Application for a resource consent - Form 9

APP240778491

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New Zealand

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Date and Time Created	29/07/2024 12:12
Submitted to Council	29/07/2024 12:31

To cross reference Datacom with MAGIQ please click Here. to add the Resource Consent number.

Property Details

Property Address	191 Fay Lane, Queensberry
Valuation Number	2842107723
Record of Tile Number	697559
Legal Description(s) of the specific parcels that the resource consent application is for	Lot 3 DP 427927

What is your role in this application?	Agent acting on behalf of the applicant

Agent details

An agent acts on behalf of the applicant in the submission and processing of the application.

Organisation	Patersons
First name	Maddy
Last name	Albertson
Phone number	0220106236
Email address	maddy.albertson@patersons.co.nz

Note that the applicant will also receive a copy of all correspondence.

Postal address:	30 The Mall, Cromwell, Cromwell 9310
Confirm that you have approval to act on behalf of the applicant	Yes

The applicant is the person(s) or organisation making the application.

Applicant details

Is this applicant an individual or an organisation?	Business / organisation
Organisation	Enfield Limited

Contact Person

First name	Lynn
Last name	Wills
Phone number	0274879938
Email address	ljlmwills@gmail.com
Postal address:	22 Stowell Drive, Cromwell 9310

Authority to apply on behalf

Confirm that the applicant is authorised to apply on behalf of	Yes

the organisation

Invoicing

Who is paying the invoice?	Applicant

DETAILS

Activity or works proposed

Application type	Subdivision consent
Short description of your proposal	11 Lot subdivision in Rural Resource area. Land use consent application for associated earthworks and vegetation clearence of build platforms

Provide a detailed description in the Assessment of Environmental Effects (AEE) or other document.

Assessment of Environmental Effects (AEE)

An application cannot be accepted for processing by the Council under Section 88 of the Resource Management Act 1991, without an Assessment of Environmental Effects (AEE).

Refer to the guidelines for Assessment of Environmental Effects.

Application for Resource Consent - Enfield_opt.pdf (30 mb)

Assessment of the activity

You may need to provide an assessment of the activity against the following provisions:

- **The matters set out in Schedule 4 of the Resource Management Act 1991.**
- **Any relevant objectives, policies, or rules in a document.**
- **Any relevant requirements, conditions, or permissions in any rules in a document.**
- **Any other relevant requirements in a document (e.g. in a national environmental standard or other regulation).**

Please do not load the same document that you loaded for AEE above

Other activities

Other applications

Are you required to apply for any other resource consents for this project?	No
Is this project related to a building consent?	No

Pre-application information

Have you discussed this proposal with Council staff prior to this application?	No prior discussion

Site visit requirements

Who is the site contact?	Applicant

Affected party approvals

All affected property owners, including trustees where properties are held in a trust, must sign written approval forms AND a copy of your plans.

- **If an affected party does not give approval to your proposal this may impact on the way that the application is processed.**

- **Council's duty planner can provide you with advice on which parties may be affected by your proposal.**

Download an affected party approval template form.

Do you need affected party approval?	No
Reason	The applicant requests public notification

National Environmental Standard – Contaminated Soil - option selected	A review has been undertaken of District and Regional Council records and no records have been found suggesting an activity on the HAIL has taken place on the piece of land which is subject to this application. NOTE: depending on the scale and nature of your proposal you may be required to provide details of the records reviewed and the details found.

LIST OF FILES

Application for Resource Consent - Enfield_opt.pdf (30 mb)
C2855_SCM_5B.pdf (7 mb)
Appendix D Ecological Assessment - Wildland Consultants.pdf (12 mb)
20240514_LAReportGA_ProposedSubdivision_Queensbury.pdf (17 mb)
20240514_LAReportGA_ProposedSubdivisionassessment.pdf (1 mb)
697559_Title_Search_Copy.pdf (394 kb)

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Application for Resource Consent for 11 Lot Subdivision

