Parkburn

Landscape Assessment Report

Prepared for Fulton Hogan Land Development Ltd.

29th October 2026



Fulton Hogan LAND DEVELOPMENT LTD.

LWL

RESET

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Author(s):	Martha Redman Senior Landscape Architect at Reset Urban Design Ltd Linda Joll Landscape Consultant at Landscape With Linda
Reviewed:	Garth Falconer Director, Urban Designer & NZILA Registered Landscape Architect at Reset Urban Design Ltd

Reset Urban Design Ltd

Level 1, 40 Hurstmere Road, Takapuna

Level 1, 28 Helwick Street, Wānaka

www.reseturban.co.nz

1 EXECUTIVE SUMMARY

1.1 Preface

Fulton Hogan Land Development LTD (**FHLD**) have engaged with Landscape Consultant, Linda Joll at Landscape With Linda (**LWL**) and Landscape Architect, Martha Redman at Reset Urban Design Ltd (**Reset**) to provide the expert landscape assessment for the Parkburn Development Project (**the Project**).

Linda has had 40 years extensive experience across the landscape industry, including being Chair of Landscaping New Zealand (LIANZ), a founding director of The Plant People Ltd., and a founding director of Reset Urban Design Ltd. Currently Linda operates as a sole trader, providing advice on landscape design, implementation, and management. Linda has been based in Wānaka for the past 10 years; she has served a term on the Wānaka-Upper Clutha Community Board (WUCCB) and remains Chair of the Cardrona Ratepayers and Residents Association.

Projects of significance led by Linda through the landscape design, implementation and management process include:

- Queenstown Gardens Play Space, lakefront lake Wakatipu for QLDC
- St Clair Play Space Dunedin St Clair Beachfront for DCC
- Lakefront Development for Wānaka for QLDC
- Pembroke Heights Subdivision Wānaka for WFL Properties Limited
- Wānaka Health Precinct Wānaka for Roa Group

Linda confirms the following, that in her capacity as co-author of this report, she has read and abides by the Environment Court of New Zealand's Code of Conduct for Expert Witnesses Practice Note 2023. Linda has previously presented as an expert witness for landscape projects.

Martha is a Senior Landscape Architect (Reset). Martha has over 10 years' experience in design of landscape, and all aspects of landscape architecture, Martha is a chartered UK landscape architect and holds a Bachelor of Arts and Post Graduate Diploma, both in Landscape Architecture, from Birmingham City University. She has been based in Wānaka since 2024 working alongside directors of Reset to provide landscape architecture services across the Otago/Upper Clutha region.

Reviewing this assessment is Garth Falconer. Garth is an urban designer and landscape architect and a founder and director of Reset. He holds a Bachelor of Arts from Auckland University, a Post Graduate Diploma in Landscape Architecture from Lincoln University and a Master's Degree in Urban Design from Oxford Brookes University (UK).

Garth is also a Fellow of the New Zealand Institute of Landscape Architects Tuia Pito Ora and a member of the Urban Design Forum. He has been a member of the Auckland and Queenstown Urban Design Panels and a Hearing Commissioner for Auckland Council. Garth has been practising for 36 years and has masterplanned a wide range of residential and commercial developments across Aotearoa New Zealand.

1.2 Project Summary

The Project provides for the establishment of a mixed-use, low-rise urban development, including quarry rehabilitation, residential development, supporting commercial and community activities, open space, reserve development and associated infrastructure. Works are also proposed within the State Highway 6 (**SH6**) road reserve.

In 2022, under the Central Otago District Plan (**CODP**) the Site was re-zoned through Plan Change (**PC21**)[1] providing for a range of residential, industrial and business zoning. As part of PC21, a prescriptive Structure Plan (**Structure Plan**, refer to **Appendix 1**) was introduced, as a future vision for development. Furthermore, a Landscape and Visual Assessment (**Vivian + Espie LVA**)[2] appended to this report (refer to **Appendix 2**) was submitted, based upon the Structure Plan design.

The original design (as per Structure Plan) has since been developed to increase the number of residential units, reduce water features, remove the industrial development provided for, and relocate the neighbourhood centre, in line with a new Project proposal and Master Plan (the **Master Plan**) (as provided in support of the Substantive Application).

The purpose of this assessment is to use the pre-existing Vivian + Espie LVA and associated Structure Plan, as an informed baseline, from which to critically compare and review any changes in the landscape and visual effects, against the new Project proposal.

The Site itself currently consists of an industrial quarried landscape, with associated scheduled activities, infrastructure, stockpiles, vehicles and ancillary buildings. The Site is not within any ONL, ONF or SAL, but is surrounded by a rural landscape character to the north and west. Lake Dunstan / Te Wairere lies to the east, and the residential development of Pisa Moorings is to the south.

The findings of this assessment conclude that the proposed Project development will result in a change in both the character of the landscape and the visual amenity of the Site, but not necessarily a degradation of either. The Site will transform from a highly modified industrial quarry to that of a mixed-use urban development, similar to that of the adjacent Pisa Moorings residential development. Such a change is already allowed under the District Plan given the urban zonings applying over the Site.

[1](Private Plan Change 21 (PC21) Parkburn Quarry, Cromwell to the operative Central Otago District Plan 2008, Requested by Fulton Hogan Ltd. Made operative 23rd July 2025)
[2] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022)

In relation to landscape effects, the change in land use will not adversely degrade the values of the landscape within which the Site sits, which is already characterised by mixed uses. Furthermore, Central Otago's unique and distinctive landscapes, as recognised in the CODP, will continue to be maintained.

In relation to views and visual amenity, the changes that the Project will bring, will be visible from a number of locations. However, due to the existing low-lying topography, extensive proposed mitigation planting, considered Master Plan layout and distance of viewpoints from the Site, any adverse effects to the visual amenity experienced by users, are considered **low** to **moderate-low**.

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2 INTRODUCTION

2.1 Purpose and Scope

Reset Urban Design (**Reset**) in close collaboration with Landscape With Linda (**LWL**) have been engaged by Fulton Hogan Land Development Ltd (**FHLD**) the **Applicant**)) to provide a Landscape Assessment, identifying the landscape and visual effects of the Parkburn Development Project (the **Project**).

The Project involves the staged subdivision and development of land (referred to as the **Site**) at 922 Luggate-Cromwell Road (State Highway 6), Cromwell, located approximately 8 kilometres north of the Cromwell township and adjoining Lake Dunstan / Te Wairere. The Site includes part of the existing Parkburn Quarry.

In 2022, under the Central Otago District Plan (**CODP**), the Site was re-zoned through Plan Change (**PC21**)[1], providing for a range of residential, industrial and business zoning. As part of PC21, a prescriptive Structure Plan (Structure Plan, refer to **Appendix 1**) was introduced, as a future vision of how the Applicant would like to develop their land. Furthermore, a Landscape and Visual Assessment (**Vivian + Espie LVA**)[2] appended to this report (refer to **Appendix 2**) was submitted as part of PC21, based upon the Structure Plan design.

The purpose of this assessment is to use the pre-existing Vivian + Espie LVA and associated Structure Plan, as an informed baseline, from which to critically compare and review any changes to the landscape and visual effects, as a result of the new Project proposal.

2.2 Methodology

The following sets out a landscape analysis and assessment to assist decision-makers in determining if the Project is appropriate.

This involves a review of the Vivian + Espie LVA to identify parts of the original assessment that remain relevant to the new Project proposal and/or what changes have occurred, in comparison to the previously submitted Structure Plan and CODP zoning.

The methodology includes:

Desktop Review

A review of the current landscape planning and legislative framework, polices and guidelines relevant to landscape and visual effects. Including a review of the Vivian + Espie LVA and findings, including:

- Review of landscape context and planning context.
- Review of viewing audiences and selection of photograph viewpoints.

[1](Private Plan Change 21 (PC21) Parkburn Quarry, Cromwell to the operative Central Otago District Plan 2008, Requested by Fulton Hogan Ltd. Made operative 23rd July 2025)

[2] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022)

- Review of landscape and visual effects assessment, in relation to the relevant statutory assessment matters; and
- Review of feasibility and effectiveness of any proposed mitigation.

Site investigations

Following the initial desktop review, a site visit was undertaken on 5th March 2026, to carry out the following assessments:

- Review of the current existing landscape character of the Site, Site description and wider landscape context.
- Review of potential visibility of the Project proposal from the surrounding landscape, including key viewpoints identified in the Vivian + Espie LVA.

The methodology in this assessment has been informed by the updated Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines.[3]

As the guidelines recommend, this assessment uses a 7-point scale as a universal scale to describe the 'magnitude of effects'. Magnitude of effects measures the physical size, scale, and intensity of a change in the landscape or view.

The 7-point scale, shown below, is a rating of magnitude:



Following this, there is a reasoned consideration of the magnitude and importance (or significance) of such effects in context. 'Significance of effects' measures whether the effect is minor (or more than or less than) and determines how important or severe the change is, when considering the value of the affected landscape and the susceptibility of the viewing audience, in accordance with Resource Management Act (RMA) requirements.

The table below shows significance of effects (-/+ minor) top and middle row)) against the 7-point scale (bottom row):



The tables are used to assist in determining the combined overall effect on visual amenity, afforded to users of the area within the landscape which the proposed Project development sits.

[3] ('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022)

Note, this is not a full Landscape and Visual Assessment given the Site is already zoned for urban purposes, in relation to the existing Structure Plan. Rather, this assessment addresses the changes from the development already allowed over the Site, under the CODC District Plan.

2.3 The Proposal

The Project provides for the establishment of a mixed-use, low-rise urban development, including quarry rehabilitation, residential development, supporting commercial and community activities, open space, reserve development and associated infrastructure. Works are also proposed within the State Highway 6 (SH6) road reserve.

The project comprises the following components:

- Bulk earthworks to backfill and rehabilitate part of the existing Parkburn Quarry.
- Subdivision and development to enable approximately 1,000 residential allotments, supporting the construction of approximately 1,000 residential units across a range of housing densities.
- Subdivision and development to establish a neighbourhood centre, including retail, commercial, medical, and early childhood education activities, together with land for a possible primary school.
- Development of an open space network, including recreation reserves, esplanade reserve, and restoration along the margins of Parkburn Stream and Lake Dunstan / Te Wairere.
- Formation of two coves extending from Lake Dunstan / Te Wairere.
- Construction of associated infrastructure, including three waters infrastructure, internal transport networks, and external access works connecting the Site to State Highway 6.

3 RELEVANT POLICY AND STATUTORY ACKNOWLEDGEMENTS

3.1 The Government's Fast-Track Approval Act 2024

The purpose of the Act is to facilitate the delivery of infrastructure and development projects with significant regional or national benefits. The Parkburn Development is one of a number of projects referred under this Act.

This Landscape Assessment Report has been prepared to assess the actual and potential landscape and visual effects of the proposed development, as required in Schedule 5.[4]

3.2 Resource Management Act (RMA) 1991

Throughout this report, the RMA principles to recognise and provide for the matters of national importance (as set out in Sections 6,7,8 of the RMA) are recognised and supported. This includes section 6(e) to 'recognise and provide for *the relationship of Māori and their culture with their ancestral lands, water, site, waahi tapu, and other taonga*.'

The principles of the Treaty of Waitangi (Te Tiriti o Waitangi) (RMA Section 8) will be considered through further engagement and consultation regarding the future management of the landscape and will include kaitiakitanga principles (as set out in Section 7 of the RMA).

Further hui/collaboration will take place to allow taonga plant species, cultural art placement, storytelling, ecology and future management to be developed in accordance with the principles of the Treaty of Waitangi to ensure the RMA has been sufficiently met through a cultural lens of collaboration.

3.3 Ngāi Tahu Claims Settlement Act 1998

This report recognises the statutory acknowledgements recorded in the Ngāi Tahu Claims Settlement Act 1998 (including Statutory Acknowledgement for Te Wairere (Lake Dunstan), Schedule 61) of Te Wairere being a part of the water bodies, noted alongside mountains and coastal features of significance in the Otago Region.

With particular regard to sections 208, 211 and 220 of the Ngāi Tahu Claims Settlement Act, **FHLD, Reset and LWL** will engage further, by means of hui and workshops, to enable the Ngāi Tahu (kai tahu) iwi and Runanga to contribute to the ecology, taonga plant species selection, biodiversity and management within the proposed landscape alongside Te Wairere, Lake Dunstan. Conditions of consent securing these outcomes have been proposed by FHLD following consultation with **Kā Rūnaka'.**

Additionally, this report recognises and supports the significance of the Nohoanga entitlements, specifically McNulty Arm Nohoanga (Cromwell) granted to Te Rūnanga o Ngāi Tahu under the

[4] Schedule 5, Section 7(b) in the Fast Track Approval Act 2024. Pages 140-141.

Act, providing exclusive occupancy rights to support the mahinga kai and camping on the shores of Te Wairere.

3.4 District and Regional Plans

Regarding regional guidance, it is considered the relevant District Plan provisions are consistent with the Proposed Otago Regional Policy Statement (**ORPS**) and therefore, guidance has not been taken directly from the ORPS.

Under the Central Otago District Plan (**CODP**) the Site was recently rezoned through PC21 and provides for a range of residential, industrial and business zoning including:

- Residential Resource Area (Low-Density Residential as per PC19)
- Residential Resource Area (Medium-Density Residential as per PC19)
- Business Resource Area (3)
- Industrial Resource Area (2)
- Industrial Resource Area (3)

The CODC planning map, showing the district plan zoning, is illustrated in **Figure 1** below. There are no changes proposed to these existing zone provisions as part of the proposed development.

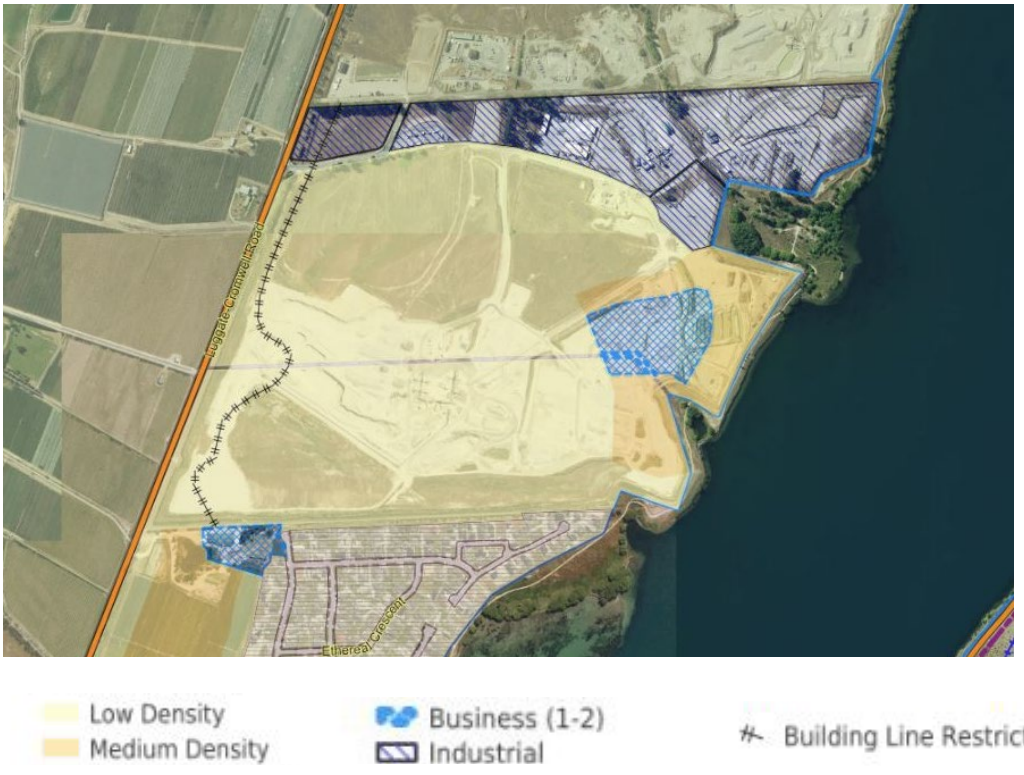


Figure 1 - CODC Planning Map

As part of PC21, a prescriptive Structure Plan was also introduced to guide development. The Structure Plan is illustrated in **Figure 2** below.



Figure 2 - Structure Plan (Schedule 19.28 of the CODP) refer to **Appendix 1** for larger scale))

The proposed development departs from the underlying zoning and the prescriptive structure plan with the main differences being the reduction in the size and extent of the proposed coves, relocation of the commercial areas, the creation of a large multipurpose reserve adjacent to the lake, removal of industrial zoned land and an increase in the number of residential lots. The differences are outlined in more detail in Table 1, page 29 further in this report under 'Landscape Effects'.

Following the rezoning, FHLD (the Applicant) undertook further investigations into the development opportunities and constraints associated with the Site, and identified several concerns with the Structure Plan, particularly with respect to the extent of water inlets / lagoon areas, and the appropriateness and long-term viability of industrial activity at this location. Further, the changes to the water features reflect recognition of the practical challenges associated with constructing and maintaining extensive artificial waterways, and a desire to achieve enduring, efficient and sustainable land use outcomes.

Considering this, the Applicant has developed a new proposal for an urban development that will facilitate the rehabilitation of the existing Parkburn Quarry, as shown in the **Project Master Plan**.



Figure 3 - **Project Master Plan** (as provided in support of the Substantive Application)

Regarding the original Structure Plan, it is noted that the water features are identified as "Possible Water Feature/Open space". Therefore, in terms of landscape and visual assessment, the focus is around the permitted activities, as opposed to whether what is proposed is in accordance with the Structure Plan itself. Further, while there is inconsistency with the Structure Plan the rationale for the refinements still demonstrate the intent of the underlying zoning and results in a well-planned, high-quality urban development.

Extracts from the CODP (Sections 7,8,9,12,16) are summarised below showing provisions of the PC21 zoning. Those most relevant to this assessment are **emboldened**, as follows:

SECTION 7: LOW DENSITY RESIDENTIAL ZONE (LRZ)[5]

> *"The Low Density Residential Zone provides primarily for residential living opportunities, as well as activities that support, and are compatible with the character of, the zone's residential focus."*

Objectives - LRZ-O2 Character and Amenity Values of the Low Density Residential Zone

> *"The Low Density Residential Zone is a pleasant, low-density suburban living environment, which:*
>
> 1. *Contains predominantly low-rise and detached residential units;*
> 2. *Maintains a good level of openness around buildings;*
> 3. *Provides good quality on-site amenity and maintains the anticipated amenity values of adjacent sites; and*
> 4. *Is well-designed and well-connected into surrounding area."*

[5/6] (Central Otago Operative District Plan) – Section 7

Standards -LRZ-S1 Density

1. *"Where the residential unit is connected to a reticulated sewerage system:*
    1. *no more than one residential unit is provided per 400m2.*
    2. *on any site less than 400m2, one residential unit per site"*

Standards - LRZ-S2 Height

1. *"The maximum height of buildings and structures must not exceed **7.5m** measured from ground level to the highest part of the building or structure"*

SECTION 7: MEDIUM DENSITY RESIDENTIAL ZONES (MRZ)[6]

"The Medium Density Residential Zone provides primarily for more intensive residential living opportunities, as well as activities that support, and are compatible with, the zone's residential focus."

Objectives - MRZ-O2 Character and Amenity Values of the Medium Density Residential Zone

"The Medium Density Residential Zone is a good quality living environment, which:

1. *Positively responds to the **natural, heritage and cultural context and site features;***
2. *Changes over time to provide a range of housing types, including those of a greater density than other residential zones, making efficient use of land and providing for growth needs;*
3. *Is responsive to and well-connected into the surrounding area;*
4. *Is well-designed, balancing affordability with good urban design outcomes; and*
5. *Provides **good quality on-site amenity and maintains the anticipated amenity values of adjacent sites.**"*

Standards - MRZ-S1 Density

1. *"Where the residential unit is connected to a reticulated sewerage system, the minimum site area per unit is 200m2.*
2. *Where the residential unit is not connected to a reticulated sewerage system, the minimum site area per unit is 800m2."*

Standards - MRZ-S2 Height

1. *"The maximum height of buildings and structures must not exceed:*
    a. ***11m** measured from ground level to the highest part of the building or structure; and*
    b. *3 storeys."*

[5/6] (Central Otago Operative District Plan) – Section 7

MRZ-S6 Setback from Internal Boundary

1. *"Any building or structure shall be setback a minimum of:*
    a. *1m from any internal boundary; and*
    b. ***15m from any property which is adjacent to the margin of any lake."***

SECTION 8: BUSINESS RESOURCE AREA (BRA)[7]

8.2.2 Policy - Visual Amenities

"To ensure the visual amenity values of the Business Resource Areas are maintained and enhanced and to avoid, remedy or mitigate any adverse visual effects on the environment through :

Retaining a continuity in building heights.

