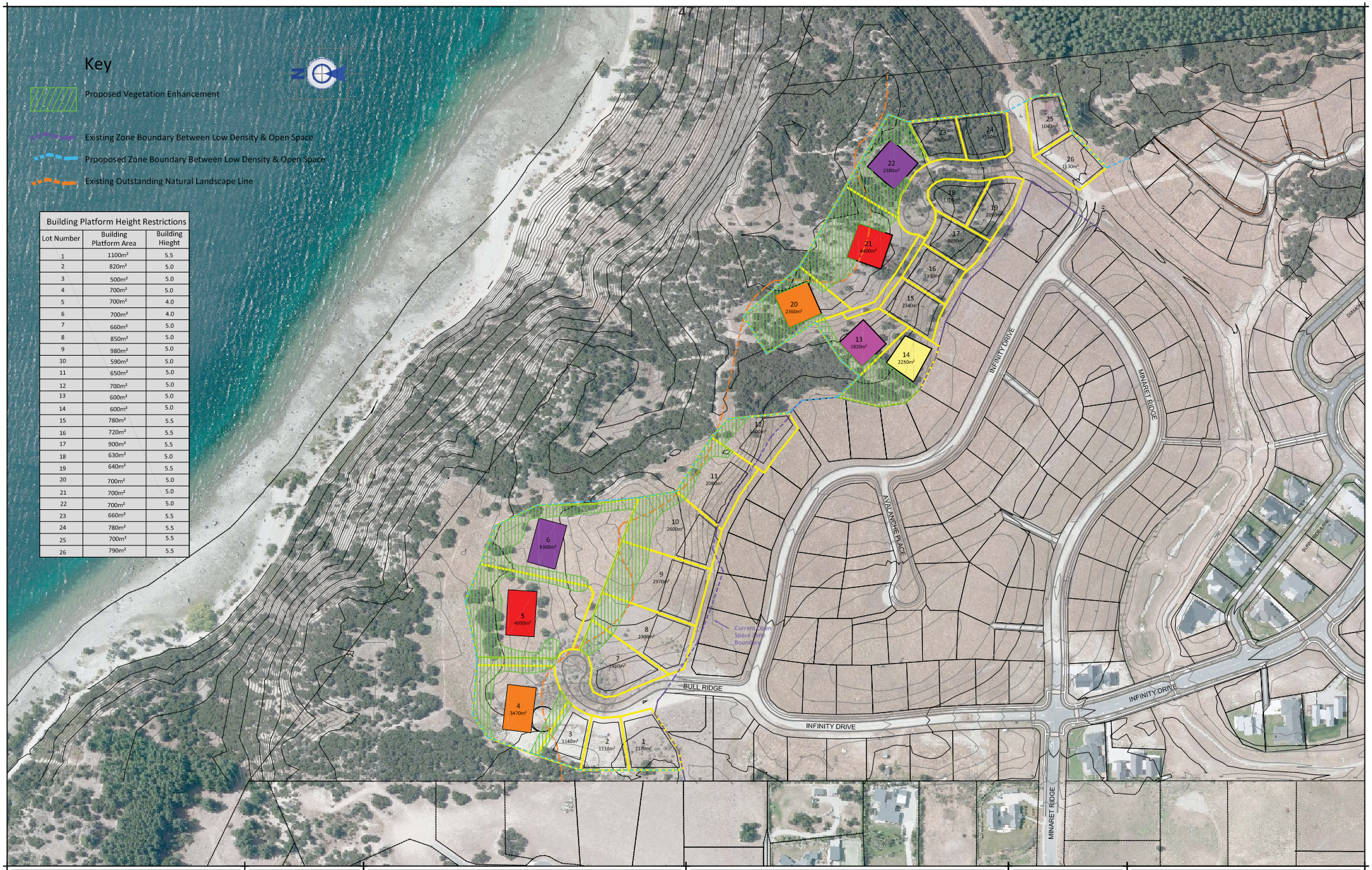
APPENDIX A

Scheme Plan



Building Platform Height Restrictions		
Lot Number	Building Platform Area	Building Hieght
1	1100m²	5.5
2	820m²	5.0
3	500m²	5.0
4	700m²	5.0
5	700m²	4.0
6	700m²	4.0
7	660m²	5.0
8	850m²	5.0
9	980m²	5.0
10	590m²	5.0
11	650m²	5.0
12	700m²	5.0
13	600m²	5.0
14	600m²	5.0
15	780m²	5.5
16	720m²	5.5
17	900m²	5.5
18	630m²	5.0
19	640m²	5.5
20	700m²	5.0
21	700m²	5.0
22	700m²	5.0
23	660m²	5.5
24	780m²	5.5
25	700m²	5.5
26	790m²	5.5

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WANAKA BRANCH
19 Reece Crescent
or P.O. Box 283
Wanaka 9343
T 03 443 0110
E wanaka@ppgroup.co.nz

Client & Location:
Infinity Investments
Peninsula Bay

Purpose & Drawing Title:
Concept Scheme Plan
Peninsula Bay North End

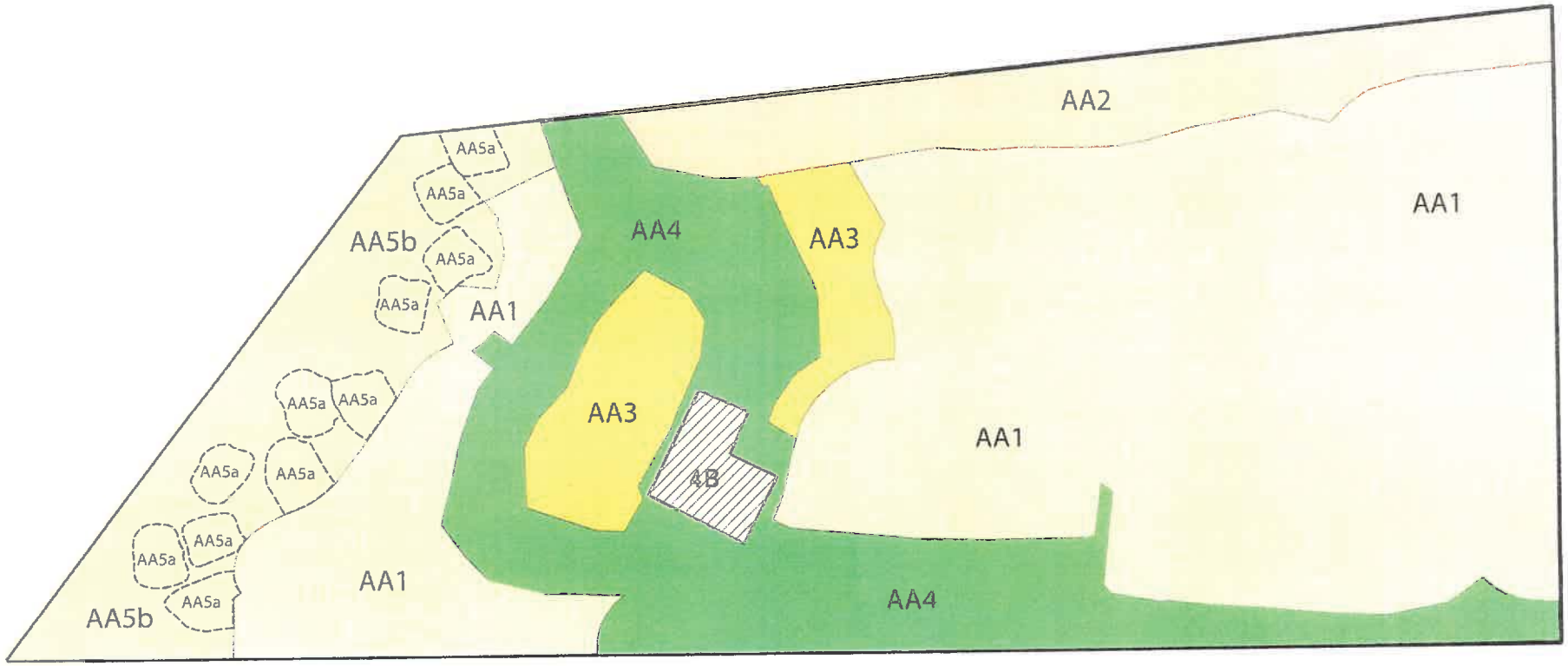
Surveyed by:		Original Size: A3	Scale: 1:2500 @ A3
Designed by:			
Drawn by:	PGS		
Checked by:	MJB		DO NOT SCALE
Approved by:	MJB		
Job No: W4332		Sheet No: 1	Revision No: J
			Date Created: 06/08/2015

L:\DATA\4300\4332\ACAD\NORTH END OF PEN BAY\W4332_150714_PENINSULA BAY NORTH END SCHEME REV J2 OVER AERIAL.DWG

APPENDIX B

Variation 15 Structure Plan

Peninsula Bay Structure Plan - Proposed



Activity Areas

AA1 - Activity Area 1

AA2 - Activity Area 2

AA3 - Activity Area 3

AA4 - Activity Area 4

- Activity Area 5 b

- Activity Area 5 a

AA5b

AA5a

PUBLIC PARK

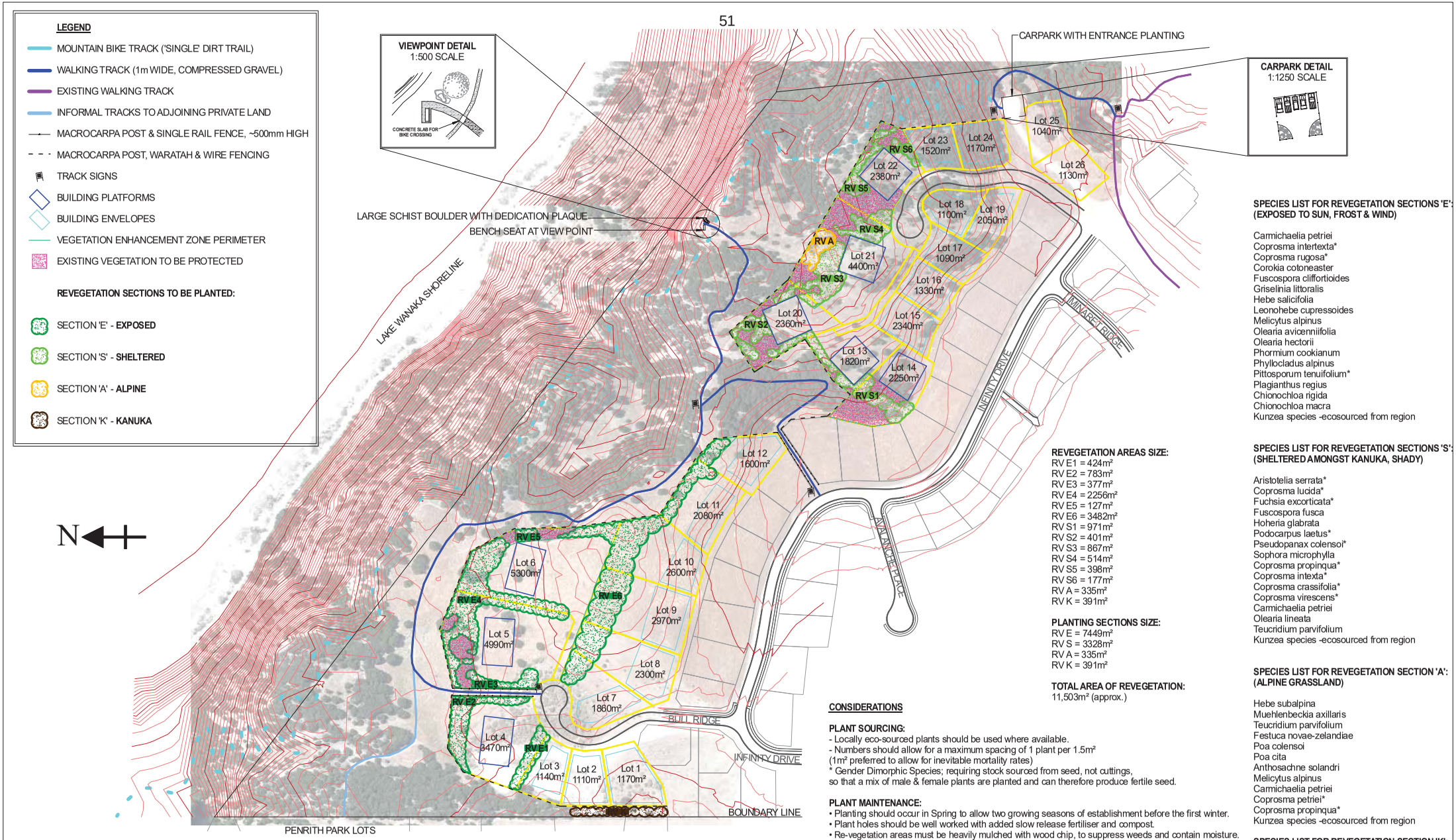
4B

50m 100m 200m 350m

Date: 14 September 2004

APPENDIX C

Landscape Plan



REVEGETATION AREAS SIZE:
RV E1 = 424m²
RV E2 = 783m²
RV E3 = 377m²
RV E4 = 2256m²
RV E5 = 127m²
RV E6 = 3482m²
RV S1 = 971m²
RV S2 = 401m²
RV S3 = 867m²
RV S4 = 514m²
RV S5 = 398m²
RV S6 = 177m²
RV A = 335m²
RV K = 391m²

PLANTING SECTIONS SIZE:
RV E = 7449m²
RV S = 3328m²
RV A = 335m²
RV K = 391m²

TOTAL AREA OF REVEGETATION:
11,503m² (approx.)

CONSIDERATIONS

PLANT SOURCING:
- Locally eco-sourced plants should be used where available.
- Numbers should allow for a maximum spacing of 1 plant per 1.5m² (1m² preferred to allow for inevitable mortality rates)
* Gender Dimorphic Species; requiring stock sourced from seed, not cuttings, so that a mix of male & female plants are planted and can therefore produce fertile seed.

PLANT MAINTENANCE:
• Planting should occur in Spring to allow two growing seasons of establishment before the first winter.
• Plant holes should be well worked with added slow release fertiliser and compost.
• Re-vegetation areas must be heavily mulched with wood chip, to suppress weeds and contain moisture.
• Deep irrigation should be provided for at least the first five years to allow for strong plant establishment.
• Necessary rabbbit protection must be applied to all planted *and protected* areas; in the form of rabbit proof fencing, individual plastic sleeves around plants and poision programs.

NOTE: ALL PINUS, PSEUDOTSUGA & CYTISUS ON SITE TO BE REMOVED.

SPECIES LIST FOR REVEGETATION SECTIONS 'E':
(EXPOSED TO SUN, FROST & WIND)

Carmichaelia petriei
Coprosma intertexta*
Coprosma rugosa*
Corokia cotoneaster
Fuscospora cliffortioides
Griselinia littoralis
Hebe salicifolia
Leonohebe cupressoides
Melicytus alpinus
Olearia avicenniifolia
Olearia hectorii
Phormium cookianum
Phyllocladus alpinus
Pittosporum tenuifolium*
Plagianthus regius
Chionochloa rigida
Chionochloa macra
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTIONS 'S':
(SHELTERED AMONGST KANUKA, SHADY)

Aristotelia serrata*
Coprosma lucida*
Fuchsia excorticata*
Fuscospora fusca
Hoheria glabrata
Podocarpus laetus*
Pseudopanax colensoi*
Sophora microphylla
Coprosma propinqua*
Coprosma intexta*
Coprosma crassifolia*
Coprosma virescens*
Carmichaelia petriei
Olearia lineata
Teucridium parvifolium
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTION 'A':
(ALPINE GRASSLAND)

Hebe subalpina
Muehlenbeckia axillaris
Teucridium parvifolium
Festuca novae-zelandiae
Poa colensoi
Poa cita
Anthosachne solandri
Melicytus alpinus
Carmichaelia petriei
Coprosma petriei*
Coprosma propinqua*
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTION 'K':
(KANUKA)

Kunzea species -ecosourced from region

design@rachaelstanford.co.nz
Mobile: (021) 115 6269
Studio: (03) 443 8392
7 Islington Place, Wanaka

SITE:	PLAN:		
PENINSULA BAY NORTH END PROPOSED PLAN CHANGE	**LANDSCAPE CONCEPT**	**5 NOVEMBER 2015**	**1:2500**
	FOR: **INFINITY INVESTMENTS**	**01/017 - 15/16**	0 50m 100m
		REVISION: **F**	*Drawing to scale when printed on A3 sheet*

APPENDIX D

Certificate of Title

COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**696309**
Land Registration District	**Otago**
Date Issued	14 August 2015

Prior References
685724

Estate	Fee Simple
Area	16.0767 hectares more or less
Legal Description	Lot 920 Deposited Plan 486039

Proprietors
Peninsula Village Limited as to a 1/2 share
Wanaka Bay Limited as to a 1/2 share

Interests

Subject to Section 59 Land Act 1948

7124098.2 Mortgage to Bank of New Zealand - 23.11.2006 at 11:39 am

Subject to a right (in gross) to convey electricity over part marked C & A on DP 486039 in favour of Aurora Energy Limited created by Easement Instrument 9585989.6 - 23.1.2014 at 4:27 pm

The easements created by Easement Instrument 9585989.6 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to drain sewage and water over part marked C & D on DP 486039 in favour of Queenstown Lakes District Council created by Easement Instrument 9859288.5 - 26.11.2014 at 12:19 pm

The easements created by Easement Instrument 9859288.5 are subject to Section 243 (a) Resource Management Act 1991

Subject to a gas easement (in gross) over part marked E on DP 486039 in favour of Rockgas Limited created by Easement Instrument 10062529.3 - 14.8.2015 at 4:09 pm

The easements created by Easement Instrument 10062529.3 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey electricity over part marked E & H and a right to transform electricity over part marked H all on DP 486039 in favour of Aurora Energy Limited created by Easement Instrument 10062529.4 - 14.8.2015 at 4:09 pm

The easements created by Easement Instrument 10062529.4 are subject to Section 243 (a) Resource Management Act 1991

