristotelia serrata*



**LEGEND**

- Cadastre boundary
- - - Designation Boundary (Incorporating stopped road)
- - - Landfill - operational extent
- Landfill - final cap extent Stages 1-4 (~40 year life)\*
- Water Courses
- Existing wetlands (to be retained)
- Existing native vegetation (to be retained)
- Proposed native revegetation/enhancements
- Low flammability screen planting (planted at Stage 1)
- Screen planting - native (planted at Stage 1)
- Screen planting - pine (planted at Stage 1)
- Existing pine retained for screening
- Exposed ground to be re-vegetated
- Rural- Residential Neighbourhoods

\* Refer to GHD Drawings C210-C214 for staging plans

**SMOOTH HILL LANDSCAPE AND VISUAL ASSESSMENT**

**Landscape Mitigation Plan**

Date: 29 April 2022

Plan prepared for Dunedin City Council by Boffa Miskell Limited  
Project Manager: rhus.girvan@boffamiskell.co.nz | Drawn: ETa | Checked: RG1