191 Fay Lane, Queensberry
Lot 3 DP 427927

ENFIELD LIMITED

C2855
29/07/2024

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DOCUMENT CONTROL

Project	11-Lot Subdivision 191 Fay Lane, Queensberry
Client	Enfield Limited
Project No.	C2855
Revision	00
Date of Issue	29 July 2024
Agent Contact	Maddy Albertson Planner Patersons| Cromwell Mob 0220106236 maddy.albertson@patersons.co.nz PO Box 84, Cromwell 9342 30 The Mall, Cromwell 9342

AUTHOR(S)

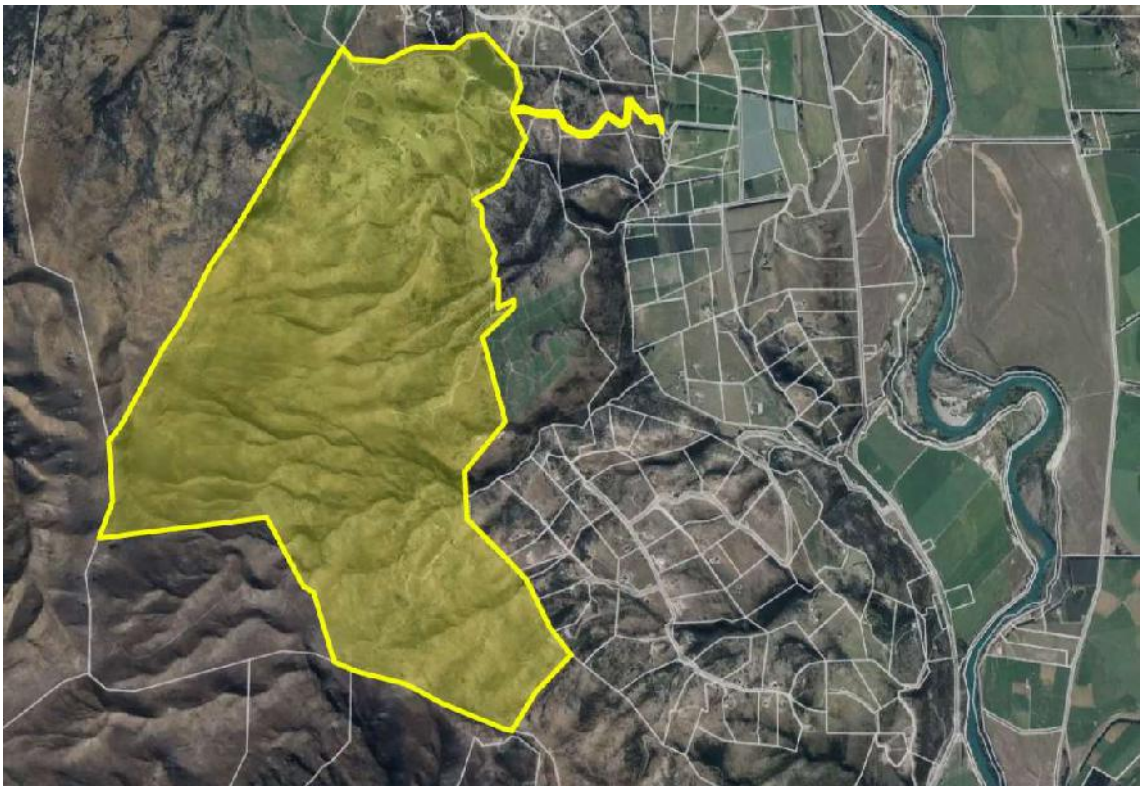
Prepared	Maddy Albertson Planner
Reviewed	Duncan White Principal Planner

TABLE OF CONTENTS

1.0 APPLICATION DETAILS

Applicant(s):	Enfield Limited
Site Address:	191 Fay Lane, Queensberry
Legal Description:	Lot 3 DP 427927 and Lot 1 DP 487478
Record of Title:	697559 (attached in **Appendix A** – Record of Title)
Site Area:	816.7858 ha (combined)
District Plan:	Central Otago District Plan (CODP)
Zoning:	Rural Resource Area
Overlays:	Outstanding Natural Landscape
Resource Consent:	Subdivision & Land Use
Activity Status:	Discretionary

Locality Map:



2.0 BACKGROUND

2.1 SITE AND SURROUNDINGS

The subject site at 191 Fay Lane, Queensberry is a 710-hectare rural lot located on the lower elevation of the Pisa Mountain Range above Queensberry. The area of the site proposed for subdivision includes a 107ha area to the southwest of the end of Fay Lane.