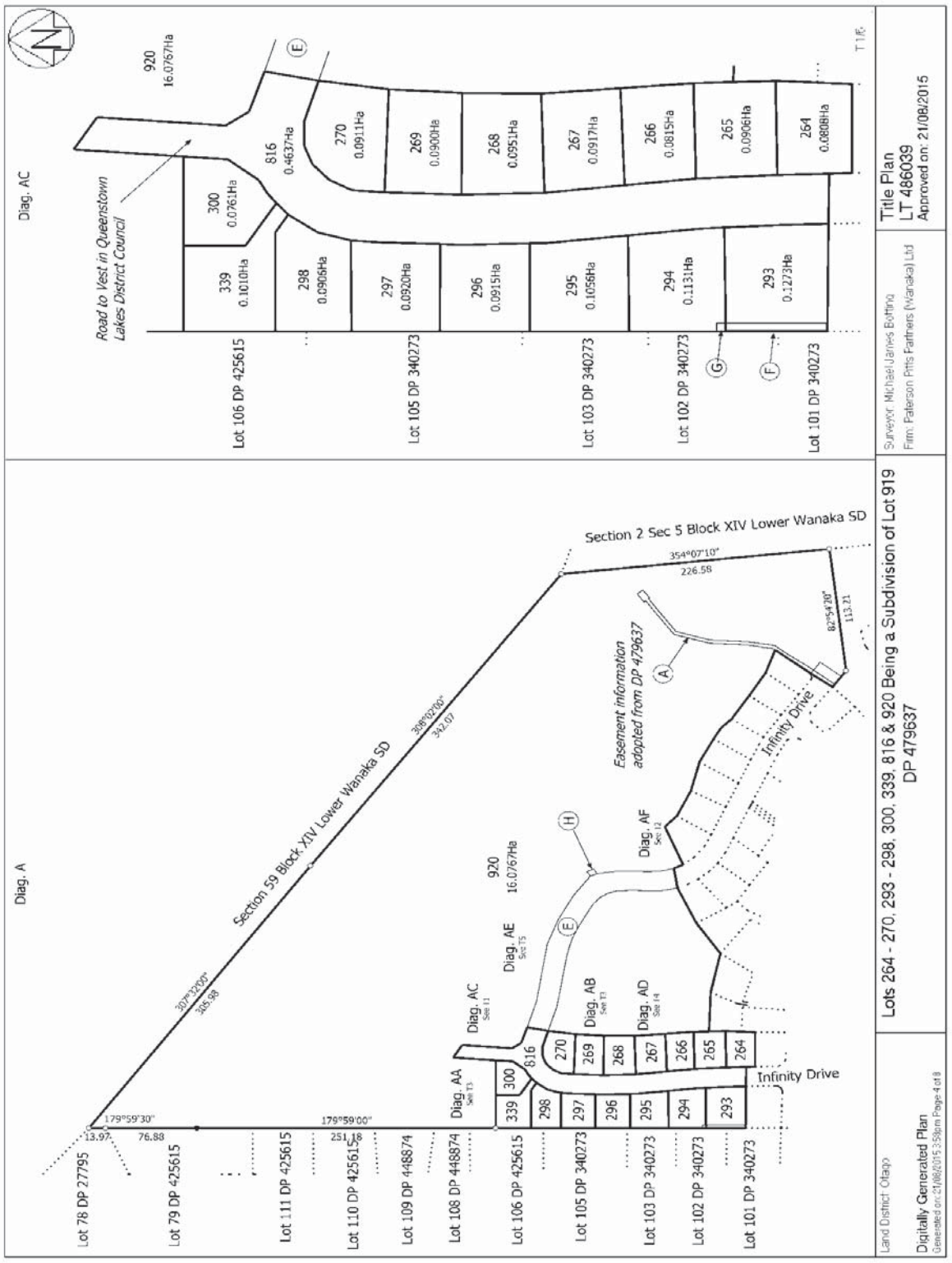
Subject to a right (in gross) to convey telecommunications and computer media over part marked E on DP 486039 in favour of Chorus New Zealand Limited created by Easement Instrument 10062529.5 - 14.8.2015 at 4:09 pm

The easements created by Easement Instrument 10062529.5 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to drain sewage and a right to drain and convey water over part marked E on DP 486039 in favour of Queenstown Lakes District Council created by Easement Instrument 10062529.6 - 14.8.2015 at 4:09 pm

The easements created by Easement Instrument 10062529.6 are subject to Section 243 (a) Resource Management Act 1991

Identifier **696309**



APPENDIX E

Vivian and Espie Landscape Assessment

PENINSULA BAY PROPOSED PRIVATE PLAN CHANGE

LANDSCAPE AND VISUAL EFFECTS ASSESSMENT REPORT

22ND SEPTEMBER 2015

vivian+espie
resource management and landscape planning

Vivian + Espie Limited Resource Management and Landscape Planning
Postal PO Box 2514 Queenstown
Physical Address Unit 15 70 Glenda Drive Frankton Queenstown
Tel +64 3 441 4189 **Fax** +64 3 441 4190 **Web** www.vivianespie.co.nz

TABLE OF CONTENTS

INTRODUCTION

1. This report identifies and quantifies the landscape and visual effects likely to arise from development enabled by a proposal to amend the District Plan zoning of the northern part of the Peninsula Bay area in Wanaka by way of a private plan change. The proposal seeks to extend the existing Low Density Residential Zone (LDRZ) to the north so as to take in an area that is currently Open Space Zone (OSZ).

2. A number of planning and legal mechanisms are proposed to ensure that the new area of LDRZ is developed in a particular and specific way in accordance with a Concept Scheme Plan (attached to this report as Appendix 1). In this respect, although the newly zoned area will be LDRZ, the actual development that will be enabled will be significantly less dense than the LDRZ provisions in the District Plan would otherwise allow and will be in a specified layout.

3. The methodology for this assessment has been guided by the landscape related Objectives and Policies of the District Plan(the Plan), by the Guidelines for Landscape and Visual Impact Assessment produced by the UK's Landscape Institute and Institute of Environmental Management and Assessment[1], and by the New Zealand Institute of Landscape Architects "Landscape Assessment and Sustainable Management" Practice Note[2].

DESCRIPTION OF THE PROPOSAL

4. The details and layout of the proposed activities are set out in the Section 32 analysis report and its various appendices including a number of plans. I will not repeat that information here, other than to make the following summary points that are relevant to an assessment of landscape issues:

- The proposed zoning and Concept Scheme Plan will provide for an additional 26 residential lots to the north of the current zone boundary. These lots vary in size between 1040m^2 and 5490m^2. The northern edge of the LDRZ will move north by between approximately 50 and 150 metres.

- The southern strip of proposed lots (Lots 1 – 3, 7 – 19 and 23 – 26), occupy the south facing slopes of a rounded ridgeline. These lots range between 1040m^2 and 2970m^2. Maximum building height is restricted to 5 metres above existing ground level for all of these lots except Lots 1, 15 – 17, 19 and 23 -26, which have a maximum height restriction of 5.5 metres above existing ground level.

- The northern strip of six lots (Lots 4 – 6 and 20 – 22) occupy an area of different landform. Lots 4 – 6 are placed on a terrace area that lies north of the rounded ridgeline and south of the steep escarpment that descends to the lake edge. Lots 20 – 22 are on an area of more variable landform near the top of the rounded ridgeline. These six lots have specific building platforms associated with them

[1] Landscape Institute and Institute of Environmental Management and Assessment; 2013; 'Guidelines for Landscape and Visual Impact Assessment – 3rd Edition'; Routledge, Oxford.
[2] New Zealand Institute of Landscape Architects Education Foundation; 2010; Best Practice Note 10.1 'Landscape Assessment and Sustainable Management'.

within which all built form is to be contained. The maximum height of future buildings on these lots is restricted as follows:

- For Lot 4, the maximum building height is 5 metres above existing ground level at the lowest point within the building platform area (which has an RL of 328.9m), i.e. no part of a future building shall be higher than RL333.9m.

- For Lot 5, the maximum building height is 4 metres above existing ground level at the lowest point within the building platform area (which has an RL of 330.7m), i.e. no part of a future building shall be higher than RL334.7m.

- For Lot 6, the maximum building height is 4 metres above existing ground level at the lowest point within the building platform area (which has an RL of 331.1m), i.e. no part of a future building shall be higher than RL335.1m.

- For Lot 20, the maximum building height is 5 metres above existing ground level at the lowest point within the building platform area (which has an RL of 337.0), i.e. no part of a future building shall be higher than RL342m.

- For Lot 21, the maximum building height is 5 metres above existing ground level at the lowest point within the building platform area (which has an RL of 339.8m), i.e. no part of a future building shall be higher than RL344.8m.

- For Lot 22, the maximum building height is 5 metres above existing ground level at the lowest point within the building platform area (which has an RL of 335.5m), i.e. no part of a future building shall be higher than RL340.5m.

- The external finishes of all buildings must have a light reflectivity value of 36% or less.

- The area outside of the proposed amended LDRZ is to remain as OSZ and is to be vested in QLDC's management as a reserve. This area contains a number of proposed walkway alignments and is substantially covered in mature kanuka-dominated vegetation.

- Within the proposed LDRZ (mostly within Lots 4 – 14 and 20 – 22) areas of protected vegetation are proposed. These areas are currently partially covered in kanuka-dominated vegetation and are partially covered in rank grass. The proposal is that enhancement planting will be undertaken in these areas and that these areas will be protected and managed by way of covenant. This vegetation will provide visual screening for future built form and will enhance natural vegetative character and biodiversity and is set out in detail on the Landscape Concept Plan that is attached to this report as Appendix 1.

5. In general terms, the ultimate result of the proposed plan change will be that an additional strip of large residential lots will line the south-facing slopes of the low, rounded ridge that lies to the north of the current LDRZ. These lots will accommodate dwellings that look south over the existing Peninsula Bay suburban area but also gain expansive views to the west to Roy's Bay. Further north, there will then be an additional six larger lots that take in significant areas of native vegetation. These lots will be more elevated and will be close to, or north of, the crest of the rounded ridgeline. The views from dwellings on these six lots will be to the west towards Roy's Bay and south over the Peninsula Bay suburban area. These six lots are more elevated and hence their views will be more expansive.

RELEVANT PAST ASSESSMENTS AND DECISIONS

6. The Peninsula Bay area has a long planning history. The northern end of the Peninsula Bay area has been the subject of past assessments and decisions, some of which are relevant to the consideration of the current proposal.

7. Prior to 2004, the area that is now the Peninsula Bay LDRZ was zoned Rural General Zone. In 2004, proposed Variation 15 sought to rezone the land to allow for residential development. Proposed Variation 15 was ultimately examined and decided by the Environment Court[3]. I was the QLDC's landscape witness in those proceedings. The details of what was proposed by Variation 15 evolved as it went through the application and hearing process. By the time of the final iteration of Variation 15, the QLDC (and myself as a witness) supported a configuration of development that included a number of individually located house sites in the northern area that is currently OSZ. For a number of

[3] Environment Court decision C010/2005, Infinity Group vs. QLDC.

reasons, not all related to landscape and amenity issues, the Court found that the purpose of the RMA would best be served by rejecting proposed Variation 15 in its entirety and hence the Peninsula Bay site remained in Rural General Zoning.

8. An important finding of the Environment Court's decision regarding Variation 15 is that it identified the extent of the outstanding natural landscape that includes Lake Wanaka. The Court found that the very northern part of the Peninsula Bay site is within the outstanding natural landscape. It also found that the southern boundary line of the outstanding natural landscape (the ONL line) follows the crest of a rounded ridgeline that runs roughly east west across the Peninsula Bay site. This ONL line is shown on Appendix 2 to this report.

9. In late 2005 through 2006, Plan Change 25 was proposed by the QLDC which put in place the zoning that is now in the Plan. I was engaged by the QLDC to provide advice in relation to landscape and amenity issues. In relation to the relevant northern area of Peninsula Bay, Plan Change 25 proposed some LDRZ extending northwards to touch the ONL line. No specific dwelling locations or design controls were proposed. The visual assessment work undertaken at that time suggested that these northernmost areas of proposed LDRZ could adversely affect views from the north. My advice was that this area of proposed LDRZ should therefore be excluded from the rezoning and ultimately this advice was followed such that the current zoning configuration in the Plan was put in place.

10. Regarding the currently proposed development configuration:

- The building platforms now proposed within Lots 4 – 6 and 20 – 22 are located within the AA5a development areas that were proposed by Variation 15 and were supported by the QLDC (including myself as a witness).

- The strip of lots now proposed to the north of the existing LDRZ (proposed Lots 1 - 3, 7 – 19 and 23 – 26) are very largely located within the AA1 development area that was proposed by Variation 15 and was supported by the QLDC (including myself as a witness).

- Currently proposed Lots 1 – 3 and 7 – 16 are largely located within the part of the LDRZ proposed by Plan Change 25 that I advised against and was ultimately deleted. The current proposal includes specific measures (reduced density, reduced maximum building heights and new areas of protected vegetation) to ensure that built form will

be only very minimally visible from the north. The zoning proposed by Plan Change 25 for this area did not include those measures.

STATUTORY CONSIDERATIONS

11. The parts of the Resource Management Act that are relevant to the consideration of the landscape and amenity related effects of the proposed plan change include:

> *6 Matters of national importance*
>
> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:*
>
> *(b) The protection of outstanding natural features and landscapes from inappropriate subdivision, use, and development:*
>
> *7 Other Matters*
>
> *In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to-*
>
> *(c) The maintenance and enhancement of amenity values*
>
> *(f) Maintenance and enhancement of the quality of the environment*

12. Section 4 of the Plan deals with matters that are relevant to the district as a whole. Section 4.2 of the Plan provides district wide guidance regarding landscape and amenity issues. Logically, all other sections of the Plan shall be compatible with Section 4. I include the most relevant of these section 4 provisions as Appendix 3 to this report. However, the District Plan Review that is currently in process may well amend these provisions. Therefore, my assessment of the proposed zoning is not specifically structured around these provisions, it is largely an assessment from first principles with reference to the above sections of the Act.

THE EXISTING LANDSCAPE CONTEXT

13. I describe the existing landscape context with reference to the landscape baseline (the existing situation in relation to landscape character) and the visual baseline (the existing situation in relation to views and visual amenity).

THE LANDSCAPE BASELINE

14. The landscape character of the relevant area has been described in various reports associated with the planning history of the Peninsula Bay site. A useful, complete but concise report in this regard is one prepared by Boffa Miskell in relation to Plan Change 25[4].

15. The Peninsula Bay area forms part of the western side of the Beacon Point Peninsula, which itself is part of the large, rounded, U-shaped Hawea Moraine on which much of Wanaka town is located. The landform of the Peninsula Bay site is thus of a rounded, gently rolling, glacially-formed type. The eastern edge of the Peninsula Bay site rises towards a local high ridge that is within the Sticky Forest land, further to the east. Therefore, the Peninsula Bay land generally has a western aspect, looking towards Roy's Bay. At the northern end of the site, a steep rocky escarpment descends to lake level, created by more recent glaciation.

16. Prior to human settlement, the Peninsula Bay area was likely a mosaic of podocarp and broadleaf forest, shrub-land and grassland. The drier, north facing slopes would have been dominated by kanuka, matagouri and mingimingi[5]. The site is now dominated by suburbia but the northern end (the OSZ) retains significant remnants of kanuka atop the steep rocky escarpment.

17. Suburban development stretches across the Peninsula Bay site from previously established parts of Wanaka out to the extent of the LDRZ (as can be seen on Appendix 4). This development has modified landform and has created an overall suburban pattern including streets, dwellings, gardens and all the trappings of suburbia. A number of open reserves run through the suburban pattern and generally occupy lower areas of natural landform. The northernmost part of the existing LDRZ is yet to be developed and built on, but development is provided for up to the existing zone boundary line that can be seen on Appendix 5.

[4] Boffa Miskell, "*Landscape Assessment – Peninsula Bay – Proposed Plan Change of Lot 1 DP 302196, Hunter Road, Wanaka*", September 2005, Ref C05016.
[5] Neil Simpson (Conservation Consultancy Ltd), "Report on the vegetation of the Peninsula Bay proposed subdivision and suggestions for future plantings", July 2001.

18. The ONL line shown on Appendices 1 and 3 shows that all land north of the crest of the rounded northern ridgeline is within the ONL. Essentially, the Court found[6] that the land that faced the lake and was visible from the lake was part of the same landscape as the lake; an ONL. This part of the Peninsula Bay site is largely unmodified in terms of landform and retains swards of remnant kanuka. Human activity here is less (although there are informal cycling and walking tracks). Natural character is high and aesthetic patterns are of a wild, relatively natural, somewhat remote, lakeside ridgetop location. In terms of landscape character, this area contrasts with the suburban pattern of the LDRZ described above.

19. As can be seen on Appendices 1 and 3, the ONL line and the northern boundary of the LDRZ do not coincide. There is a strip of OSZ land that is south of the ONL line. This strip of land is generally the south-facing slopes of the rounded ridgeline. The eastern half of this strip has character that is very similar to the ONL land; rolling and kanuka covered. The western half of this strip is substantially clear of vegetation and has been significantly earthworked in the past.

20. Regarding how the landscape is valued, the Plan makes it clear that the ONL land is most valued by the community. The visual appreciation of the northern side of the rounded ridge from the Dublin Bay / Clutha Outlet area of the lake was a factor in the Court's finding that this area is part of the ONL.

21. The LDRZ area is less valued in landscape terms but is still perceived as a pleasant, attractive suburban area.

22. The manner in which the community values the strip of land that lies between the LDRZ and the ONL line is less clear. This area is visually experienced from the northern part of the Peninsula Bay suburban area, is partially covered in kanuka and accommodates some informal walking tracks. I consider that the local (i.e. Peninsula Bay) community would value the landscape character of this area in the way that any relatively natural local reserve area is valued. It is visually natural and attractive. It forms part of the view to the north and it provides recreational use. I do not consider that it is as valued as the ONL area that forms part of the visual catchment that is observed from the lake.

[6] Environment Court decision C010/2005, Infinity Group vs. QLDC.

THE VISUAL BASELINE

23. In broad terms, the Peninsula Bay suburban area slopes to the west and hence can be seen from western parts of the Wanaka area. Topography means that it is not easily seen from the south. It is hidden by the high topography of the Sticky Forest area from the east and is hidden from northern viewpoints (generally from the lake) by the steep lakeside escarpment. When seen in broad views from the west or southwest, the Peninsula Bay area reads as part of the suburban pattern of Wanaka; the upper band of development backed by Sticky Forest.

24. The area that is proposed to be rezoned is visible from parts of Wanaka Town to the west and south of Pembroke Park at distances between 3 and 4 kilometres. This includes the Sargood Drive area, the Meadowstone area and the Rural Residential Zones land adjacent to Studholme Road. As one continues towards Glendhu Bay, the area of proposed zoning is visible from the foreshore of Lake Wanaka as far north as Damper Bay including the lakeside public walkway. These views are at distances of 4 to 4.5 kilometres. Visibility is also available from the east facing slopes of Roy's Peak including the associated public walking track at distances of 5 to 7 kilometres. From many specific viewpoints within these described areas, views are blocked by close foreground elements or by mid-ground elements such as the treed area of Eely Point.

25. The nature of these views is illustrated by Viewpoint Locations 16 and 17 of Appendix 6. The urban and suburban areas of Wanaka town are central to these views. The foreground is often part of Roy's Bay and the backdrop is the mountains of Mount Burke or the Grandview Range. The views are generally very scenic and pleasant; Wanaka town sitting is its lakeside setting, backed by distant mountain ranges.

26. For observers on the lake, views to the area of proposed rezoning are available from Roy's Bay. As one travels north, towards Beacon Point or Damper Bay, visibility of the plan change area (generally a gentle south-facing slope) becomes more difficult, although the developed area of Peninsula Bay is still easily seen. Once an observer moving north on the lake passes a line running approximately from Beacon Point to the eastern point of Roy's Peninsula, the plan change area moves out of sight. Similarly, visibility is not available from within Glendhu Bay.

27. For an observer on the lake to the north of the site, the steep, rocky escarpment at the northern end of Peninsula Bay is an easily visible part of the lake edge. Illustrations of this can be seen on the photographs of Appendix 6 to this report (Viewpoints 2 to 15). The grey colours and rough textures of the remnant kanuka-dominated vegetation are scattered across the rocky slopes and the more uniform dark green of the conifer cover on the Sticky Forest site and Beacon Point are points of contrast. For a lake traveller heading northeast from Roys Bay to Dublin Bay, suburbia is visible until one reaches a point adjacent to approximately Bull Island. At this point the last large dwelling near Beacon Point slips out of view and the lakeshore has a wilder, more remote appearance until one gets closer to Dublin Bay, at which point the rural living use of that area is visible.

Visibility of the activities enabled by the proposed rezoning

28. The proposed rezoning will enable 26 new dwellings as described above. Most of these are located on the gentle south-facing slopes of the rounded ridge. Dwellings within the building platforms of Lots 4 - 6 and 20 – 22 will be to the north of this ridge but south of the steep escarpment that descends to the lake edge. As discussed, various restrictions (such as limits on building height) are proposed to apply to these future dwellings in order to mitigate potential visual effects.