Ensuring the design, dimension and location of signs is not visually obtrusive.

Retaining a common design theme of building facades in selected areas.

Mitigating the harsh, stark appearance of large areas of hard standing surface by requiring landscaping.

Requiring that cables be installed underground where practicable.

Maintaining a continuity of frontage in selected areas."

8.2.9 Policy - Business Resource Area (3)

"To provide for the development of the following activities which are limited in scale and service the local community:

At Parkburn, high quality convenience retail;

At Pisa West, high quality convenience retail, commercial and community activities"

S*ECTION 9: INDUSTRIAL RESOURCE AREA* (IRA)[8]

9.1.1 Objective - Protection of Amenity Values

"To manage industrial activities to ensure that:

Adverse effects on other land uses are avoided, remedied or mitigated, and

Amenity values of neighbouring resource areas are maintained."

9.1.3 Objective - Management of the Effects of Industrial Activities (2) and (3) at Parkburn

"Ensure the Industrial Resource Area (2) and (3) Schedule 19.28 Parkburn Structure Plan area ***fits into the landscape with visual effects from located outside the zone mitigated by large lot size, landscaping and retention of open space."***

[7] (Central Otago Operative District Plan) – Section 8
[8] (Central Otago Operative District Plan) – Section 9

9.2.2 Policy - Maintenance of Visual Amenity Values

"To avoid, remedy or mitigate the adverse visual appearance that some industrial areas and activities can have by:

Ensuring appropriate separation and ***screening from adjacent resource areas.***

Ensuring that the bulk and location of buildings does not dominate adjacent resource areas.

Reducing the visual intrusion of signs."

9.2.6 Policy - Industrial Activities within the Industrial Resource Area (2) and (3)

"The subdivision design and associated mitigation measures including the ***protection of open space, landscaping and riparian management****, shall ensure that built form and associated activities within the zone are of a yard-based nature and* ***not highly visible when viewed from State Highway or Lake Dunstan****."*

9.3.6 Standards

xii. Setbacks within the Industrial Resource Area (2) and (3)

"No industrial buildings shall be:

Located within 100m of the lake; or

Located within 20m of any Low or Medium Density Residential Zone; or

Located within the Building Restriction Line and the State Highway.

No industrial activity shall be:

Located within 50m of the lake;

Located within 20m of any Low or Medium Density Residential Zone; or

Located within the Building Restriction Line and the State Highway.

The setbacks specified in ii above shall be ***retained as a landscaped buffer area."***

xiii. Riparian Management within the Industrial Resource Area (2) and (3)

"No (further) industrial activity (As of 07 August 2024) may be undertaken within Schedule 19.28 Parkburn Structure Plan area, until the ***Parkburn Stream margins (10 metres either side of the centre of the stream) have been planted with riparian vegetation and fenced off.***

[8] (Central Otago Operative District Plan) – Section 9

SECTION 12: DISTRICT WIDE RULES AND PERFORMANCE STANDARDS[9]

12.7.7 Building Line Restrictions (BLR)

i. *"No building shall be erected within any building line restriction shown on the planning maps between the building line and the feature to which it relates."*

Currently a Building Line Restriction (**BLR**) runs adjacent to SH6. However, an alternative treatment to the BLR is proposed, as shown on the Project Master Plan, including extensive landscape mitigation treatment, to the western border of the Site. This is described in more detail under 'Landscape Effects' section of this report.

Beyond the Site boundary, a broader Rural Resource Area surrounds the north and west of the Site. Lake Dunstan / Te Wairere lies to the east, and to the immediate south, lies Residential and Business Resource Areas, associated with Pisa Moorings (For Context Plan, refer to Vivian + Espie LVA - Appendix 1) **Appendix 2 of this report**).

In the wider context, the Site is situated outside of the Outstanding Natural Landscapes (**ONL**) of the Pisa Range and Dunstan Mountains and outside of the areas of Significant Amenity Landscape (**SAL**) and Outstanding Natural Feature (**ONF**) of Lowburn Terrace and Sugarloaf Glacial River Terrace, respectively.

The Vivian + Espie LVA highlights, regarding the Site's surrounding Rural Resource Area, that there are significant *'threats to Central Otago's unique and distinctive landscape"*[10]

> *"The Central Otago District contains many **unique and distinctive landscapes**. While those landscapes are constantly evolving through natural processes, farming and other land use activities the semi-arid, rocky nature of the landscape means it can be **vulnerable to visual effects of new structures** (including telecommunication masts, wind farms, transmission line pylons, and other large structures), cultivation of tussock grasslands, large scale earthworks, new roads, residential built development on elevated land, establishing woodlots, production forestry or shelter belts on elevated land and wilding tree spread. **Subdivision is often the precursor of land use activities such as those listed above**. The District's built heritage, particularly in the form of cottages and ruins, and remnants of the early goldmining era, has also made a significant contribution to the landscape values of Central Otago"*[11]

[9] (Central Otago Operative District Plan) – Section 12

[10] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 5.5 - Statutory Guidance

[11] (Central Otago Operative District Plan) - Section 4.2.2- Central Otago's Unique and Distinctive Landscape

What is not noted in the Vivian + Espie LVA, is the policy related to the esplanade provision along the edge of Lake Dunstan / Te Wairere, the text below is extracted from the CODP (Section 16):

16.4.9 Policy - Esplanade Provision[12]

"To ensure where appropriate that the subdivision of land recognises and provides for the purposes set out in section 229 of the Act by requiring the provision of an esplanade reserve or strip on subdivision having regard to:

a. The values of the river or lake in terms of section 229 of the Act.

b. Public safety requirements.

c. Any requirements of adjoining activities or land.

d. Any other matters that may be relevant.

Explanation

The purposes of esplanade reserves and esplanade strips is set out in section 229 of the Act as follows:

a. To contribute to the protection of conservation values by, in particular, -

i. Maintaining or enhancing the natural functioning of the adjacent river or lake; or

ii. Maintaining or enhancing water quality; or

iii. Maintaining or enhancing aquatic habitats; or

iv. Protecting the natural values associated with the esplanade reserve or esplanade strip; or

v. Mitigating natural hazards; or

b. ***To enable public access to or along any river or lake****; or*

c. ***To enable public recreational use of the esplanade reserve or esplanade strip and adjacent river or lake where that use is compatible with conservation values****."*

A staged landscape mitigation strategy, and landscape management plan for the crown land esplanade reserve, will be developed and submitted as part of the planning process via proposed conditions of consent.

3.5 Existing Resource Consents and Permits

The Site is subject to Mining Permit 41783, which covers the entire property and is valid until 2044.

The eastern portion of the site is identified in the CODP as Scheduled Activity 25A, recognising its use as a gravel pit. In accordance with Rule 4.7.1(ii), this scheduled activity permits gravel extraction within the defined area. It is noted that these will not be relied upon going forward as part of the site redevelopment and will be surrendered once quarry activities cease.

[12] (Central Otago Operative District Plan) - Section 16.4.9 - Policy - Esplanade Provision

4 THE RECEIVING ENVIRONMENT

The receiving environment includes the Site and surrounding area as they currently exist, including vegetation, buildings and land use which may be affected by the Project proposal.

4.1 District Context

Central Otago *'is dominated by parallel mountain ranges separated by broad valley basins'*[13] which this assessment considers to be true of the Project's Site location.

"*The Central Otago landscape is nationally (and internationally) renowned for its* ***scenic quality****. The physical landscape of the district is very much a product of geology, climate, and the early removal of forest on the mid slopes.* ***More recent human activities have added an overlay at lower altitudes****.*

The predominantly Haast schist rock has been block faulted to produce northeast to southwest trending ranges, rising to well over 1000 metres. ***Their relatively gentle slopes overlook broad, shallow valleys filled with glacial outwash gravels, forming terraces whose steep edges are a significant feature.*** *Further east, tertiary sediments have been preserved in the valley floors, including seams of lignite and oil shale. Erosion has left bare rock outcrops with vast numbers of rock tors whose unusual shapes and prominence make them highly distinctive features. The climate is sub-continental with very cold winters, hot summers and wide ranges of daily temperatures. Snow lies during several months above 1000 metres. Being far from the sea and in the lee of the Southern Alps precipitation is very low in the valleys, e.g., Alexandra 344mm, increasing with height to 2000mm on the tops of the higher ranges.*

Vegetation at the time of European settlement was dense shrublands and tussock grassland which has been modified by burning, grazing, oversowing and topdressing to produce predominantly exotic grassland. The Upper Manuherikia Valley and Maniototo Plain are irrigated to provide grass for pastoral production. In the Clutha and Lower Manuherikia Valleys, irrigation supplies pastoral production, orchards and vineyards.

To the west, on the slopes of the Old Man and ***Pisa Ranges, remnant shrublands provide a contrast to the predominant grassland****. On the tops of these western ranges, extensive wetlands and bogs have formed in hollows among largely induced cushionfields and herbfields. The range tops, under severe periglacial climatic conditions, have developed distinctive forms of patterned grounds (solifluction terraces, soil stripes, soil hummocks, stone nets and stone drains) much of which is still active.*

Distinctive characteristics of Central Otago landscapes are the rock tors or outcrops at all altitudes, often providing very recognisable skyline features, the subtleties of the

[13] (Central Otago Operative District Plan) Section 2.3.1 – Landscape

rippling ground contours revealed under a veneer of tussock grassland, and the bold patterning of beech forest or shrubland remnants along some water courses."[14]

The Vivian + Espie LVA references a *"district-wide landscape assessment undertaken in 2005/2006 by LA4 Landscape Architects"*[15] (**Rural Review**)[16] which informed numerous plan changes regarding Rural Resource Areas within the district. Although this review was undertaken before PC21, it shows a useful reflection of the sensitivity of the landscape within the vicinity of the Site. The Vivian + Espie LVA highlights the following:

"The District-Wide Landscape Assessment divides the district into landscape units and then analyses, assesses and evaluates their landscape character. ***The subject site sits within a "foothills" landscape unit that forms the eastern lower slopes and terraces of the Pisa Range. This unit is identified as not being an ONL or a landscape of district wide significance. The unit is given a rating of "moderate" visual absorption capacity, a "moderate" tolerance for change and an "average" landscape quality[4].*** *"*[17]

A map of the Site and surrounding landscape sensitivity, as per the Rural Review, is shown in the Vivian + Espie LVA - Appendix 2 (refer to **Appendix 2 of this report**). The map shows the ONLs of the Pisa Range and Dunstan Mountains are highlighted in blue ('Extreme sensitivity') and the Site's surroundings highlighted yellow (Limited Sensitivity).

According to Vivian + Espie LVA, within the Rural Review, Lake Dunstan/ Te Wairere is described as follows:

"North of Cromwell, ***Lake Dunstan widens out into a broad expanse of water between lower banks and river terraces, but with the Pisa and Dunstan Ranges forming the backdrop. So, whilst this part of the lake system is more modified, it is still very distinctive and vivid[5].*** *"*[18]

[14] (Central Otago Operative District Plan) Section 2.3.1 – Landscape
[15] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.2 - The Existing Landscape.
[16] (Central Otago District Rural Review Landscape Assessment Report and Recommendations, July 2008)
[17] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.2 - The Existing Landscape
[18] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.3 - The Existing Site

The following is directly extracted from the Vivian + Espie LVA, regarding the existing landscape/receiving environment:

*"**The site is part of a foothills/terraces landscape** that runs along the western side of Lake Dunstan from Cromwell to Queensberry. The character of which may be summarised as follows:*

The foothills and lower slopes of the Pisa, Dunstan, Kakanui and Old Man Ranges and Mt Buster are distinguished by the generally rolling and deeply incised gullies. In places there distinctive rocky hills. The higher slopes are clothed in tussock with green pasture below in places. There are clumps of natives in some of the gullies, and groups of pine trees particularly in the gullies. The landform is mostly folded and rolling. Some of the foothills particularly near Kye Burn are divided into rectangles with fields of varying sizes and uses.[6].

6.5. The site itself sits on this terrace landform that now forms part of the lake edge land between Mount Pisa and Lake Dunstan. The site is located on the western side of Lake Dunstan (northern arm), immediately north of the Pisa Moorings residential area. State Highway 6 (SH6) runs along the western boundary of the site connecting the site to nearby communities. Cromwell is approximately 8km south of the site and Wanaka is approximately 45km north of the site. To the west of SH6, vine-covered foothills and terraces rise up to the rugged slopes and ridges of the Pisa Range.

6.6. Relevantly, Lake Dunstan is not a natural feature but rather a manmade lake that was formed in the early 1990s. The Clutha River would have flowed past the site (some distance to the east) prior to the relevant part of the Clutha River valley being flooded following the completion of the Clyde Dam."[19]

Physical attributes

Physical attributes refer to the tangible, measurable elements of the environment, both natural and man-made, that constitute the landscape's character and form the basis for visual experience.

*"6.7. The foothills landscape unit extends from the western edge of Lake Dunstan part way up the slopes of the Pisa Range. **Within the foothills landscape character unit there are differing levels of modification and naturalness.** The degree of modification appears to be informed by topography **with the lower flats being more modified than the steeper slopes**. **The lower flats adjacent to the lake's edge have been more modified by human effort to provide for a diverse range of land uses including residential activities**, horticulture, viticulture, recreational activities and mineral extraction. The terraced landscape that rises above the lower flats is primarily productive land that has been developed for agriculture, horticulture or viticulture. The upper slopes of the Pisa Range are more natural, with rugged topography, incised gullies, and remnant native vegetation.*

[19] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.4 to 6.6 - The Existing Site

6.8. The vegetation patterns of the foothills are almost entirely introduced and are guided by the land use of each site. A patchwork of vineyards, orchards, pastures, and amenity planting covers the lower slopes and flats. ***The site itself is encircled by established screen planting that is primarily shelterbelt type vegetation following the boundary of the site****. Willows and poplars are scattered along the shore of Lake Dunstan.*

6.9. The pattern of ***residential development is somewhat ad-hoc*** *with rural living nestled in amongst orchards, vineyards, open paddock, and the lakes edge. Residential activity is generally secondary to productive land uses and is less visually apparent.* ***The Pisa Moorings development is an exception and is an enclave of suburban-density residential development that sits within the surrounding working landscape****, to the immediate south of the subject site.*

6.10. The site itself comprises a block of RU zoned land **[this has since been re-zoned as per PC21]** *between Lake Dunstan to the east, State Highway 6 to the west, Pisa Moorings to the south and a working quarry to the north. The site also has a Scheduled Activity notation allowing for a gravel pit and is currently a working quarry. Within the confines of the site, the landscape character is that of an industrial or mining operation with machinery, infrastructure and stockpiling associated with the gravel extraction activity.* ***All these activities are immediately apparent and obvious within the site****. Structural mounding and landscaping around the periphery of the site ensure this extraction activity is currently visually contained and the prevailing character as perceived from outside the site is* ***rural****."*[20]

Perceptual attributes

Perceptual attributes refer to the sensory qualities and aesthetic characteristics of a landscape as directly perceived and experienced by humans. Much of the Vivian + Espie LVA is relevant and still current to this assessment, parts are extracted below:

"6.11…

> *'These landscapes are quite visually exposed though there are folds and rocky outcrops in the landform, and* ***groups of trees that could conceal development****. Except for the west side of the Dunstan Range, the foothills north of the Sugar Loaf and Flat Top Hill these units are generally located in quite remoter parts of the District. These more remote foothills still retain some natural character values, and in the Kye Burn and Mt Buster areas there are high heritage and cultural values.'*[9]

6.12. In terms of geomorphic legibility, the valley and terraces formed between the Dunstan Mountains and the Pisa Range express their formative processes. The lake is somewhat deceptive in that it appears natural because the hydroelectricity infrastructure, including the Clyde Dam, is located further downstream and out-of-sight. ***Consequently, Lake Dunstan is a manmade feature that appears somewhat natural.***

[20] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.7 to 6.10 - The Existing Landscape

6.13. The site is adjacent to SH6 that connects Wanaka and Cromwell and is approximately 8km north of the Cromwell. ***The site is perceived as being relatively connected to Cromwell****, as it forms part of the ribbon of horticultural, agricultural, and* ***rural residential development that stretches along SH6*** *from the end of the Kawarau Gorge to the northern end of Lake Dunstan.*

6.14. SH6, the Dunstan Trail and Lake Dunstan provide a physical connection and opportunities to commute using various modes of transport. The Dunstan Trail is a well-formed trail that passes the site and provides a cycle and pedestrian route to Cromwell as well as destinations further afield including Bannockburn and Clyde."[21]

There are plans to substantially extend and upgrade the cycle trails within the Otago Region as part of the Southern Lakes Trails Trust's vision to expand +500km of off-road trail network, which will link the five 'Great Rides' together. This will connect the Lake Dunstan/ Te Wairere Trail north through to Luggate/Wanaka, west through to Queenstown and south to Roxburgh, and has potential to link all the way through to Dunedin, creating an expansive trail network. Construction works are underway.

"6.15. At a broad scale, the Central Otago landscape is memorable with the golden, grey hues of the arid hillsides contrasting blue lakes and rivers. The orchards and vineyards that blanket the lower slopes surrounding Cromwell create visual interest and also generate produce for which the region is renowned. ***The site in its current state is visually enclosed by vegetation and mounding and does not contribute to the landscapes that give rise to the district's unique character. The quarry and gravel extraction activity are difficult to see, and from most surrounding views, the site is screened and perceived as a part of the productive landscape in which it sits.***

6.16. The patterns of development and modification in the vicinity of the site create a landscape that ***lacks cohesion*** *and is a something of a patchwork of land uses including agriculture, horticulture, residential activity, recreation, as well as the site's quarrying and gravel extraction activity.* ***This land use pattern means that the ribbon of land between the lake and the foothills is perceived as a rural productive landscape, but one in which domestication is commonplace and industrial activities can be found.*** *In contrast, the upper slopes of the Pisa Range and Dunstan Mountains have a much less modified, natural landscape character. The landscape of these upper slopes is a mix of farming and public conservation land. It is less productive than the lower slopes and is not intensively grazed. As such, the upper slopes are generally a more consistent tussock landscape with areas of remnant native shrubland. These upper slopes are perceived as relatively natural with views of the open, craggy slopes of the Pisa Range and Dunstan Mountains apparent in distant views.*

6.17. Vegetation and seasonal changes create interesting and constantly evolving aesthetic qualities in the landscape of which the site is a part. The deciduous nature of many of the

[21] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.11 to 6.14 - The Existing Landscape

trees and vines in the vicinity of the site means the foliage changes throughout the year, and the hues in the landscape of the lower terraces and flats vary seasonally. In winter, the trees and vines are bare, providing more open views of the wider landscape and the snow-capped mountains enhance the views. in spring the blossoming fruit trees create visual interest. In summer, greenery contrasts with the arid yellow and grey hues of the mountainous backdrop. In the autumn, the oranges, yellow and reds of the leaves create visual interest. ***The expansive, everchanging views of Central Otago are widely recognised and admired. Views across the lake towards the terraces, mountains and sky are dramatic and memorable.***

6.18. Quarries and gravel extraction are recognised as a necessary part of the district's landscape, needed to provide materials for construction and roading. Despite being necessary and generally located in rural locations, ***working quarries are regarded as highly modified and relatively unappealing elements in the landscape****. Several quarries are located in the vicinity of the site, however, these operations are* ***difficult to visually identify due their incised nature and established screening****. From SH6 nearest the site,* ***the industrial activity within the site is visually contained by roadside vegetation and elevation. Road users would be unlikely to perceive that a quarry is present,*** *apart from the entrance and vehicle movements. While not entirely invisible, this visual containment and the vast panoramic views of the Pisa Ranges and Lake Dunstan make the quarry operation* ***difficult to perceive in views and not the primary focus.*** *In views from higher elevations, the quarry is more visible. From elevated viewpoints across the lake including from Bendigo Downs and Lake Front Terrace, the quarrying / gravel extraction* ***activity is visually apparent with exposed soil, stockpiles, vehicles and infrastructure clearly visible****."*[22]

Associative attributes

Associative attributes are *"Characteristics and qualities (tangible and intangible) that contribute collectively to landscape character."*[23]

This assessment recognises the Statutory Acknowledgement for Te Wairere (Lake Dunstan), Schedule 61 (**SCH61** (as provided in support of the Substantive Application)). SCH61 states that "*Te Wairere was an important staging post on journeys inland and down-river"* and that there are *"a number of wāhi taonga (including rock shelters and archaeological sites) in the area"* some of which now lie beneath the lake. SCH61 also states that *"The tūpuna had considerable knowledge of whakapapa, traditional trails and tauranga waka (landing places), places for gathering kai and other taonga, ways in which to use the resources of the river, the relationship of people with the river and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today."*

[22] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.15 to 6.18 - The Existing Landscape

[23] ('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022) p271

The Vivian + Espie LVA mentions *"most observers have some knowledge of the colonial history and high-country farming that has been important to Central Otago. This knowledge adds a layer of cultural meaning to the perception of Central Otago's landscapes generally. Observers are also likely to be aware that the area surrounding Cromwell is renowned for stone fruit and wine production, again adding a layer of cultural meaning to the perception of the more localised landscape surrounding the site."*[24]

It is also recognised that approx. 7km south of the Site, on the shore of Lake Dunstan/ Te Wairere, is the site of a Nohoanga entitlement (The McNulty Arm Nohoanga). The Nohoanga is approx. 1 hectare in size, providing exclusive occupancy rights up to 30 consecutive days with an authorisation from Te Rūnanga o Ngāi Tah, and is part of an intended trail along the Te Wairere foreshore, supporting the engagement in traditional mahinga kai. FHLD in consultation with **Kā Rūnaka** has proposed consent conditions that are directed at ensuring the present proposal does not have any adverse effects on the use of the Nohoanga.