The current land use is predominantly dryland sheep farming, with a small area of cultivated and irrigated land at the south-eastern corner of the site. Vegetation at the site consists mainly of regenerating kānuka (Kunzea serotina)-dominant scrub and shrubland, with smaller areas of grassland, wetland, herbfield and rock cliffs.

The site gradually slopes from the higher elevation of the Pisa Range to the south-west toward the alluvial plains by Queensberry to the north-east. At the area of the site proposed for subdivision, there are two prominent valley landforms in a north-south orientation that are separated by localised ridgelines that also follow a north-south orientation.

The site is accessed from Fay Lane, which is formed to a rural gravel standard from the turn off at Queensberry Terrace. The site is not serviced. Overhead powerlines run north-west to south-east through the site, immediately south of the area of the site proposed for subdivision.

The site contains a portion of Outstanding Natural Landscape zoning overlay, which extends from the subject site south to Cromwell, encompassing the eastern aspect of the Pisa Mountain Range. The area of the site subject to this application straddles the boundary of the Outstanding Natural Landscape.

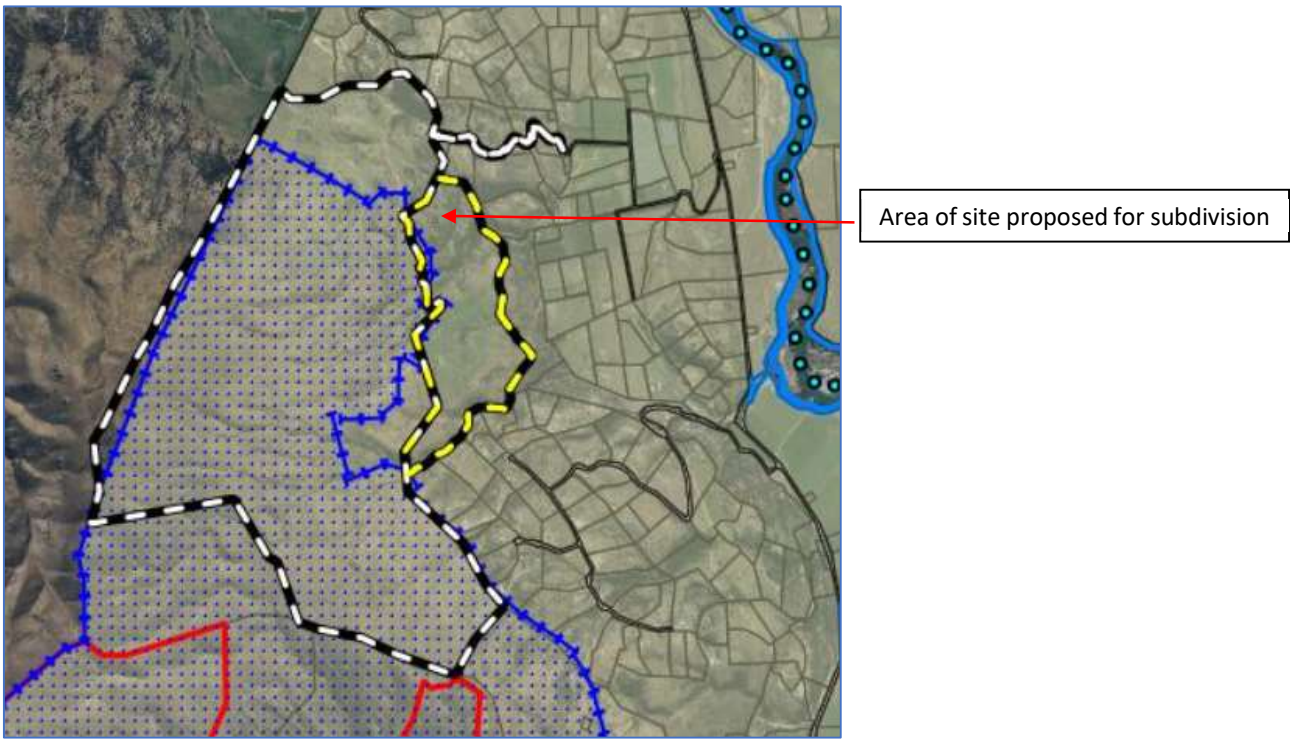


Figure 1. Subject Site (black and white line, yellow and black line) in relation to Outstanding Natural Landscape (blue dotted area)

There are no hazards which are identified for the site as per the CODC Planning Maps. There are no Hazardous Activities and Industries Sites identified for the site as per the Otago Regional Council - Land Use Register.

2.2 TITLE INTERESTS

A copy of the record of title and associated interests attached as **Appendix** A

The subject site straddles the territorial authority boundary between Central Otago District Council (CODC) and Queenstown Lakes District Council (QLDC), with majority of the site being contained within CODC and a small western strip of the site being located within QLDC.