29. The visibility of future built form has been analysed using digital modelling and through a number of visits to the site and surrounding areas. A number of images showing views of the digital model are attached to this report as part of Appendix 6. I make the following points regarding visibility of activities enabled by the proposed rezoning:

i. From parts of the Peninsula Bay suburban area (generally within the northern half of the Peninsula Bay area) there will be some visibility of future buildings within the lots enabled by the proposed rezoning. Future buildings on the existing lots between Minaret Ridge and Infinity Drive/Avalanche Place will often considerably screen development on the plan change land. Most visibility will be available from northwestern areas such as Edgewood Place and the northern part of Forest Heights (which are shown on Appendix 5). There will be plain and immediate visibility from the northernmost existing lots that line the northern edge of Infinity Drive (which also can be seen on Appendix 5).

ii. There is a line of sight available from parts of the Wanaka suburban area that are west of Pembroke Park, including part of Cardona Valley Road as it runs adjacent to Wanaka golf course. The viewer is at a similar elevation to the subject area and hence views are horizontal and are at distances of 3 to 4 kilometres. In practice, dwellings within the existing LDRZ will very considerably block views to the area of proposed rezoning. Visibility of new built form will be extremely difficult. The existing views of the plan change area are illustrated by Viewpoints 16 and 17 of Appendix 6.

iii. Visibility to the area of proposed rezoning is available from the Sargood Drive/Meadowstone area of western Wanaka, depending upon the exact location of the viewer. The treed area of Eely Point often blocks views. The Peninsula Bay suburban area appears as the upper horizontal band of suburban development associated with Wanaka in these views. The existing views of the plan change area are illustrated by Viewpoint 18 of Appendix 6.

iv. There is visibility to the proposed area of rezoning from a 500m long stretch of Wanaka Mount Aspiring Road with its southern end at Waterfall Creek. This view is at a distance of 4.6 kilometres. Views are available from another similar stretch of this road adjacent to the entrance to Whare Kea Lodge (as is illustrated by Viewpoint 21 of Appendix 6). Otherwise, visibility is extremely difficult from Wanaka Mount Aspiring Road.

v. Visibility to the proposed area of rezoning is available from much of the lakeside public track that runs from Roys Bay to Damper Bay. This track allows views across Roys Bay to the eastern part of Wanaka town including the Beacon Point and Peninsula Bay area. These views are at distances of between 4 and 5 kilometres and are illustrated by Viewpoints 19 and 20 of Appendix 6. The visibility is clearest north of approximately Rippon Vineyard, since Eely Point no longer has such a blocking effect.

vi. From the surface of Roy's Bay, the proposed area of rezoning is generally visible for observers that are to the south of a line running approximately from Beacon Point to the eastern point of Roys Peninsula. New dwellings would read as a slight extension to the existing Peninsula Bay LDRZ that can be seen immediately behind other parts of suburban Wanaka. There is no visibility from Glendhu, Parkins or Paddock Bays.

vii. From the surface of Lake Wanaka northeast of a line running approximately from Beacon Point to the eastern point of Roys Peninsula, visibility becomes more difficult.

Once east of Beacon Point, visibility to the main suburban areas of Wanaka (including the Peninsula Bay area) is not available. As one moves east from Beacon Point towards Dublin Bay, there is visibility available of the large dwellings on Beacon Point itself, as well as some more elevated ones accessed from Mount Gold Place. However, visibility to these too is lost once one gets to a point approximately a kilometre east of Bull Island. From viewpoints on this part of the lake surface, the existing zoning of Peninsula Bay would not give rise to any visible buildings. To examine the potential visibility of buildings enabled by the proposed rezoning, a digital model has been used. Development enabled by the proposed zone change will be visible from this part of the lake surface as is illustrated by the digital model images from Viewpoints 13 to 15 of Appendix 6. In short, this shows that :

- There will be no visibility of built form from surveyed Viewpoints 1 to 12.

- Viewpoint 13 is 1110 metres from the closest proposed building platform. From this viewpoint there is some very slight visibility available to the building envelopes within proposed Lots 5, 6, 7 and 21, as is shown on Appendix 6.

- Viewpoint 14 is 1490 metres from the closest proposed building platform. From this viewpoint there is some very slight visibility available to the building envelopes within proposed Lots 3, 4, 5, 7, 11 and 12, as is shown on Appendix 6.

- Viewpoint 15 is 2236 metres from the closest proposed building platform. From this viewpoint there is some very slight visibility available to the building envelopes within proposed Lots 3, 5 and 7, as is shown on Appendix 6.

30. While the digital model has been used to illustrate visibility of potential buildings from the part of the lake surface to the north of the site, it has not been used in relation to the other potential viewing locations discussed in point (i) to (vi) above. This is because (as will be discussed subsequently) observers on the lake to the north of the site are considered to be the most sensitive observers in terms of potential visual effects. Additionally, visibility from the areas discussed in points (i) to (vi) is more easily represented and understood through the use of photographs. Observers in the various areas described above that will have

visual access to development enabled by the proposed zone change are potentially affected in terms of views and visual amenity. This will be discussed subsequently.

THE LANDSCAPE EFFECTS OF THE PROPOSAL

31. When describing effects, I will use the following hierarchy of adjectives that is commonly used in the landscape planning profession:

- Nil or negligible;
- Slight;
- Moderate;
- Substantial;
- Severe.

32. Landscape effects are the effects that an activity may have on the landscape as a resource in its own right. Landscape effects relate to landscape character and the elements and patterns that make up that character, rather than to visual issues. I have considered these effects with reference to the relevant statutory considerations that are set out in paragraphs 11 and 12.

33. The character of the Peninsula Bay area and the area proposed to be rezoned has been discussed above. The plan change area is generally rolling, south facing open land, immediately adjacent to the existing LDRZ. It retains a relatively high degree of naturalness through its glacially rounded landform and widespread remnant kanuka. The western part of the plan change area has been extensively earthworked in the past. Nonetheless, the area has the character of open space land with high naturalness adjacent to suburban residential land use.

34. The proposed zoning will essentially impose a suburban residential pattern over the subject area, extending the edge of residential land use to the north by approximately 150 metres.

35. To be more specific, the suburban pattern that will be imposed over the relevant area will be of a particularly low density. It will consist of:

- A pocket of suburban land use at both the eastern and western ends of the plan change area (Lots 1 – 3 and 23 – 26) that is similar in density to the existing Peninsula Bay LDRZ. These lots range between 1040 and 1520m^2 and are similar in size (although slightly larger) to lots within the Peninsula Bay LDRZ in general. They can be expected to have a very similar character.

- A strip of larger lots running along the south facing slopes of the rounded ridge, facing into the existing Peninsula Bay suburban area (Lots 7 – 19). These range between 1090 and 2970m^2. The highest parts of Lots 7 – 12 are proposed to be planted in site-specific indigenous vegetation that is then to be protected by way of covenant. Building height restrictions will mean that dwellings will be of a low profile and may be considerably dug into the landform. I consider that it is likely that these lots will develop in the style of large lot, semi-rural properties, similar to the Hidden Hills area near Mount Iron, as an example (images of which form Appendix 7 to this report). A significant proportion of the area of these lots is identified for native enhancement planting in accordance with the proposed Landscape Concept Plan and species list (Appendix 1 to this report). Consequently, large, dense stands of native vegetation will be an important part of the character of these lots in the future. Owners are likely to take cues from these native vegetation areas and tie this sort of vegetative treatment into the remainder of their properties.

- Lots 4 – 6 and 20 – 22 are larger again and range between 2360 and 5300m^2. Lots 4 to 6 and approximately half of Lot 21 are within the identified ONL. The specific building platform locations, restrictive building controls (including building heights, extensive areas of protected kanuka vegetation and of proposed indigenous vegetation) mean that these lots will develop in a particular way. I consider it is likely that they will develop in the style of semi-bush-clad retreat type home sites, similar to the larger, elevated sites within the Penrith Park Zone to the immediate west that lie between Mount Gold Place and the northern part of Penrith Park Drive (images of which are included as Appendix 8 of this report).

36. The new elements that will appear in the landscape (i.e. residential properties of various sizes) will not be elements that are foreign to this vicinity; they will be very similar to various

neighbouring properties, as has been set out above. However, the new residential activity will occur in what is currently an area of OSZ of a relatively natural character, essentially taking away (or significantly changing) an area of natural character by extending residential land use to the north. This effect will be permanent and, in terms of scale, it will cover approximately 50,000m^2.

37. The ecological effects of the proposal will be covered by a separate report. I will not discuss those effects here. However, in relation to landscape character it is relevant to note that the areas of proposed native planting will be a significant enhancement of natural vegetative character and biodiversity. This will provide some degree of offset in relation to adverse landscape character effects.

38. With reference to Appendix 2 and as noted above, Lots 4 – 6 are within, or mostly within, the identified ONL. The building platform of Lot 20 is outside the ONL (being on a west facing slope). The small part of this lot that is within the ONL is to consist of protected vegetation. Approximately half of Lot 21, including one third of the building platform, is within the identified ONL. Again, (apart from the building platform) the area of this lot that is within the ONL is to consist of protected vegetation. Most of Lot 22, including almost the entirety of the building platform, is outside of the identified ONL. The small part that is inside the ONL is primarily to consist of protected native vegetation.

39. The part of the zone change area that is within the identified ONL is particularly susceptible to having its character degraded by the type of change that is proposed. This area is on the lake side of the northern rounded ridge line, hence it generally faces the lake. It has a high degree of natural character due to landform and vegetation as is considered to be part of the landscape that includes the lake and its margins and containing slopes. This land is privately owned and is within the OSZ. In general terms, residential development would alter this existing character substantially. I also consider that this area that is within the ONL is the part of the Peninsula Bay site that is most valued by the community in relation to its landscape character. Given that it is part of the ONL that includes the lake, it is valued not just by neighbours but by the district's community in general. In terms of landscape character effects, the new elements that are to be placed within the ONL (ultimately 3 dwellings and associated curtilage) have been located in areas of lower topography and will be considerably surrounded by indigenous vegetation. Proposed design controls will mean that dwellings are of a low profile and are visually recessive.

Given the overall scale of the new elements that will appear within the ONL, and the various design measures discussed above, I consider that the landscape character change will not be as substantial as it could be; effects have been mitigated. Nonetheless, the character effect on this part of the ONL will be of a moderate to substantial degree (with reference to the scale set out in my paragraph 31).

40. The part of the plan change area that is outside of the ONL generally faces south towards the Peninsula Bay suburban area. Most of this area has a high degree of natural character although the western quarter of it has been considerably modified in the past. This area is relatively susceptible to having its character degraded by residential development; the existing unoccupied and naturally vegetated character would be considerably altered by such development. I consider that the landscape character of this area is less valued than the ONL area. This area is valued by nearby residents in the way that any relatively natural open undeveloped land is valued but it is not valued on a district-wide basis. Due to this, the other mitigatory factors and the relative containment of the area, I consider that the landscape character effect in relation to the non-ONL part of the zone change area is of a moderate degree.

41. Overall, I consider that in relation to landscape character, the landscape resource will be degraded; the character change will be a negative one in that open space and naturalness will be reduced in an area where these characteristics are valued. Notwithstanding this, the specific design of the development that will occur has been done in a way that mitigates these effects. The most valued area (the prominent ONL slopes that face the lake) will not be significantly affected.

THE VISUAL EFFECTS OF THE PROPOSAL

42. Visual effects are the effects that an activity may have on specific views and on the general visual amenity experienced by people. Again, I have assessed these effects with reference to the relevant statutory considerations that are set out in my paragraphs 11 and 12.

43. Paragraphs 23 to 30 discuss views and observers that are potentially affected by the proposed rezoning. With reference to paragraph 29, observers that are potentially visually affected by the proposal can be summarised as being:

i. Observers within the Peninsula Bay suburban area;

ii. Observers within the western parts of Wanaka town;

iii. Terrestrial observers between western Wanaka and Damper Bay;

iv. Observers on the surface of Lake Wanaka in the Roys Bay area (generally west of Beacon Point);

v. Observers on the surface of Lake Wanaka in the Clutha Outlet / Dublin Bay area (generally east of Beacon Point);

44. The outcomes of the proposed rezoning are discussed in my paragraphs 4 to 5. I will comment on the visual effects in relation to each of the observer groups identified above.

45. It is relevant that the future dwelling sites have been designed in order to gain expansive views to the west and southwest. Views will also be available to the north; through and over protected vegetation to a horizon of jagged mountain peaks but northern views will not include the lake surface. This means that visibility of future built form from the north will be minimised.

OBSERVERS WITHIN THE PENINSULA BAY SUBURBAN AREA

46. Visibility of development enabled by the proposal from the Peninsula Bay suburban area is discussed in paragraph 29(i). From viewpoints where visibility is available, future development will appear as a horizontal strip or sweep of buildings rising towards the north and backed by distant mountains (the Peninsula, Mount Maude and Mount Gould).

47. Dwellings on existing LDRZ lots that lie between Minaret Ridge and Infinity Drive, which are to the south of the zone change area, occupy an area of high topography and hence will considerably screen new development. Therefore, development enabled by the proposed rezoning will only have a significant effect on the very northern lots of the existing LDRZ, being those that line the northern east-west running part of Infinity Drive, the Bull Ridge area and the northern Edgewood Place area (refer to Appendix 5). I understand that

the lots that line the western half of northern side of the east-west running part of Infinity Drive and Bull Ridge (i.e. the lots opposite proposed Lots 1-3 and 7-12) are owned by the requestor of the private plan change.

48. From these particular viewpoints, the current situation means that the south facing slopes of the rounded ridge provide visual relief and a foreground in northern views that has a relatively natural character. The kanuka-scattered, open, undulating land is immediately backed by the distant mountain peaks. As discussed in relation to landscape character effects, under the proposed situation, this foreground area will become characterised by residential patterns and elements. In terms of the visual amenity that is available from these particular viewpoints, this will be an adverse effect; the naturalness, openness and unoccupied nature of these views will be reduced. Due to the close proximity of the viewers to the relevant area, the scale of this visual effect will be considerable; the entire foreground will change.

49. The views from these viewpoints are likely to be valued by occupants of the affected properties. They are not valued on a larger scale or district-wide scale. I consider that for the individual properties that are affected (i.e. many of those allotments that line the northern east-west running part of Infinity Drive, the Bull Ridge area and the northern Edgewood Place area), this visual effect will be of a substantial degree; a pleasant, valued view in which the rounded, south-facing slope is a prominent natural element will change in that this element will be lost to a suburban pattern. Again, it is relevant to note that many of these properties are owned by the requestor.

OBSERVERS WITHIN THE WESTERN PART OF WANAKA TOWN

50. Visibility of development enabled by the proposal from the western part of Wanaka town is discussed in paragraph 29(ii and iii). Within western Wanaka south of Wanaka Mount Aspiring Road (the Meadowstone, Far Horizon area), views are available to the proposed zone change area but are generally substantially blocked by foreground elements and by the trees and landform of the Eely Point area (a recreation reserve that is densely treed). These views are illustrated by Photographs 16 and 17 of Appendix 6. Visibility will be further screened by development within the existing LDRZ in the Minaret Ridge area. The zone change area forms a very small and inconspicuous part of these views. The scale of

visual change will be small. Overall, I consider that the degree of effect on the visual amenity that is currently enjoyed in relation to this part of Wanaka will be negligible.

51. Western Wanaka north of Mount Aspiring Road (the Sargood Drive, Sunrise Bay Drive area) gains better views to the zone change area as there are less intervening foreground elements as is illustrated by Photograph 18 of Appendix 6. The Eely Point area still has an obscuring function in these views however and permitted buildings in the Minaret Ridge area of the existing Peninsula Bay LDRZ will again act as screening elements. Views towards the relevant area from these locations, particularly the lakefront ones, are likely to be considerably valued. Views from the Edgewater Resort, for example, are an important part of its appeal. Such views are susceptible to being degraded by inappropriate residential development. However, again, I consider that the scale of visual change that will occur in these views and its conspicuousness will be particularly low, hence the overall visual effect will be negligible to slight at most.

TERRESTRIAL OBSERVERS BETWEEN WESTERN WANAKA AND DAMPER BAY

52. Eely Point no longer obscures views to the northern Peninsula Bay area once an observer is northwest of approximately Ruby Island Road. Between here and Damper Bay, views are available to the relevant location. Visibility of development enabled by the proposal from this area is discussed in paragraph 29(iv and v).

53. The parts of Wanaka Mount Aspiring Road from which the plan change area is visible are described in paragraph 29(iv) and are illustrated by Photograph 21 of Appendix 6. From the relevant stretch and points of this road, views across the Peninsula Bay area are relatively horizontal, the viewer being at a similar elevation to the site. The speed limit on the relevant sections of road is 100 km/h. The existing composition of views, as illustrated by Photograph 21, is made up of a pastoral or hummocky foreground, a mid-ground that includes the lake surface and the Beacon Point / Peninsula Bay area, and a background of distant mountain ranges. Immediately to the west of the viewer are the steep, unkempt slopes of Roys Peak / Mount Alpha. I consider that the views of users of the relevant stretch of road are undoubtedly of a very high scenic quality. They are susceptible to adverse effects from inappropriate visual elements and are likely to be highly valued; not just by local occupiers but in a more general, district-wide sense.

54. The views from Wanaka Mount Aspiring Road are experienced at distances of approximately 4.8 kilometres. The Peninsula Bay / Beacon Point suburban area is seen as a horizontal band of suburban patterning spread across the low hill of the moraine landform. As is evidenced by the relevant photographs, I consider that the scale of change that the proposal will bring will be small. Given the suburban development that already exists in these views, I consider that the actual visual change that will occur as a result of the proposed zone change will be small and difficult to notice. The overall degree of visual effect is slight.

55. The lakeside public trail that runs from west Wanaka to Glendhu Bay (The Waterfall Creek Track) is well used and allows views to the east across Roys Bay to the Peninsula Bay area for users that are between Damper Bay and approximately Rippon Vineyard. These views are illustrated by Photographs 19 and 20. The viewer is between 3.8 and 4.8 kilometres from the zone change area and is some 30 metres lower in elevation, which means the perspective is different to the views that are available from Wanaka Mount Aspiring Road. The existing composition of views is similar to those from Wanaka Mount Aspiring Road, although the lake surface is a more dominant foreground element. Again, these views are of a very high scenic quality and are likely to be highly valued as an asset of the district and the community. Since these views are experienced in a less fleeting way and by observers that are involved in peaceful recreation, I consider that they are more valuable than those from Mount Aspiring Road.

56. As with views from Wanaka Mount Aspiring Road, the Peninsula Bay / Beacon Point suburban area is seen as a horizontal band of suburban patterning. Again, I consider that the scale of change that the proposal will bring will be small; a minor alteration will be evident at the left end of the Peninsula Bay area. Given the visual context and the distances involved, I consider that the visual amenity effects in relation to the Waterfall Creek Track will be slight.

57. The private properties that adjoin Wanaka Mount Aspiring Road between Ruby Island Road and Damper Bay allow views that are very similar to those that have been discussed. A number of these rural properties have dwellings on them that gain views across Roy's Bay to the Peninsula Bay area. Again, the actual scale of visual change that will be evident will be small; a few additional dwellings at the left had end of the existing horizontal band of

suburban development will be evident. I consider that the degree to which this would change an observers appreciation of existing views would be slight.

OBSERVERS ON THE SURFACE OF LAKE WANAKA IN THE ROYS BAY AREA (GENERALLY WEST OF BEACON POINT)

58. Visibility of development enabled by the proposal from the part of the surface of Roy's Bay to the west of Beacon Point is discussed in paragraph 29(vi). Again, views are significantly obscured by the Eely Point area until a viewer is north of approximately the Ruby Island Road area. Views from this part of the lake surface are somewhat similar to those described in relation to the Waterfall Creek Track; the Peninsula Bay area appearing as a horizontal band of suburban development. Viewers on this part of the lake are between approximately 2 and 5 kilometres from the zone change area and are approximately 60 metres lower in elevation. As a viewer gets closer to the eastern shore of Roy's Bay, this elevation difference means that views of the Peninsula Bay area are lost, hence a viewer must be approximately 2 kilometres from the zone change area to gain any view of it.

