

Before the Independent Hearing Panel
Appointed by the Dunedin City Council

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

In the matter of a submission by Gladstone Family Trust to rezone land
at 100 Irwin Logan Drive, 21 Pinfold Place and 21, 43,
55, 65, 75, 77, 79, 111 and 121 Chain Hills Road from
Rural and Rural Residential 1 to a mix of zones

Statement of Evidence of Mike Moore

9 August 2022

Qualifications and experience

1. My name is **Mike Moore**.
2. I am Principal of Mike Moore Landscape Architects, a Dunedin based consultancy, and have been in my current position since 1994. Prior to this I was employed as a Landscape Architect at Palmerston North and Dunedin City Council's.
3. I have a Bachelor of Science degree (BSc) in Geography from University of Canterbury (1983), a Post Graduate Diploma in Landscape Architecture (DipLA) from Lincoln University (1985), and a Master of Regional Resource Planning (MRRP) from University of Otago. I am a registered member of the New Zealand Institute of Landscape Architects (NZILA).
4. My work involves both landscape design and planning and has had a particular emphasis on landscape assessment since I started my own practice. I have prepared numerous natural character, landscape and visual assessments on plan changes and projects of various scales and character around New Zealand, including dwellings, subdivisions, port expansions, wind farms, cycle trails, mines, river bank and coastal protection structures, and hydro-electric developments. I have also been involved in natural character and landscape assessment work for Councils to assist with the development of District and Regional planning provisions, in particular, Dunedin, Clutha and Gore District Plans, as well as a coastal natural character and landscape assessment study for the Otago Regional Council.
5. I prepared a Landscape and Visual Effects Assessment Report on the proposed re-zoning dated 3 March 2021, which is referred to in the Council's Section 42a report.
6. 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

7. I have been asked by Gladstone Family Trust, to prepare evidence on the landscape effects of their proposed plan change at 100 Irwin Logan Drive, 21 Pinfold Place and 21, 43, 55, 65, 75, 77, 79, 111 and 121 Chain Hills Road. My evidence will be structured as follows:
 - (a) Methodology
 - (b) Introduction
 - (c) Site and area description
 - (d) Landscape values
 - (e) The proposed rezoning
 - (f) Recommended mitigation measures
 - (g) Landscape effects assessment
 - (h) Response to the Council Section 42a report
 - (i) Conclusion
8. An A3 graphic supplement containing plans and photographs forms part of my evidence.

Methodology

9. My assessment is guided by the concepts and principles outlined in the draft NZILA best practice guidelines, 2021¹. It is based on desk-top research on the site and area, site visits, a review of the relevant statutory documents, and an assessment of the visual amenity and landscape character effects, including consideration of measures to avoid, remedy and mitigate potential adverse effects.

¹ Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines – Final draft, April 2021

Introduction

10. The Gladstone Family Trust is seeking a residential rezone of the property it controls at the following locations, collectively referred to as the 'rezone site'. The properties included are 100 Irwin Logan Drive, 21 Pinfold Place and 21, 43, 55, 65, 75, 77, 79, 111 and 121 Chain Hills Road. The rezone site contains approximately 54 ha, although part of this area is already rezoned *Low Density Residential* via the 2GP decision and appeal process. The land is currently zoned as follows in the 2GP:

- (a) 21, 43, 55, 65, 79 and 111 Chain Hills Road are zoned *Rural Residential 1*
- (b) 77 Chain Hills Road is zoned *Rural – Hill Slopes, Rural Residential 1, and Low Density Residential*. An area (red hatched on the plan) is subject to a 2GP appeal and is awaiting Court signing of a consent memorandum to rezone *Low Density Residential*.
- (c) 121 Chain Hills Road is zoned *Rural – Hill Slopes*.

11. The Gladstone Family Trust is seeking to rezone much of the site residential with a mixture of zonings including *General Residential 1, Low Density Residential or Large Lot Residential 1, and Large Lot Residential 2*. The Trust has developed a structure plan which is shown in **Figure 1**, which illustrates the proposed rezoning. The structure plan also includes an area to be rezoned recreation and areas of indigenous plantings and regeneration as well as public walking tracks through the rezone sites.

Site and area description

12. The rezone site is located on the north-western side of Chain Hills on generally north-western facing slopes overlooking Mosgiel. It is accessed from Chain Hills Road, Pinfold Place, and Irwin Logan Drive, and via Right of way from Woodland Avenue. The property has

frontage on its south-western boundary to State Highway 1 and ranges in elevation from approximately 30 – 170m asl.