This subdivision is located on the land within CODC. The relevant title for the subject site contains historic consent notices issued by QLDC, these have no relevance to this application. An application to QLDC to have them removed from title and prevent them from falling down on future titles will be made. Other consent notices of relevance are detailed below:

Consent Notice 8622143.1 was imposed after gaining consent for subdivision in 2009 from CODC– Condition 35 restricts further subdivision of Lot 3 DP 427927, until such time that the access contained within Lot 3 DP 427927 is upgraded to comply with a standard that is acceptable to Council.

Consent Notice 10031473.11 was imposed after gaining subdivision consent from CODC in 2015 – As it relates to Lot 1 DP 487478, Condition 10 lists landscape controls including a maximum native indigenous vegetation clearance of 2,000m^2 exclusive of that required for building platform and/or access thereto any lot, among others.

2.3 CONSENT HISTORY

Otago Regional Council Permits 95600 and 95736 provide water take consent for 926,113m^3 per year from Poison Creek and an unnamed tributary of Poison Creek , for the purpose of the taking water for stock, dairy shed use and irrigation. This consent does not permit domestic use.

The existing water take permits will be unaffected by the proposed subdivision.

3.0 DESCRIPTION OF PROPOSAL

3.1 SUBDIVISION

Resource consent is sought to establish an 11-lot subdivision with the following lot areas:

Lot	Area
1	710.0383ha (Balance Lot)
2	2.01ha
3	5.03ha
4	8.54ha
5	5.878ha
6	5.77ha
7	11.97ha
8	7.02ha
9	8.18ha
10	4.56ha
100	106.7475ha (Balance Lot)

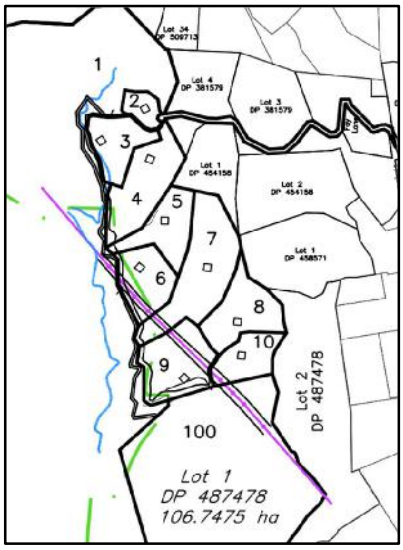


Figure 2 shows overall allotment shape with associated area table.

The proposal involves the creation of nine new lots and two balance lots. The scheme plan for the proposed lots is attached as **Appendix B** and broadly detailed in Figure 2 above**.** Servicing, infrastructure and roading aspects of the proposed subdivision are detailed in the subsections below.