59. From Roy's Bay in general, viewers see the suburban pattern of Wanaka significantly surrounding them. More development is visible from here than from any terrestrial viewpoint, hence a relatively busy character is experienced. Dramatic, majestic views to the vast lake surface and distant mountains are available to the north. While views of Wanaka's suburban areas from Roy's Bay are pleasant, I do not consider that they are particularly valued in comparison to views of the more natural landscape to the north.

60. Again, the additional dwellings that the zone change will enable will be a minor addition to the mass of existing suburban development that can be seen in these views. The dwellings will be immediately adjacent to existing suburban development and zoning. They will often be behind (and partially screened by) development within the Mount Gold Place area. I consider that the scale of change to existing views will be small and that the visual experience of an observer on the surface of Roy's Bay will be altered to a slight degree only.

OBSERVERS ON THE SURFACE OF LAKE WANAKA IN THE CLUTHA OUTLET / DUBLIN BAY AREA (GENERALLY EAST OF BEACON POINT)

61. Visibility of development enabled by the proposal from this area is discussed in paragraph 29(vii). From the Bull Island / Dublin Bay / Clutha Outlet part of the surface of Lake Wanaka visibility to the main suburban areas of Wanaka (including the Peninsula Bay area) is not available. Moving east from Beacon Point towards Dublin Bay, there is visibility of the large dwellings on Mount Gold Place and Beacon Point itself. However, visibility to these too is lost once one gets to a point approximately a kilometre east of Bull Island. Views to the surrounding land from this part of Lake Wanaka are of a much more natural character. Visibility of built form is minimal and a more remote atmosphere is experienced. The rocky escarpment face at the northern extreme of the Peninsula Bay area forms part of this visual character. Viewers in this area are most likely to be recreational lake users. I consider that the views that are experienced are susceptible to degradation. Any significantly visible residential development would alter the natural, peaceful nature of the current views.

62. As is set out in the bullet points of my paragraph 29(vii), built form enabled by the proposed zoning has been examined using a digital model and also by examining profile poles from the lake itself. A number of surveyed viewpoints have been used as is illustrated on Appendix 6. Visibility of built form enabled by the proposal will only begin to become available to viewers that are in the vicinity of Bull Island and north of this. Digital model views from Viewpoints 13 – 15 illustrate the degree of visibility. The coloured building envelopes that have been modelled represent the maximum extent of the buildable area of each lot and the maximum allowable building heights. In reality, a future building on a given lot will not fill the entire building envelope. Additionally, the restriction of external finishes of buildings to reflectivity values of less than 36% will mean that buildings and visually recessive and blend with the immediately surrounding vegetation. This surrounding vegetation will be considerably bolstered by proposed revegetation work and this will be evident in these views. Mixed indigenous vegetation will considerably fill areas that currently read as patches of open grassland. This will go some way to increasing the wild quality of these views and will assist in screening future built form.

63. A viewer will be at least 1.1 kilometres from the zone change area in order to gain the visibility shown on images 13 to 15 of Appendix 6. The parts of built form that are potentially seen are particularly small, will be darkly coloured and will be surrounded and visually backed by dark coloured mixed native vegetation. I consider that the scale of visual change will be very small; the composition of existing views will alter only very slightly. To many observers, I consider that the change will be difficult to notice; the Peninsula Bay land will continue to read as a rough, rocky, lakeside escarpment topped by the rough texture of native vegetation. As a viewer move further north, the Peninsula Bay land becomes increasingly inconspicuous as the scene becomes broader and is dominated by The Peninsula and the Mount Burke Station area.

64. In summary in relation to observers on this part of the lake, I consider that the existing visual experience is sensitive to change. However, the scale of visual effect will be particularly small. I consider that the overall degree of effect with therefore be slight.

EFFECTS IN RELATION TO THE RELEVANT OBJECTIVES AND POLICIES OF THE OPERATIVE QUEESNTOWN LAKES DISTRICT PLAN

65. In my paragraph 12 I discuss the relevant provisions of the Operative District Plan. I consider that any new area of zoning should be consistent with Section 4 of the Plan. I set out the relevant provisions of Section 4 in my Appendix 3.

66. In relation to how the landscape and visual effects of the proposal sit with the provisions set out in my Appendix 3, I make the following comments under the headings of the relevant Policies:

FUTURE DEVELOPMENT

67. I consider that the part of the plan change area that is within the identified ONL is an area where landscape and visual amenity values are vulnerable to degradation and therefore adverse effects of development should appropriately be avoided, remedied or mitigated. I consider that the specific details of the plan change are such that the effects of development in this location will be very significantly mitigated. Very little development will be visible from the north and future development will blend in very well with existing patterns.

68. I therefore consider that the relevant location has the potential to absorb the specific change that is proposed and that the development pattern that ultimately emerges will harmonise well with ecological and nature conservation values. Notwithstanding this, natural character will be reduced in the specific area where zoning is proposed to change.

OUTSTANDING NATURAL LANDSCAPES (DISTRICT WIDE)

69. The relevant area of ONL does not have a particularly open character due to the presence of kanuka-dominated remnant native vegetation. The proposal will not significantly affect openness.

70. As discussed above, the specific part of the ONL in which development will be located has more capacity to absorb the specific changes that are proposed than most other locations within the ONL generally. The specific characteristics of the location (particularly its limited visibility from the north) and the specific details of the proposal (particularly the various restrictions associated with the relevant building platforms that will allow views to the west but not the north) mean that development will generally be well absorbed into existing landscape patterns. Importantly, amenity and landscape appreciation as experienced from public roads and other public places (most relevantly the lake to the north of the site) will be minimally affected.

URBAN DEVELOPMENT

71. The proposed plan change will locate a strip of large lot urban development in a location that is partially identified as an ONL. I consider it to be appropriate that adverse effects are avoided, remedied or mitigated. As discussed, the relevant area is not particularly open, due to the presence of vegetation. The plan change will not significantly affect openness nor will it create any development that sprawls along roads. For the reasons given throughout this report, I consider that the effects of the proposal have been mitigated as much as is practicable.

URBAN EDGES

72. The proposed plan change represents a design solution that will slightly extend an existing urban area but will create a logical edge. Development will be generally contained to the

gently sloping south-facing land that looks into the existing urban area. Development will not sprawl or spread in an unplanned or illogical way.

AVOIDING CUMULATIVE DEGRADATION

73. The proposed plan change will not increase the density of residential land use in the Peninsula Bay area. The density that will result from the plan change is less than that of the existing residential area. Again, a logical edge will be created to the residential area and the currently unusual unoccupied area between the existing residential edge and the ONL will be made use of, bringing about a comprehensive treatment.

STRUCTURES

74. The plan change will enable future structures, subject to the various restrictions that have been discussed. In relation to the preservation of visual coherence; the specified height restrictions have been carefully formulated to avoid inappropriate visibility from the north. This will mean that the crest of the rounded ridgeline that defines the ONL's edge will be visually preserved when viewed from both the north and south. Future buildings will avoid particularly proud topography, floor levels will be staggered and roof heights will be low, meaning that future built form is relatively harmonious with natural landform. Restriction on external colours and finishes will mean that colours are generally dark and visually recessive.

RETENTION OF EXISTING VEGETATION

75. The proposal will retain and protect most of the existing native vegetation within the plan change area pursuant to the proposed Landscape Concept Plan (Appendix 1). In addition to retention and protection, significant new areas of native vegetation will be created.

LAND USE

76. Land use that will ultimately occur as a result of the proposed plan change will not significantly reduce the degree of openness that the ONL currently displays. By designing the plan change layout to follow landform, visual coherence of landscape will be maintained as much as is practicable.

THE PROPOSED DISTRICT PLAN

77. I understand that little weight can currently be placed on the provisions of the Proposed District Plan. Notwithstanding this, the provisions that are currently proposed by the QLDC do not fundamentally alter the outcomes that the operative provisions promote, which have been discussed above.

CONCLUSIONS

78. The proposed plan change will result in an additional strip of large residential lots lining the south-facing slopes of the low, rounded ridge that lies to the north of the current LDRZ. These lots will accommodate dwellings that generally gain views to the south and west. Further north, there will then be an additional six larger lots that will be more elevated and will be close to, or north of, the crest of the rounded ridgeline. The views from dwellings on these six lots will primarily be to the west over Roy's Bay.

79. The six northernmost lots that are located near the crest of the rounded ridgeline are partially within the ONL that includes Lake Wanaka. This land has a high natural character and is significantly valued by the community. The south-facing slopes on which most development will be located are visually natural and attractive and are likely to be valued by the local Peninsula Bay community as an open reserve-like space.

80. The Peninsula Bay area in general and the plan change area in particular are generally visually displayed to the west and south-west. These areas are seen as part of the suburban fabric of Wanaka from western parts of Wanaka town, parts of the Waterfall Creek to Damper Bay area and from Roys Bay. The relevant land is generally part of the mid-ground of views, backed by distant mountain peaks. For observers on the lake to the north of the relevant area, the steep, rocky cliffs that lie to the immediate north of the Peninsula Bay site form a scenic part of their surroundings.

81. In terms of landscape character, the proposal will see the boundary between residential land use and open space moved to the north by approximately 150 metres. Open space and natural character will be reduced within the plan change area. These characteristics are particularly valued within the identified ONL area and hence for this area there will be a

substantial character effect. Notwithstanding this point, the effect on the ONL has been well mitigated, particularly by avoiding the most prominent and valued parts. On the south facing slopes that are outside the ONL, the degree of effect on landscape character will be less.

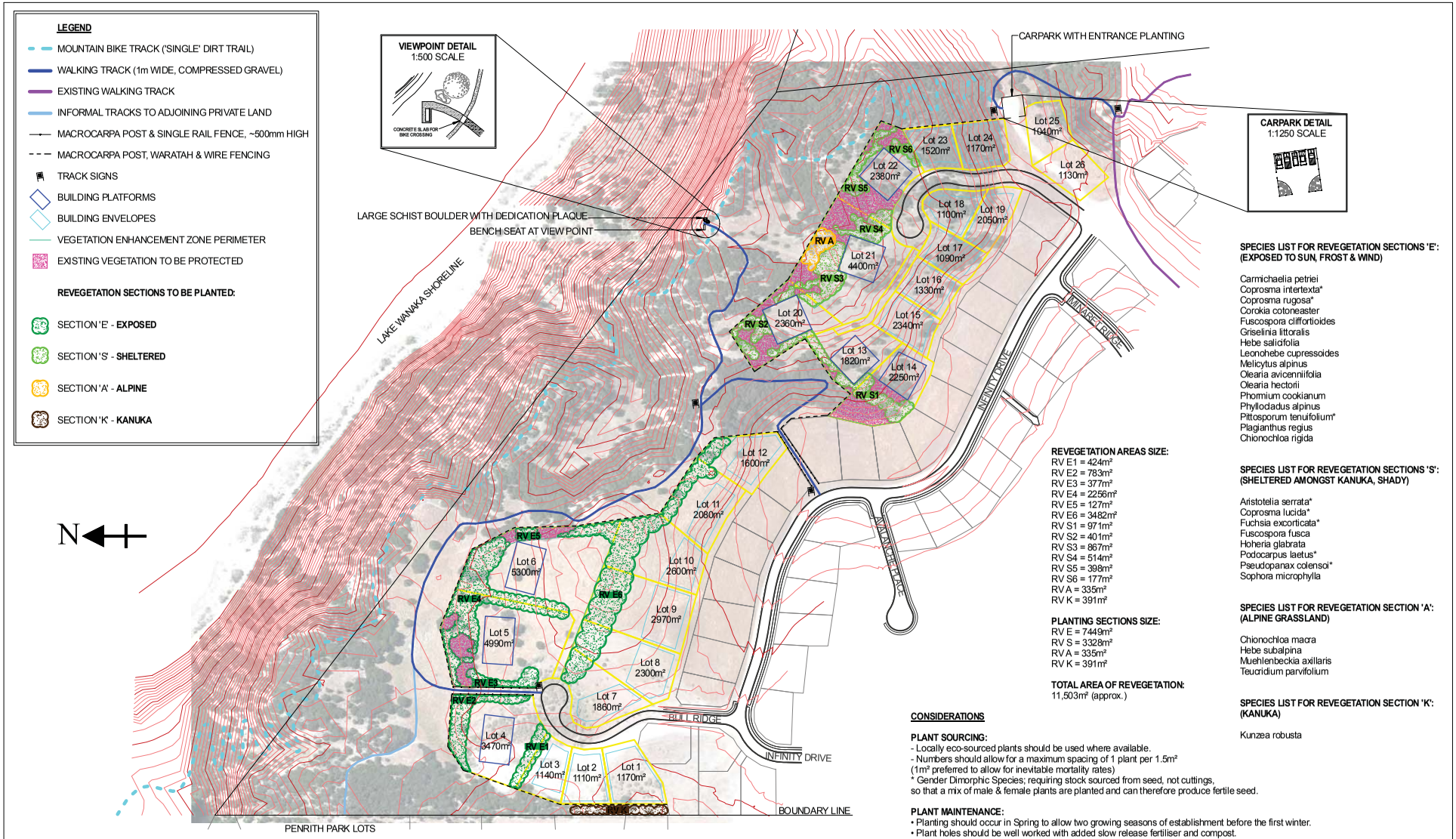
82. In relation to visual effects, I consider that effects on the views and visual amenity of potential observers will be negligible to slight, with the exception that the very northernmost properties of the existing Peninsula Bay LDRZ will be affected to a substantial degree; their northern outlook will change considerably (although many of these properties are owned by the requestor). I consider that the most sensitive observers, in terms of potential visual effects, are those on the lake surface to the north of the plan change area. As is illustrated by Appendix 6 to this report, there will be very little visual change for these observers, effects will be of a slight degree.

83. Overall, I consider that in relation to landscape and visual effects the proposed plan change will have particularly localised effects only. The views of immediately neighbouring properties within the Peninsula Bay LDRZ will be affected and the character of a small part of the ONL will change to accommodate three clustered dwellings.

Ben Espie

vivian+espie Ltd

22th September 2015



SPECIES LIST FOR REVEGETATION SECTIONS 'E': (EXPOSED TO SUN, FROST & WIND)

Carmichaelia petriei
Coprosma intertexta*
Coprosma rugosa*
Corokia cotoneaster
Fuscospora cliffortioides
Griselinia littoralis
Hebe salicifolia
Leonohebe cupressoides
Melicytus alpinus
Olearia avicenniifolia
Olearia hectorii
Phormium cookianum
Phyllocladus alpinus
Pittosporum tenuifolium*
Plagianthus regius
Chionochloa rigida

SPECIES LIST FOR REVEGETATION SECTIONS 'S': (SHELTERED AMONGST KANUKA, SHADY)

Aristotelia serrata*
Coprosma lucida*
Fuchsia excorticata*
Fuscospora fusca
Hoheria glabrata
Podocarpus laetus*
Pseudopanax colensoi*
Sophora microphylla

SPECIES LIST FOR REVEGETATION SECTION 'A': (ALPINE GRASSLAND)

Chionochloa macra
Hebe subalpina
Muehlenbeckia axillaris
Teucridium parvifolium

SPECIES LIST FOR REVEGETATION SECTION 'K': (KANUKA)

Kunzea robusta

REVEGETATION AREAS SIZE:
RV E1 = 424m²
RV E2 = 783m²
RV E3 = 377m²
RV E4 = 2256m²
RV E5 = 127m²
RV E6 = 3482m²
RV S1 = 971m²
RV S2 = 401m²
RV S3 = 867m²
RV S4 = 514m²
RV S5 = 398m²
RV S6 = 177m²
RV A = 335m²
RV K = 391m²

PLANTING SECTIONS SIZE:
RV E = 7449m²
RV S = 3328m²
RV A = 335m²
RV K = 391m²

TOTAL AREA OF REVEGETATION:
11,503m² (approx.)

CONSIDERATIONS

PLANT SOURCING:
- Locally eco-sourced plants should be used where available.
- Numbers should allow for a maximum spacing of 1 plant per 1.5m² (1m² preferred to allow for inevitable mortality rates)
* Gender Dimorphic Species; requiring stock sourced from seed, not cuttings, so that a mix of male & female plants are planted and can therefore produce fertile seed.

PLANT MAINTENANCE:
- Planting should occur in Spring to allow two growing seasons of establishment before the first winter.
- Plant holes should be well worked with added slow release fertiliser and compost.
- Re-vegetation areas must be heavily mulched with wood chip, to suppress weeds and contain moisture.
- Deep irrigation should be provided for at least the first five years to allow for strong plant establishment.
- Necessary rabbbit protection must be applied to all planted *and protected* areas; in the form of rabbit proof fencing, individual plastic sleeves around plants and poision programs.

NOTE: ALL PINUS, PSEUDOTSUGA & CYTISUS ON SITE TO BE REMOVED.

design@rachaelstanford.co.nz
Mobile: (021) 115 6269
Studio: (03) 443 8392
7 Islington Place, Wanaka

SITE: PENINSULA BAY NORTH END PROPOSED PLAN CHANGE	PLAN: LANDSCAPE CONCEPT	25 SEPTEMBER 2015	1:2500
	FOR: INFINITY INVESTMENTS	01/017 - 15/16	0 50m 100m
		REVISION: E	*Drawing to scale when printed on A3 sheet*

APPENDIX 1: Landscape Concept Plan.