[24] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.20 - The Existing Landscape

Landscape character

Landscape character refers to *'Each landscape's distinct combination of physical, associative, and perceptual attributes"*[25]. The Vivian + Espie LVA describes the following:

> *"6.21. The site is located on the foothills of the Pisa Ranges within the Rural Resource Area* [This has since been re-zoned within the immediate Site, as per **PC21**]*. The wider landscape has attributes that contribute to a recognised rural character including openness, productive vegetative cover and instances of rural living. The pattern of activity surrounding the site is somewhat haphazard, with relatively large areas of residential and industrial activity placed within this productive landscape. These non-rural activities are generally confined to the flats and are often visually softened by vegetative and topographical buffers. Residential and industrial land uses are recognisable but not dominant within the landscape. The prevalence of open and productive land uses, particularly on the terraces, and the scale of the natural mountainous backdrop ensures an open, rural character is maintained despite the level of industrial and residential activity in the vicinity.*
>
> *6.22. Pisa Moorings is a large residential development adjacent to the site that is something of a satellite town (or dormitory suburb) to Cromwell. Pisa Moorings is approximately 74ha in size and comprises hundreds of residential lots. Another smaller residential development is located at Lowburn, similar to Pisa Moorings with a density more akin to urban development than rural living. As with the quarrying activities, these instances of residential development are legible, however,* ***the topography and vegetation ensure they recede into the landscape to a degree*** *and the domestication is contained. Instances of rural living and buildings ancillary to rural production can be seen scattered throughout the rural landscape and form part of the character of the working rural landscape. Overall, the attributes that create a rural character are more visually apparent and the openness and scale of the wider landscape ensures that generally a rural character prevails."*[26]

Landscape values

Landscape value refers to "*various reasons a landscape is valued, the aspects that are important or special or meaningful"*[27]

> *"6.23. In terms of shared values, the district is valued for its expansive views, vast plains and valleys and open mountainous landscape. The Central Otago Landscape Study researched the landscapes that are most valued by the people of Central Otago. The most valued landscapes were identified as ONLs, ONFs or SAL in the District Plan. Several ONLs, ONFs and SALs have been identified in proximity to the terrace/foothills landscape of which the site is a part. These include the upper slopes of the Pisa Range and the Dunstan Mountains. Views that are highly valued generally comprise natural geomorphology, hydrology, and openness. Lake Dunstan and the mountainous landscapes were ranked as particularly*

[25/27]('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022) p105

[26] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) – Section 6.22 - The Existing Landscape

valuable by the study. The landscape of which the site is a part is not identified as an ONL, ONF or SAL, indicating that the site sits within a part of the ***landscape that does not clearly display attributes that are highly valued.****"*[28]

In contrast to the paragraph above, that '*the site sits within a part of the landscape that does not clearly display attributes that are highly valued****',*** this report acknowledges that despite the lake being man-made and not identified as an ONL, ONF or SAL, the landscape (particularly lake foreshore) still carries high value. Lake Dunstan/Te Wairere remains a body of water of central significance to Ngāi Tahu and has statutory acknowledgement. The Lake's esplanade/foreshore is important for Manawhenua and wider community to journey along and for mahinga kai. Mata-au /Clutha River into which Lake Dunstan/Te Wairere flows, is also subject to a Statutory Acknowledgement.

6.24. The wider landscape in which the site sits has amenity values associated with openness, scale and the unique geomorphology. The Dunstan Valley that accommodates the lake sits between the Pisa Range and the Dunstan Mountains. Both ranges are pronounced landscape features recognised for their exposed, rugged character, and transient values associated with variations in light and weather. Lake Dunstan is also recognised for its aesthetic values.

6.25. More modified, productive landscapes including orchards and vineyards are generally less valued for their aesthetic appeal when compared to the more open, natural, unmodified landscapes. The views towards orchards and vineyards are likely to be considered less valuable as human interventions are clearly visible. However, as discussed above, Central Otago is renowned for its stone fruit and wine production, and despite orchards and vineyards not being aesthetically appreciated in the same way as wild, natural landscapes, wine and fruit production is imbedded in the region's identity. These productive landscapes are important for economic activity, employment and tourism and contribute to the livelihood of the district.

6.26. The area is also recognised for its recreational values, specifically water activities, cycling and snow-sports. In the summer months the lake is used for a variety of water sports including, swimming, boating, kayaking, and fishing. The Kiwi Water Park, comprising several large inflatables, is set up in the lake near Lowburn during the summer months, providing recreational opportunities for adults and children alike. The shores of the lake provide pleasant picnic spots. The Lake Dunstan Cycle Trail is a popular bike trail that runs from Smiths Way (not far north of the subject site), along the edge of Lake Dunstan to Cromwell and on to Clyde."[28]

This assessment considers the Vivian + Espie LVA's description of the existing landscape, a mostly accurate, thorough review, and agrees the description is currently still relevant.

[28] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 6.23 to 6.26 – The Existing Landscape

Additionally, this report recognises the significance and value of the Nohoanga entitlements, specifically the McNulty Arm Nohoanga (7km south of the Site on the Shore of Lake Dunstan/Te Wairere) formally recognising that this stretch of country was and is valued as an active corridor, including as a place to stop.

4.2 Description of the Site

"7.1. The site itself is a 120ha block of land between Lake Dunstan to the east, State Highway 6 to the west, Pisa Moorings to the south and a working quarry to the north. The Scheduled Activity annotation (SA 25A) and several resource consents relate to the industrial quarrying and gravel extraction activities, including two 20,000 litre diesel fuel tanks, various buildings, a glass crushing plant, portacoms and backfilling. Within the confines of the site, the character is that of an industrial activity with machinery, infrastructure and stockpiling associated with the rock extraction activity."[29]

This assessment agrees with the Site description above, as per the Vivian + Espie LVA. The Site continues to be operated as a gravel quarry. However, it is also noted the *future* state of the existing environment would comprise a developed Site in accordance with the Structure Plan and associated permitted activities.

[29] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 7.1 – The Subject Site

[30] ('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022) p135 – What is landscape effect?

5 LANDSCAPE EFFECTS

5.1 Landscape Effects

"A landscape effect is an outcome for a landscape value. While effects are consequences of changes to the physical environment, they are the outcomes for a landscape's values that are derived from each of its physical, associative and perceptual dimensions."[30]

30 ('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022) p135 – What is landscape effect?

The existing CODP zoning and Structure Plan, in relation to PC21, permits numerous activities within the Site. For simplification purposes, a brief comparison of key design changes between the Structure Plan and the Project Master Plan are summarised in the table below.

Table 1 – Showing design changes between the Structure Plan and the Project Master Plan

	Existing Structure Plan	Proposed Project Master Plan	Design Comment
Commercial areas	- Smaller area of Convenience Retail/Travelers Accommodation - Closer to Lake	- Larger commercial area. - Relocation of commercial buildings, to a central location within the Site, away from the Lake's edge.	- Larger commercial area to accommodate community needs. - Buildings less visible from Lake - Commercial area more central/ accessible to residents
Industrial development	- Provision for industrial development	- Removal of industrial development area	- Maximised land potential for housing
Residential areas	- Possible apartment development	- No apartments - Low-density residential units	- An increase to the number of low-density residential units - Project Masterplan includes a variety of sites
Neighbourhood connectivity	- Lacking connectivity/ flow throughout the Site. Many 'dead ends' - Minimal/Piecemeal pedestrian connections	- Interconnected shared pathways linking neighbourhood parks, green/ open space and housing	- Enhanced connectivity throughout neighbourhoods
Road connections	- Limited connectivity across site, multiple 'dead ends' - Two road junctions, to access the site from SH6	- Rationalised network of primary and neighbourhood roads across Site - Two round-abouts, one at each entrance to the site, both featuring two entrance signs	- Increased circulation and connectivity with improved nodal network - The roundabouts are a requirement of NZTA - Entrances and exits clearly defined and legible

Open space	- Limited integration between lake's edge/ esplanade and internal green/open space - Lacking connectivity/ flow between green spaces	- Strong green arm 'Greenway' linking esplanade to central residential area, with dual use as stormwater conveyance system. - A network of internal neighbourhood parks and recreational reserve spaces, with pedestrian linkages to the Lake's edge and esplanade - Inclusion of a comprehensive landscape treatment to internal streets, including street tree planting along roads within the Site - Staged landscape management plan incl. riparian management	- An enhanced open space strategy - Evolution of an Interconected, site wide, green network. - Staged landscape management plan incl. riparian management - Protection and enhancement of existing ecology incl. significant indigenous plant species - Pest plant/ and animal controls - Revegetation and ecological enhancement/riparian planting to Parkburn Stream corridor and esplanade reserve
Lake edge/ foreshore access	- Limited access to Lake is shown.	- Multiple access points to Te Wairere foreshore and wider trail network	- Allows Manawhenua and wider community to easily access and journey along the shores of Te Wairere. - Shared pathways improve connections to riparian areas/lake foreshore for mahinga kai
Wetland areas	- Multiple, small, piecemeal wetland areas	- Well defined wetland areas and areas of wetland planting. i.e. Greenway/ coves/ parkburn stream/ parkburn delta	- Larger enhanced wetlands - Access improved to carry out revegetation / monitoring of indigenous plant species
Coves	- One large 'Possible water feature/open space'	- Two small coves, instead of one larger inlet. - Coves relocated further from commercial areas.	- Scale of water features reduced in size - Celebrates Te Wairere, providing inland access for mahinga kai

Building Line Restriction (BLR) and SH6 Buffer	- BLR maintained as open space/ wetland, located along the Site's western boundary, against SH6	- In replacement of the BLR, a 50m wide lineal vegetated buffer (SH6 Buffer) is proposed. - The buffer consists of randomly grouped trees with varying spacing (no straight lines) placed in amongst planted islands of selected indigenous species - Bulk earthworks to the site include acoustic bunding which is proposed at both northern and southern ends of the SH6 buffer (typically 3m high) at the main road entrances	- The SH6 Buffer Integrates the proposed urban environment into the surrounding landscape - The landscape treatment creates an organically shaped visual screen - The community is allowed to use either the shared pathway (walkway) adjacent to SH6, or meander through the planting - Acoustic bunding subdues road traffic noise and adds further screening.

Overall, the Project Master Plan is designed to work within the parameters already permitted in relation to PC21. Although the Project Master Plan offers a different approach to that of the existing Structure Plan, the changes are in keeping with the original proposal. As such, there are many points within the Vivian + Espie LVA that still stand, as follows:

> *"10.3. Quarrying and gravel extraction are recognised as necessary activities to provide gravel and rock for infrastructure throughout the district. Although quarries are required to provide important resources, in terms of aesthetics and landscape values, working quarries are* ***not considered to be a highly valued part of the landscape****. The quarry is currently visually and physically enclosed by mounding and planting and is a relatively inaccessible industrial site that sits within the rural landscape. The site has been* ***noticeably modified****, the* ***natural vegetation has been largely removed****, the earthworks relating to the rock extraction has altered the topography. Built form and infrastructure has been introduced to the site to provide for industrial activities being carried out on the site.* ***The extensive quarrying and human modification have left the site barren and relatively void of natural character****.*
>
> *10.4. The PPC* [and resulting Project Master Plan] *will create an opportunity to transform the site from a closed-off industrial site to an accessible mixed-use urban environment. Links from the existing trail and the lake to the site will be created through pedestrian and cycle links and an inlet* [Now proposed as two smaller coves/inlets] *providing access to the lake. The character of the majority of the site will be* ***transformed from a stark industrial landscape to a built neighbourhood/suburb comprising a mix of housing, retail****, and accommodation. The* ***development will essentially be an extension of the existing Pisa Mooring development****.*

10.5. Significant issues regarding Central Otago's unique and distinctive landscape and the effects of land use on adjoining rural areas are identified in the Central Otago District Plan

> *'The Central Otago District contains many **unique and distinctive landscapes**. While those landscapes are constantly evolving through natural processes, farming and other land use activities the semi-arid, rocky nature of the landscape means it can be vulnerable to visual effects of new structures (including telecommunication masts, wind farms, transmission line pylons, and other large structures), cultivation of tussock grasslands, **large scale earthworks**, new roads, residential built development on elevated land, establishing woodlots, production forestry or shelter belts on elevated land and wilding tree spread.[15]'*

*The adverse effects of land use activities within urban areas on adjoining rural areas need to be **avoided, remedied or mitigated**. Urban land use activities may:*

*a) '**compromise amenity values of the rural environment**.[16]'*

*10.6. …. In summary, the most valued landscapes of the district are identified as **ONLs, ONFs or SALs**. The terraced lakeside landscape of which the site is a part is not within any of those categorises, but it is in close proximity to **the Pisa and Dunstan Mountains** and the lake itself. **It is a landscape of mixed rural land uses, including considerable productive use (orcharding and vineyards) that bring a pleasant rural landscape character, particularly when perceived in conjunction with its broader setting that includes dramatic mountain backdrops and the broad lake surface**.*

10.7. Development enabled by the PPC [such as the resulting Project Master Plan] *will **not encroach on existing productive rural land or land that is distinct or unique to the district**. The site in its current state has been **modified** such that it displays the characteristics of a generic quarrying operation. In contrast**, the vast rural landscape, hills, and ranges (i.e. the ONLs) that surround the terraced landscape within which the site sits**, display several of the characteristics that make the Central Otago District landscapes unique. Development enabled by the PPC* [such as the resulting Project Master Plan] *will be contained within the existing industrial site to ensure that these values are protected in the wider landscape. Future development will be adjoined to the existing development at Pisa Moorings, increasing the footprint of the existing suburban area that sits within the rural landscape."*[31]

Fundamentally, the Site's character will still be changing from a working industrial quarry to a mixed-use residential development. The Site itself, currently being that of a stark and highly modified landscape, is not of a unique or highly valued character within the Central Otago District, and the proposal will be in keeping with the adjacent Pisa Moorings development.

[31](Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022)- Section 10.3 to 10.7 – Landscape Effects

The new Project development (and associated bulk earthworks) will continue to be contained within the existing quarry and will not encroach upon or degrade the values of the surrounding rural landscape character or the amenity values of the rural environment within which the Site sits.

Earthworks beyond the Site's boundary will be required to construct two coves/inlets. This has been amended from one larger inlet, as shown on the Structure Plan, and will require similar modifications to the man-made Lake's edge.

Furthermore, access to the Lake will be improved through pedestrian linkages from within the Site. The Lake and associated foreshore/esplanade corridor, which has significance to Ngāi Tahu, will remain accessible and the landscape quality of the perceived journey along the shores of Te Wairere will be enhanced through taonga plant species, cultural art placement, storytelling, ecological enhancement and future landscape management.

Introduction of two roundabouts at the Site's main entrances to SH6 will form a larger footprint of infrastructure than the two smaller junctions proposed on the existing Structure Plan. Nonetheless, this is a requirement of NZTA and necessary to facilitate the outcomes of the PC21 Plan change.

The rationalisation of an open space strategy creates a series of 'green' networks and wildlife corridors internally throughout the Site, breaking up the built form of the development, enhancing the rural character of the area. Further mitigation will include a staged landscape mitigation strategy, and landscape management plan, which will be developed through further hui/collaboration, to complement the existing natural landscape, as part of the planning process.

The dominant features of the broader landscape context will remain protected, including the lake's surface, and the surrounding mountain ranges, ONLs, SALs and ONFs. The McNulty Arm Nohoanga will be undisturbed.

The key landscape changes are arguably an improvement to the existing Structure Plan scheme in terms of protecting and enhancing the surrounding rural landscape character.

6 VISUAL CATCHMENT

6.1 Visual Catchment

The Vivian + Espie LVA captures numerous viewpoints from which the Site is visible. Nine viewpoints are represented in the Vivian + Espie LVA viewpoint map and corresponding photographs (refer to Vivian + Espie LVA - Appendix 4+5 (**Appendix 2 of this report**)). The locations from which the views are potentially afforded, and the observers affected by the Project include:

"• Users of SH8

• Users of SH6

• Users of the shore and surface of Lake Dunstan

• Lake Front Terrace

• Bendigo Downs

• Elevated public land"[32]

This assessment considers the viewpoints listed in the Vivian + Espie LVA are relevant to the proposed Project, and appropriate to be used in assessing any changes to the visual effects. Given the low-rise nature of the Project development and topography, the viewpoints are within an approx. 3km viewshed radius.

7 ASSESMENT OF LANDSCAPE AND VISUAL EFFECTS

7.1 Visual Effects

"A visual effect is a kind of landscape effect. It is a consequence for landscape values as experienced in views. visual effects are a subset of landscape effects."[33]

Users of State Highway 8 (SH8)

State highway 8 lies across the lake from the Site, following the eastern edge of Lake Dunstan / Te Wairere, for most of the lake's length.

The Vivian + Espie LVA notes the Site is *"intermittently visible"*[34] along an approximate 9km stretch of the SH8, and that although the Site is *"noticeable generally in the peripheral view of road users"*[35]*.* The views are observed from a considerable distance, of over 760m from the Site.

The Vivian + Espie LVA goes on to describe the views experienced by users of the SH8 as being *"broad"* and that of a "*rural landscape with visual amenity primarily driven by expansive, open*

[32] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 8.1 – Visual Catchment
[33] ('Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', New Zealand Institute of Landscape Architecture, July 2022) – p135 - Visual effects are a subset of landscape effects
[34/35] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.2 – Effects on Views and Visual Amenity

views with the lake in the foreground, a sliver of more productive agriculture, viticulture and horticulture on the flats and lower terraces on the far side of the lake, and then the expansive upper slopes of the Pisa Ranges which create a panoramic background"[36]

The Site, including gravel quarry and associated buildings, are visible where views are less vegetated. This assessment agrees that despite the Site being "*discernible"* amongst the flat topography, the proposed Project development would make up a narrow sliver within a broad, predominantly rural, wider landscape scene, and would appear similar to the Pisa Moorings neighbouring development. Therefore, values identified in the Vivian + Espie LVA such as the *"broad lake surface, openness, perceived naturalness, vastness and the unique geomorphology"*[37] would be maintained.

The proposed development will cause a visible change to the Site, changing from an industrial gravel quarry to a low-rise mixed-use, urban landscape, of which, development closest to the lakeshore will be most visible from SH8.

As shown in the Zone Plan (as provided in support of the Substantive Application) development nearest the eastern boundary of the Site (lakefront) will include; low density residential allotments against the esplanade reserve boundary (units at their tallest, already permitted by the District Plan zoning (LRZ) could be up be to 7.5m in height), a Multi-Purpose Recreational Reserve, two constructed lake coves reforming the modified lake edge, and one associated footbridge crossing. In contrast to the existing Structure Plan, larger commercial buildings (2 storey height) associated with business zoning (BRA) have been relocated from the Lake's edge to a more central location, within the Site, making these buildings likely less visible within the view.

Staged revegetation and riparian planting along the esplanade reserve, internal coves, Parkburn Stream and central 'Greenway' strip, will help maintain a perceived naturalness to the Lake edge, break up the mass of the development and further enhance the rural character of the wider landscape. A staged landscape mitigation strategy, and landscape management plan, will be developed and submitted as part of the planning process via proposed conditions of consent.