Parts of the western edge of the proposed subdivision access are located within the ONL area. No built form will be located within the ONL, however earthworks within the ONL will be required to form an existing farm track to access standards.

The physical design and construction of works to be carried out as part of the subdivision or as required by a condition of consent will generally be in accordance with Council's Code of Practice for Subdivision.

Lot 1 DP 487478 and Lot 3 DP427927 have a combined area of 807.88ha and are referred to as the parent property. Proposed Lots 1 and 100 are balance lots that will comprise the majority of the parent property. Proposed Lots 2 – 10 that are proposed to contain building platforms will vary in size between 2.01ha and 11.97ha in area, with a combined area of 58.95ha. Lots 2 – 10 are collectively referred to as the site.

3.1.1 Access and Servicing

Access	Fay Lane is proposed to be upgraded according to part 29 of CODC's roading standards to the boundary of proposed Lot 2 and include a turning circle, this was discussed as the preferred option during pre-application meetings with CODC. This access will link to an existing farm track that will be formalised to provide access to the remaining allotments. It is expected that a design for the access will be completed to Council standards prior to engineering approval process.
Power	Power will be reticulated to the build platforms within the allotments. Confirmation has been obtained from NES that this is feasible and design plans for connections are to be confirmed prior to engineering approval of the proposed subdivision.
Water	Water is proposed to be reticulated to build platform areas from the Queensberry Irrigation Scheme. Confirmation of availability and allocation has been attached with the Record of Title in **Appendix A.** It is intended that water

	tests will be completed prior to engineering approval to confirm if secondary treatment will be required to meet freshwater drinking standards.
Wastewater	It is intended that at the stage of establishing residential dwellings onsite wastewater disposal systems will be installed or other suitable waste management systems. The size of the proposed building platforms is appropriate to locate various options. It is considered that a site and soils report is not required at this stage of the development.
Stormwater	Stormwater from future dwellings is proposed to be discharged to land through soak pit. Appropriate designs will be confirmed at building consent stage.
Telecommunications	Satellite telecommunications is considered appropriate for this proposal due to the rural location.

3.1.2 Geotech and Natural Hazards

A review of the ORC hazard database has confirmed that there are no mapped hazards on the subject site. The area is described as being made up of primarily schist bedrock. There is an identified alluvial fan below the subject site that does not impact the areas for proposed dwellings.

It is considered that the site is appropriate for establishing residential activity on the proposed building platforms and further investigation on establishing foundations for dwellings can be completed prior to building consent. Controls will be put in place prior to the beginning of construction to ensure any risk of erosion and sedimentation is mitigated.

3.1.3 Earthworks

Earthworks will include upgrading the existing accessway and creating levelled areas within the building platforms to accommodate future dwellings, sheds and outdoor areas. Designs for the upgrade of Fay Lane and the formation of the access track will be completed prior to engineering approval.

Earthworks areas will be as follows:

Disturbance Type	Area
30mx 30m build platforms	8100m^2
Access track from Fay Lane	16,000m^2
Fay Lane Upgrade / Extension	26,600m^2

The only earthworks taking place within the Outstanding Natural Landscape will be 700m of the access track from Faye Lane that will provide entrances to the proposed allotments.

Prior to beginning earthworks related with the subdivision, appropriate earthwork management practices will be implemented to ensure any risks of erosion or sedimentation are mitigated.

3.1.4 Building Platform

Each of the nine lots will contain a 30m x 30m (900m^2) building platform. The overall building footprint of future built form within each building platform will not exceed 450m^2.

Each building platform is proposed to be limited to a 6m height limit above existing ground level.

The external cladding of future dwellings will be in accordance with the following:

- Exterior paint colours shall be in the recessive with a maximum light reflectivity value (LRV) of 20% in the range of browns, greens and greys; and
- Natural timbers shall be left to weather, or stain colours shall be of a natural hue or black, rather than other colours; and
- Roof cladding shall have a maximum LRV of 20% or less and shall be dark recessive colours in the range of browns and greys and finished with a matte surface.