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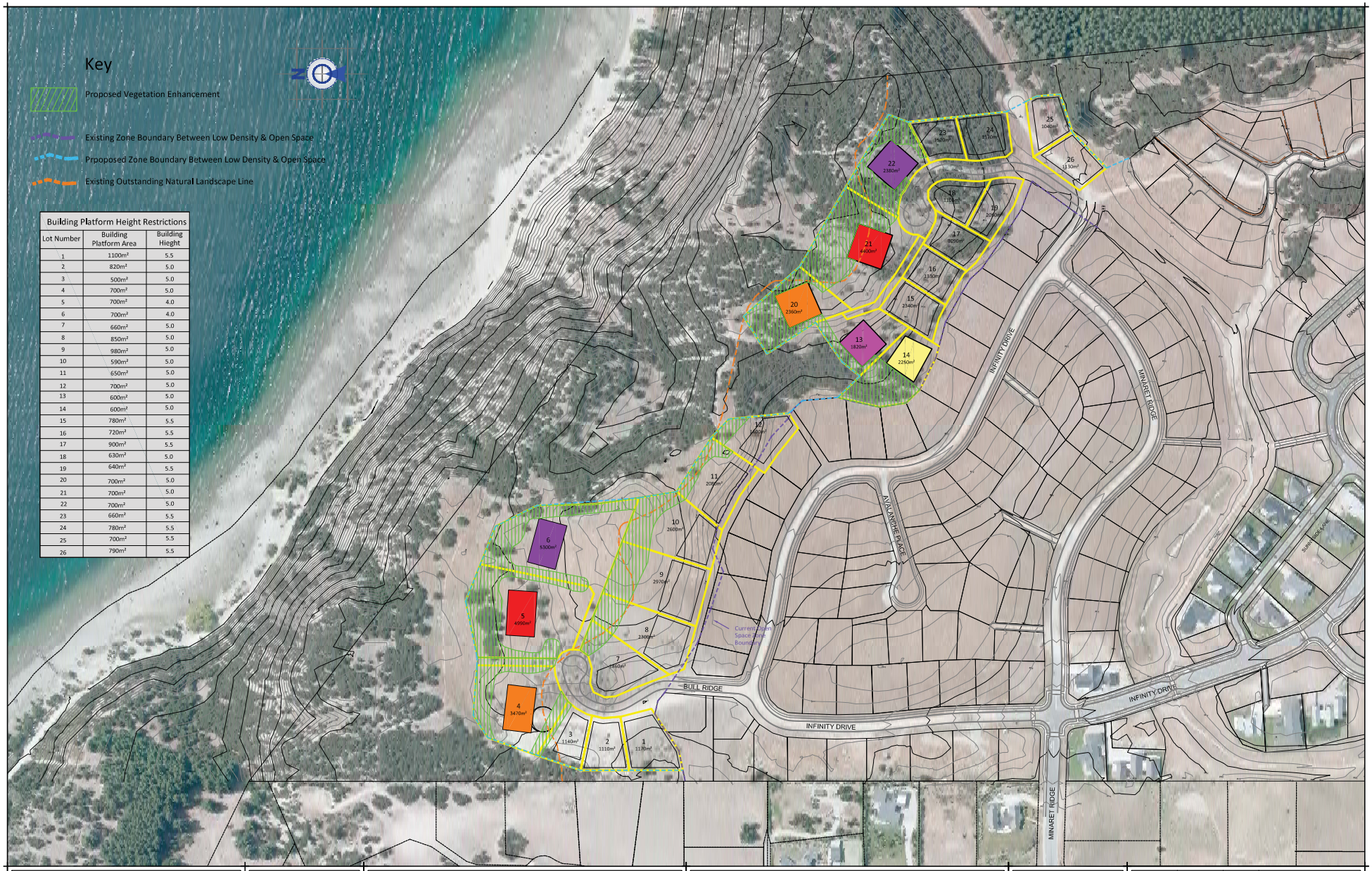

Building Platform Height Restrictions

Lot Number	Building Platform Area	Building Hieght
1	1100m²	5.5
2	820m²	5.0
3	500m²	5.0
4	700m²	5.0
5	700m²	4.0
6	700m²	4.0
7	660m²	5.0
8	850m²	5.0
9	980m²	5.0
10	590m²	5.0
11	650m²	5.0
12	700m²	5.0
13	600m²	5.0
14	600m²	5.0
15	780m²	5.5
16	720m²	5.5
17	900m²	5.5
18	630m²	5.0
19	640m²	5.5
20	700m²	5.0
21	700m²	5.0
22	700m²	5.0
23	660m²	5.5
24	780m²	5.5
25	700m²	5.5
26	790m²	5.5

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or P.O. Box 283
Wanaka 9343
T 03 443 0110
E wanaka@ppgroup.co.nz

Client & Location:
Infinity Investments
Peninsula Bay

Purpose & Drawing Title:
Concept Scheme Plan
Peninsula Bay North End

Surveyed by:		Original Size:	Scale:	
Designed by:		A3	1:2500 @ A3	
Drawn by:	PGS		DO NOT SCALE	
Checked by:	MJB			
Approved by:	MJB			
Job No: W4332		Sheet No: 1	Revision No: J	Date Created: 06/08/2015

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APPENDIX 2: Concept Scheme Plan.

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APPENDIX 3: RELEVANT OBJECTIVES AND POLICIES OF THE OPERATIVE QUEENSTOWN LAKES DISTRICT PLAN

4.2.5 Objectives and Policies

Objective:

Subdivision, use and development being undertaken in the District in a manner which avoids, remedies or mitigates adverse effects on landscape and visual amenity values.

Policies:

1 Future Development

(a) To avoid, remedy or mitigate the adverse effects of development and/or subdivision in those areas of the District where the landscape and visual amenity values are vulnerable to degradation.

(b) To encourage development and/or subdivision to occur in those areas of the District with greater potential to absorb change without detraction from landscape and visual amenity values.

(c) To ensure subdivision and/or development harmonises with local topography and ecological systems and other nature conservation values as far as possible.

2 Outstanding Natural Landscapes (District-Wide/Greater Wakatipu)

(a) To maintain the openness of those outstanding natural landscapes and features which have an open character at present.

(b) To avoid subdivision and development in those parts of the outstanding natural landscapes with little or no capacity to absorb change.

(c) To allow limited subdivision and development in those areas with higher potential to absorb change.

(d) To recognise and provide for the importance of protecting the naturalness and enhancing amenity values of views from public roads.

6. Urban Development

(a) To avoid new urban development in the outstanding natural landscapes of Wakatipu basin.

(b) To discourage urban subdivision and development in the other outstanding natural landscapes (and features) and in the visual amenity landscapes of the district.

(c) To avoid remedy and mitigate the adverse effects of urban subdivision and development where it does occur in the other outstanding natural landscapes of the district by:

- *maintaining the open character of those outstanding natural landscapes which are open at the date this plan becomes operative;*
- *ensuring that the subdivision and development does not sprawl along roads.*

(d) To avoid remedy and mitigate the adverse effects of urban subdivision and development in visual amenity landscapes by avoiding sprawling subdivision and development along roads.

7. Urban Edges

To identify clearly the edges of:

(a) Existing urban areas;

(b) Any extensions to them; and

(c) Any new urban areas

- *by design solutions and to avoid sprawling development along the roads of the district.*

8. Avoiding Cumulative Degradation

In applying the policies above the Council's policy is:

(a) to ensure that the density of subdivision and development does not increase to a point where the benefits of further planting and building are outweighed by the adverse effect on landscape values of over domestication of the landscape.

(b) to encourage comprehensive and sympathetic development of rural areas.

9. Structures

To preserve the visual coherence of:

(a) outstanding natural landscapes and features and visual amenity landscapes by:

- *encouraging structures which are in harmony with the line and form of the landscape;*
- *avoiding, remedying or mitigating any adverse effects of structures on the skyline, ridges and prominent slopes and hilltops;*
- *encouraging the colour of buildings and structures to complement the dominant colours in the landscape;*
- *encouraging placement of structures in locations where they are in harmony with the landscape;*
- *promoting the use of local, natural materials in construction.*

(c) All rural landscapes by

- *limiting the size of signs, corporate images and logos*
- *providing for greater development setbacks from public roads to maintain and enhance amenity values associated with the views from public roads.*

15. Retention of Existing Vegetation

To maintain the visual coherence of the landscape and to protect the existing levels of natural character by:

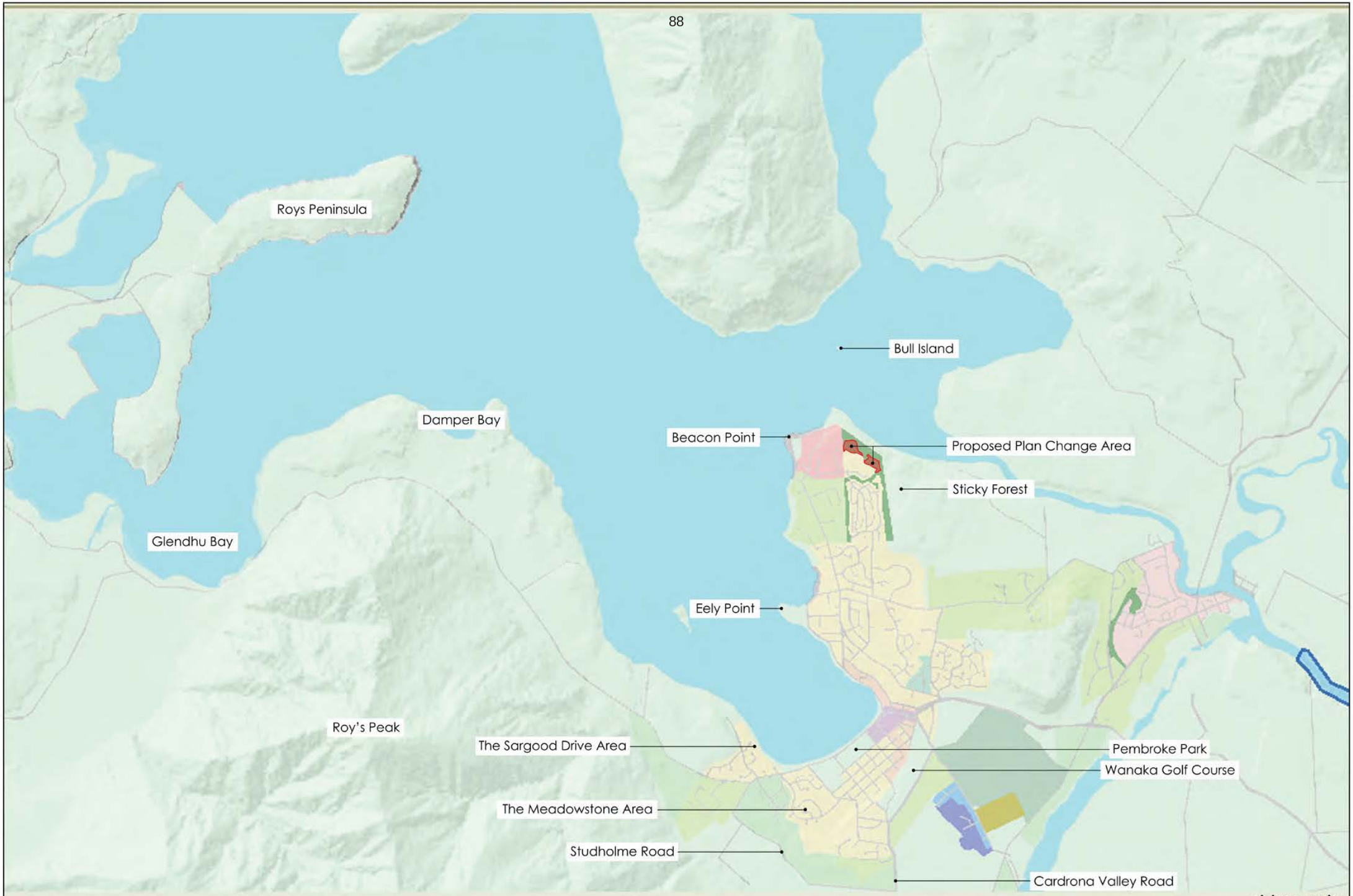
(a) Encouraging the retention of existing indigenous vegetation in gullies and along watercourses;

(b) Encouraging maintenance of tussock grass-lands and other nature ecosystems[3] in outstanding natural landscapes.

[3] refer to Section 4.1 on nature conservation values.

17. Land Use

To encourage land use in a manner which minimises adverse effects on the open character and visual coherence of the landscape.



Appendix 4: Existing and Zoned Development around Roys Bay
Wanaka

REF: 0897 - APP4-EZP
DATE: 21.09.2015
SCALE: NOT TO SCALE

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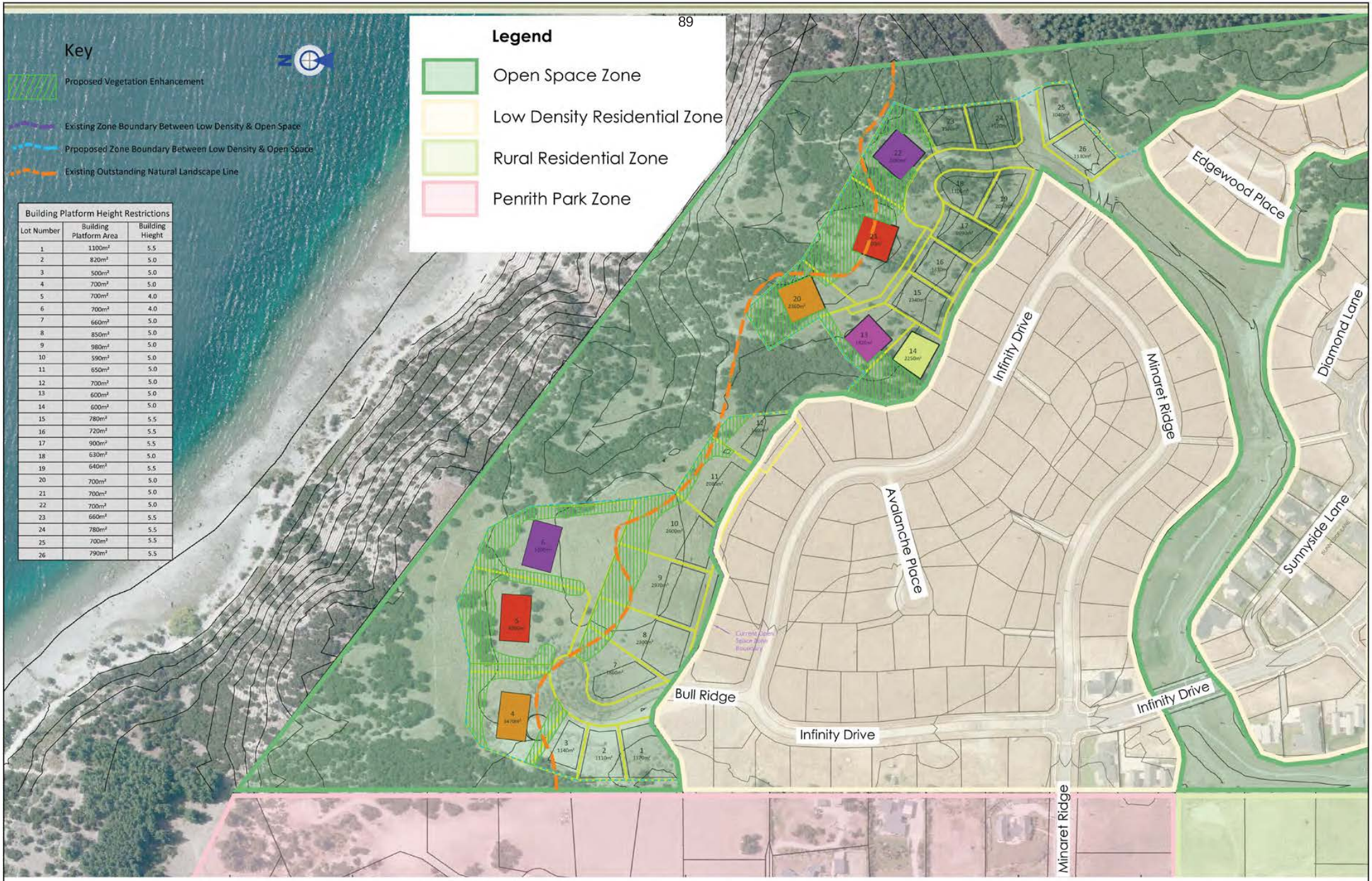
vivian+espie Limited Resource Management and Landscape Planning
PO Box 2514 Queenstown
Physical Address Unit 15 70 Glenda Drive Frankton Queenstown
Tel +643441 4189 Fax +64 3 441 4190 Web www.vivianespie.co.nz



Building Platform Height Restrictions		
Lot Number	Building Platform Area	Building Hieght
1	1100m²	5.5
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18	630m²	5.0
19	640m²	5.5
20	700m²	5.0
21	700m²	5.0
22	700m²	5.0
23	660m²	5.5
24	780m²	5.5
25	700m²	5.5
26	790m²	5.5

Note: The base map used for this plan was produced by Patterson Pitts Group Ltd.

REF: 0897 - APP5-EZP
DATE: 21.09.2015
SCALE: NOT TO SCALE

Appendix 5: Existing Zoning Plan
Peninsula Bay, Wanaka

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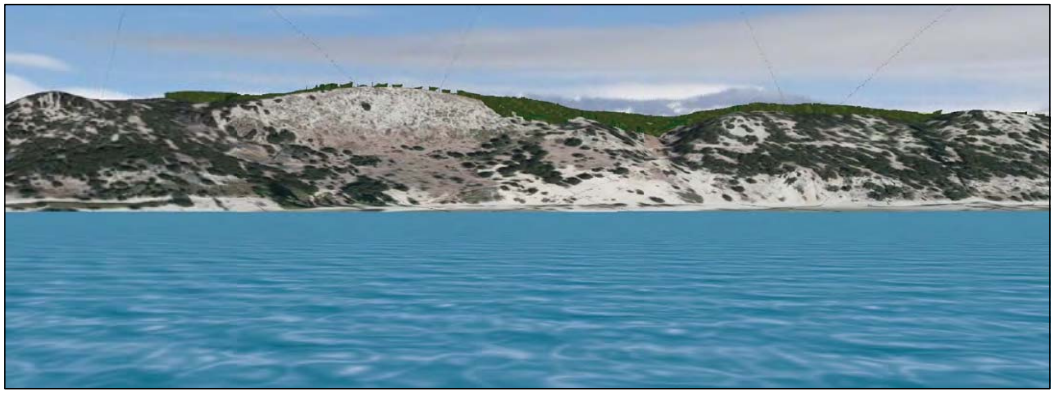

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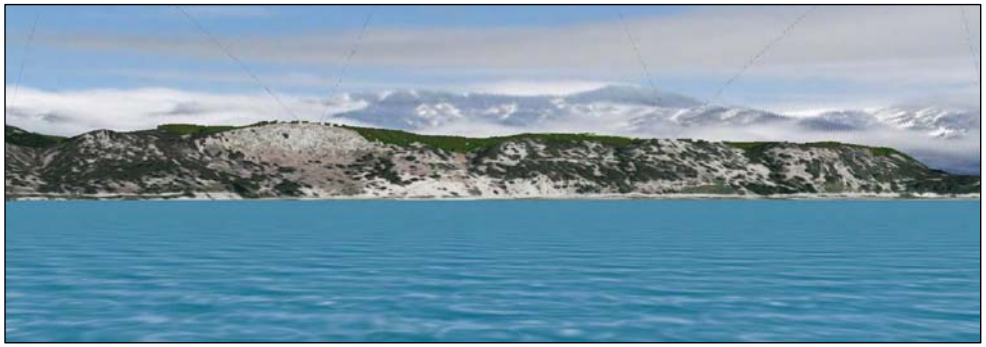

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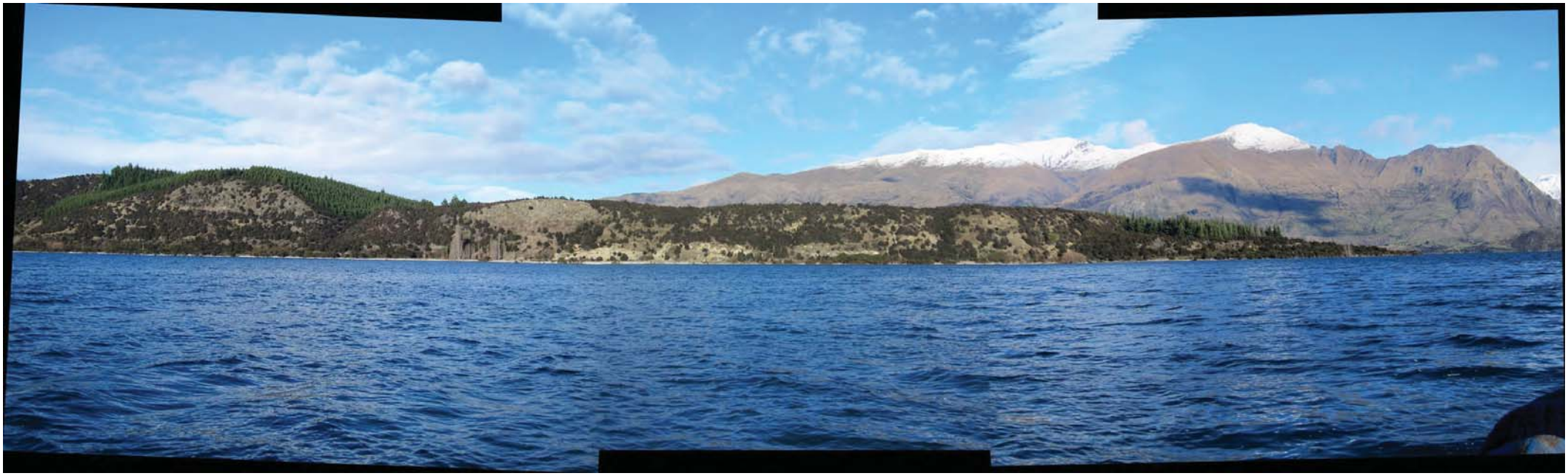