[36/37] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.3 – Effects on Views and Visual Amenity

Users of State Highway 6 (SH6)

This assessment considers SH6 to be as described in the Vivian + Espie LVA, as follows:

> *"SH6 is the main road that connects Cromwell to Luggate and Wanaka. SH6 runs along the valley floor to the west of Lake Dunstan. The highway runs along the edge of the lake from Cromwell to the Lowburn Campground before cutting away from the lake to run through a predominantly productive rural landscape with open pasture, orchards and vines lining the road. Within this landscape, instances of residential development (Pisa Moorings) and industrial activities (including the site) are also visible. SH6 runs adjacent to the western boundary of the site, separated from the quarry by structural mounding and buffer planting that is a mix of exotic evergreen and deciduous tree species and native shrubs. At a broad scale, the topography is relatively flat, and the existing screen planting and incised nature of the quarry means the activity is not highly visible from this stretch of road. Glimpses of the existing quarry are available through the vegetation, more visible in the winter months when the deciduous species have lost their foliage…."*[38]

It is also noted "*glimpses of the quarry are available through the vegetation in the peripheral view of road users.*"[39] And the *"industrial use of the quarry is generally difficult to decipher"*[40]*,* forming a "*very small part of the wider visual experience"*[41]*.* There is a setback from the road, consisting of an open paddock buffer and embankment, which ensures "*the quarry is not prominent"*[42]

The most visible part of the quarry is at the Site entrance, where industrial equipment and vehicles can be glimpsed as road users drive past. This assessment accepts that "*Quarries are recognised as a necessary part of the landscape to provide for development and they are generally located in rural locations."*[43]

Similarly to the permitted activities of the PC21, the Project proposes to transform the Site from what is described as "[quarries] *to be relatively unsightly landscape features, the removal of vegetation creating a monochromatic area of grey hues, and somewhat haphazard layout of pits, stockpiles, machinery, office buildings and outdoor storage, leading to a somewhat untidy aesthetic"*[44]*,* into a mixed-use, urban development.

The topography of the Site slopes east, away from the highway, with the majority of the development land along the edge of SH6 rapidly falling approx. 6m or more, across the full width of a 50m wide vegetated buffer strip (SH6 Buffer) before sloping more gently down towards the lake. Thus, most of the Site sits lower than SH6 and the residential development is likely to be glimpsed from over 50m away, as a filtered view through vegetation, with roof tops, if visible, appearing low, in a partly concealed view. This contrasts with the neighbouring Pisa Moorings, where the residential lots are pressed against SH6, with only an approximate 6m verge in-between.

[38] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.6 – Effects on Views and Visual Amenity
[39/40/41/42/43] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.7 – Effects on Views and Visual Amenity
[44] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.8 – Effects on Views and Visual Amenity

Where the new road entrances are proposed, glimpsed views of the development will be more prominent where roading infrastructure leads into the Site. Low-rise residential units will become more visible here, as the SH6 landscape buffer reduces in width, to allow for the entrance road layout.

To mitigate this, in replacement of the Structure Plan's building restriction line (BLR) the Project Masterplan proposes a 50m wide lineal vegetated buffer (SH6 Buffer) integrating the urban environment into the surrounding landscape. The buffer consists of randomly grouped trees with varying spacing (no straight lines) placed in amongst planted islands of selected indigenous species. Additionally, acoustic bunding (typically 3m high) is proposed within the SH6 buffer, at both northern and southern ends of the development, at the main road entrances. The landscape treatment will create an organically shaped visual screen to views of the residential units, afforded from SH6.

Users of the shore and surface of Lake Dunstan/Te Wairere

The eastern edge of the Site borders the public crown land esplanade reserve that surrounds Lake Dunstan / Te Wairere. Adjacent to the Site, within the esplanade reserve (lakeshore), the popular Dunstan Trail runs north-south, as part of a wider network of cycling/hiking trails. Beyond this lies the Lake itself. The Vivian + Espie LVA describes the Lake, as follows:

> *"Lake Dunstan and its shores are frequented by locals and tourists. The lake is a popular for recreation, particularly in the summer months with fishermen, boating, swimming, and picnicking commonplace on the lake and its shores. The site adjoins the northern part of the northern arm of the lake, which is a less-used part"*[45]

Currently, vegetated earth mounding along the eastern boundary of the Site separates the Lake and quarry. The Dunstan Trail and Lake's surface lie lower than the mounding and, as stated in the Vivian + Espie LVA, the mounding *"obscures"*[46] views closest to the Site. However, *"there is an obvious change in land use between the site and Pisa Moorings"*[47] and that *"other cues such as noise or dust indicate an industrial activity is occurring."*[48]

The Project Master Plan (as provided in support of the Substantive Application) shows, instead of earth mounding, low-rise residential units (LRZ) meet the lakeshore esplanade reserve along with a proposed Multi-Purpose Reserve and two small, constructed lake coves (including a footbridge crossing). All of which will be clearly visible from the Lakeshore. The LRZ allows for a max height of 7.5m, with units set back a min of 15m from the margin of the lake. However, taller residential units (MRZ) which could reach a permitted height of 11m, and buildings for retail, commercial, medical, and early childhood education, have been deliberately nestled further within the development, making them less prominent within views afforded from the Lake's edge.

[45] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.16 – Effects on Views and Visual Amenity.
[46 + 48] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.15 – Effects on Views and Visual Amenity
[47] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.17 – Effects on Views and Visual Amenity.

Staged revegetation planting is proposed along the esplanade reserve and Parkburn Stream (to be developed and submitted as part of the planning process via proposed conditions of consent). Planting will soften and break up the perceived density of units and reduce the visibility of the overall development.

This assessment agrees with the Vivian + Espie LVA which states that "*Overall, the experience of passing the subject site on the Dunstan trail will change from passing a* ***relatively well-hidden quarry operation to passing a lakeside suburban area, essentially continuing the experience of passing the Pisa Moorings area. While this is a considerable change, it less clearly represents any reduction in the visual amenity of a trail user****."*[50]

Further east from the Site, views from the Lake's surface will become more akin to those experienced from SH8, except that "*lake users often experience visual amenity in a more sedate and less fleeting way than road users (such as those on SH8 adjacent to the far side of the lake)."*[51]

Lake Front Terrace & Bendigo Downs

This assessment considers the Vivian + Espie LVA analysis of visual effects from the users of the Lake Front Terrace & Bendigo Downs appropriate and relevant to the new Project Master Plan. The said LVA is paraphrased below for reference;

> *"9.23. Lake Front Terrace and Bendigo Downs are rural living subdivisions that are located on the lower slopes of the Dunstan Range on the eastern side of Lake Dunstan. The landscape comprises arid rolling and terraced topography with panoramic views of the Pisa Range, overlooking Lake Dunstan and the lower terraces and flats that include the subject site. Roading, building locations and some dwellings have been constructed in both of the Lake Front Terrace and Bendigo Downs rural living areas…"*[52]
>
> *"9.24. …. In the existing views, the working quarry operations are plainly visible. They can be seen sitting within the more modified lower flats and terraces between the lake and the more natural mid and upper slopes of the Pisa Range. Vineyards, orchards, pastures, and amenity and shelter planting are abundant on the lower slopes and terraces. Boundary fences and shelterbelts create a linear delineation between the crops that generates a patchwork of geometric blocks combining to create a bucolic, working, rural landscape. The existing suburban development of Pisa Moorings development is clearly visible to the south of the quarrying operations."*[53]
>
> *"9.25. …. the mixed-use urban/suburban development enabled by the PPC* **[such as the resulting Project Master Plan]** *would visually replace the stockpiles, excavated land, machinery and dust within the existing quarry, which are visible, relatively centrally in these views. Again, the suburban pattern of Pisa Moorings will extend to the north to create a larger, more uniform pattern."*[54]

[50/51] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.22 – Effects on Views and Visual Amenity

[52/53/54] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.23 to 9.25 – Effects on Views and Visual Amenity

Elevated public land

This assessment considers the Vivian + Espie LVA analysis of visual effects from the users of elevated public land, quoted below, is appropriate and accurate.

> *"9.27. Multiple areas of public conservation land and scenic reserve are strewn along the upper parts of the Dunstan Mountains and the Pisa Range. The public conservation land on the Pisa Ranges is located more than 6km to the west of the site and the public land on the Dunstan Mountain is located over 2.5km to the east of the site. The topography of the mountain slopes is varied such that topography visually screens the site in many views. Vegetation, particularly within the Bendigo Scenic Reserve on the Dunstan Mountain, also provides some screening in views toward the site.*
>
> *9.28.* ***In parts of the public land where views towards the site are available****, the views are* ***particularly broad, panoramic and complex****. Views comprise the natural mountain slopes, the modified lower slopes, the lake, and the expansive sky. The boundary between the lower modified slopes and the more natural upper slopes runs horizontally along the lower slopes and is visually legible.* ***From a distance, the site will be as a part of the matrix of land uses that includes agriculture, horticulture, suburban development, rural living, and rock extraction."***[55]

7.2 Summary of Landscape and Visual Effects

Similarly to the Structure Plan, The Project will change the Site significantly from a grey coloured industrial quarry landscape to a mixed-use, low-rise urban development with associated landscape planting. This will have an effect on views and visual amenity, although the changes to the Master Plan remain within the parameters already permitted in relation to PC21. Thus, the landscape and visual effects can be summarised as:

- A stretch of the SH8, across the Lake from the Site allows intermittent views, which would be softened by substantial landscape mitigation/revegetation, observed from considerable distance from the Site. This view would be perceived as a narrow sliver within a within a broader, expansive rural landscape, against the backdrop of the Pisa Range. The view would likely appear as an extension to the existing suburban Pisa Moorings development. Therefore, the adverse effects are considered **low**.
- Along stretches of SH6 that border the Site boundary, glimpsed views may be afforded by road users, however these will be mitigated by a 50m vegetated buffer strip and sections of acoustic (3m high) mounding. The buffer strip will filter views of the low-rise residential units closest to the SH6. At the Site's entrance, proposed roading infrastructure will be visible, along with associated roadways leading into the Site. The entrance infrastructure is considered an inevitable part of the PC21 zone changes to mixed-use urban development, and it is understood the design will seek to create distinctive and welcoming

[55] (Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report, Plan Change 21 (PC21), Attachment N, 24th August 2022) - Section 9.27 to 9.28 – Effects on Views and Visual Amenity

entranceways, which will improve legibility and create a ‘gateway’ to the development. Adverse effects on views and visual amenity experienced from SH6 are considered **low**.

- Along the Site’s eastern boundary, users of The Dunstan Trail, and adjacent part of the Lake, will perceive a considerable visual change to the landscape, including the appearance of low-rise residential units, a Multi-Purpose Reserve and new footbridge. These changes will be immediately apparent from parts of the trail, however, will likely be perceived as an extension to the suburban Pisa Moorings development. Any adverse effects on trail users are considered to be **low**.

  Although mitigated by revegetation works along the crown land esplanade reserve, views of the development will also be afforded from the Lake’s surface. That said, the view will be potentially more appealing than that of the existing industrial quarry, or the industrial activity provided for by the District Plan over part of the Site. Adverse effects on visual amenity are considered **low,** increasing to **moderate-low** for lake users that are further out into the lake (affording a broader perspective experienced in a more sedate and less fleeting way than that of SH8).

- From the rural living developments (including Lake Front Terrace and Bendigo Downs) more elevated views are afforded, meaning the quarrying activities and associated grey coloured landscape is clearly visible, albeit from a mid-distance. The change from the industrial quarry landscape to that of a mixed-use urban landscape, and furthermore, the additional changes made through the new Project Master Plan, are seen as a positive, in relation to views and amenity, and in keeping with the rural-living character of the adjacent Pisa Moorings Development. The changes from the Structure Plan to the new Project Master Plan will only enhance this positive change. Any positive effects on visual amenity are considered **low**.

- Distant views afforded from elevated public land upon the Dunstan Mountains contain expansive vistas. The Site appears as an insignificant part of a much broader scene. The suburban patterning of the proposed Project may be recognisable, but not significantly different from that permitted in the existing Structure Plan. Similarly, the Project proposal will be less noticeable than the stark grey colour of the current industrial quarry and again, more in keeping with in keeping with the rural-living character of the adjacent Pisa Moorings Development. Therefore, the effect in relation to visual amenity is considered positive and of a l**ow** degree.

8 CONCLUSION

The Project will result in a change in both the character of the landscape and the visual amenity of the Site, but not necessarily a degradation of either. However, such a change is already allowed under the District Plan given the urban zonings applying over the Site.

The Site is not within any ONL, ONF or SAL, but is surrounded by a rural landscape character to the north and west. The Site itself currently consists of an industrial quarried landscape, with associated scheduled activities, infrastructure, stockpiles, vehicles, and ancillary buildings.

Although well concealed by embankments, the landscape within the Site is highly modified and visually unappealing. Nonetheless, accepted as a necessary land use generally located within rural locations. In contrast, the Project proposal alters the Site to a primarily residential use, similar to that of the existing Structure Plan.

A 50m vegetated buffer strip is proposed between SH6 and the new residential units, allowing for a substantial ecological buffer and screening to views from the west. Furthermore, a comprehensive, staged, landscape mitigation strategy (to be developed and submitted as part of the planning process via proposed conditions of consent) including mitigation vegetation along the esplanade reserve, revegetated coves, and ecological enhancement/riparian planting to Parkburn Stream, will help maintain a perceived naturalness to the eastern boundary.

Open spaces such as a central ‘Greenway’, neighbourhood parks and other recreational reserves within the development, will help to break up the urban mass of the proposal and further blend views of the Site into that of the surrounding rural landscape character. The Project Master Plan’s suburban layout is likely to be perceived as an extension to that of the neighbouring Pisa Moorings development.

In addition, the low-lying topography of the Site, means the visual change is often viewed, from the east, as a narrow sliver in a much broader expansive landscape.

In relation to landscape effects, the change in land use will not adversely degrade the values of the landscape within which the Site sits, which is already characterised by mixed uses. Central Otago’s unique and distinctive landscapes, as recognised in the CODP, will continue to be maintained.

In relation to views and visual amenity, the changes that the Project will bring, will be visible from a number of locations. The visual amenity of observers in those locations will be affected as follows:

- From a stretch of the SH8, across the Lake from the Site. The view would likely appear as an extension to the existing suburban Pisa Moorings development. Adverse effects on visual amenity of observers will be of a **low** degree.

- Along stretches of SH6 that border the Site's western boundary, glimpsed views may be afforded by road users, however these will be considerably screened. Adverse effects to the visual amenity experienced by users of SH6 are considered **low**.
- Along the eastern Site boundary, users of The Dunstan Trail and users of the adjacent part of the Lake will perceive a considerable visual change to the landscape, perceived as an extension to the suburban Pisa Moorings development. Adverse effects on visual amenity will be **low**, to **moderate-low** for lake users that are farther out on the water.
- From distant and mid-distant elevated viewpoints (including Lake Front Terrace, Bendigo Downs and Dunstan Mountains) the quarrying activities are visible. This will be replaced with that of a mixed-use, low-rise urban landscape, in keeping with the rural-living character of the adjacent Pisa Moorings Development, and similar to what has already been permitted in the existing Structure Plan. This is considered a positive effect on visual amenity of a **low** degree.

This assessment considers the Project proposals are a positive enhancement from that already enabled over the Site via the District Plan.

Appendix 1

Structure Plan

(Baxter Structure Plan, Plan Change 21, Attachment Y)

RE SET | Appendix 1

North

priority controlled intersection

priority controlled intersection or roundabout

road connection to Pony Court

LAKE DUNSTAN

Legend

- Pedestrian Connection
- Primary Road
- Connector Road
- Neighbourhood Road
- Residential Development (Various densities, refer to Planning Maps)
- Possible Apartment Development
- Convenience Retail/Travelers Accommodation Development
- Yard-based Industrial Development /Office Development
- Yard-based Industrial Development
- Open Space
- Wetland Areas
- Possible Boat Ramp
- Possible Water Feature / Open Space
- Riparian Boundary

baxter design

REFERENCE **3077-SK49** - SCALE: 1:500 @ A3 - **29 NOV 2023**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION

DRAFT

STRUCTURE PLAN
FULTON HOGAN - PARKBURN

Appendix 2

Vivian + Espie LVA

(Vivian + Espie Ltd, Landscape and Visual Effects Assessment Report,
Plan Change 21, Attachment N, 24th August 2022)

PREPARED FOR FULTON HOGAN
24 AUGUST 2022
J1724

FULTON HOGAN PRIVATE PLAN CHANGE TO THE CENTRAL OTAGO OPERATIVE DISTRICT PLAN

JUNCTION TERRACES

Landscape and Visual Effects Assessment Report

vivian+espie
resource management and landscape planning

Fulton Hogan Limited – Junction Terraces Private Plan Change

Landscape and Visual Effects Assessment Report
19 August 2022

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Appendix 7: Baxter Development Plans

1. Introduction

1.1. A Private Plan Change is proposed in relation to an area of land that is currently zoned Rural Resource Area (RU) within the Operative Central Otago District Plan (the District Plan). Much of the relevant area of land is also subject to Scheduled Activity 25A, the Parkburn Gravel Pit.

1.2. The proposed Private Plan Change (PPC) seeks to change the zoning of the land to a patchwork of zones (as shown in Appendix 6 to this report) in order to provide for a sizable area of mixed-use urban development. The proposed zoning will sit to the immediate north of the Pisa Moorings residential area, which is zoned Residential Resource Area 3 (R [RRA(3)]). The existing zoning of the site and its context is shown on District Plan Maps 28 and 48 and is reproduced as Appendix 3 to this report.

1.3. The alterations to the District Plan proposed by way of the PPC are the result of an iterative and consultative design process over a period of months. Vivian+Espie has provided input into this design process from a landscape effects point of view. This report describes and quantifies the landscape and visual amenity related effects that will result from the PPC and focuses on effects as experienced from outside the site. This report does not discuss matters that relate to internal urban design, internal amenity, and internal functionality.

1.4. The area of land that is proposed to be rezoned shall be referred to as the site.

2. Executive Summary

2.1. The PPC aims to rezone the site from the RU zone (with a Scheduled Activity annotation allowing for a gravel pit) to a mix of Low Density Residential (LRZ), Medium Density Residential (MRZ), Business (BND) and Industrial (IND).

2.2. The site is currently a highly modified industrial site utilised for gravel extraction and other industrial activities. In its current state, the site itself has a very low degree of naturalness and visual amenity. Structural mounding and vegetation around the periphery of the site currently visually contain the industrial activity and ensure that the amenity values of the wider rural landscape are maintained.

2.3. Mixed-use urban development enabled within the site will alter the character itself. While this will be visually evident from some viewpoints, including some public places, this will not lead to

any significant reduction or degradation in the degree of visual amenity that is currently enjoyed. The masterplan is within the Baxter Development Plans attached as Appendix 7 to this report illustrates the intended outcome of the PPC. In many respects, the quality of the environment will improve as a result of the PPC. The proposal will ultimately lead to a mixed-density neighbourhood adjacent to Pisa Moorings with considerable areas of planting, including riparian vegetation along existing and proposed watercourses, areas of open space and greater public connectivity to the lake and existing trail.

2.4. In relation to district wide issues, section 2.3.1 of the District Plan sets out that the rural landscapes of the district are divided into three categories, being outstanding natural landscapes (ONLs), Significant Amenity Landscapes (SALs) and Other Rural Landscapes (ORLs). ONLs and SALs are generally the more valued and vulnerable landscapes, while the ORLs make up the balance of the rural landscapes. The site is located in a low lying, modified part of the ORL and is clustered with the existing development at Pisa Moorings to ensure the values of the surrounding unique and distinctive landscape remain unchanged.

3. Description of the Private Plan Change

3.1. Full details of the PPC are given in the plan change application. We will not describe the PPC in detail in this report, however, we give the following summary points that are particularly relevant to landscape issues.

3.2. The zoning plan attached as Appendix 6 to this report illustrates the proposed zoning, and the master plan within the Baxter Development Plans, attached as Appendix 7 to this report, illustrates the desired outcome of the proposal.

3.3. The PPC seeks to rezone the site to provide for residential, business and industrial activities. The proposed zones will align with zones in the Operative District Plan and zones that are proposed by Plan Change 19 (PC19). The proposed zones over the site consist of:

- Residential (ODP), Low Density Residential (LRZ) (PC19)
- Residential (ODP), Medium Density Residential (MRZ) (PC19)
- Business 3 (BU3)
- Industrial 1 (IND1)

- Industrial 2 (IND2)

3.4. The proposed LRZ and MRZ zones will provide for a mix of different residential living densities. The range of lot sizes provided for will accommodate a variety of lifestyle types, as illustrated on the proposed masterplan within the Baxter Development Plans (Appendix 7). The proposal allows for higher density development within the MRZ adjacent to the business hub, with larger lots provided for within the LRZ that comprises the majority of the site.

3.5. The MRZ allows for one residential unit per 200m^2, with a maximum height of 11m above ground level (three stories), and the LRZ allows for one residential unit per 500m^2, with a maximum height of 7.5m (two stories) above existing ground level.