Landscape report with recommendations is attached as **Appendix C**, Subdivision Plan attached as **Appendix B.**

3.1.5 Landscape

Recommendations from within the landscape report produced by Rough Milne Mitchell attached within **Appendix C** have been discussed below:

Vehicle entranceway structures shall be of a standard farm gate design to a height of no more than 1.2m and shall be constructed of natural materials such as unpainted timber or stone to not be visually obtrusive (monumental) and consistent with traditional rural gateways. The intention is to maintain the rural character of the area by ensuring that structures associated with development on the proposed sites are in keeping with what is expected in the area.

Fences are limited to perimeter fencing around the building platform and / or the curtilage area, and shall be transparent rural style fencing, such as post-and-wire, or post-and-rail fences. Fencing is not to demarcate boundaries, to ensure the open character of the visual amenity is maintained appropriately.

No exotic tree species with wilding potential shall be planted within the site.

Native screen planting, for the purposes of visual mitigation is proposed within Lots 3, 9 and 10. This vegetation will aid in screening future dwellings and accessways from the highway as identified from the viewpoint analysis on GA sheets 20-27 within the Landscape Report attached as **Appendix C**. The intention is to establish these planting areas prior to s224 certification being issued to ensure that at the commencement of residential development sufficient growth time has been afforded to the plantings.

A 30m fire break setback for flammable vegetation from each building platform has been proposed to help mitigate risks from the existing Kanuka stands on the site, as proposed by FENZ. This will involve relocating native flammable plants from within the setback to the Kanuka Ecological Enhancement Area.

All native vegetation that is removed, where possible shall be relocated or, two native plants shall replace each plant that is removed, such native vegetation will be located in the Kanuka Ecological Protection Areas as detailed on the Landscape plan. Any plantings within the fire break setback surrounding build platforms will be low flammability.

3.1.6 Planting

There are multiple aspects to the proposed planting on the site, being; bulk native vegetation planting areas for visual mitigation as discussed above in section 3.1.5. Ecological enhancement planting areas where any removed flammable native vegetation from within fire setbacks can be re-established and native low flammability planting surrounding build platforms within the fire setback. Further details on the fire risk mitigation and plantings is discussed below in Section 3.7.1

All proposed native vegetation will consist of plant species from the Low Flammability Plant List and will have a mature height of 3m or more. All plants shall be planted prior to each lot gaining title and shall be planted in accordance with the following:

- All plants will be implemented at 1m spacings or less.
- All plants shall be planted with a slow-release fertiliser.
- All plants shall be surrounded with bark mulch.
- All plants shall have pest protection sleeves installed.
- If a plant dies, it will be replaced within the following planting season.
- All native vegetation outside of the fire defensible areas will be retained.

Further proposed ecological controls for kanuka enhancement planting areas:

- The management company in charge of the Kanuka Enhancement Ecological Areas will be established prior to each lot gaining title. The management company will be responsible for the creating an Indigenous Plant Restoration Plan prepared by a suitably qualified ecologist.
- Future lot owners will be responsible for the relocation of Kanuka to the Kanuka Ecological Enhancement Areas prior to completion of their respective dwellings.
- All proposed native vegetation within Lots 9 and 10, outside of the Fire Emergency New Zealand (FENZ) setback areas will be planted prior to each lot gaining title.
- All other proposed landscaping requirements will be undertaken prior to the completion of their respective dwellings.

3.1.7 Fire Risk Mitigation

The ecology and landscape report assessments identified the site as having a heightened fire risk due to the presence of flammable native Kanuka vegetation. Proposed landscape controls including fire break setbacks and replanting plans will ensure the site is safe to establish residential activity while also maintaining the ecological values of the subject site.

Two setbacks from the proposed building platforms will be imposed. Native vegetation within the FENZ 10m setback (which includes the building platform) and FENZ 30m setback will be managed as per the following.

Detailed plans for proposed build platform fire setbacks and planting areas can be found on GA Sheets 3 – 14 contained within the Landscape report attached as **Appendix C**.