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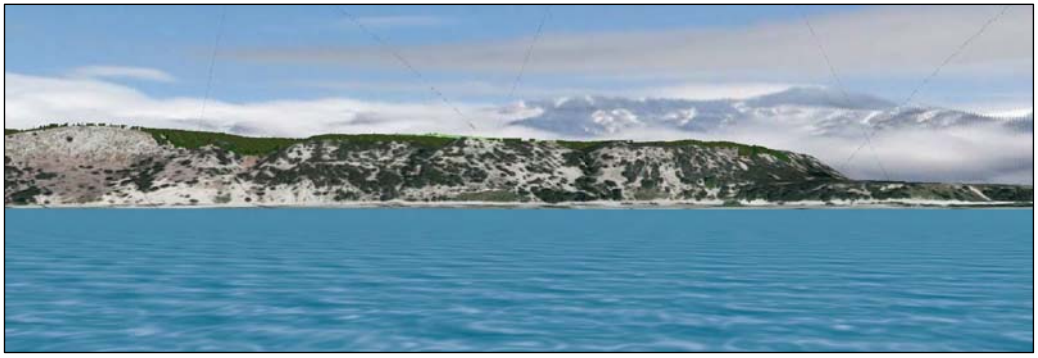

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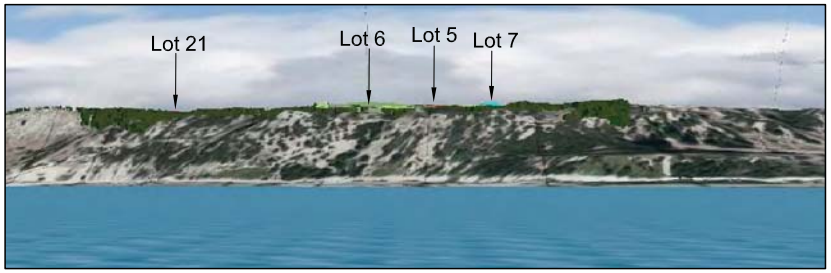

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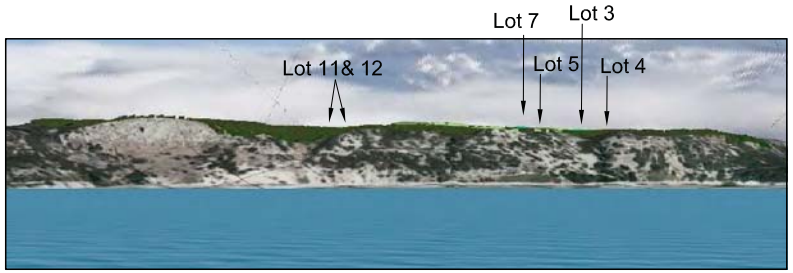

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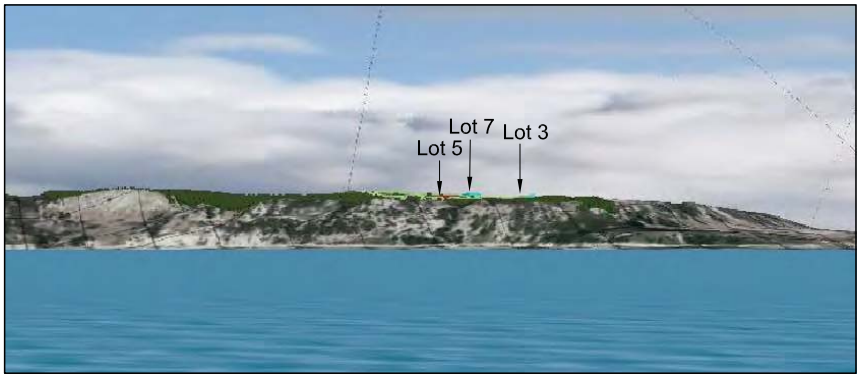

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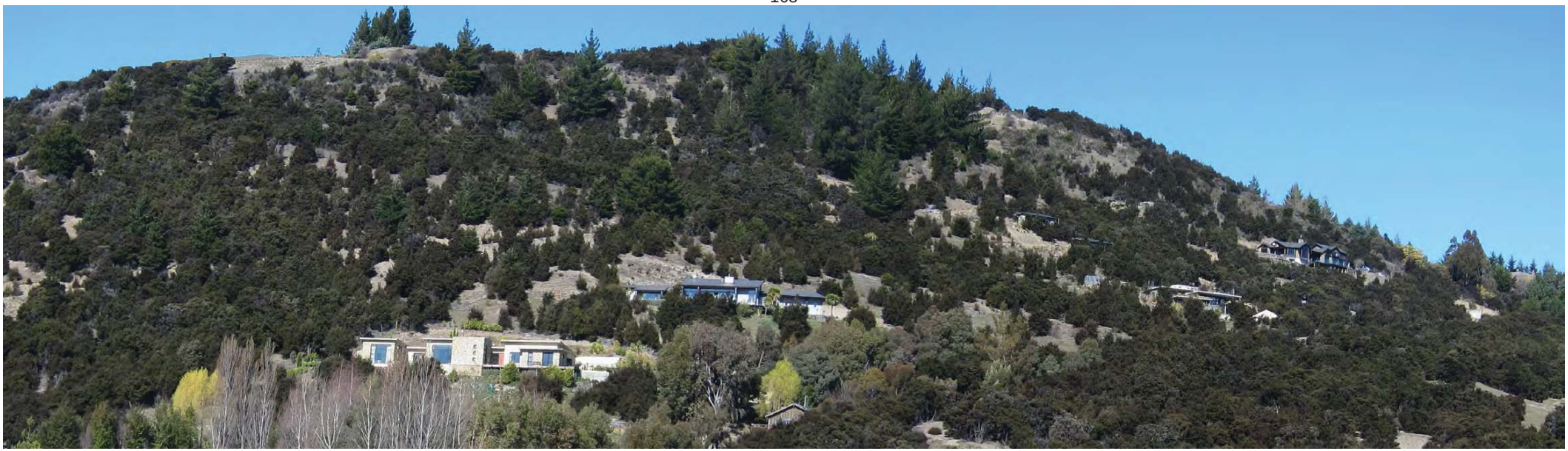

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APPENDIX F

Mitchell Partnerships Limited Terrestrial Ecology Assessment

Peninsula Bay Joint Venture

Peninsula Bay North Plan Change
Terrestrial Ecology Assessment

mitchell partnerships

November 2015

Executive Summary

Peninsula Village Limited and Wanaka Bay Limited propose a private plan change to change the zoning of approximately 6 ha of land they own adjoining Lake Wanaka and northwest of Sticky Forest. The land is currently zoned "Open Space – Landscape Protection" and part of the site is included within an Outstanding Natural Landscape. Indigenous vegetation at the site includes kanuka shrubland and depleted tussock grassland which meets some of the criteria for significance in the District Plan, but the areas are small and degraded and could only be considered significant at the local or district scale.

The proposal would involve removal of up to 4,850 m² of vegetation. The effects of the removal of this vegetation are proposed to be mitigated by approximately 1.1 ha (11,503 m^2) of new planting and enhancement planting within 4,500 m² of kanuka vegetation to be retained as part of the landscape plan for the site. The landscaping proposal has been developed using ecological principles and is expected to result in an increased area of indigenous vegetation overall as well as improved ecological integrity, diversity, function and connection between the patches of habitat. Dense edge plantings are proposed along any newly cut edges to buffer habitats and improve ecotone quality.

The mechanism proposed to ensure the areas of native vegetation are retained and/or enhanced as appropriate is the placing of a covenant on the title.

The proposal is expected to result overall in a positive ecological outcome.

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1. Explanation of the Land Environments of New Zealand (LENZ) and New Zealand Land Cover Databases.

2. Plant and Bird Species Recorded.

3. Landscape Concept Plan prepared by Rachael Stanford Landscape Design.

1. INTRODUCTION

1.1 Background

Peninsula Village Limited and Wanaka Bay Limited ("**Peninsula Bay Joint Venture"**) own land at Peninsula Bay, on the outskirts of Wanaka Township, part of which has been developed by Infinity Investment Group as part of its Peninsula Bay development. The indicative boundary of area affected by the proposed plan change is outlined in red in Plate 1.

Plate 1: Aerial view of the Peninsula Bay site (Taken February 2015).

The land is located northeast of Sticky Forest and is currently zoned "Open Space – Landscape Protection". Furthermore, part of the site is included within an Outstanding Natural Landscape identified in the Queenstown Lakes District Plan (see Plate 2).

Peninsula Bay Joint Venture is seeking a private plan change for part of the joint venture landholdings to amend the zoning from "Open Space" to "Low Density Residential" in order to enable residential development of part of the land (subject to appropriate land use controls). The land to which the plan change relates is shown in the concept scheme for the area provided in Plate 2.

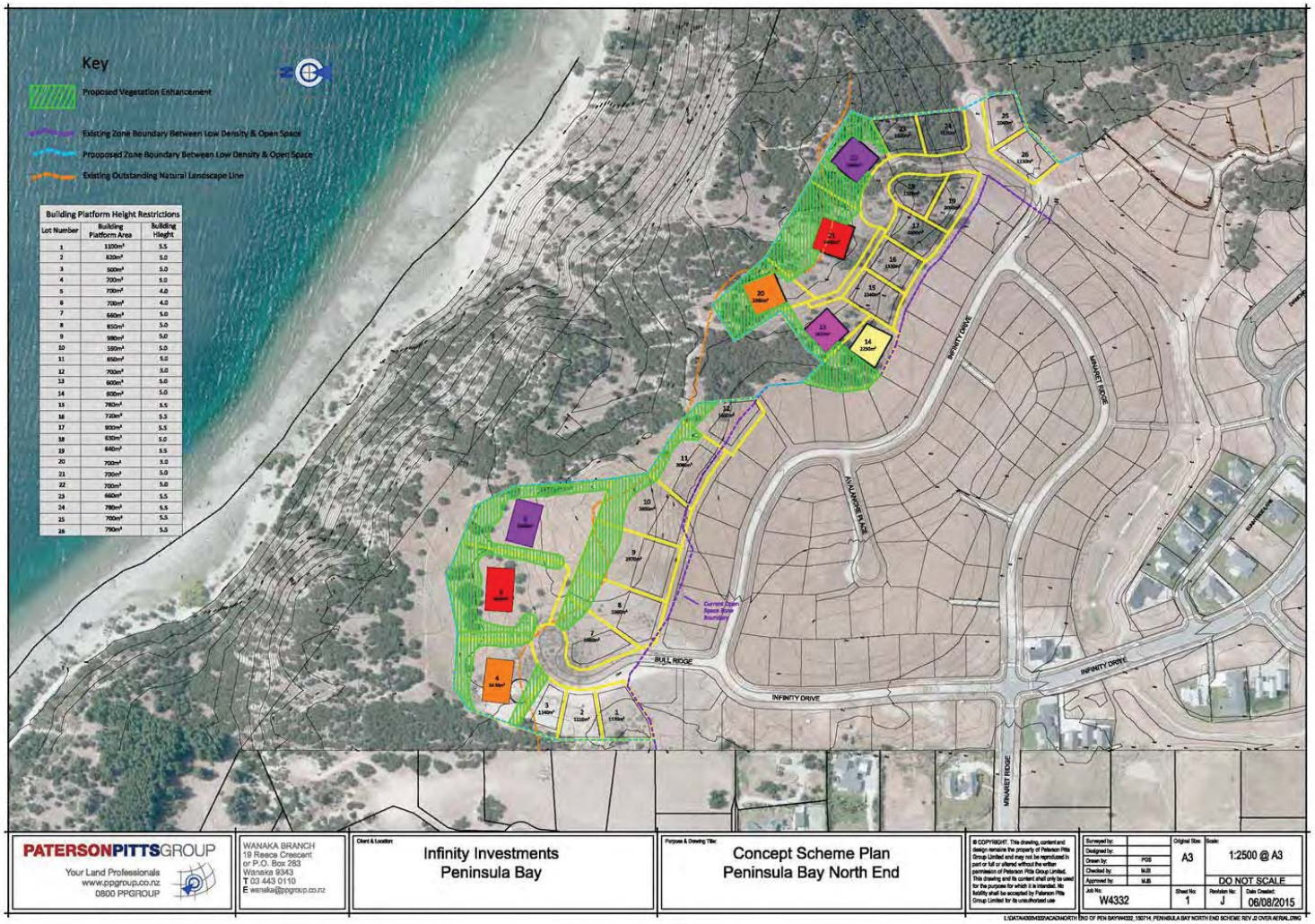

Plate 2: Concept Scheme Plan at Peninsula Bay.

Mitchell Partnerships Limited was retained to identify the ecological values at the site and provide advice as to the location of building platforms so as to reduce the impact on the ecological values present, as well as defining the extent and location of enhancement planting for the site. We defined the goals of the enhancement planting as:

1) Retaining the tussock vegetation where practicable.

2) Introducing diversity as part of the plantings using eco-sourced plants that are typical of shrubland habitat in the Wanaka area and specifically the Pisa Ecological District, but currently only rarely found at the site. In particular including species that provide seasonal food for birds to assist in seed dispersal in the wider area and species that are not bird or wind dispersed (such as beech, *Fuscospora* spp.).

3) Maintaining or restoring ecological connectivity between patches of similar habitat (kanuka or tussock).

4) Establishing dense edge vegetation along new cut edges to buffer the changes brought about by clearance of kanuka and reduce weed invasion in both tussock and kanuka habitats.

5) Increasing the proportion of green leafy plants (i.e. those that are less flammable than kanuka, Fogarty 2001) to reduce fire hazard closest to the proposed house sites.

6) Locating plants at appropriate microsites with respect to topography, drainage and aspect to positively influence their survival.

The purpose of this report is to describe the existing terrestrial ecological values of the site and assess the nature and magnitude of any effects of the proposed plan change on those values. This report consists of four sections as follows:

- **Section 1** (this Introduction) describes the site, the proposal and its ecological context.
- **Section 2** describes the investigations carried out on site and our findings.
- **Section 3** assesses the significance of the ecological values found at the site.
- **Section 4** provides an assessment of effects with respect to the proposal.

1.2 Ecological Setting

The Wanaka area is located in the north-western corner of the Pisa Ecological District, which is the western-most district in the Central Otago Ecological Region (McEwen 1987, Ward *et al*. 1994). The Pisa Ecological District covers approximately 81,177 ha and includes 17,908 ha (21.9%) of public conservation land administered by the Department of Conservation. The extent and location of this public conservation land is shown in Plate 3.

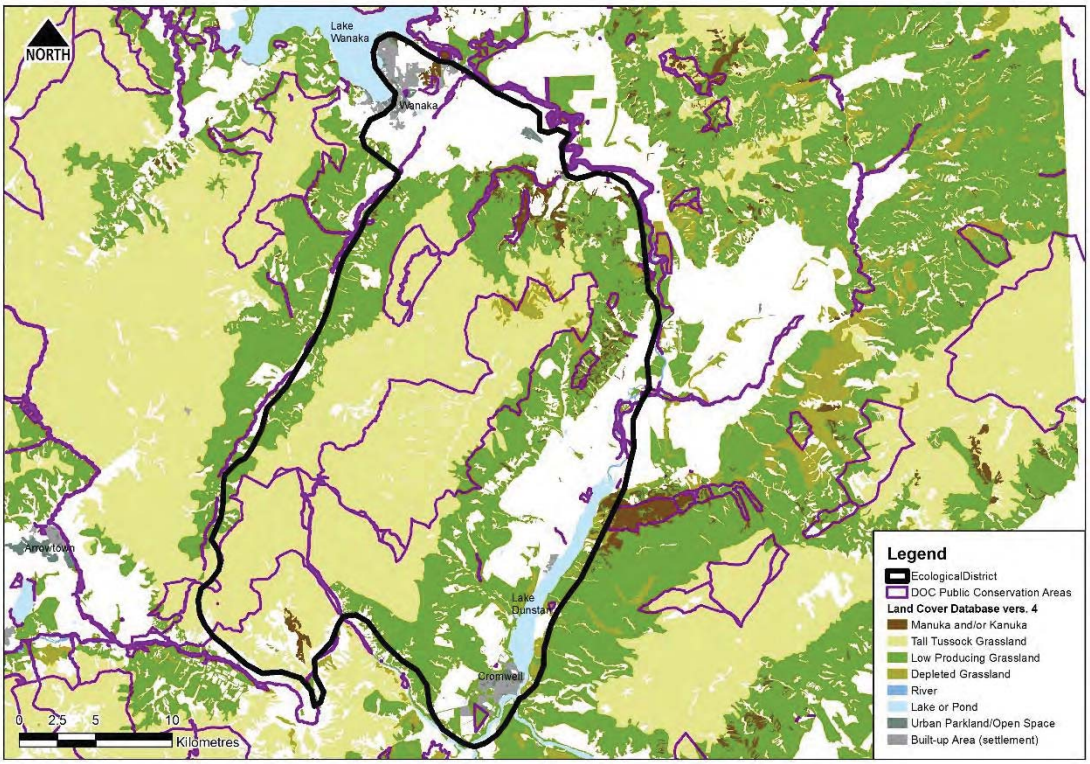

Plate 3: Selected land cover types and public conservation land within the Pisa Ecological District.

In pre-human times the vegetation within the district probably comprised dryland forest dominated by kanuka (*Kunzea robusta*), kowhai (*Sophora microphylla*) and totara (*Podocarpus totara*), but burning by early Māori created a mosaic of scrubland communities of kanuka, matagouri (*Discaria toumatou*), mikimiki (*Coprosma linariifolia*) and porcupine scrub (*Melicytus alpinus*) as well as tussock grassland communities dominated by fescue tussock (*Festuca novae-zelandiae*). This mosaic existed until more recent times, but has been significantly affected by farming and other human activities, particularly where the topography is gentler.

The land affected by the plan change includes two Level IV land environments[1]. Most of the area comprises environment N5.1c, but there are small amounts of N4.1d on the top of the ridge above the lake. Land environment N5.1c occurs on undulating plains with cool temperatures, high annual water deficits and imperfectly drained soils derived from a mixture of colluvium and loess of moderate fertility (Leathwick *et al*. 2002).

Land Environment N5.1c is regarded as Category 1 ("acutely threatened") within the Threatened Environment Classification because only around 2.5% of that land environment remains in indigenous vegetation, and only 0.7% is formally protected[2]. The extent of indigenous vegetation in environment N5.1c has continued to decline since 2002. For that reason any remaining examples of indigenous vegetation within those land environments have an elevated conservation importance.

1 Land Environments of New Zealand (LENZ) is explained in more detail in Appendix 1.

2 Available at www.landcareresearch.co.nz/resources/maps-satellites/threatened-environment-classification/downloads.asp. Accessed 20 July 2015.

Land Environment N4.1d is regarded as Category 2 ("chronically threatened") withn the Threatened Environment Classification because around 18.6% remains in indigenous vegetation and only 2.5% is protected. The amount of indigenous vegetation in environment N4.1d remained constant since 2002, but any remaining examples would still be accorded conservation importance because of the small amount legally protected.

The Land Cover Database (version 4.1) (**"LCDB4"**) shows the vegetation within the area affected by the proposed plan change as "low producing grassland" with areas of "manuka and/or kanuka". 'Low producing grassland' typically includes some completely exotic cover types such as extensive pasture dominated by sweet vernal (*Anthoxanthum odoratum*) and browntop (*Agrostis capillaris*) as well as grasslands of variable native and exotic composition and those dominated by indigenous short tussocks. There is approximately 833 ha of low producing grassland and 261 ha of manuka and kanuka vegetation within the public conservation estate in the Pisa Ecological District.