3.6. The IND1 and IND2 zones are to provide for yard-based industrial activities. Mitigation measures, including the protection of open space, landscaping, and riparian management, shall ensure that built form and associated activities within the zone are of a yard-based nature and (as will be discussed) not highly visible when viewed from Stage Highway or Lake Dunstan.

3.7. The BU3 zone allows for the development of convenience retail activities and visitor accommodation that will provide for the future population and visitors to the area. The zone provides for limited retail activities, including convenience grocery stores, cafes, restaurants and bars.

3.8. A lake inlet is proposed to be created, connecting parts of the LRZ, MRZ and BUS zones to the lake and providing an internal amenity focus for the neighbourhood.

3.9. A Building Line Restriction (BLR) and setbacks are proposed to create buffers between conflicting land uses. As per the masterplan within the Baxter Development Plans document (Appendix 7), the BLR area and setback areas are proposed to be subject to comprehensive landscape treatment. Details of the BLR and setbacks include:

- A BLR shall be located within the LDR adjacent to State Highway 6 (as per the zoning plan attached as Appendix 6 to this report). This area takes in the open land that is on the same level as the highway.
- Industrial activity shall be setback 20m from the boundary with the LDR.
- Industrial buildings shall be setback 100m from the lake margin.

- Industrial yard-based activity shall be setback 50m from the lake margin.
- Buildings within the MRZ shall be setback 15m from the lake margin.

3.10. The existing waterway running through the industrial part of the site shall have 10m of riparian vegetation planted on both sides of the waterway. Various wetlands and stormwater retention areas are proposed through the residential areas as shown on the masterplan document.

3.11. If the PPC proceeds, future subdivision and development of the site will be by way of resource consent processes that are of at least a controlled status. The Council will retain control over a number of factors, including landscape treatment. The Applicant fully intends to develop the site in accordance with the masterplan that is within the Baxter Development Plan attached to this report as Appendix 7 and has already committed considerable resources to designing this master-planned outcome. Given the Applicant's intentions and control that the Council will retain over subdivision and development, we have assumed that the PPC will result in an outcome that is at least approximately similar to the outcome shown on the proffered masterplan.

4. Methodology

4.1. Visits to the site and the surrounding landscape have been conducted. The effects of the proposed zoning have been assessed in relation to views and visual amenity and in relation to landscape character, as is set out in this report. The identified effects have also been related to the outcomes that are sought by the relevant statutory documents.

The methodology for this assessment has been guided by:

- The Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines[1].
- The landscape-related provisions of the District Plan.

4.2. When describing effects, we will use the hierarchy of adjectives given in the top row of the table below. The bottom row shows how the adjectives that I use can be related to specific wording within the RMA[2].

[1] Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines, April 2021, New Zealand Institute of Landscape Architecture
[2] Ibid, paragraphs 6.21 and 6.36 to 6.40.

very low	low	low-mod	moderate	mod-high	high	very high

less than minor	minor	more than minor	significant

5. Statutory Guidance

5.1. The relevant landscape-related guidance from the RMA comes from Part 2, Section 7:

(c) the maintenance and enhancement of amenity values;

(f) the maintenance and enhancement of the quality of the environment.

5.2. In relation to regional level guidance on landscape issues, the Partially Operative Otago Regional Policy Statement requires the identification of ONLs and highly valued landscapes and sets policies in relation to their management. The Proposed Otago Regional Policy Statement (2021) is yet to be heard and hence limited weight can be placed on it. In any event, its provisions that are relevant to this assessment are similar to those of the Partially Operative Statement.

5.3. Given that we consider the relevant District Plan provisions are consistent with the Partially Operative Otago Regional Policy Statement (and the Proposed Otago Regional Policy Statement), we have not taken direct guidance from either of the Regional Policy Statements.

5.4. Section 2.3.1 of the District Plan gives overall guidance regarding landscape issues within the district. The PPC seeks to change an area of rural land to urban. Any new regime or layout of zoning should be compatible with the district-wide direction that the District Plan gives.

5.5. Section 2.3.1 sets out that the rural landscapes of the district are divided into three categories, being ONLs, SALs and ORLs. The site is within a broad area of ORL. Regardless of landscape category, threats to Central Otago's unique and distinctive landscape is identified as a significant issue by Section 2.3.1 of the District Plan, with commentary as follows:

> *The Central Otago District contains many unique and distinctive landscapes. While those landscapes are constantly evolving through natural processes, farming and other land use activities the semi-arid, rocky nature of the landscape means it can be vulnerable to visual effects of new structures (including telecommunication masts, wind farms, transmission line pylons, and other large structures), cultivation of tussock grasslands, large scale earthworks, new roads, residential built development on elevated land, establishing woodlots, production forestry or*

shelter belts on elevated land and wilding tree spread. Subdivision is often the precursor of land use activities such as those listed above. The District's built heritage, particularly in the form of cottages and ruins, and remnants of the early goldmining era, has also made a significant contribution to the landscape values of Central Otago.

6. The Existing Landscape

District Context

6.1. The Central Otago Landscape is described at a broad scale in section 2.3.1 of the Central Otago District Plan:

The Central Otago landscape is nationally (and internationally) renowned for its scenic quality. The physical landscape of the district is very much a product of geology, climate, and the early removal of forest on the mid slopes. More recent human activities have added an overlay at lower altitudes.

The predominantly Haast schist rock has been block faulted to produce northeast to southwest trending ranges, rising to well over 1000 metres. Their relatively gentle slopes overlook broad, shallow valleys filled with glacial outwash gravels, forming terraces whose steep edges are a significant feature. Further east, tertiary sediments have been preserved in the valley floors, including seams of lignite and oil shale. Erosion has left bare rock outcrops with vast numbers of rock tors whose unusual shapes and prominence make them highly distinctive features. The climate is sub-continental with very cold winters, hot summers and wide ranges of daily temperatures. Snow lies during several months above 1000 metres. Being far from the sea and in the lee of the Southern Alps precipitation is very low in the valleys, e.g., Alexandra 344mm, increasing with height to 2000mm on the tops of the higher ranges.

Vegetation at the time of European settlement was dense shrublands and tussock grassland which has been modified by burning, grazing, oversowing and topdressing to produce predominantly exotic grassland. The Upper Manuherikia Valley and Maniototo Plain are irrigated to provide grass for pastoral production. In the Clutha and Lower Manuherikia Valleys, irrigation supplies pastoral production, orchards and vineyards.

To the west, on the slopes of the Old Man and Pisa Ranges, remnant shrublands provide a contrast to the predominant grassland. On the tops of these western ranges, extensive wetlands and bogs have formed in hollows among largely induced cushionfields and herbfields. The range tops, under severe periglacial climatic conditions, have developed distinctive forms of patterned

grounds (solifluction terraces, soil stripes, soil hummocks, stone nets and stone drains) much of which is still active.

Distinctive characteristics of Central Otago landscapes are the rock tors or outcrops at all altitudes, often providing very recognisable skyline features, the subtleties of the rippling ground contours revealed under a veneer of tussock grassland, and the bold patterning of beech forest or shrubland remnants along some water courses.[3]

6.2. A district-wide landscape assessment undertaken in 2005/2006 by LA4 Landscape Architects (the District-Wide Landscape Assessment). This landscape assessment, in conjunction with a community consultation programme, formed a "*Rural Review*" that was used to inform a number of plan changes in relation to the rural resource areas of the district. The District-Wide Landscape Assessment divides the district into landscape units and then analyses, assesses and evaluates their landscape character. The subject site sits within a "foothills" landscape unit that forms the eastern lower slopes and terraces of the Pisa Range. This unit is identified as not being an ONL or a landscape of district wide significance. The unit is given a rating of "moderate" visual absorption capacity, a "moderate" tolerance for change and an "average" landscape quality[4].

6.3. Ultimately, the District-Wide Landscape Assessment informed plan changes that are now incorporated into the District Plan. The Pisa Range landscape and the Dunstan Mountains (shown in blue to the east and west of the foothills on Appendix 2 and shown in green on Appendix 1) are identified as ONL on the District Plan maps and Lake Dunstan (though not identified as an ONL) is described as follows:

North of Cromwell, Lake Dunstan widens out into a broad expanse of water between lower banks and river terraces, but with the Pisa and Dunstan Ranges forming the backdrop. So, whilst this part of the lake system is more modified, it is still very distinctive and vivid[5]*.*

6.4. We consider that the categorisations and findings above are logical and appropriate. The site is part of a foothills/terraces landscape that runs along the western side of Lake Dunstan from Cromwell to Queensberry. The character of which may be summarised as follows:

The foothills and lower slopes of the Pisa, Dunstan, Kakanui and Old Man Ranges and Mt Buster are distinguished by the generally rolling and deeply incised gullies. In places there are

[3] Central Otago District Plan, Section 2.3.1 Landscape

[4] Central Otago District Rural Review Landscape Assessment Report and Recommendations, July 2008, pages 9 and 36.

[5] Central Otago District Rural Review Landscape Assessment Report and Recommendations, July 2008, page 32.

distinctive rocky hills. The higher slopes are clothed in tussock with green pasture below in places. There are clumps of natives in some of the gullies, and groups of pine trees particularly in the gullies. The landform is mostly folded and rolling. Some of the foothills particularly near Kye Burn are divided into rectangles with fields of varying sizes and uses.[6]

6.5. The site itself sits on this terrace landform that now forms part of the lake edge land between Mount Pisa and Lake Dunstan. The site is located on the western side of Lake Dunstan (northern arm), immediately north of the Pisa Moorings residential area. State Highway 6 (SH6) runs along the western boundary of the site connecting the site to nearby communities. Cromwell is approximately 8km south of the site and Wanaka is approximately 45km north of the site. To the west of SH6, vine-covered foothills and terraces rise up to the rugged slopes and ridges of the Pisa Range.

6.6. Relevantly, Lake Dunstan is not a natural feature but rather a manmade lake that was formed in the early 1990s. The Clutha River would have flowed past the site (some distance to the east) prior to the relevant part of the Clutha River valley being flooded following the completion of the Clyde Dam.

Physical attributes[7]

6.7. The foothills landscape unit extends from the western edge of Lake Dunstan part way up the slopes of the Pisa Range. Within the foothills landscape character unit there are differing levels of modification and naturalness. The degree of modification appears to be informed by topography with the lower flats being more modified than the steeper slopes. The lower flats adjacent to the lake's edge have been more modified by human effort to provide for a diverse range of land uses including residential activities, horticulture, viticulture, recreational activities and mineral extraction. The terraced landscape that rises above the lower flats is primarily productive land that has been developed for agriculture, horticulture or viticulture. The upper slopes of the Pisa Range are more natural, with rugged topography, incised gullies, and remnant native vegetation.

6.8. The vegetation patterns of the foothills are almost entirely introduced and are guided by the land use of each site. A patchwork of vineyards, orchards, pastures, and amenity planting covers the lower slopes and flats. The site itself is encircled by established screen planting that

[6] Central Otago District Rural Review Landscape Assessment Report and Recommendations, July 2008, page 35.
[7] The NZILA Guidelines define physical attributes as "*both the natural and human-derived features, and the interaction of natural and human processes over time*", at paragraph 4.23.

is primarily shelterbelt type vegetation following the boundary of the site. Willows and poplars are scattered along the shore of Lake Dunstan.

6.9. The pattern of residential development is somewhat ad-hoc with rural living nestled in amongst orchards, vineyards, open paddock, and the lakes edge. Residential activity is generally secondary to productive land uses and is less visually apparent. The Pisa Moorings development is an exception and is an enclave of suburban-density residential development that sits within the surrounding working landscape, to the immediate south of the subject site.

6.10. The site itself comprises a block of RU zoned land between Lake Dunstan to the east, State Highway 6 to the west, Pisa Moorings to the south and a working quarry to the north. The site also has a Scheduled Activity notation allowing for a gravel pit and is currently a working quarry. Within the confines of the site, the landscape character is that of an industrial or mining operation with machinery, infrastructure and stockpiling associated with the gravel extraction activity. All these activities are immediately apparent and obvious within the site. Structural mounding and landscaping around the periphery of the site ensure this extraction activity is currently visually contained and the prevailing character as perceived from outside the site is rural.

Perceptual attributes[8]

6.11. "*These landscapes are quite visually exposed though there are folds and rocky outcrops in the landform, and groups of trees that could conceal development. Except for the west side of the Dunstan Range, the foothills north of the Sugar Loaf and Flat Top Hill these units are generally located in quite remoter parts of the District. These more remote foothills still retain some natural character values, and in the Kye Burn and Mt Buster areas there are high heritage and cultural values.*"[9]

6.12. In terms of geomorphic legibility, the valley and terraces formed between the Dunstan Mountains and the Pisa Range express their formative processes. The lake is somewhat deceptive in that it appears natural because the hydroelectricity infrastructure, including the Clyde Dam, is located further downstream and out-of-sight. Consequently, Lake Dunstan is a manmade feature that appears somewhat natural.

[8] The NZILA Guidelines define perceptual attributes at paragraph 24.3 as being "*both sensory experience and interpretation. Sensory appreciation typically occurs simultaneously with interpretation, knowledge, and memory*".

[9] Central Otago District Rural Review Landscape Assessment Report and Recommendations, July 2008, G – Foothills Description, Page 35-36

6.13. The site is adjacent to SH6 that connects Wanaka and Cromwell and is approximately 8km north of the Cromwell. The site is perceived as being relatively connected to Cromwell, as it forms part of the ribbon of horticultural, agricultural, and rural residential development that stretches along SH6 from the end of the Kawarau Gorge to the northern end of Lake Dunstan.

6.14. SH6, the Dunstan Trail and Lake Dunstan provide a physical connection and opportunities to commute using various modes of transport. The Dunstan Trail is a well-formed trail that passes the site and provides a cycle and pedestrian route to Cromwell as well as destinations further afield including Bannockburn and Clyde.

6.15. At a broad scale, the Central Otago landscape is memorable with the golden, grey hues of the arid hillsides contrasting blue lakes and rivers. The orchards and vineyards that blanket the lower slopes surrounding Cromwell create visual interest and also generate produce for which the region is renowned. The site in its current state is visually enclosed by vegetation and mounding and does not contribute to the landscapes that give rise to the district's unique character. The quarry and gravel extraction activity are difficult to see, and from most surrounding views, the site is screened and perceived as a part of the productive landscape in which it sits.

6.16. The patterns of development and modification in the vicinity of the site create a landscape that lacks cohesion and is a something of a patchwork of land uses including agriculture, horticulture, residential activity, recreation, as well as the site's quarrying and gravel extraction activity. This land use pattern means that the ribbon of land between the lake and the foothills is perceived as a rural productive landscape, but one in which domestication is commonplace and industrial activities can be found. In contrast, the upper slopes of the Pisa Range and Dunstan Mountains have a much less modified, natural landscape character. The landscape of these upper slopes is a mix of farming and public conservation land. It is less productive than the lower slopes and is not intensively grazed. As such, the upper slopes are generally a more consistent tussock landscape with areas of remnant native shrubland. These upper slopes are perceived as relatively natural with views of the open, craggy slopes of the Pisa Range and Dunstan Mountains apparent in distant views.

6.17. Vegetation and seasonal changes create interesting and constantly evolving aesthetic qualities in the landscape of which the site is a part. The deciduous nature of many of the trees and vines in the vicinity of the site means the foliage changes throughout the year, and the hues in the landscape of the lower terraces and flats vary seasonally. In winter, the trees and vines are

bare, providing more open views of the wider landscape and the snow-capped mountains enhance the views. in spring the blossoming fruit trees create visual interest. In summer, greenery contrasts with the arid yellow and grey hues of the mountainous backdrop. In the autumn, the oranges, yellow and reds of the leaves create visual interest. The expansive, everchanging views of Central Otago are widely recognised and admired. Views across the lake towards the terraces, mountains and sky are dramatic and memorable.

6.18. Quarries and gravel extraction are recognised as a necessary part of the district's landscape, needed to provide materials for construction and roading. Despite being necessary and generally located in rural locations, working quarries are regarded as highly modified and relatively unappealing elements in the landscape. Several quarries are located in the vicinity of the site, however, these operations are difficult to visually identify due their incised nature and established screening. From SH6 nearest the site, the industrial activity within the site is visually contained by roadside vegetation and elevation. Road users would be unlikely to perceive that a quarry is present, apart from the entrance and vehicle movements. While not entirely invisible, this visual containment and the vast panoramic views of the Pisa Ranges and Lake Dunstan make the quarry operation difficult to perceive in views and not the primary focus. In views from higher elevations, the quarry is more visible. From elevated viewpoints across the lake including from Bendigo Downs and Lake Front Terrace, the quarrying / gravel extraction activity is visually apparent with exposed soil, stockpiles, vehicles and infrastructure clearly visible.

Associative attributes[10]

6.19. *"Associative means the intangible things that influence how places are perceived – such as history, identity, customs, laws, narratives, creation stories, and activities specifically associated with a landscape. Such associations typically arise over time out of the* relationship *between people and place. Tāngata whenua associations are therefore especially relevant because of primacy and duration. Pūrākau, tikanga, whakapapa, and mātauranga are key considerations of the associative dimension from a Te Ao Māori perspective, particularly important when considering matters such as mauri and wairua. Other terms sometimes used for this dimension include 'intangible', 'meanings', 'place-related' (sense of place)"*

6.20. Apart from some general historical knowledge, we have no expertise in how Tangata Whenua, or Kai Tahu in particular, perceive or value the Pisa Range foothills landscape. We consider

[10] The NZILA Guidelines define associative attributes at paragraph 4.23 as "*the intangible things that influence how places are perceived – such as history, identity, customs, laws, narratives, creation stories, and activities specifically associated with a landscape*".

that most observers have some knowledge of the colonial history and high-country farming that has been important to Central Otago. This knowledge adds a layer of cultural meaning to the perception of Central Otago's landscapes generally. Observers are also likely to be aware that the area surrounding Cromwell is renowned for stone fruit and wine production, again adding a layer of cultural meaning to the perception of the more localised landscape surrounding the site.

Landscape character[11]

6.21. The site is located on the foothills of the Pisa Ranges within the Rural Resource Area. The wider landscape has attributes that contribute to a recognised rural character including openness, productive vegetative cover and instances of rural living. The pattern of activity surrounding the site is somewhat haphazard, with relatively large areas of residential and industrial activity placed within this productive landscape. These non-rural activities are generally confined to the flats and are often visually softened by vegetative and topographical buffers. Residential and industrial land uses are recognisable but not dominant within the landscape. The prevalence of open and productive land uses, particularly on the terraces, and the scale of the natural mountainous backdrop ensures an open, rural character is maintained despite the level of industrial and residential activity in the vicinity.

6.22. Pisa Moorings is a large residential development adjacent to the site that is something of a satellite town (or dormitory suburb) to Cromwell. Pisa Moorings is approximately 74ha in size and comprises hundreds of residential lots. Another smaller residential development is located at Lowburn, similar to Pisa Moorings with a density more akin to urban development than rural living. As with the quarrying activities, these instances of residential development are legible, however, the topography and vegetation ensure they recede into the landscape to a degree and the domestication is contained. Instances of rural living and buildings ancillary to rural production can be seen scattered throughout the rural landscape and form part of the character of the working rural landscape. Overall, the attributes that create a rural character are more visually apparent and the openness and scale of the wider landscape ensures that generally a rural character prevails.

[11] The NZILA Guidelines define landscape character at paragraph 5.4 as "*each landscape's distinct combination of physical, associative and perceptual attributes*".

Landscape values[12]

6.23. In terms of shared values, the district is valued for its expansive views, vast plains and valleys and open mountainous landscape. The Central Otago Landscape Study researched the landscapes that are most valued by the people of Central Otago. The most valued landscapes were identified as ONLs, ONFs or SAL in the District Plan. Several ONLs, ONFs and SALs have been identified in proximity to the terrace/foothills landscape of which the site is a part. These include the upper slopes of the Pisa Range and the Dunstan Mountains. Views that are highly valued generally comprise natural geomorphology, hydrology, and openness. Lake Dunstan and the mountainous landscapes were ranked as particularly valuable by the study. The landscape of which the site is a part is not identified as an ONL, ONF or SAL, indicating that the site sits within a part of the landscape that does not clearly display attributes that are highly valued.

6.24. The wider landscape in which the site sits has amenity values associated with openness, scale and the unique geomorphology. The Dunstan Valley that accommodates the lake sits between the Pisa Range and the Dunstan Mountains. Both ranges are pronounced landscape features recognised for their exposed, rugged character, and transient values associated with variations in light and weather. Lake Dunstan is also recognised for its aesthetic values.