13. The underlying geology is schist and the landform is expressive of the characteristic Otago Peneplain surface with broad, gently sloping spurs, dissected by steeper gullies. The property extends to a portion of the summit ridge of Chain Hills and to parts of various secondary ridges, along with the intervening gullies; and drains toward Owhiro Stream.
14. The land is predominantly under pasture cover and grazed, but on the steeper gully slopes there are areas of both native and exotic scrub. At higher elevation within the southern gully there are stands of Kanuka forest. There are no buildings currently existing on the site except for a woolshed and yards located within 75 and 79 Chain Hills Road, and a tractor shed located within 121 Chain Hills Road, accessed from Pinfold Place. A number of farm tracks are also present as well as retention ponds in the gully system.
15. The wider landscape context of the rezone site is the north-western side of Chain Hills. This landform rises to approximately 170m and forms the topographical containment and backdrop to the northern Taieri Plain and Mosgiel. It slopes relatively steeply on this north-western side, expressing the scarp associated with the Titri fault. The plateau ridge-top is rural residential in character and zoning, with buildings concentrated near Chain Hills Road. Due to the plateau landform, these have only moderate levels of visibility from the Taieri Plain.
16. Currently, the steeper, less accessible mid-slope areas (including much of the site) remain rural in character and zoning, and are mainly held in small holdings. The result is that the hill slopes are a complex patchwork of pasture, woodlot (of various species and ages) and scrub cover. Urban development is extending gradually up the lower slopes

of Chain Hills from Wingatui to Mosgiel with development currently underway in the area below the site to approximately 105m elevation.

17. The 2GP has zoned a spur above Irwin Logan Drive *Low Density Residential*, to approximately the 147m contour. Residential development in these areas (to a maximum density of 750m²) will significantly alter the current rural / urban interface and pattern on the hill slopes. South-west of State Highway 1, there is *Large Lot Residential 1* zoning on the toe slopes of Saddle Hill to approx. the 130m contour with *Rural* zoned land above.
18. **Figure 2** illustrates the character of the site and area as viewed from Mosgiel.

Landscape values

19. In terms of recognized landscape values, there is no landscape overlay on Chain Hills in the 2GP, but Appendix A7.5 outlines rural character values associated with the *Rural - Hill Slopes* zone. These include its role in providing backdrop and enclosure to urban areas with a 'predominantly unbuilt natural' character (i.e. natural features predominate over human made features). It also notes that there are some areas of 'important and varied biodiversity' including some 'scattered indigenous vegetation dominated by Kanuka' on the Taieri slopes.
20. My assessment of the landscape values of this part of the Chain Hills is that whilst they form a visually prominent backdrop to the Taieri Plain and Mosgiel, their natural / rural landscape values are now highly modified by the presence of houses on the summit area and by the incoherent patchwork of pasture and woodlots that affects the legibility of the natural landform on the northern slopes overlooking the Taieri Plain. In the area of the rezone site, the predominant pasture cover and presence in some places of scrub and indigenous vegetation in the gullies, contribute positively to natural landform legibility and open rural landscape character.

The proposed rezoning

21. The proposed rezoning is illustrated in Figure 1 and proposes various residential zones as follows:

Plan Area	Land description	Current 2GP zone	Proposed 2GP zone	Maximum residential density
A	Gently – moderately sloping lower spur top landform, currently under pasture cover and adjacent to existing residential development. A predominantly westerly aspect.	Rural – Hill Slopes	Low Density Residential	750m ²
B	Gently – moderately sloping mid - lower spur landform, currently under pasture cover. A predominantly northerly aspect.	Rural – Hill Slopes	Low Density Residential	750m ²
C	Gently – moderately sloping mid-level secondary spur top landform, currently under pasture cover and adjacent to existing residential zoned land (not yet developed). A predominantly westerly aspect.	Low density Residential	Low Density Residential	750m ²
D	Gently – moderately sloping broad upper secondary spur top landform, currently under pasture cover. A predominantly north-westerly aspect.	Rural – Hill Slopes	Low density Residential (consented)	750m ²