2. VEGETATION AND FAUNA

2.1 Methods

We visited the site and undertook a walk through survey on 2 June 2015. Plant species and associations were recorded, along with any birds seen or heard during our visit. Vegetation at the site comprised a mixture of predominantly exotic pasture, depleted tussock grassland and kanuka shrubland. A list of plant species recorded is provided in Appendix 2.

2.2 Vegetation

Kanuka shrubland and isolated kanuka trees were common across the site reaching a height of approximately 4 – 5 m and with diameters at breast height of up to 15 cm, although some trees had multiple leaders. The canopy of these shrublands was almost exclusively kanuka and even in the understorey layers, other species were only occasionally encountered and usually limited to canopy gaps or edges. These other species included matagouri, *Coprosoma propinqua*, porcupine scrub and bracken (*Pteridium esculentum*). The ground layer often consisted of mosses and lichens or bare soil and litter. Lower tiers and epiphytes were mostly absent from the shrublands. Examples of the shrubland vegetation are shown in Plates 4 and 5.

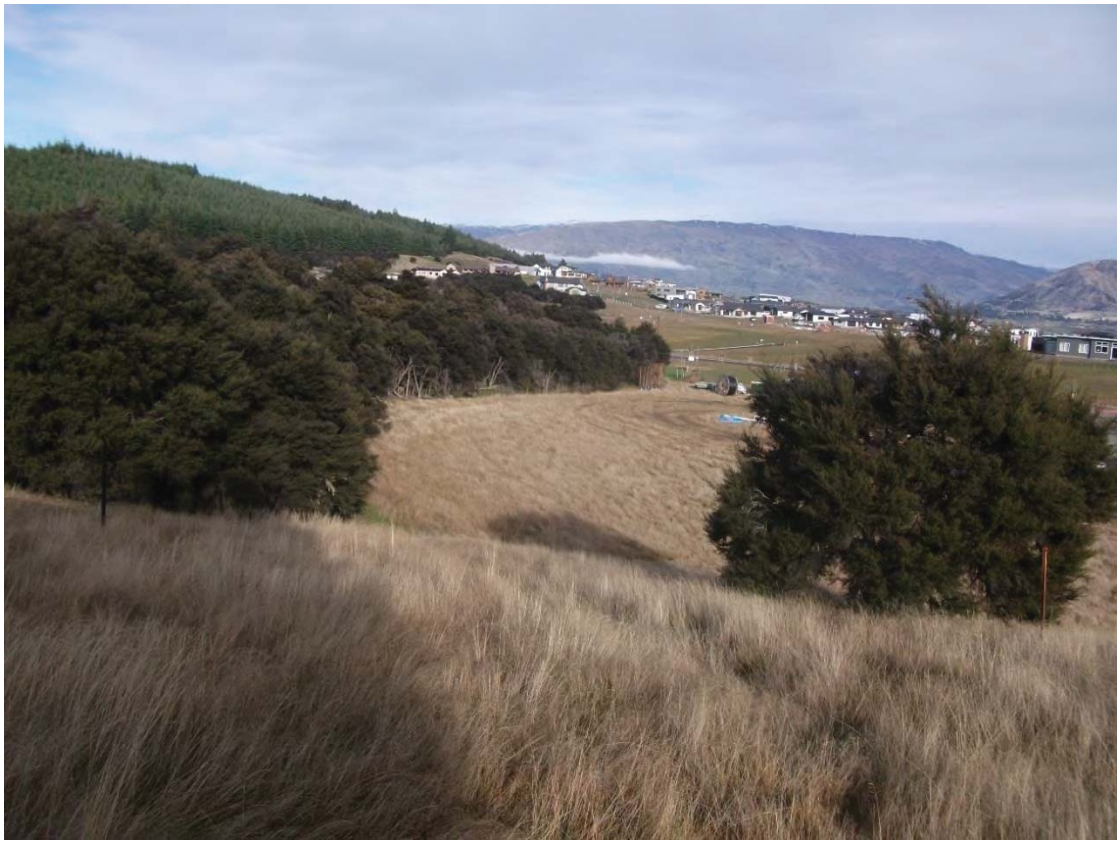

Plate 4: Kanuka shrubland within a grassland mosaic.

Plate 5: Kanuka shrubland.

Within the larger canopy gaps, particularly near the ridgeline at the south-eastern end of the site (nearest Sticky Forest), small areas of depleted tussock grassland occurred. These were dominated by fescue tussock (*Festuca novae-zelandiae*) and included a limited range of other native species such as patotara (*Leucopogon fraseri*), turfy coprosma (*Coprosma petriei*), scab weed (*Raoulia hookeri* var. *hookeri*), blue tussock (*Poa colensoi*), *Kelleria dieffenbachii* and native wheat grass (*Anthosacne solandri*) as well as exotic species typical of such grasslands including tussock hawkweed (*Hieracium lepidulum*), yarrow (*Achillea millefolium*), nipplewort (*Lapsana communis*) and moth mullein (*Verbascum virgatum*). Native shrubs such as desert broom (*Carmichaelia petriei*) and kanuka were occasionally encountered in the grassland. Wilding conifers had been removed at some locations. Two examples of this tussock grassland vegetation are shown in Plates 6 and 7.

Plate 6: Depleted tussock grassland dominated by *Festuca novae-zelandiae*.

Plate 7: Fescue tussock grassland surrounded by kanuka.

At the north-western end of the site (nearest the new road known as Bull Ridge) there was an expanse of exotic grassland dominated by browntop (*Agrostis capillaris*) with occasional isolated kanuka trees and common pasture weeds such as briar (*Rosa rubiginosa*), yarrow, Californian thistle (*Cirsium arvense*) and the like. An example of this vegetation is shown in Plate 8.

Plate 8: Exotic grassland.

The continued spread of kanuka and other native shrubs into these grassland areas (both exotic and introduced) is to be expected because of the local source of seed and the good germination conditions for kanuka there.

2.3 Fauna

Review of Robertson *et al*. (2007) indicates that 53 species of birds have been recorded within the 4 km^2 centred on Wanaka Township, although only ten were encountered during our site visit (see Appendix 2).

Of the 53 species identified by Robertson *et al*. (2007), 12 are waterbirds that would not be affected by the proposal.

Many (17) of the remaining species identified by Robertson *et al*. (2007) are exotic species such as finches (goldfinch (*Carduelis carduelis*), green finch (*C. chloris*), redpoll (*C. flammea*), chaffinch (*Fringilla coelobs*)) and Californian quail (*Callipepla californica*). Common self-introduced natives such as welcome swallow (*Hirundo tahitica*) or spur-winged plover (*Vanellus miles novaehollandiae*) and common native species such as grey warbler (*Gerygone igata*) or tui (*Prosthemadera novaeseelandiae*) which have adapted to highly modified habitats make up the remainder, along with species such as oystercatchers and gulls which may use areas of pasture or cultivated soil for feeding and loafing.

The only species recorded by Robertson *et al*. (2007) which might be affected by the proposal to intensively develop the site and which are of conservation concern is the New Zealand pipit (*Anthus novaeseelandiae*). Pipits have a conservation ranking of "at risk (declining)" (Robertson *et al*. 2013). Pipits are commonly found in rough farmland, coastal, wetland and forested habitats throughout the country with notable gaps in the most developed farming or urban areas (Auckland, Waikato, Manawatu and Canterbury). They are also only sparsely present in the Wanaka and Cromwell area (Robertson *et al*. 2007). We did not record pipits during our visit to the site, although the grassland habitats present are suitable for pipits. We do not consider the proposal will have any adverse effects on local pipit populations because of the very small size of the site, the availability of other rough pasture habits outside Wanaka itself, the site's proximity to residential areas and the paucity of pipits in the area.

The Wanaka and Central Otago area, including some islands within Lake Wanaka, are home to a variety of gecko and skink species. Given the proximity of residential housing and accompanying pets, the site is not expected to provide valuable habitat for native lizard species of conservation concern. Common native species may occur there, however these are unlikely to make extensive use of the exotic grassland areas.

3. SIGNIFICANCE ASSESSMENT

3.1 Introduction

Criteria for assessing ecological significance are provided in Appendix 5 of the operative Queenstown Lakes District Council District Plan. Our assessment of the site's values against these criteria is set out below.

a) **The Ecological Values of the Area**

(i) *Representativeness – Whether the area contains one of the best examples of an indigenous vegetation type, habitat or ecological process which is typical of its Ecological District.*

Although the areas of tussock grassland are small, and likely to be undergoing a natural successional progression to shrubland, they could be considered representative of the natural ecological values (and processes) of the Wanaka area. Kanuka vegetation is also representative of shrubland within the district. Neither vegetation type is "one of the best" examples of an indigenous vegetation type, therefore this criterion is not met.

(ii) *Rarity – Whether the area supports or is important for the recovery of, an indigenous species, habitat or community of species which is rare or threatened within the Ecological District or is threatened nationally.*

The vegetation includes common species and provides habitat for only common birds such as fantails and grey warbler. There are no outcrops of schist or other rock piles that would provide good lizard habitat, although common lizard species may be present. Tussock grassland as a habitat type is generally substantially reduced in extent and becoming increasingly rare. Kanuka habitats are also rare in the Pisa Ecological

District. The area is important for recovery of indigenous species at the local scale therefore this criterion is met.

(iii) *Diversity and Pattern – the degree of diversity exhibited by the area in:*
- *vegetation,*
- *habitat types,*
- *ecotones,*
- *species,*
- *ecological processes.*

The vegetation does not meet the diversity and pattern criteria since it is substantially modified, although ecological processes of succession are clearly at play.

(iv) *Distinctiveness/Special ecological character – the type and range of unusual features of the area itself and the role of the area in relationship to other areas locally, regionally and nationally, including:*

- *presence of indigenous species at their distribution limit,*
- *levels of endemism, e.g. the presence of endemic species,*
- *supporting protected indigenous fauna for some part of their life cycle (e.g. breeding, feeding, moulting, roosting), whether on a regular or infrequent basis,*
- *Playing a role in the life cycle of migratory indigenous fauna,*
- *containing one of the best examples of an intact sequence, or substantial part of an intact sequence of ecological features or gradients,*
- *supporting predominantly intact habitats with evidence of healthy natural ecosystem functioning*

Neither the tussock grassland nor the kanuka vegetation meet the distinctiveness criteria.

b) The Ecological Context of the Area

(v) *Size and Shape – the degree to which the size and shape of an existing area is conducive to it being, or becoming ecologically self-sustaining.*

(vi) Connectivity – the extent to which the area has ecological value due to its location and functioning in relation to its surroundings. An area may be ecologically significant because of its connections to a neighbouring area, or as part of a network of areas of fauna habitat. For example an area may act as a corridor or stepping stone for movement/migration of species between or to areas of important habitat.

The vegetation patches are small and have a high amount of edge. In the case of the tussock vegetation, this reduces the chance of it being ecologically self-sustaining. The vegetation is part of a larger swathe of vegetation which has good connectivity values between the edge of Lake Wanaka generally, Beacon Point, and the banks of the Clutha River, the nearby Hikuwai Conservation Area and the Mt Iron Scenic Reserve. The site meets this criterion.

c) The Future Ecological Value of the Area

(vii) *Long Term Sustainability – the degree to which an area is likely to maintain itself, taking into consideration:*

- *extent to which criteria in paragraphs A and B above are met*
- *degree of historic modification to the area and its surroundings which affects its future*
- *degree of resilience of species and habitats present*
- *the effects of current management on identified ecological values*
- *the extent to which the area has achievable potential, with management input, for restoration of ecological values which are significant in the Ecological District.*

In terms of sustainability it is unlikely that the current vegetation mix will be maintained in the longer term without management. Tussock grassland in particular is unlikely to be self-sustaining because of invasion of kanuka from the adjacent shrubland. It is most likely that kanuka shrubland would develop across the whole site in the medium – longer term. The area has been highly modified in the past. The vegetation at the site does not meet this criterion.

We conclude that the indigenous vegetation, both the tussock grassland and the kanuka shrubland, would trigger the significance criteria articulated in Appendix 5 of the District Plan (particularly rarity and ecological context) but because of the small extent and the highly modified nature it can only be regarded as significant at a local or at best a district scale.

The District Plan notes that the fact that a particular area satisfies one or more of the above criteria does not necessarily mean the area is significant in the District Plan. In order to determine whether an area should be included as significant in the District Plan the Council will also have regard to the following:

(a) *Existing land use and the degree of modification associated with the site.*
We note that the area is privately owned land adjacent to residential housing and has been substantially modified in the past, including when it was formerly farmland.

(b) *Any views of the landowner and occupier including development costs and lost development potential and the support or otherwise for the proposal.*
The landowner's views are reflected in this proposal. The landowner is supportive of the additional planting and protection proposed.

(c) *The views of the Department of Conservation and other interested parties.*
The views of the Department of Conservation and others have not been sought as part of this report. The landowner is carrying out consultation, and interested parties will also have the opportunity to contribute to the plan change process.

(d) *Consideration of non-regulatory and regulatory methods which ensure the identified values and their needs are recognised and protected.*
The proposed covenants would ensure the remaining values and the areas of new planting are recognised and protected.

(e) *Presence and level of animal pests and weeds*.

The presence of both is high. During our site visit evidence of rabbits (*Oryctolagus cuniculus*) was commonly encountered, as were weeds at some locations, particularly within the grassland areas.

(f) *Resources required to implement effective protection.*
Implementing protection via covenanting and planting is proposed as part of the plan change process. The need for ongoing weed and pest control will vary.

(g) *Whether or not identified values are under threat.*
In general terms the values are under threat, with particularly depleted tussock grassland becoming increasingly rare. In the absence of the plan change proposal the natural regeneration of the site is expected to be slower and more uncertain as to outcome.

(h) *The extent to which values are or are not protected elsewhere.*
Reference to LCDB4 shows that within the Pisa Ecological District, public conservation land includes 494 ha of depleted grassland, 833 ha of low producing grassland and 261 ha of kanuka or manuka. The extent of the same vegetation types located on private land is 871 ha, 20,474 ha and 1,577 ha respectively. On that basis, depleted grassland of the type found at the site is very rare and the degree of protection is generally low and manuka or kanuka is rare and moderately poorly protected elsewhere. Indigenous vegetation within the specific land environment is regarded as acutely threatened.

(i) *Any other relevant factor.*
The use of the area for recreation (cycling, walking) may be a relevant consideration. We are unaware of any other relevant matters.

4. ASSESSMENT OF EFFECTS

4.1 Vegetation Removal and Planting Proposed

The proposal would involve removal of up to 4,850 m² of vegetation to allow for construction of building platforms. Some of the vegetation which might be removed (dependent on individual site plans) is locally significant. The area proposed for new enhancement planting (hatched green in Plate 2) is 14,600 m². Within that hatched area, there is around 4,500 m² of kanuka to be retained. This results in slightly more than 1.1 ha (11,503 m^2) of new planting as described and shown in the Landscape Concept Plan prepared by Rachael Stanford Landscape Design and attached as Appendix 3. Overall the amount of indigenous vegetation at the site will increase.

The policies and objectives of the Queenstown Lakes District Plan seek to encourage the retention of existing indigenous vegetation in gullies and along watercourses as well as the maintenance of tussock grass-lands and other natural ecosystems[3] in outstanding natural landscapes as part of subdivision developments. As such the incorporation of existing significant vegetation into developments and enhancement of native vegetation along with increased connectivity/ecological linkages is a preferred outcome of subdivision articulated in the district plan.

[3] See Section 4.1.

Slightly less than half of the indigenous vegetation at the site would be retained, and the quality of the vegetation remaining would be improved and the area of indigenous vegetation overall increased by planting as part of this proposal. This is consistent with the direction of the policies and objectives of the District Plan.

With regard to this proposal we have participated in locating the building platforms so as to minimise the amount of vegetation removal and in planning the enhancement planting to maximise its ecological benefits. We have recommended that the new planting use locally sourced plants which would have been or are typical of shrublands in the Pisa Ecological District, but are not found currently at the site, as well as kanuka and other species already present. The purpose of this approach is to aid in the functional restoration of the site and to assist in revegetation in the wider vicinity which is currently limited by the lack of suitable seed sources for many species which could otherwise be expected to be present.

In particular we propose the use of the species listed in Table 1 where appropriate microsites can be found to suit their growth habits.

Table 1: Species proposed for planting at Peninsula Bay.

Latin Name	Common Name	Threat Ranking
Trees, shrubs and climbers		
Aristotelia serrata	wineberry	Not threatened
Carmichaelia petriei	desert broom	Not threatened
Coprosma intertexta		At Risk - declining
Coprosma lucida	karamu	Not threatened
Coprosma rugosa		Not threatened
Corokia cotoneaster	korokio	Not threatened
Fuchsia excorticata	tree fuchsia	Not threatened
Fuscospora cliffortioides	mountain beech	Not threatened
Fuscospora fusca	red beech	Not threatened
Griselinia littoralis	broadleaf	Not threatened
Hebe salicifolia	koromiko	Not threatened
Hebe subalpina	hebe	Not threatened
Hoheria glabrata	mountain lacebark	Not threatened
Kunzea robusta	kanuka	Not threatened
Leonohebe cupressoides	cypress hebe	Threatened - nationally endangered
Melicytus alpinus	porcupine scrub	Not threatened
Muehlenbeckia axillaris	creeping pohuehue	Not threatened
Olearia avicenniifolia	mountain akeake	Not threatened
Olearia hectorii	Hector's tree daisy	Threatened – nationally endangered
Phyllocladus alpinus	toatoa	Not threatened
Pittosporum tenuifolium	kohuhu	Not threatened
Plagianthus regius	ribbonwood	Not threatened
Podocarpus laetus	Hall's totara	Not threatened
Pseudopanax colensoi var. *ternatus*		Not threatened
Teucridium parvifolium	Teucridium	At risk - declining

Latin Name	Common Name	Threat Ranking
Monocots (grasses and sedges)		
Chionochloa macra	slim snow tussock	Not threatened
Chionochloa rigida	narrow leaved snow tussock	Not threatened
Phormium cookianum subsp. *cookianum*	Mountain flax	Not threatened

In areas where there are isolated kanuka trees or small stands, these would be incorporated into the proposed planting. Some species such as wineberry (*Aristotelia serrata*), tree fuchsia (*Fuchsia excorticata*) and the like would do best sheltered under a canopy, and these species will be used in areas where such a canopy is available. Species such as slim snow tussock (*Chionochloa macra*) and creeping pohuehue (*Muehlenbeckia axillaris*) are suitable for using at the interface of tussock and kanuka to buffer the edges of these habitats and reduce weeds.

Covenants on the new titles are proposed to ensure the areas of native vegetation would be retained and/or enhanced as appropriate in accordance with the landscape concept for the site.

The overall benefits of the proposed enhancement planting, include:

- Increased diversity of both plant species and habitats present;
- Opportunity to include threatened and at risk plants to assist in their conservation;
- Improved ecological connection between habitats;
- Enhanced ecological function with respect to buffering of habitats, seed dispersal, successional progress and seasonal food sources;
- Reduced edge effects and improved ecotone quality; and
- Contribution to improved ecological integrity as a result of the enhancement planting.

After taking into account the extent of vegetation removal proposed, the nature of the existing vegetation and the enhancement plantings proposed, we consider that the proposed plan change will have an overall positive effect on the terrestrial ecology of the site and is consistent with the direction of the district plan with regard to incorporation of existing significant vegetation into developments and enhancement of native vegetation and increased connectivity and ecological linkages.

4.2 Response to Request for Further Information

On 27 October 2015 Queenstown Lakes District Council (**"the Council"**) requested further information in order to better understand the nature of the proposed plan change. The following section provides a response to the eight ecological matters raised by the Council's Ecological Advisor in relation to the request for further information.

Issue 1: The proposal to increase the proportion of green leafy species into the landscape planting to reduce the fire hazard closest to the proposed house sites.

One of the identified goals for enhancement planting (as described in section 1.1) is to increase the proportion of green leafy species to reduce fire hazard closest to the proposed building platforms.