6.25. More modified, productive landscapes including orchards and vineyards are generally less valued for their aesthetic appeal when compared to the more open, natural, unmodified landscapes. The views towards orchards and vineyards are likely to be considered less valuable as human interventions are clearly visible. However, as discussed above, Central Otago is renowned for its stone fruit and wine production, and despite orchards and vineyards not being aesthetically appreciated in the same way as wild, natural landscapes, wine and fruit production is imbedded in the region's identity. These productive landscapes are important for economic activity, employment and tourism and contribute to the livelihood of the district.

6.26. The area is also recognised for its recreational values, specifically water activities, cycling and snow-sports. In the summer months the lake is used for a variety of water sports including, swimming, boating, kayaking, and fishing. The Kiwi Water Park, comprising several large inflatables, is set up in the lake near Lowburn during the summer months, providing recreational

[12] The NZILA Guidelines define landscape values at paragraph 5.6 and the glossary as "*the reasons a landscape is valued – the aspects that are important or special or meaningful*" and note that "*values are embodied in certain attributes*". Also, at paragraph 5.55, it is helpfully notes that "*hybrid terms such as 'visual amenity', 'rural amenity' and natural amenity' are shorthand for 'landscape values that contribute to amenity values'*".

opportunities for adults and children alike. The shores of the lake provide pleasant picnic spots. The Lake Dunstan Cycle Trail is a popular bike trail that runs from Smiths Way (not far north of the subject site), along the edge of Lake Dunstan to Cromwell and on to Clyde.

7. The Subject Site

7.1. The site itself is a 120ha block of land between Lake Dunstan to the east, State Highway 6 to the west, Pisa Moorings to the south and a working quarry to the north. The Scheduled Activity annotation (SA 25A) and several resource consents relate to the industrial quarrying and gravel extraction activities, including two 20,000 litre diesel fuel tanks, various buildings, a glass crushing plant, portacoms and backfilling. Within the confines of the site, the character is that of an industrial activity with machinery, infrastructure and stockpiling associated with the rock extraction activity.

8. Visual Catchment and Viewing Audiences

8.1. The locations from which the site is visible include several public and private viewpoints in the vicinity. Observers within this area that are potentially affected by the PPC include:

- Users of SH8
- Users of SH6
- Users of the shore and surface of Lake Dunstan
- Lake Front Terrace
- Bendigo Downs
- Elevated public land

8.2. Appendix 1 attached to this report is a Context Map, Appendix 4 is a viewpoint map and Appendix 5 includes the corresponding photographs.

9. Effects on Views and Visual Amenity

9.1. Visual effects are:

"effects on landscape values as experienced in views. … A proposal that is in keeping with the landscape values, for example, may have no adverse visual effects even if the proposal is a notable change to the view. Conversely, a proposal that is completely out of place with landscape values may have adverse effects even if only occupying a portion of the view"[13].

Users of State Highway 8 (SH8)

9.2. SH8 runs along the edge of Lake Dunstan on the opposite side of the lake to the site, connecting Cromwell and Tarras. The site is intermittently visible from a stretch of SH8 that is approximately 9km long. The site is noticeable generally in the peripheral view of road users and at its closest point, SH8 is approximately 900m from the proposed area of zoning. The stretches of road from which the site is visible are shown on the Viewpoint Plan (attached as Appendix 4) and photographs that illustrate the degree of visibility are attached as Appendix 5 to this report.

9.3. The broad views experienced by users of SH8 comprise rural landscape with visual amenity primarily driven by expansive, open views with the lake in the foreground, a sliver of more productive agriculture, viticulture and horticulture on the flats and lower terraces on the far side of the lake, and then the expansive upper slopes of the Pisa Ranges which create a panoramic background. The site and the existing quarrying activity is visible amongst the more open rural landscape in which it sits, as is the residential development (Pisa Moorings) adjacent to the site. While these modified landscape elements are discernible, the flat topography and the broad, wider landscape ensure that they make up a very small part of the scene and do not detract from what is overall an expansive, memorable landscape. The values that contribute to the memorability of these views are the broad lake surface, openness, perceived naturalness, vastness and the unique geomorphology.

9.4. The PPC will lead to a visible change to the site, from an industrial quarry to a mixed-use urban environment. The most visible part of the site in views from SH8 is the eastern boundary of the site which adjoins the lake. The PPC will create MRZ close to the lake front within the site, allowing for instances of built form up to 11m high to be constructed with a 15m setback from

[13] Te Tangi A Te Manu, Aotearoa New Zealand Landscape Assessment Guidelines, April 2021, New Zealand Institute of Landscape Architecture, paragraphs 6.25 and 6.27.

the eastern boundary. As demonstrated on the masterplan, the intention is for the eastern edge (the lake front) of the zone to comprises a staggered residential development, separated from the edge of the waterside parkland/open space and walkway. In views from SH8 the site will appear as a continuation of the existing development at Pisa Moorings. However, the PPC will allow for an increase in height and bulk of built form when compared with the development at Pisa Moorings. The built from will be setback at least 15m from the eastern boundary to create a buffer that will include vegetation to soften views. Additionally views towards the site will be from a considerable distance for users of SH8 (over 760m). As such, built form will not be seen as overly imposing when viewed in the context of the panoramic landscape in which it sits and will minimally detract from the overall view of the open, natural landscape.

9.5. Overall, when considering the changes in views and visual amenity experienced from SH8, taking into account the scale of the site within the wider landscape, the existing industrial activity within the site and the proximity to Pisa Moorings, we consider the adverse effects on views and visual amenity experienced from SH8 to be of a low degree at most.

Users of State Highway 6 (SH6)

9.6. SH6 is the main road that connects Cromwell to Luggate and Wanaka. SH6 runs along the valley floor to the west of Lake Dunstan. The highway runs along the edge of the lake from Cromwell to the Lowburn Campground before cutting away from the lake to run through a predominantly productive rural landscape with open pasture, orchards and vines lining the road. Within this landscape, instances of residential development (Pisa Moorings) and industrial activities (including the site) are also visible. SH6 runs adjacent to the western boundary of the site, separated from the quarry by structural mounding and buffer planting that is a mix of exotic evergreen and deciduous tree species and native shrubs. At a broad scale, the topography is relatively flat, and the existing screen planting and incised nature of the quarry means the activity is not highly visible from this stretch of road. Glimpses of the existing quarry are available through the vegetation, more visible in the winter months when the deciduous species have lost their foliage. The locations from which the site is visible are shown on the Viewpoint Plan attached as Appendix 4 to this report and photographs that illustrate the degree of visibility are attached as Appendix 5.

9.7. As mentioned, glimpses of the quarry are available through the vegetation in the peripheral view of road users. In these views, the industrial use of the quarry is generally difficult to

decipher. Stockpiles and some machinery can be seen, the flat topography and incised nature of the activity means that the industrial activity forms a very small part of the wider visual experience and the activity is setback considerably from the road with a buffer of open paddock, ensuring that the quarry is not prominent. The most apparent views of the industrial activity are of the site entrance, the site is accessed by an unnamed legal road that runs perpendicular to SH6. Signage, large haulage vehicles and offices can be glimpsed as the users of SH6 pass the intersection. In general terms, views of rock extraction activities are not unexpected in rural areas. Quarries are recognised as a necessary part of the landscape to provide for development and they are generally located in rural locations.

9.8. The mixed-use urban environment provided for by the PPC will fundamentally change the site itself physically and visually. The site will be transformed from a working quarry to a residential development. Generally speaking, quarries are considered to be relatively unsightly landscape features, the removal of vegetation creating a monochromatic area of grey hues, and somewhat haphazard layout of pits, stockpiles, machinery, office buildings and outdoor storage, leading to a somewhat untidy aesthetic.

9.9. The indicative masterplan illustrates the proposed vegetated buffer and embankment treatment in relation to the BLR between residential development and SH6. Photographs 8 and 9 of Appendix 5 show the current views from SH6 as it immediately adjoins the site. Vegetation, but more importantly landform, means that the quarrying operation is hidden, being well below the viewer in terms of elevation. The large embankment in the western part of the site runs parallel to the state highway, sloping down into the site, such that floor levels of residential development within the proposed zoning in this part of the site will sit well below the road (by approximately 4m elevation) and will not be seen.

9.10. As can be seen in Photograph 2, approximately the northern half of the proposed LDR area is not significantly excavated into topography and hence sits only moderately below the level of SH6. The area that is within the proposed BLR adjacent to the highway in this northern part of the site currently accommodates poplars adjacent to the highway with a line of maturing conifers behind. Views to the area of the proposed LDR (such as those of Photograph 2) are quite restricted. The masterplan shows this broad BLR area forming a vegetated buffer area with sweeps of trees and other vegetation. We understand that the intention is to retain some of the poplars and conifers but to create a more varied treatment that does not require continuous belts immediately adjacent to the highway. We understand that the aim is not

necessarily for complete invisibility of the future LDR area (being the northwestern part of the proposed LDR) but to create a filtered, buffered visibility in which the viewer is considerably separated from the residential area.

9.11. Currently, a user of SH6 passes by the southern half of Pisa Moorings and gains clear and close visibility of suburban development. The northern half of Pisa Moorings is relatively well separated from observers by orchard and vineyard vegetation. As discussed above, this separation will continue in relation to the southern half of the proposed area of zoning; and then the northwestern part of the proposed zoning will again be perceivable (albeit in a filtered and soft way) from SH6. This visible part of the LDR will sit lower than the road and the planting within the BLR area (which is likely to include the retention of some on the existing mature trees) will considerably screen and soften views of future residential land use. As such, the views of the upper slopes of the Dunstan Mountains prevail in views across the site, with vegetation, the buffer space of the BLR area and some mid-ground suburban land use in the midground.

9.12. SH6 users in the vicinity of this north-western part of the site currently visually experience the entrance to the Parkburn quarries and some associated infrastructure. As they move south, they experience Pisa Moorings and the Lowburn, before Cromwell.

9.13. Seeing residential development within this part of the proposed LDR that is seen in a filtered way from SH6 will not be out of place with the overall visual experience of this stretch of the highway. Being in close proximity to Pisa Moorings and the existing quarrying operations and having a buffered landscaped treatment adjacent to the highway, the enabled development will read as a logical and visually pleasant extension of Pisa Moorings and will not be a dominant nor prominent element as seen from this stretch of highway.

9.14. Overall, we consider that in relation to the relevant part of SH6, the PPC will add to the accumulation of development associated with Pisa Moorings but in a way that is not unsightly or prominent. The degree of any adverse effects on views and visual amenity experienced from SH6 to will be of a low degree at most.

<u>Users of the shore and surface of Lake Dunstan</u>

9.15. The eastern edge of the site abuts the public land that surrounds Lake Dunstan. A structural earth mound running along the eastern boundary currently creates visual separation between the lake and the industrial activity. The mounding is vegetated in low dryland vegetation similar

to the surrounding landscape. The mound obscures views into the site, however, other cues such as noise or dust indicate an industrial activity is occurring.

9.16. Lake Dunstan and its shores are frequented by locals and tourists. The lake is a popular for recreation, particularly in the summer months with fishermen, boating, swimming, and picnicking commonplace on the lake and its shores. The site adjoins the northern part of the northern arm of the lake, which is a less-used part.

9.17. The Dunstan Trail runs past the site close to the lake edge. The trail and the lake sit low in the landscape and the incised nature of the quarry creates visual separation. In close proximity to the site, trail and lake users are unable to see into the quarry. However, there is an obvious change in land use between the site and Pisa Moorings. From the surface of the lake, the shore and the trail, the suburban development of Pisa Moorings is evident with the trail connecting to various parts of the suburban area. In contrast, the boundary of the quarry is mounded, and the site is enclosed. Viewers are not necessarily aware of what is behind the mounding but the level of screening suggests the mounding is hiding something and those passing the site on the trail may be aware of the quarry though other factors such as noise, dust or local knowledge.

9.18. The PPC proposes four different zones abutting the eastern boundary of the site adjacent to the lake (IND1, IND2, MRZ and LRZ). The northern dogleg of the site is to be zoned IND1 and a 100m setback is proposed for buildings within this zone, with a 50m setback proposed for yard-based activities in this zone. The land within this 50m setback is envisaged to be vegetated to soften views towards future industrial activity. A small area of IND2 abuts the lake front to the south of the IND1 zone. We understand that the IND2 is to provide for offices and utility buildings associated with industrial activity. The MRZ abuts the public lakeside land and provides for medium density residential development, allowing for one residential unit per 200m^2 and up to 11m in height, with a setback of at least 15m from the site boundary. A very small section of LRZ also abuts the lakeside land in the south-eastern corner of the site, near Pisa Moorings. The LRZ provides for lower density residential development, allowing one residential unit per 500m^2 with a maximum height of 7.5m.

9.19. There will be a considerable change to views and visual amenity experienced from the lakeside land and the immediate area of lake surface adjoining the site if the PPC proceeds. An area of suburban built form will be clearly visible from the lake and its shore (including the public trial), particularly within the MRZ where buildings could reach a height of 11m. The mixed-use urban environment will be visible and connected to the lake front through a series of trails, park-like

open spaces and the proposed inlet. Vegetation will help soften and integrate future development and lessen bulky built form dominating views. As is illustrated on the masterplan vegetated waterside parks will create a buffer and tree planting within these parks will soften views towards built form.

9.20. The Pisa Moorings suburban area immediately adjoins the subject site to the south. Unlike in relation to SH6, there is no visual gap or buffer space between the site and Pisa Moorings in relation to the lake and trail views. A trail user travelling north is immediately adjacent to Pisa Moorings suburban development for approximately 3.9km. Under the PPC, a trail user will then travel past suburban development for another 1.4km of the trail, however this part of the trail currently passes the quarrying operation.

9.21. Overall, the experience of passing the subject site on the Dunstan trail will change from passing a relatively well-hidden quarry operation to passing a lakeside suburban area, essentially continuing the experience of passing the Pisa Moorings area. While this is a considerable change, it less clearly represents any reduction in the visual amenity of a trail user. Given that the change will exacerbate the extent of occupation in this rural landscape and make modification more visually obvious (although in a way that is perhaps more appealing than the quarry operation), we consider that the effect on trail users is best described as an adverse visual effect of a low degree.

9.22. As a lake user moves away from the site towards the lake's eastern side, their perspective means that more of the current quarrying operation can be seen. The lake is approximately 850m wide in the vicinity of the site. Under the PPC, users of the lake surface in this vicinity (as approximately represented by Photograph 4), will see the visible quarrying activity replaced with a suburban pattern such as that of the Pisa Moorings area. This pattern will spread to the north (right) to be a considerably larger area of residential occupation. In these more distant views, the change is more apparent and lake users often experience visual amenity in a more sedate and less fleeting way than road users (such as those on SH8 adjacent to the far side of the lake). Overall, we consider that when compared to the existing situation, the degree of adverse effects on the views and visual amenity of a user of the relevant part of the lake can best be described as being of a moderate-low degree.

Lake Front Terrace & Bendigo Downs

9.23. Lake Front Terrace and Bendigo Downs are rural living subdivisions that are located on the lower slopes of the Dunstan Range on the eastern side of Lake Dunstan. The landscape comprises arid rolling and terraced topography with panoramic views of the Pisa Range, overlooking Lake Dunstan and the lower terraces and flats that include the subject site. Roading, building locations and some dwellings have been constructed in both of the Lake Front Terrace and Bendigo Downs rural living areas, although most of the sites within these subdivisions appear to remain undeveloped for residential use as yet.

9.24. The site of the PPC sits in the midground in views from these lower slopes, as can be seen in Photographs 6 and 7 of Appendix 5. In the existing views, the working quarry operations are plainly visible. They can be seen sitting within the more modified lower flats and terraces between the lake and the more natural mid and upper slopes of the Pisa Range. Vineyards, orchards, pastures, and amenity and shelter planting are abundant on the lower slopes and terraces. Boundary fences and shelterbelts create a linear delineation between the crops that generates a patchwork of geometric blocks combining to create a bucolic, working, rural landscape. The existing suburban development of Pisa Moorings development is clearly visible to the south of the quarrying operations.

9.25. With reference to Photograph 7, the mixed-use urban/suburban development enabled by the PPC would visually replace the stockpiles, excavated land, machinery and dust within the existing quarry, which are visible, relatively centrally in these views. Again, the suburban pattern of Pisa Moorings will extend to the north to create a larger, more uniform pattern.

9.26. Unlike most other viewpoints, the existing quarrying operations are easily seen from these locations. The alteration to a suburban pattern (softened by vegetation and areas of open space) will be a considerable change but not one that is plainly adverse. We consider that the effect on views and visual amenity is best described as neutral.

Elevated public land

9.27. Multiple areas of public conservation land and scenic reserve are strewn along the upper parts of the Dunstan Mountains and the Pisa Range. The public conservation land on the Pisa Ranges is located more than 6km to the west of the site and the public land on the Dunstan Mountain is located over 2.5km to the east of the site. The topography of the mountain slopes is varied such that topography visually screens the site in many views. Vegetation, particularly

within the Bendigo Scenic Reserve on the Dunstan Mountain, also provides some screening in views toward the site.

9.28. In parts of the public land where views towards the site are available, the views are particularly broad, panoramic and complex. Views comprise the natural mountain slopes, the modified lower slopes, the lake, and the expansive sky. The boundary between the lower modified slopes and the more natural upper slopes runs horizontally along the lower slopes and is visually legible. From a distance, the site will be as a part of the matrix of land uses that includes agriculture, horticulture, suburban development, rural living, and rock extraction.

9.29. These views are somewhat similar to Lake Front Terrace and Bendigo Downs but the site is a smaller and less relevant part of the very broad scene that is taken in. Nonetheless, suburban patterning will replace the currently recognisable quarrying operations. Again, we find that the effect of this change in these distant views is not fundamentally adverse and in relation to visual amenity, the effect is best described as neutral.

Summary in relation to effects on views and visual amenity

9.30. The PPC will change the site itself significantly, from being dominated by quarrying operations, to a suburban area including a lake inlet, open space and park-like areas that develops over time. This change will be perceivable in a variable way from outside the site, with effects on views and visual amenity as follows:

- A stretch of SH8 on the opposite side of Lake Dunstan allows intermittent views that include the subject site as a relatively peripheral part of a broad scene. Change will be noticeable but not imposing. The suburban area of Pisa Moorings will visually expand in the composition of these views, leading to an adverse effect on visual amenity of a low degree.

- While SH6 passes adjacent to the site, the existing quarrying operations are considerably hidden. The same will be true in relation to suburban development enabled by the PPC, with a vegetated buffer area being presented to the highway, resulting in some residential development being visible in a filtered way, and perceived in conjunction with the Pisa Moorings area. The degree of any adverse effects on views and visual amenity experienced from SH6 to will be of a low degree at most.

- The Dunstan Trail sits on a strip of public land to the immediate east of the site, with the lake surface beyond. The PPC will bring a considerable visual change for users of the trail and the adjacent part of the lake, with suburban development (including lakeside park-like spaces) being immediately apparent, again being perceived in conjunction with Pisa Moorings. An area of human modification will be more apparent (but perhaps also more appealing) than the existing quarrying operations. Adverse effects on visual amenity will be of a low degree, ranging up to moderate low for lake users that are further out and gain a broader perspective.

- The rural living developments of Lake Front Terrace and Bendigo Downs that sit on the opposite side of Lake Dunstan allow elevated views in which the quarrying operations are easily seen. The replacement of these operations with a suburban pattern is considered to be neutral rather than adverse in relation to views and visual amenity.

- Areas of distant, elevated public land on the Dunstan Mountains allow very broad, expansive panoramas that take in the subject site as a small element in the overall composition. Again, the replacement of the quarrying operations with suburban development will be a neutral effect in relation to visual amenity.

10. Landscape Effects

10.1. "*A landscape effect is a consequence of changes in a landscape's physical attributes on that landscape's values. Change is not an effect: landscapes change constantly. It is the implications of change on landscape values that is relevant. To assess effects, it is therefore necessary to first identify the landscape's 'values' – and the attributes on which such values depend*"[14].

10.2. The proposal will change the character of the site from a working industrial quarry to a mixed-use urban environment. The PPC will provide for a mix of moderate and low-density residential development and a central business area. A sliver of land along the northern boundary will remain industrial. The BLR area and setbacks will create a buffer between the public road, lake front and the industrial land.

[14] Ibid, paragraphs 6.1 and 6.2.

10.3. Quarrying and gravel extraction are recognised as necessary activities to provide gravel and rock for infrastructure throughout the district. Although quarries are required to provide important resources, in terms of aesthetics and landscape values, working quarries are not considered to be a highly valued part of the landscape. The quarry is currently visually and physically enclosed by mounding and planting and is a relatively inaccessible industrial site that sits within the rural landscape. The site has been noticeably modified, the natural vegetation has been largely removed, the earthworks relating to the rock extraction has altered the topography. Built form and infrastructure has been introduced to the site to provide for industrial activities being carried out on the site. The extensive quarrying and human modification have left the site barren and relatively void of natural character.