E	Flat – gently sloping summit plateau - ridgetop landform, currently under pasture cover. Adjacent to lineal residential development along Chain Hills Road to the south. A predominantly westerly aspect.	Rural Residential 1	General Residential 1	500m ²
F	Gently – moderately sloping upper secondary spur top landforms, currently under pasture cover with gullies separating. Areas of regenerating kanuka forest in the gullies. A predominantly westerly aspect.	Rural Residential 1	Large Lot Residential 1	2000m ²
G	Gently – steeply sloping mid elevation secondary spur landforms, currently under pasture cover with gullies separating. Some areas of scrub in the gullies. A predominantly north-westerly aspect.	Rural – Hill Slopes	Large Lot Residential 1	2000m ²
H	Broad, gently sloping secondary spur landform under pasture cover. Modified to an extent by earthworks associated with State Highway 1	Rural – Hill Slopes	Large Lot Residential 1	2000m ²
I	Flat – gently sloping summit plateau - ridgetop landform, currently under pasture cover. A predominantly northerly aspect.	Rural Residential 1	General Residential 1	500m ²
J	Steep north and west facing lower level gully sides largely scrub	Rural – Hill Slopes	Rural – Hill Slopes	15 ha

	or rough pasture covered.			
K	Flat – gently sloping summit plateau - ridgetop landform, currently under pasture cover. Adjacent to existing lineal residential development along Chain Hills Road. A predominantly westerly aspect.	Rural – Hill Slopes	General Residential 1	500m ²
L	Steeply sloping gully head landform near the summit ridge with eroding areas. Largely rough pasture and scrub covered and with a predominantly north-west aspect.	Rural Residential 1	Rural Residential 1	2ha
M	Steep sided south-west facing gully landforms, largely under pasture cover.	Rural – Hill Slopes	Large Lot Residential 2	3500m ²
N	Gently sloping valley floor area orientating north-west. Some existing tracking but largely under grass cover.	Rural – Hill Slopes	General Residential	500m ²

22. The structure plan provides for native bush regeneration areas within some of the gullies. It also provides for a road link connecting Chain Hills Road and Irwin Logan Drive, and two walking access links, one from Irwin Logan Drive to Woodland Avenue, the other looping through the recreation reserve from Irwin Logan Drive.
23. The broad pattern that would eventually arise from this zoning and associated development can be described as follows:
 - (a) Dense residential urban character on the western side of Chain Hills Road on the flatter summit plateau area.
 - (b) Residential character at various densities on the secondary ridge forms with the steeper gully areas remaining un-built and increasingly tree covered.
 - (c) Dense residential urban character as an extension of adjacent residential areas on the lower spurs and in the Area N valley floor area.

Recommended mitigation measures

24. Chain Hills is a prominent natural landform feature that visually 'contains' the northern Taieri Plain, separating it from the Kaikorai catchment. Its natural character / rural amenity attributes have been diluted by small scale rural and rural-residential subdivision and development, but its remaining natural landscape character attributes should be protected and enhanced to the extent possible to ensure that Dunedin maintains a coherent and attractive landscape.
25. The proposed rezoning will extend the residential urban environment of Mosgiel up the lower and mid slopes of the hills, and will significantly expand an existing node of residential development, creating an area with urban character on the Chain Hills summit. The currently largely unbuilt mid-slope areas will be modified by housing on

the secondary spur forms, and low density urban character with more tree'd gully areas will replace open rural pasture.

26. To retain as much natural landscape character as possible with the proposed residential built density, and to retain as much of an open space / natural landscape linkage along the north-western face of Chain Hills as possible, the following mitigation measures are recommended:

- (a) The gullies are to be revegetated in locally appropriate indigenous forest cover to the extent generally indicated in Figure 1 and in general accordance with the establishment and management principles outlined in **Appendix A**.
- (b) All buildings within plan areas D, E, F, G, H, I and M are to be finished in materials and / or colours that minimise visual prominence and contrast with the colours of the natural landscape elements (grass and trees). Painted finishes are to have LRV's of no more than 30%.
- (c) Within plan areas D, F, G, H and M, development is to be planned and designed to minimise the need for earthworks. No retaining walls of more than 2m height are permitted and earthworks are to be designed to blend with surrounding natural contours.
- (d) Within plan areas E and I, buildings shall be no more than 7m high, to minimise the visual impact of built form on the summit as viewed from lower elevation viewpoints.
- (e) Public walking access through the area is to be provided for more or less as indicated in Figure 1 to provide for enjoyment of the revegetated gullies / rural areas, and to provide for good levels of connectivity.