Council's Ecological Advisor considers that fires approaching the building platforms would likely run out of fuel before significantly endangering property or human life. The Council's advisor also noted that broad-leaved communities of the type proposed (to reduce fire hazard) are more common west of the Peninsula Bay site in the vicinity of Glendhu Bay.

When preparing planting plans for shrubland (mainly Manuka) subdivisions in the Far North District, the use of less flammable species (such as those proposed) is accepted and expected by Council's on the basis of advice provided by the New Zealand Fire Service. It is on this basis that the leafy green species were proposed in close proximity to the building platforms.

Issue 2: The inclusion of species which would alter the character of the community composition such that it may appear incongruent with the surrounding kanuka shrubland that characterises the N5.1c Land Environment and northern Peninsula escarpment.

The Council's Ecological Advisor considers that the species proposed to reduce fire hazard would alter the character of the community composition such that it may appear incongruent with the surrounding kanuka shrubland that characterises the N5.1c Land Environment and the northern Peninsula escarpment.

While it is acknowledged that the species proposed to manage fire hazard would change the character of the vegetation, that was partly the intention in order to reduce the likelihood, intensity and scale of future accidental fires at the site.

One of the factors considered when developing the landscaping planting plan was that the kanuka at the site is very uniform in terms of size (and presumably age). There is no obvious regeneration of the understory in most places. This suggests that the vegetation succession at the site may be limited in future as the existing kanuka age and senesce as a cohort. The species proposed were selected in part as temporary place fillers to draw frugivorous birds to the site to assist in promoting succession with locally derived species from the wider area.

Issue 3: Consider modifying the application to better provide for the presence and significance of (degraded) fescue tussock grassland, noting that the Landscape Concept Plan (Revision E) does not include any areas where the remaining community would be protected, maintained or enhanced.

Council's Ecological Advisor considers that the application could be modified to better provide for the presence and significance of degraded fescue tussock grassland.

The protection and maintenance of depleted tussock grassland was intentionally excluded from the landscape planting as historically the tussock grassland at the site would have been maintained by grazing and other human activity. If left alone, the kanuka would likely continue to expand and come to dominate the tussock areas, replacing the existing species. In other words, retention of tussock grassland at the site would require active management in perpetuity, whilst succession to kanuka would require less intervention in the longer term. Kanuka therefore represents a more sustainable ecological community at the site, although in the longer term succession will also replace the kanuka with a different forest association. The form of that association will depend on the seed sources available.

The presence of hares, the thick thatch of exotic grass, and the regular influx of kanuka seed (which may also be limited by the exotic grasses) creates difficulties when seeking to protect and enhance the tussock grassland community at the site and expand the area of tussock occupation.

Issue 4: Consider removal of woody weeds from the open space area.

The Council's Ecological Advisor considers that there may be benefits arising from the removal of wood weeds from the Open Space area.

Removal of woody weeds from the open space areas is technically feasible, but much of the open space is currently dominated by exotic grasses, with only occasional herbs and woody weeds. Although this situation may change in future, woody weeds are not considered to be the greatest threat to the tussock vegetation at the site. On this basis, the control of woody weeds is not considered necessary.

In the areas proposed for enhancement planting, woody weeds would be controlled as part of the planting plan for the site.

Issue 5: Consider creating a more gradual transition from the planted areas to the existing vegetation which would remain as open space on public land.

The Council's Ecological Advisor recommends that consideration be given to the gradual transition from the planted areas to the existing vegetation areas remaining as open space.

The space available within the private boundaries to carry out the recommended transition is relatively limited. The proposed edges however, will be well buffered with densely growing species to reduce edge effects on the habitats created.

Issue 6: All shrubland plantings should include the species Kunzea ericoides rather than Kunzea robusta.

The Council's Ecological Advisor considers that the plantings proposed in Sections E, S and K should include the species *Kunzea ericoides*.

The distribution of kanuka was relied upon to assign the species after the site visit. *K. ericoides* is a "common tree of the northern South Island only with its distribution

recorded as north of the Buller and Wairau Rivers[4]" and that species is "most common in North West Nelson". *K. robusta* is recorded as a "widespread, common tree of North and South Islands.[5]" On that basis the trees in Wanaka are most unlikely to be *K. ericoides*. It is accepted however, that they may not be *K. robusta*.

Due to the recent revision of the taxonomy of the genus *Kunzea,* samples were not collected to confirm the species present.

The planting plan specifies that trees for planting must be ecosourced from the same ecological district according to best practice. The actual species currently present makes little practical difference.

Issue 7: The recommendation that species identified for planting within the Landscape Concept planting plan for Section S should be short tussock grassland and/ or shrubland species including Coprosma propinqua, Coprosma intertexta, Coprosma crassifolia, Coprosma virescens, Carmichaelia petriei, Olearia lineata, Sophora microphylla, Teucridium parvifolium, Podocarpus laetus and kanuka.

It has been recommended by the Council's Ecological Advisor that some of the species included in the Section S area are likely to be difficult to establish at the site and that alternative short tussock grassland and/or shrubland species should be used.

As noted above with respect to Issue 2, some of the species proposed were intended to attract birds to the site to assist in natural spread of bird-dispersed species like totara, but are early successional species so would be unlikely to persist in the longer term, although they may spread throughout the area. While the species proposed are appropriate and could be included in the proposed planting, the short tussock grassland proposed would not provide adequate screening and is therefore (on balance with landscape considerations) inappropriate for Section S.

Issue 8: The recommendation that similar species to those above be included in the Section E plantings with the addition of Plagianthus regius and Fuscospora cliffortioides as a sheltering/ screening landscaping tree.

The Council's Ecological Advisor considers that similar species to those proposed for Section S of the planting plan should also be used for Section E. If such an approach is adopted, Council's Advisor considers that short tussock grassland could then merge more gradually into the open grassland surrounding the allotments and would also compensate for the loss of grassland habitat by enhancing the habitat for McCanns skink.

The landscaping plan for the proposal has been updated to account for some of the recommendations with respect to species plantings. As per the discussion with respect to Issue 7, low level tussock would not be appropriate due to the implications for visual landscape effects.

Muehlenbeckia was included on the planting list to provide habitat for lizards, as well as food for small frugivorous birds (such as waxeyes) which would assist in dispersing seed, and because a dense mounded ground cover such as *Muehlenbeckia* provides would assist in reducing edge effects as well as softening the look of the taller vegetation.

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4 http://www.nzpcn.org.nz/flora_details.aspx?ID=885

5 http://www.nzpcn.org.nz/flora_details.aspx?ID=7644

4.3 Conclusion

The vegetation within the area affected by the proposed Peninsula Bay North End plan change includes both kanuka shrubland and depleted tussock grassland which can be considered locally significant using the criteria in the Queenstown Lakes District Plan.

The grassland habitat comprises small areas and is likely to be undergoing succession to shrubland. The shrubland is poorly diverse and natural seed sources to address this are rare in the near vicinity.

Enhancement planting is proposed and would be based on ecological considerations of the species likely to occur there in the past. This approach of retaining vegetation and enhancing it will both reduce the area of exotic grassland and supplement the diversity of the existing shrubland. As well as increasing diversity this approach has other local ecological benefits such as improved connectivity and ecological functioning. Such an approach is appropriate and is expected to result in a better overall ecological outcome than allowing natural succession at the site.

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APPENDICES

APPENDIX 1

Explanation of the Land Environments of New Zealand (LENZ) and New Zealand Land Cover Databases

Explanation of LENZ and LCDB

The Land Environments of New Zealand ("LENZ") database is an attempt to objectively define ecological units at multiple spatial scales (Leathwick et al. 2002, 2003). The database uses 15 environmental variables (such as climate and soil type) that correlate strongly with species distribution to classify New Zealand into discrete environment types. The environment types are nested within a hierarchy, with the first level at the widest scale being given an alphabetic description (Environments A-T). At each increasing level the classification becomes finer scale and differences between the environments become less, for example there is more difference between Environments D3 and D4 than there is between D4.1 and D4.2 and even less difference between D4.1a and D4.1b. This results in a series of maps showing the geographical distribution of units ("land environments") having similar ecosystem characters. LENZ can be used to identify the type of land environment and thus the vegetation expected at a particular site. LENZ mapping is based on potential rather than current habitat with respect to what species are found in a particular environment type and provides an indication of the species that could potentially be found in a particular environment if the vegetation was successionally mature. The advantage of LENZ is that it provides an objective measure of the extent and significance of environments in a regional, national and, at least potentially, global context. This measure can be used for a wide range of purposes including management. LENZ has some limitations due to the accuracy and resolution of the data (particularly the soil data) from which it was derived and slight local variations in some factors (e.g. topography) can give rise to quite major changes in vegetation composition and structure that are not detected in the LENZ framework. This makes habitats that are not predicted by LENZ hard to assess in terms of their representativeness within the LENZ framework and a more subjective assessment is required. Furthermore the scale at which LENZ was developed does not recognise naturally rare ecosystem types which are by definition limited in their extent (Williams et al. 2007).

The New Zealand Land Cover Database ("LCDB") is a spatial dataset which maps vegetation cover types across the country based on satellite imagery, aerial photography and other sources. The first version of LCDB was compiled based on images taken in summer 1996/7, this was updated with images from summer 2001/2 (the second version "LCDB2"), summer 2008/2009 (LCDB3) and summer 2012/13 (LCDB4). Version 4.1 was issued in July 2015 and includes improvements to the mapping. Different vegetation types recognisable on the satellite images are both delineated and classified. The current version, LCDB4 (and its predecessor LCDB3), contains 33 vegetation classes.

The Land Cover Database is limited by resolution accuracy and the lack of systematic and statistically robust field sampling, but the information is useful for understanding how land cover has changed over time, and particularly for determining which land cover is now found (rather than that predicted by LENZ). This can then be verified by field survey. LCDB is also useful for determining which types of land cover (or habitat) are becoming more rare and should therefore be considered threatened (Walker et al. 2006, Brockerhoff et al. 2008, Cieraad *et al*. 2015).

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APPENDIX 2

Plant and Bird Species Recorded

Plant Species Recorded

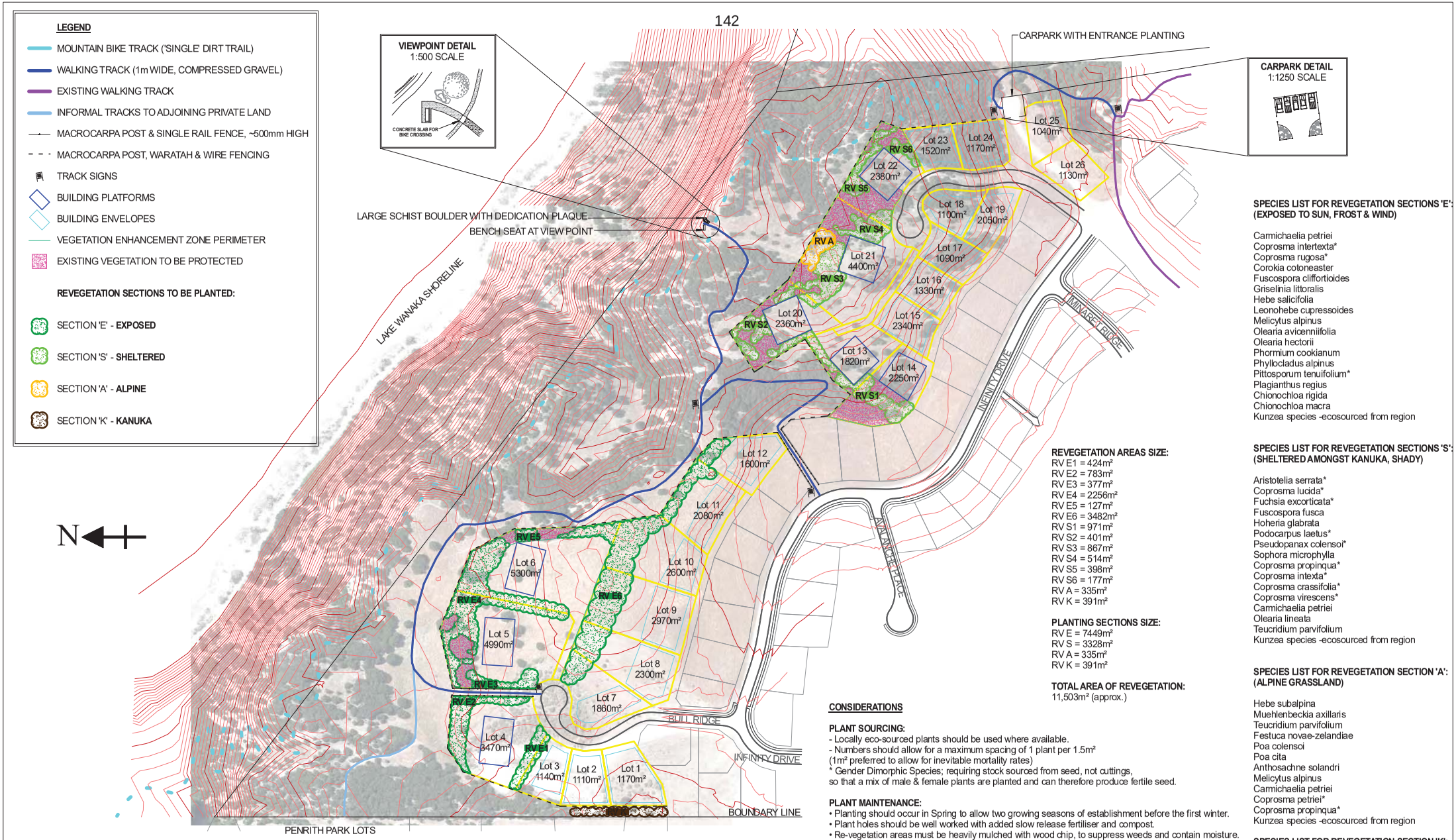
Species (*denotes exotic)	**Common name**
Dicot herbs	
*Achillea millefolium**	yarrow
*Alchemilla mollis**	
Anisotome aromatica	aromatic aniseed
*Cirsium arvense**	Californian thistle
*Cirsium vulgare**	Scotch thistle
*Geranium molle**	doves foot cranesbill
*Hieracium lepidulum**	tussock hawkweed
Kelleria dieffenbachii	
*Lapsana communis**	nipplewort
*Leontodon taraxicoides**	hawkbit
Raoulia hookeri var. *hookeri*	scabweed
*Rumex acetosella**	sheep's sorrel
*Rumex obtusifolius**	broad-leaved dock
*Trifolium arvense**	haresfoot trefoil
*Trifolium repens**	White clover
*Verbascum virgatum**	moth mullein
Sedges, Rushes and Grasses	
*Agrostis capillaris**	browntop
Anthosacne solandri	native wheat grass
*Anthoxanthum odoratum**	sweet vernal
*Dactylis glomerata**	cocksfoot
*Lolium perenne**	perennial ryegrass
Poa colensoi	blue tussock
Woody Shrubs and Trees	
Carmichaelia petriei	desert broom
Coprosma propinqua	mingimingi
Coprosma petriei	turfy coprosma
*Cytisus scoparius**	wild broom
Discaria toumatou	matagouri
Kunzea robusta	kanuka
*Larix decidua**	European larch
Leucopogon fraseri	patotara
*Lupinus polyphyllus**	Russell lupin
Melicytus alpinus	porcupine scrub
*Pseudotsuga menziesii**	Douglas fir
*Rosa rubiginosa**	briar
Climbers and Vines	
Muehlenbeckia complexa var. *complexa*	small leaved pohuehue
Ferns and Tree ferns	
Pteridium esculentum	bracken

Bird Species Recorded

Bird Species (*denotes exotic)	**Common name**
*Carduelis carduelis**	goldfinch
Circus approximans	harrier
*Cracticus tibicen**	Australian magpie
*Emberiza citronella**	yellowhammer
*Fringilla coelobs**	chaffinch
Gerygone igata	grey warbler
*Passer domesticus**	house sparrow
Rhipidura fuliginosa	fantail
Tadorna variegata	paradise shelduck
*Turdus merula**	blackbird

APPENDIX 3

Landscape Concept Plan prepared by Rachael Stanford Landscape Design



REVEGETATION AREAS SIZE:
RV E1 = 424m²
RV E2 = 783m²
RV E3 = 377m²
RV E4 = 2256m²
RV E5 = 127m²
RV E6 = 3482m²
RV S1 = 971m²
RV S2 = 401m²
RV S3 = 867m²
RV S4 = 514m²
RV S5 = 398m²
RV S6 = 177m²
RV A = 335m²
RV K = 391m²

PLANTING SECTIONS SIZE:
RV E = 7449m²
RV S = 3328m²
RV A = 335m²
RV K = 391m²

TOTAL AREA OF REVEGETATION:
11,503m² (approx.)

CONSIDERATIONS

PLANT SOURCING:
- Locally eco-sourced plants should be used where available.
- Numbers should allow for a maximum spacing of 1 plant per 1.5m² (1m² preferred to allow for inevitable mortality rates)
* Gender Dimorphic Species; requiring stock sourced from seed, not cuttings, so that a mix of male & female plants are planted and can therefore produce fertile seed.

PLANT MAINTENANCE:
• Planting should occur in Spring to allow two growing seasons of establishment before the first winter.
• Plant holes should be well worked with added slow release fertiliser and compost.
• Re-vegetation areas must be heavily mulched with wood chip, to suppress weeds and contain moisture.
• Deep irrigation should be provided for at least the first five years to allow for strong plant establishment.
• Necessary rabbbit protection must be applied to all planted *and protected* areas; in the form of rabbit proof fencing, individual plastic sleeves around plants and poision programs.

NOTE: ALL PINUS, PSEUDOTSUGA & CYTISUS ON SITE TO BE REMOVED.

SPECIES LIST FOR REVEGETATION SECTIONS 'E':
(EXPOSED TO SUN, FROST & WIND)

Carmichaelia petriei
Coprosma intertexta*
Coprosma rugosa*
Corokia cotoneaster
Fuscospora cliffortioides
Griselinia littoralis
Hebe salicifolia
Leonohebe cupressoides
Melicytus alpinus
Olearia avicenniifolia
Olearia hectorii
Phormium cookianum
Phyllocladus alpinus
Pittosporum tenuifolium*
Plagianthus regius
Chionochloa rigida
Chionochloa macra
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTIONS 'S':
(SHELTERED AMONGST KANUKA, SHADY)

Aristotelia serrata*
Coprosma lucida*
Fuchsia excorticata*
Fuscospora fusca
Hoheria glabrata
Podocarpus laetus*
Pseudopanax colensoi*
Sophora microphylla
Coprosma propinqua*
Coprosma intexta*
Coprosma crassifolia*
Coprosma virescens*
Carmichaelia petriei
Olearia lineata
Teucridium parvifolium
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTION 'A':
(ALPINE GRASSLAND)

Hebe subalpina
Muehlenbeckia axillaris
Teucridium parvifolium
Festuca novae-zelandiae
Poa colensoi
Poa cita
Anthosachne solandri
Melicytus alpinus
Carmichaelia petriei
Coprosma petriei*
Coprosma propinqua*
Kunzea species -ecosourced from region

SPECIES LIST FOR REVEGETATION SECTION 'K':
(KANUKA)

Kunzea species -ecosourced from region

design@rachaelstanford.co.nz
Mobile: (021) 115 6269
Studio: (03) 443 8392
7 Islington Place, Wanaka

SITE:	PLAN:		
PENINSULA BAY NORTH END PROPOSED PLAN CHANGE	**LANDSCAPE CONCEPT**	**5 NOVEMBER 2015**	**1:2500**
	FOR: **INFINITY INVESTMENTS**	**01/017 - 15/16**	0 50m 100m
		REVISION: **F**	*Drawing to scale when printed on A3 sheet*