10.4. The PPC will create an opportunity to transform the site from a closed-off industrial site to an accessible mixed-use urban environment. Links from the existing trail and the lake to the site will be created through pedestrian and cycle links and an inlet providing access to the lake. The character of the majority of the site will be transformed from a stark industrial landscape to a built neighbourhood/suburb comprising a mix of housing, retail, and accommodation. The development will essentially be an extension of the existing Pisa Mooring development.

10.5. Significant issues regarding Central Otago's unique and distinctive landscape and the effects of land use on adjoining rural areas are identified in the Central Otago District Plan.

The Central Otago District contains many unique and distinctive landscapes. While those landscapes are constantly evolving through natural processes, farming and other land use activities the semi-arid, rocky nature of the landscape means it can be vulnerable to visual effects of new structures (including telecommunication masts, wind farms, transmission line pylons, and other large structures), cultivation of tussock grasslands, large scale earthworks, new roads, residential built development on elevated land, establishing woodlots, production forestry or shelter belts on elevated land and wilding tree spread.[15]

The adverse effects of land use activities within urban areas on adjoining rural areas need to be avoided, remedied or mitigated. Urban land use activities may:

a) compromise amenity values of the rural environment.[16]

[15] Central Otago District Plan, Section 2 - The Resources and Significant Resource Management Issues of the District, Page 2:9
[16] Central Otago District Plan Section 6 - Urban Areas, Page 6:5 Urban Areas

10.6. Section 6 of this report sets out in detail the values of the landscape and the attributes that lead to those values. In summary, the most valued landscapes of the district are identified as ONLs, ONFs or SALs. The terraced lakeside landscape of which the site is a part is not within any of those categorises, but it is in close proximity to the Pisa and Dunstan Mountains and the lake itself. It is a landscape of mixed rural land uses, including considerable productive use (orcharding and vineyards) that bring a pleasant rural landscape character, particularly when perceived in conjunction with its broader setting that includes dramatic mountain backdrops and the broad lake surface.

10.7. Development enabled by the PPC will not encroach on existing productive rural land or land that is distinct or unique to the district. The site in its current state has been modified such that it displays the characteristics of a generic quarrying operation. In contrast, the vast rural landscape, hills, and ranges (i.e. the ONLs) that surround the terraced landscape within which the site sits, display several of the characteristics that make the Central Otago District landscapes unique. Development enabled by the PPC will be contained within the existing industrial site to ensure that these values are protected in the wider landscape. Future development will be adjoined to the existing development at Pisa Moorings, increasing the footprint of the existing suburban area that sits within the rural landscape.

10.8. Overall, there will be a change in character within the site from an industrial quarry to a mixed-use urban environment. This replacement of land use will not adversely degrade the values of the rural landscape within which the site sits, which is already characterised by mixed uses. This landscape will continue to have the characteristics of a pleasant rural landscape, dominated by rural production and open space. This landscape will continue to sit appropriately in its broader context that is dominated by the surrounding rugged mountain ranges and lake surface.

Conclusions

10.9. A PPC is proposed in relation to the Fulton Hogan Ltd. Property, Parkburn Quarry, located at 930 Luggate-Cromwell Road, Mount Pisa. The PPC will change the zone of 118.65 hectares site of the site from Rural Resource to IND1, IND2, MRZ, LRZ and BU3 zones. This will result in a change in the character and visual amenity when compared to that which is enabled by the existing zoning and scheduled activity (although within the IND1 and IND2 zones industrial activity will continue.

10.10. The PPC would allow for mixed-use urban/suburban development to occur within the site, altering the character and use of the site from an industrial quarry to a neighbourhood or suburb akin to the Pisa Moorings development directly south of the site. A proposed BLR and various setback provisions will have the effect of creating buffers between differing land uses and create visual separation and softening.

10.11. The terraced lakeside landscape of which the site is a part is not part of any ONL, ONF or SAL, however, it is a landscape of mixed rural land uses including considerable productive use that has a pleasant rural landscape character, particularly when perceived in conjunction with its broader setting that includes dramatic mountain backdrops and the broad lake surface

10.12. The areas of zoning created by the PPC will be contained within the existing modified and considerably excavated landform of the site adjacent to the existing residential areas of Pisa Moorings. Essentially, the PPC will provide for land use within the site to transition from one non-rural land use to another. This will inevitably lead to a change in landscape character and visual amenity, but not necessarily a degradation of either.

10.13. In relation to views and visual amenity, the changes that the PPC will bring will be visible from a number of locations. The visual amenity of observers in those locations will be affected as follows:

- From a stretch of SH8 on the opposite side of Lake Dunstan, change will be noticeable but not imposing. Adverse effects on visual amenity of observers will be of a low degree.

- From a stretch of SH6 that passes the site, development enabled by the PPC will be evident but also considerably hidden. Adverse effects on the visual amenity of highway users will be of a low degree at most.

- From a stretch of the Dunstan Trail and parts of the surface of Lake Dunstan, suburban development will be immediately apparent, in conjunction with Pisa Moorings. Adverse effects on visual amenity will be of a low degree, ranging up to moderate low for lake users that are further out on the lake's surface.

- From distant, elevated viewpoints, including locations such as Lake Front Terrace and Bendigo Downs, the visual replacement of quarrying operations with suburban development will be neutral rather than adverse in relation to views and visual amenity.

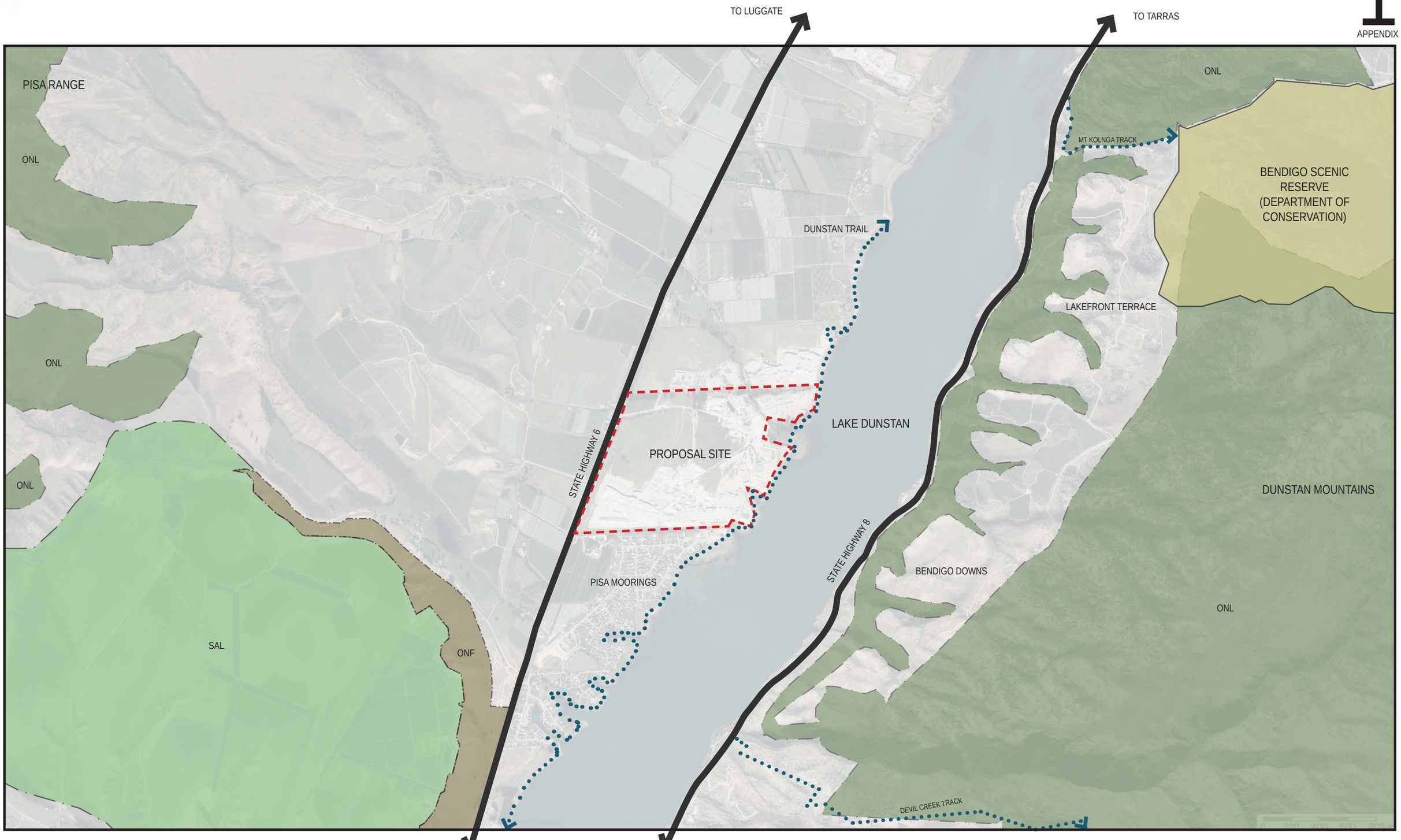
10.14. In relation to landscape effects overall, the alteration of land use and landscape character within the site will not adversely degrade the values of the pleasant, mixed-use, rural landscape within which the site sits. This landscape will continue to contribute to the district's landscape values overall, sitting within a broader setting that includes surrounding ONLS and SALs. Central Otago's unique and distinctive landscapes will be maintained, as the statutory guidance intends.

vivian+espie

24 August 2022

Quality Assurance

Report prepared by Vivian and Espie for Fulton Hogan			
Reviewed and Approved By	Jess McKenzie	Landscape Architect	24 August 2022



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CONTEXT PLAN
FULTON HOGAN - PARKBURN

CENTRAL DISTRICT COUNCIL

LA4 LANDSCAPE ARCHITECTS

Project

Central Otago District Landscape Assessment

KEY Rating

- Extreme sensitivity
- High sensitivity
- Significant sensitivity
- Moderate sensitivity
- Limited sensitivity
- Low sensitivity
- Significant landscape feature
- 10 Landscape unit number

Information:
Scale: 1: 100,000 @A3
Date: 7.07.08
Issue: K

Location:

	1	2		
	3	4	5	
6	7	8	9	10
11	12	13	14	15
16	17	18	19	
	20	21		

PISA RANGE
SUGAR LOAF
PROPOSAL SITE
DUNSTAN
LAKE DUNSTAN
BENDIGO
LOWBURN INLET
CROMWELL
BANNOCKBURN
DUNSTAN MOUNTAINS
JOINS SHEET 6
JOINS SHEET 8

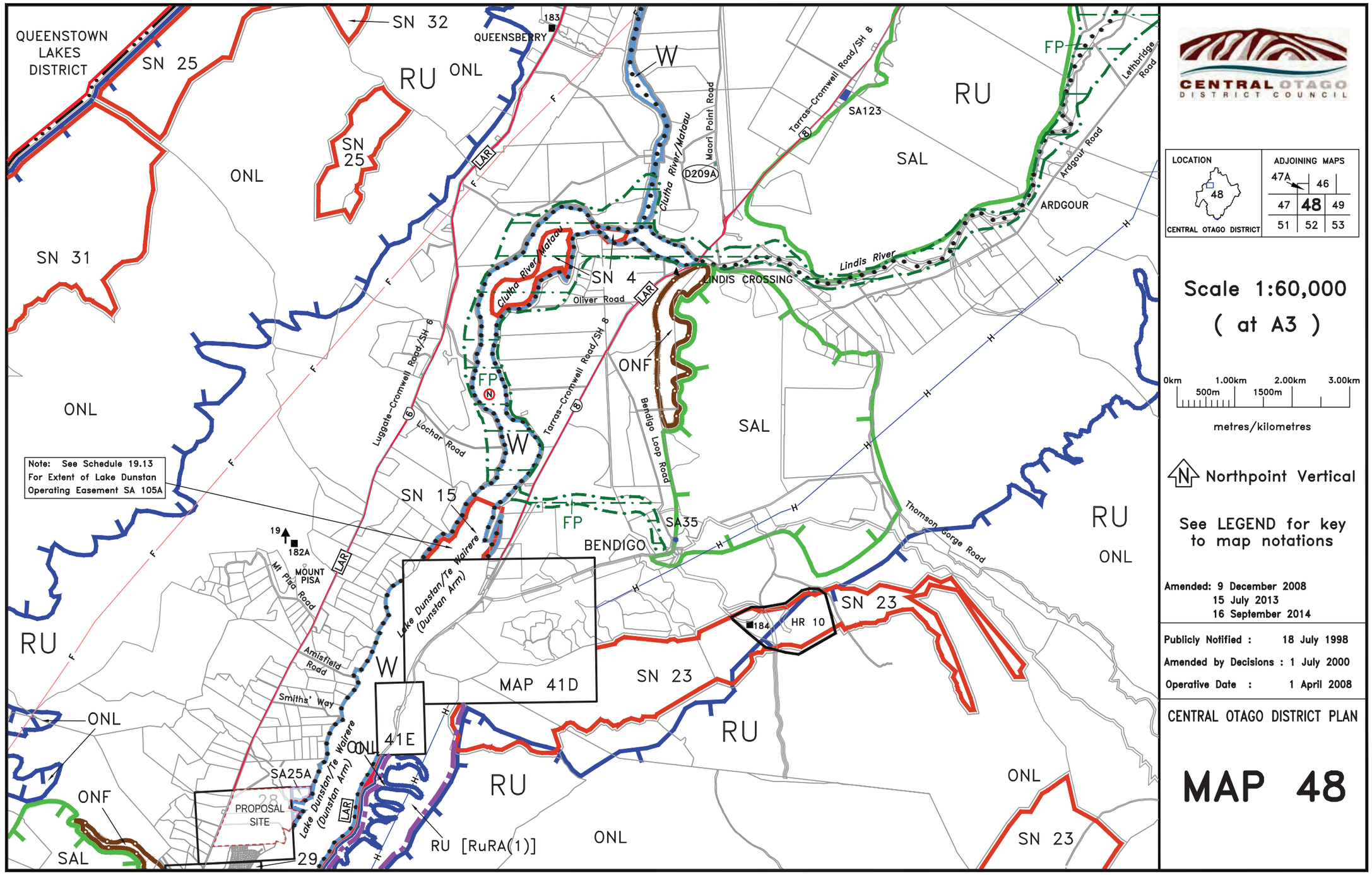
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LANDSCAPE ASSESSMENT
FULTON HOGAN - PARKBURN



CENTRAL OTAGO DISTRICT COUNCIL

LOCATION

ADJOINING MAPS

47A		46
47	**48**	49
51	52	53

Scale 1:60,000

(at A3)

0km 500m 1.00km 1500m 2.00km 3.00km

metres/kilometres

Northpoint Vertical

See LEGEND for key to map notations

Amended: 9 December 2008
15 July 2013
16 September 2014

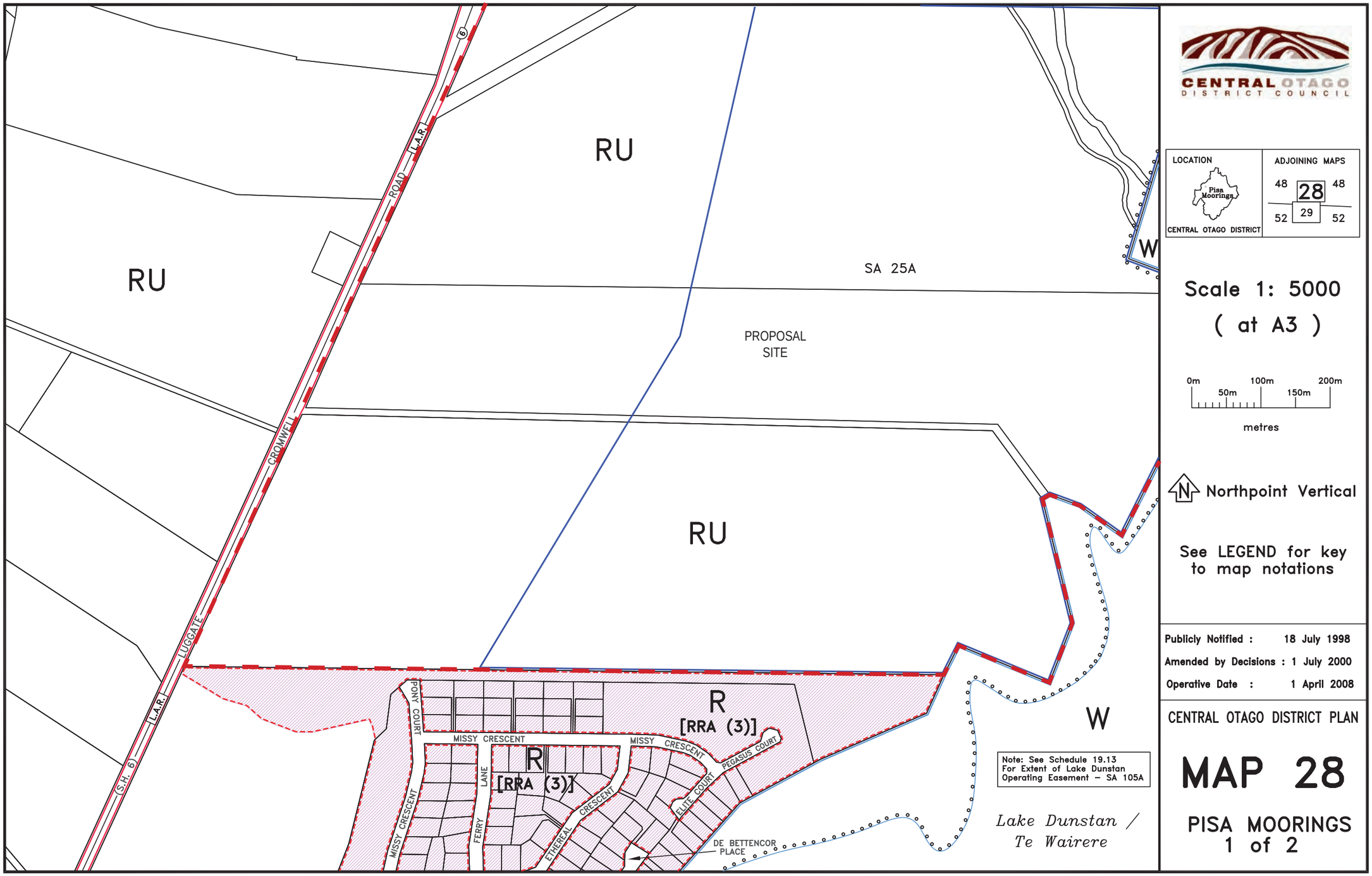
Publicly Notified : 18 July 1998

Amended by Decisions : 1 July 2000

Operative Date : 1 April 2008

CENTRAL OTAGO DISTRICT PLAN

MAP 48


RU
RU
RU
SA 25A
PROPOSAL SITE
W
W
R [RRA (3)]
R [RRA (3)]
CROMWELL - LUGGATE ROAD (S.H. 6) L.A.R.
PONY COURT
MISSY CRESCENT
MISSY CRESCENT
MISSY CRESCENT
LANE
FERRY
ETHEREAL CRESCENT
PEGASUS COURT
ELITE COURT
DE BETTENCOR PLACE
Lake Dunstan / Te Wairere
Note: See Schedule 19.13 For Extent of Lake Dunstan Operating Easement – SA 105A
CENTRAL OTAGO DISTRICT COUNCIL
LOCATION
Pisa Moorings
CENTRAL OTAGO DISTRICT
ADJOINING MAPS
48
28
48
29
52
52
Scale 1: 5000
(at A3)
0m
50m
100m
150m
200m
metres
Northpoint Vertical
See LEGEND for key to map notations
Publicly Notified : 18 July 1998
Amended by Decisions : 1 July 2000
Operative Date : 1 April 2008
CENTRAL OTAGO DISTRICT PLAN
MAP 28
PISA MOORINGS
1 of 2


PROPOSAL SITE
1
2
3
4
5
6
7
8
9


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT


APPROXIMATE LAKE EDGE FRONT OF PROPOSED DEVELOPMENT

APPROXIMATE STREET EDGE FRONT OF PROPOSED DEVELOPMENT





PHOTOGRAPHY LOCATION NINE
FULTON HOGAN - PARKBURN

North

IRA (3)

IRA (2)

RRA (ODP)
MEDIUM DENSITY
RESIDENTIAL

RRA (ODP)
LOW DENSITY
RESIDENTIAL

BRA (3)