Landscape effects assessment

27. As discussed above, Chain Hills are a visually prominent natural landscape feature providing containment to the North-Taieri plain and

Mosgiel to the south-east. Their rural amenity values, landform legibility and aesthetic coherence have been considerably eroded over recent decades, on their north-western side at least, by small scale rural, and rural residential subdivision and development, resulting in an incoherent land use pattern to a large extent. Whilst the broad summit plateau / ridge is host to a relatively densely settled rural residential area, the visual prominence of built form on the summit as viewed from lower viewpoints remains relatively low, given the flat summit surface and screening by landform and vegetation. Overall, it is my assessment that whilst the landscape and visual values of Chain Hills have been seriously compromised, their sensitivity to change remains moderate – high on account of their visual prominence and importance as a structural element defining different landscapes (Taieri / Kaikorai) within the City.

28. The proposed rezoning will result in:
 - (d) The significant expansion of an existing, isolated small node of residential urban character on the flatter summit plateau area of Chain Hills.
 - (e) Residential character at various densities on the secondary ridge forms with the steeper gully areas remaining un-built and progressively returning to indigenous forest cover.
 - (f) Dense residential urban character as an extension of adjacent residential areas on the lower spurs and in the Area N valley floor area.
29. In my assessment, the extension of the current urban edge of Mosgiel up the lower slope areas of Chain Hills will integrate with the landscape character and quality well. Any adverse effects associated with this will be low (minor).
30. The spread of residential land use into the mid-slope spur areas will be a significant departure for the Chain Hills landscape. The existing sense of the urban area of Mosgiel being enclosed within a rural context will be substantially weakened, giving rise to an adverse effect

in my assessment. Mitigating this, the proposed residential density is necessarily low, given the landform constraints, and mitigation measures to minimise built prominence and maximise the impact of natural elements are proposed. Importantly, the natural character and indigenous biodiversity values of the gully system will be enhanced and the natural landform pattern (developed spurs and natural gullies) will be strongly expressed. I assess landscape and visual effects as adverse / high in the short term – reducing to adverse / moderate as plantings soften built impact and enhance the character of the gullies. I note that development at this elevation on the hill is similar to that in the Braeside area on the hills to the south-western side of the motorway. The difference being that there, Saddle Hill provides a significant rural landscape backdrop higher.

31. The node of residential use proposed for the summit area will not be unduly visually prominent from lower viewpoints, given the flat landform and viewing angle and the proposed building height and colour mitigation measures. It will be connected physically to Mosgiel via the proposed extension to Irwin Logan Drive. In my assessment, the landscape and visual effects of this development will be adverse, but will be mitigated in magnitude to some extent, by the fact that it extends an existing area of residential development (at the south-western end of Chain Hills Road), rather than introduce an area of totally new character. The appropriateness of a node of relatively intense residential development on the hill top, separated from Mosgiel (and other existing urban areas) by steeper hill slopes, however, is an issue, and it is my assessment that landscape and visual effects will be adverse / moderate – high. I consider that it would be more appropriate that built density reduces with height, and to retain Rural Residential zoning in this area.

Response to the Council s42a report

32. Relying on advice from Council Landscape Architect, Luke McKinlay, the s42a report recommends that should the panel choose to rezone,

only the lower slopes of the area be considered – i.e. Areas A, B (up to the 90m contour) and N.

33. I am in substantial agreement with this and consider that Areas A, B and N can accommodate residential development without compromising the remaining landscape values of this part of Chain Hills. Noting however, that residential development is already provided for on the adjacent spur (Areas C and D) up to approximately the 147m contour, I do not consider that development to the top of Area B as proposed (approx. 125m), will give rise to adverse effects of particular significance or concern.
34. I also consider that the proposed Large Lot Residential 2 zoning for Area M is acceptable. This area encompasses gully landforms, one of which is surrounded on three sides by areas zoned Low Density Residential, and I understand has a development yield of one residential house site only, due to geotechnical constraints. Considering the proximity to already zoned residential areas (including Areas C and D) located on the spurs above this area, the relatively visually recessive lay of the land, and the proposed mitigation measures, I assess the effects of LLR2 zoning in Area M as not being significantly adverse, or inappropriate.

Conclusion

35. The proposed rezone site is located on the north-western side of Chain Hills adjacent to Mosgiel. Chain Hills are a visually prominent landscape feature in this area but their natural / rural landscape character and values have been significantly eroded by small scale rural and rural residential subdivision and development.
36. The proposed rezoning will result in a significant change to the character of the hills, including the expansion and reinforcement of a node of relatively dense residential use on the summit ridge, less dense residential development on the mid-slope secondary spurs (with indigenous forest restoration in the gullies), and for the extension of

residential development up the lower slopes from the existing urban edge. Mitigation measures to minimise adverse effects on landscape values are proposed.