KEY

- 20M SETBACK FROM LOW DENSITY RESIDENTIAL
- 100M SETBACK FROM LAKE MARGIN
- 50M SETBACK FROM LAKE MARGIN
- 15M SETBACK FROM LAKE MARGIN
- 10M RIPERIAN PLANTING ALONG CREEK EDGES

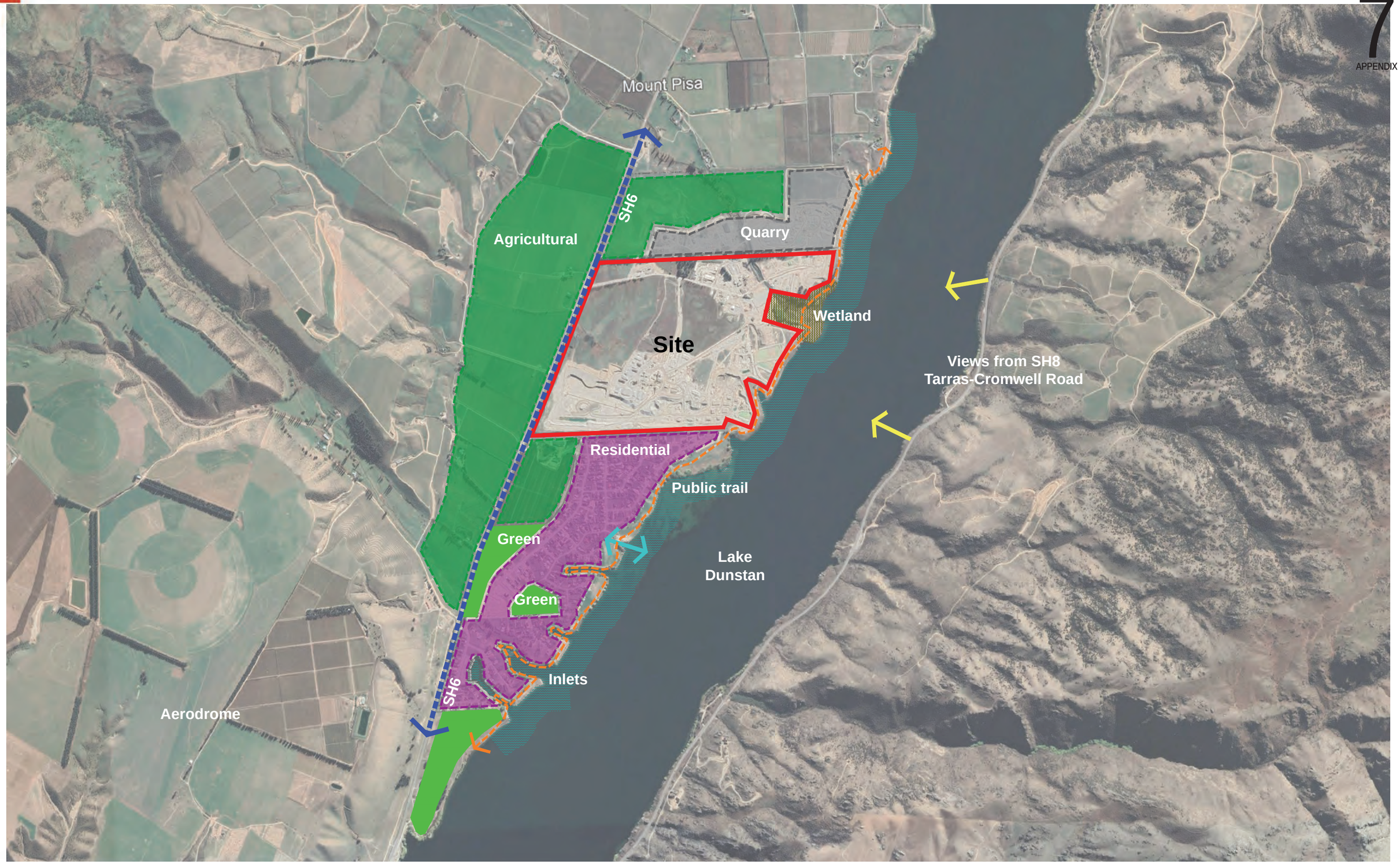
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PROPOSED ZONE MAP
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DEVELOPED DESIGN - WIDER CONTEXT
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DEVELOPED DESIGN - AERIAL VIEW OF SITE
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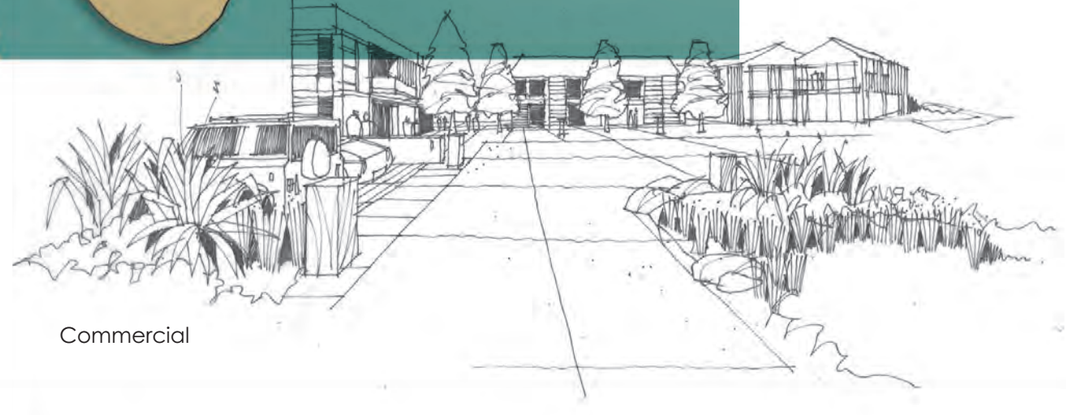
DEVELOPED DESIGN - EXISTING QUARRY CONDITION
FULTON HOGAN - PARKBURN


North
Grass mounds
Entry from SH6
Buffer planting
High density housing
Wetland
Embankment lots
Apartments
Entry from SH6
Wetland
Embankment
Luggate - Cromwell Road
Business / industrial area
Business / industrial area
Potential education location
Business / mixed use area
Park Burn creek + wetland
Boating
Lakefront lots
Commercial/ retail
Village centre
Water front apartments
Waterway lots
Waterways
Lake Dunstan



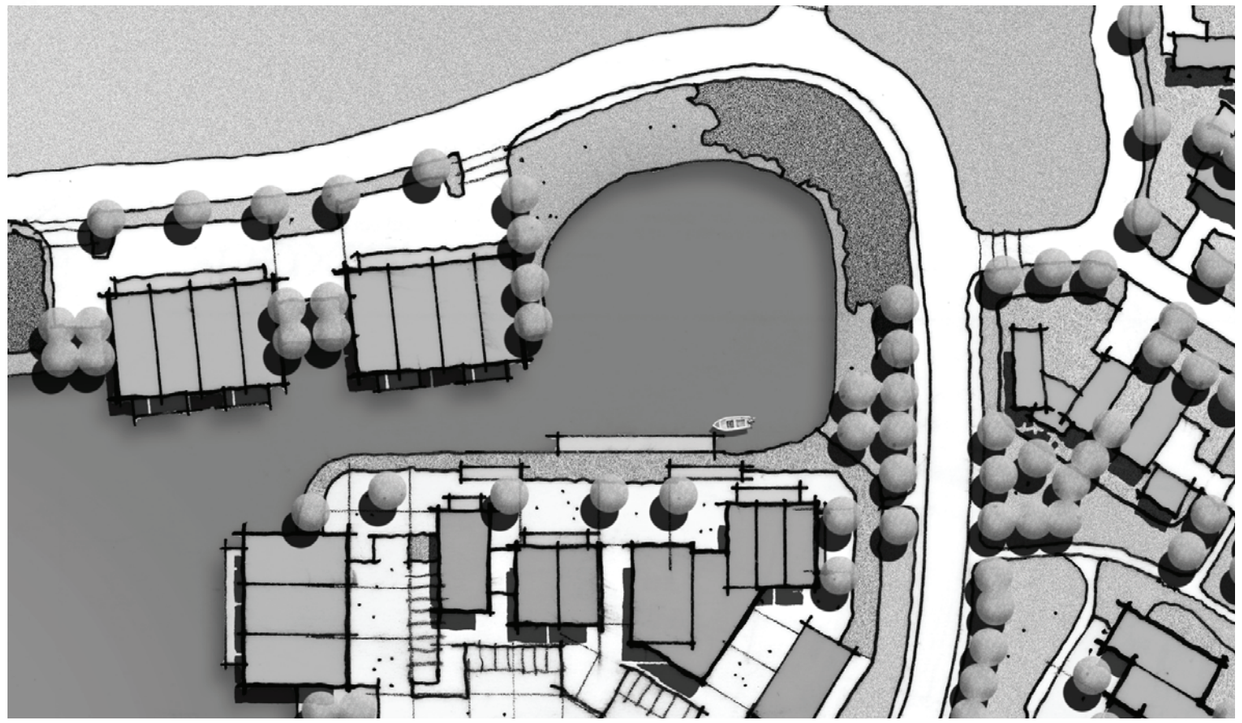
Apartments



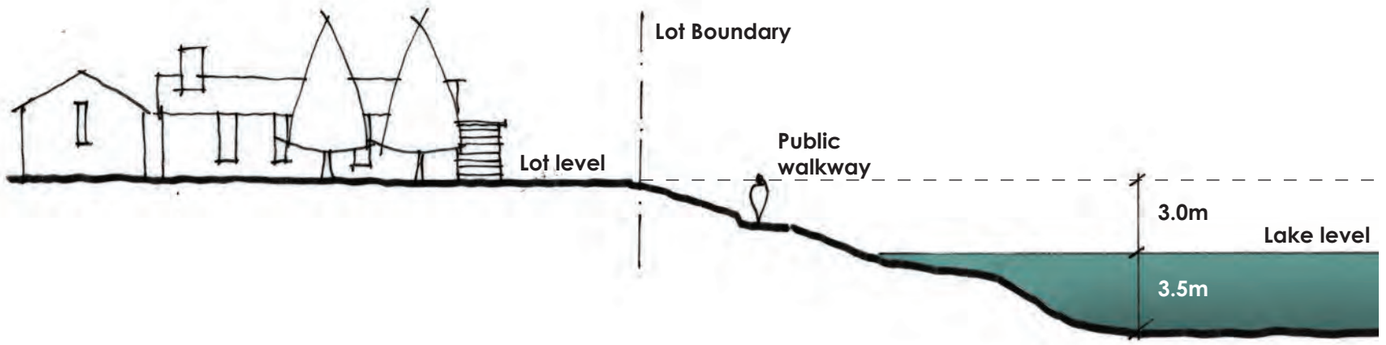


Commercial





Waterfront Plan Extract


Lot Boundary
Lot level
Public
walkway
3.0m
Lake level
3.5m





Ethereal wetlands

Areas of green space to provide stormwater attenuation with native planting mix







Wetland

Regenerative planting to existing wetland at mouth of Park Burn



Swales

Planted swales for stormwater attenuation and filtration

Planted banks

Native planting to stabilise banks and provide wildlife habitat



Wetlands / roadside treatment

Indicative flow paths



Planted Embankment

Mixed native planting to earth banks.

- Stabilisation
- Stormwater attenuation
- Lower maintenance than mown grass
- Biodiversity and ecological benefits
- Amenity value



Planted Gravel Swales

Deeper stormwater swales planted with water tolerant native mix.

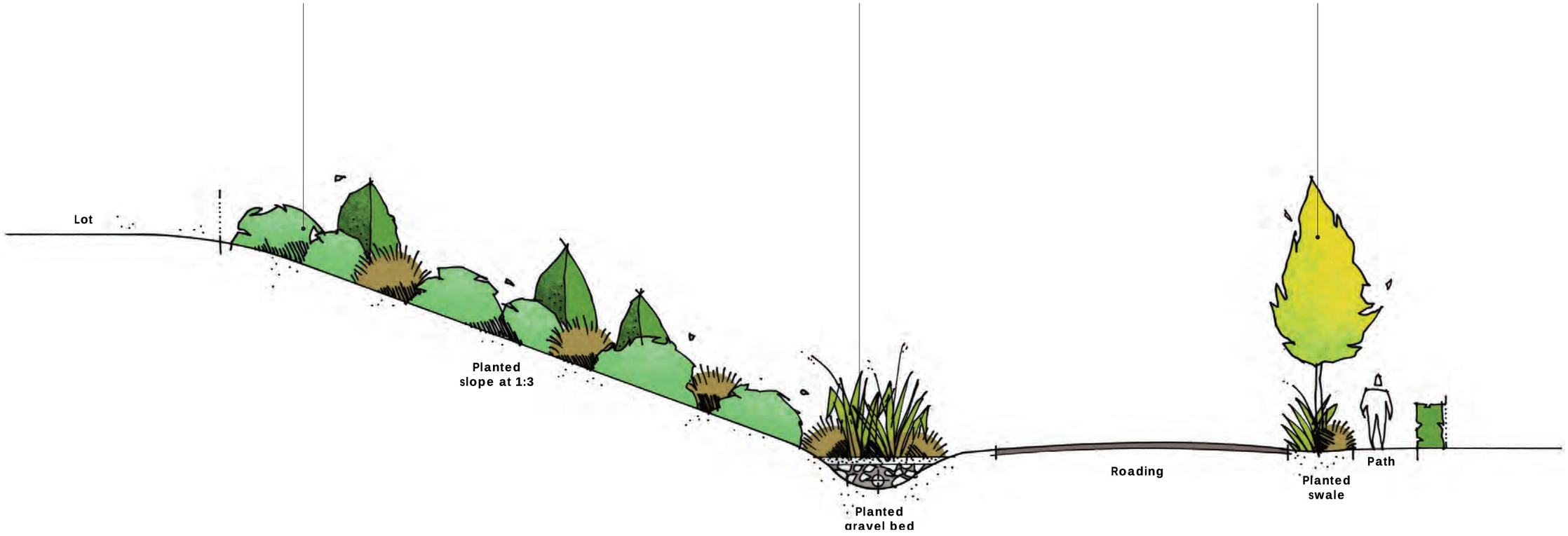
- Stormwater attenuation and filtration
- Low maintenance
- Biodiversity and ecological benefits
- Amenity value



Planted Street Edge

Mixed native planting with exotic street tree species.

- Buffer between pedestrians and roads
- Lower maintenance than mown grass
- Biodiversity and ecological benefits
- Amenity value









Wetlands

Areas for wetlands are included in the masterplan and offer multiple benefits in terms of visual amenity, ecological and stormwater management.

- Stormwater attenuation and filtration
- Low maintenance
- Biodiversity and ecological benefits
- Leisure and amenity value



Raingardens

Raingardens capture and process stormwater run off as well as provide biodiversity and habitat for wildlife.

- Stormwater attenuation and filtration
- Low maintenance
- Biodiversity and ecological benefits
- Amenity value





Boardwalks

Boardwalks provide leisure access through wetland areas whilst minimising damage to sensitive planting.

- Amenity value
- Protect wetlands

North

212
205
205
210
203
200
195
200
210
205
203
200
195
200
200
195
198
200
195
200
200
203
205

Major road grade change between terracing

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DEVELOPED DESIGN - CONCEPT LEVELS
FULTON HOGAN - PARKBURN

North

Primary roads

800m

600m

Vehicle entries

Vehicle entries

Village Centre

200m

400m

Walkable waterways

Pedestrian and cycle track

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DEVELOPED DESIGN - CONNECTIVITY PLAN
FULTON HOGAN - PARKBURN

ROADING HEIRARCHY LEGEND

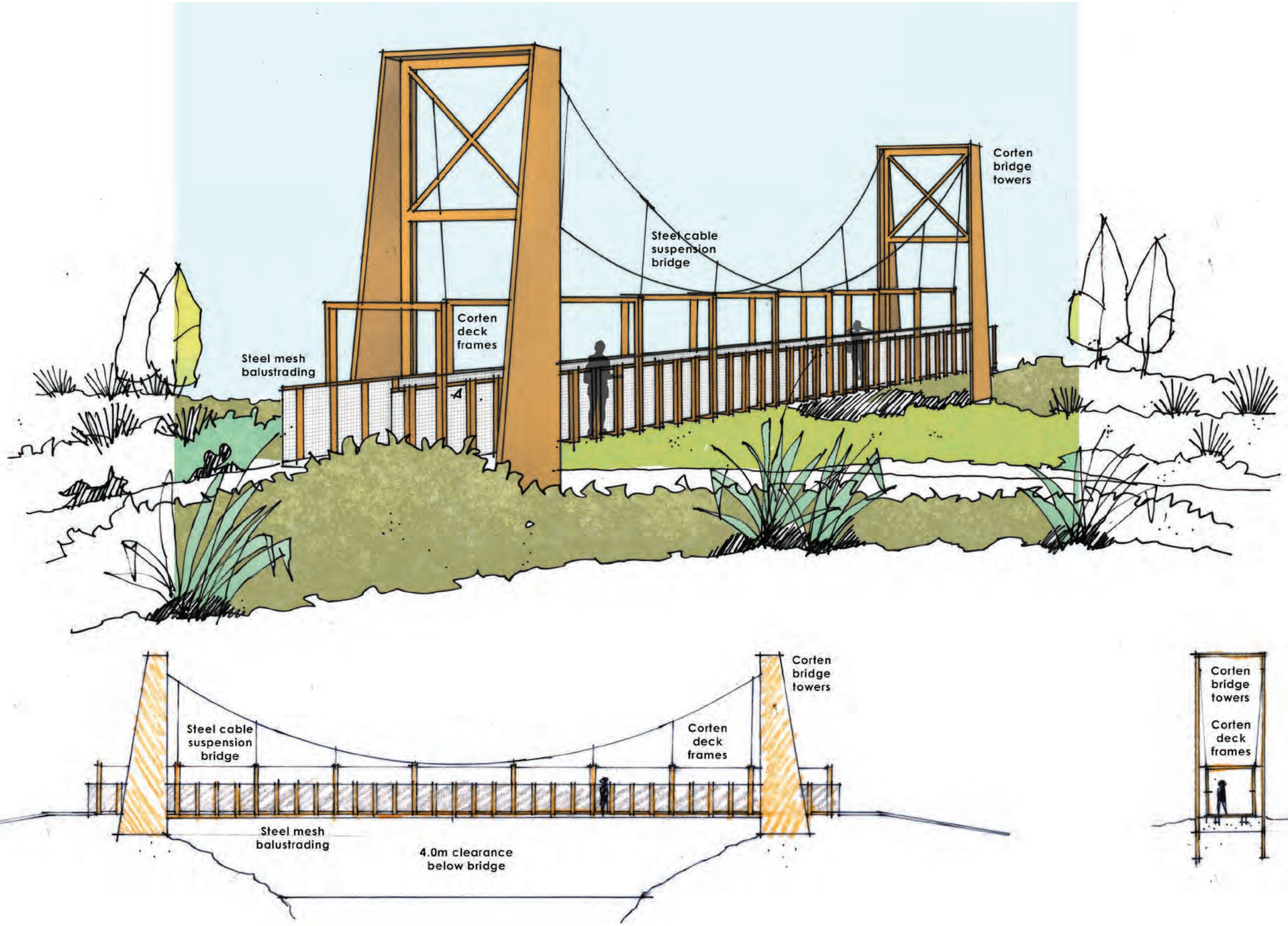
Primary Arterial	4,983 m
Connector Roads	2,677 m
Neighbourhood Roads	3,091 m

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REFERENCE **3077-SK72** - **24 AUG 2022**
DRAFT - NOT A WORKING DRAWING - NOT FOR CONSTRUCTION

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DEVELOPED DESIGN - ROADING PLAN
FULTON HOGAN - PARKBURN


Corten bridge towers
Steel cable suspension bridge
Corten deck frames
Steel mesh balustrading
Corten bridge towers
Steel cable suspension bridge
Corten deck frames
Steel mesh balustrading
4.0m clearance below bridge
Corten bridge towers
Corten deck frames

LOT YIELD / DENSITY			Total Area	Quantity
	Commercial buildings	6 No.	1725 m²	
	Apartments	20m x 8m	9920 m²	62
		20m x 12m	2880 m²	12
	High density lots	< 300m²	21,800 m²	85
	Medium density lots	301-799m²	169,200 m²	272
	Low density lots	> 800m²	94,000 m²	112
	Total lots area	**H + M + L**	**299,525 m²**	**543**

baxter design

REFERENCE **3077-SK74** - **24 AUG 2022**
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DEVELOPED DESIGN - DEVELOPMENT PATTERNS & LOT YIELDS
FULTON HOGAN - PARKBURN