37. I have assessed the landscape and visual effects of the rezoning as generally adverse, with the magnitude ranging from low – high. In terms of effects on landscape values, I consider that zoning to provide for residential development as proposed, is appropriate in Areas A, B (up to approximately the 125m contour), M and N.

Mike Moore

Registered NZILA Landscape Architect

Appendix A: Proposed Gully Revegetation Guidelines

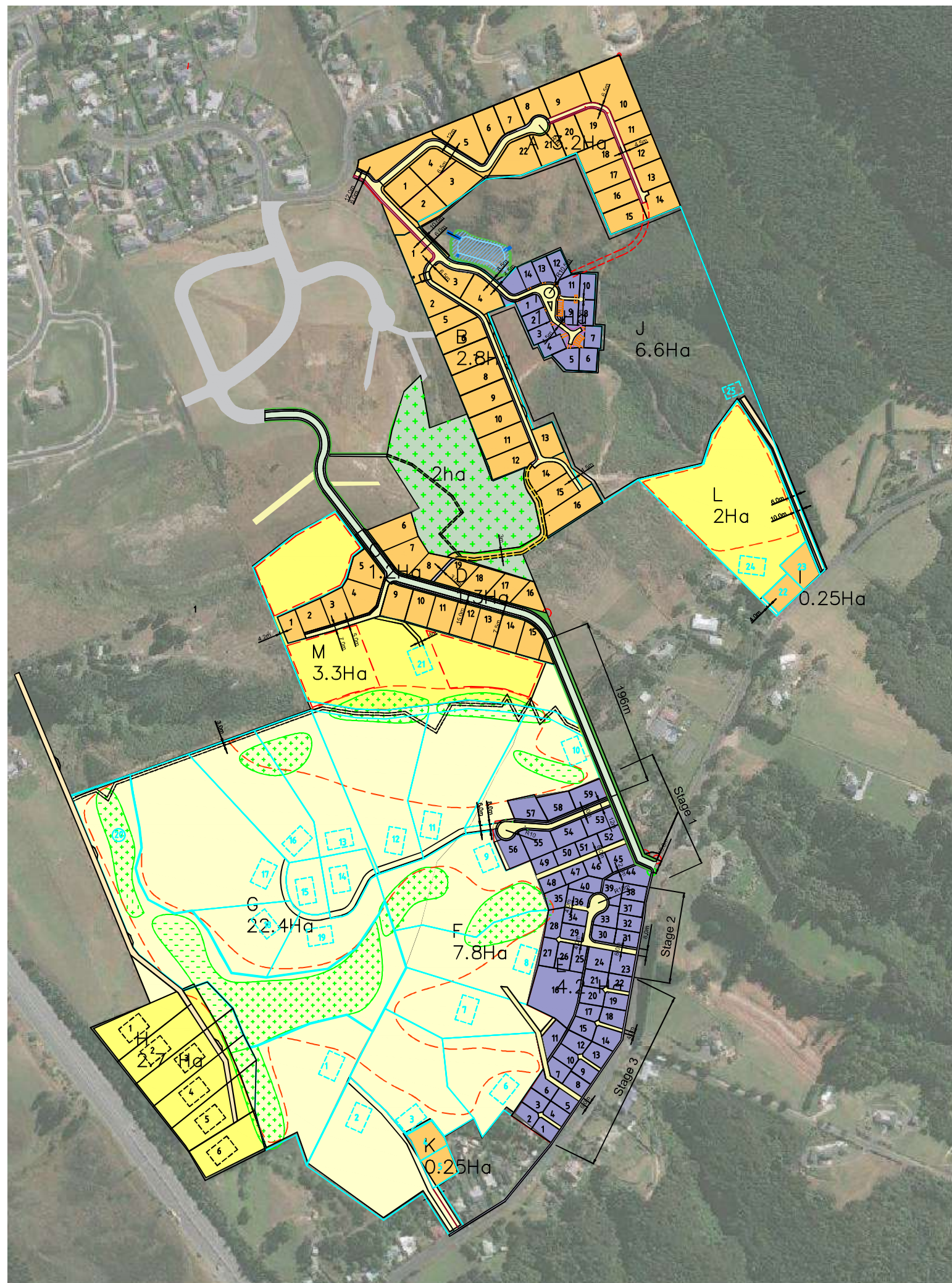
The areas shown as 'gully revegetation' in Figure 1 are to be planted using the following species and at the ratios indicated.

Botanical name	Common name	Approx % of planting
Coprosma crassifolia		2.5
Coprosma propinqua	Mingimingi	5
Cordyline australis	Cabbage tree	10
Griselinia littoralis	Broadleaf	2.5
Hebe salicifolia	Koromiko	5
Hoheria angustifolia	Narrow-leaved lacebark	2.5
Kunzea robusta	Kanuka	20
Myrsine australis	Mapou	2.5
Olearia avicenniifolia		2.5
Phormium tenax	Flax	20
Pittosporum tenuifolium	Kohuhu	15
Podocarpus laetus	Hall's totara	2.5
Pseudopanax crassifolius	Lancewood	5
Sophora microphylla	Kowhai	5

Planting maintenance and management

1. Where required, fencing should be carried out to protect the areas to be planted from grazing by stock.
2. The areas to be planted are to be sprayed to kill existing grasses using a non-residual systemic herbicide.
3. Planting densities are to be approximately 1.5m
4. Plant grades are to be Pb3 or equivalent, minimum.
5. One slow release fertilizer tablet will be used per plant.
6. A circle of mulch (100mm deep woodchip or sacking or similar) is to be applied around each plant to assist in plant establishment and weed suppression.

7. The area around each plant is to be maintained weed free until well established by hand weeding or spraying where this is possible without adversely affecting the plants.
8. Plants should be watered as / if required during dry spells until well established.
9. Survival should be monitored, and any dead plants replaced immediately. Animal pests should be controlled and if required, plants should be provided with an eco-shelter for protection against rabbit and possum browse.
10. The plantings are to be managed to ensure their ongoing health and vitality.



A	Rezone Hill Slopes Rural to Low Density Residential Develop Gladstone Heights Stage 6a 3.2Ha Yield: 19 Lots		Native Bush Regeneration 6.5Ha
B	Rezone Hill slopes Rural to Low Density Residential Develop Gladstone Heights Stage 7a 2.3 Ha Yield: 16 Lots		No Build Area - 12.7Ha
C	Low Density Residential Gladstone Heights Stage 6 1.2Ha (Already approved)		Rezone Hill Slopes Rural to Recreation - 2Ha Bush Reserve
D	Rezone Hill Slopes Rural to Low Density Residential Develop Gladstone Heights Stage 7 1.3Ha Under Variation 2 appeal (Already approved)		<u>Chain Hills Park (E,F,G,H)</u> Mixed development of Low Density Residential, Large Lot Residential 1; Large Lot Residential 2 and Rural Residential 1 37.6Ha
E	Rezone Rural Residential 1 to General Residential 1 4.2ha Develop Chain Hills Heights Yield: 56 Lots		<u>Gladstone Heights (A,B,C,D,M)</u> Mixed development of Low Density Residential, Large Lot Residential 1; Large Lot Residential 2 and Rural Residential 1 33.36Ha
F	Rezone Rural Residential 1 to Large Lot Residential 1 8Ha Yield: 7 Lots		Proposed Walking Track
G	Rezone Hill Slopes Rural to Large Lot Residential 1 22.7ha Yield: 10 Lots		Proposed Road & Access Lot
H	Rezone Hill slopes Rural to Large Lot Residential 2 2.7ha Yield: 6 Lots		Existing Road & Access Lot
I	Rezone Rural Residential 1 to General Residential 1 0.3Ha Yield: 2 Lots		
J	Hill Slopes Rural 6.6Ha Farm Existing Zone to remain Yield: 1 Lot		
K	Rezone Hill Slopes Rural to General Residential 1 0.24Ha Yield: 2 Lots		
L	Rural Residential 1 to remain 2ha, except 0.3Ha rezone Hill Slopes Rural to Rural Residential 1 Yield: 1 Lot		
M	Hill Slopes Rural rezone to Rural Residential 1 - 3.3Ha Yield: 1 Lot		
N	Hill Slopes Rural rezone to General Residential 1.3Ha Yield: 15 Lots		

Notes:
Large Lot Residential 1 2000m2 min.
Large Lot Residential 2 3500m2 min.
Low Density Residential 750m2 min.
All Areas subject to Survey

Figure 1 : Proposed Re-Zone Site Structure Plan



Figure 2: View toward the proposed re-zone site from Joe Brown Reserve, Mosgiel