FENZ 10m Setback:

- All highly flammable plants will be replanted within the Kānuka Ecological Area. If a plant dies, it will be replaced within the following planting season.
- Isolated clumps of low flammability plant species may be located within this space.
- Dead branches, twigs, leaf litter and the like shall be cleared regularly from underneath and around all plants.

FENZ 30m Setback:

- All highly flammable plant species will be replanted and replaced with low flammability plant species. If a plant dies, it will be replaced within the following planting season.
- Dead branches, twigs, leaf litter and the like shall be cleared regularly from underneath and around all plants.
- No exotic tree species with wilding potential shall be planted within the site.

Suitable Low Flammability Species:

Fuchsia excorticata	Kotukutuku	4m tall after 5 years. Mature height 6m.
Pseudopanax crassiofolius	Horoekea/Lancewood	2m tall after 5 years. Mature height 12m.
Pseudopanax arboreus	Five finger	3m tall after 5 years. Mature height 6m.
Coprosma robusta	Karamu	3m tall after 5 years. Mature height 5m.
Coprosma repens	Taupata	3m tall after 5 years. Mature height 5m.
Carpodetus serratus	Putaputaweta	6m tall after 5 years. Mature height 10m.
Griselinia littoralis	Papauma/Broadleaf	3m tall after 5 years. Mature height 6m.
Macropiper excelsum	Kawakawa/Peppertree	2m tall after 5 years. Mature height 4m.

3.1.8 Ecology

Wildland Consultants were engaged to undertake an ecological assessment of the fauna and flora of the site to determine the appropriateness of the proposed subdivision and building platforms.

The report (attached as **Appendix D)** confirmed that the site is located within Pisa Ecological District, which comprises the Pisa Range and the flats south of Wānaka.

The ecological report calculated that approximately 2.7 hectares of exotic-dominant grassland vegetation would be cleared, containing approximately 328 indigenous shrubs scattered within the grassland, and small patches of mat daisy at Lot 7. Approximately 0.6 hectares of indigenous-dominant vegetation would be cleared, containing kānuka, occasional mānuka and matagouri, and a few desert broom, porcupine shrub and korokio.

The planned subdivision will also affect lizard habitat areas (through clearance of rank grass and other dense ground cover vegetation, removal of loose rocks) in order to prepare the site for construction. A Lizard Management Plan (LMP) and a Wildlife Act Authority (WAA) from the Department of Conservation are required for the project to address adverse effects on lizards. This process will be undertaken separately from obtaining subdivision consent.

The table below sourced from the ecology assessment (**attached within Appendix D**) details effects and mitigation measures of the proposed subdivision and land use development.

Proposed recommendations included within Ecology Assessment:

1. *Driveways to follow the route that minimises removal of indigenous shrubs and rock tors.*
2. *Main access road gully crossings to be located to avoid all Olearia lineata.*
3. *The extent of vegetation clearance permitted by landowners to be limited to a maximum area considered reasonable for establishing a house and section.*
4. *Pest plant control to be undertaken, to include Scotch broom, gorse, wilding conifers, crack willow, and surveillance for and removal of new species introductions.*
5. *A Lizard Management Plan and Wildlife Act Authority application to be developed, clearly demonstrating mitigation of adverse effects of the development on lizards .*
6. *A Construction Management plan to be developed, to describe how potential adverse effects on ecological values outside of the construction zones will be managed.*
7. *Consideration of robust formal protection of higher value parts of the site should be considered.*
8. *A woody indigenous plant community restoration plan to be prepared by a suitably qualified ecologist that identifies areas and species to be planted, management measures to ensure successful*

establishment, and reporting requirements. This area to be approximately one hectare. Suggested components of the plan are a revegetation area in grassland at the north of the site, underplanting within kānuka scrub at four locations across the site, and plantings within wetlands at four gully heads.

4.0 RESOURCE CONSENTS REQUIRED

4.1 REASONS FOR CONSENT

The subject site is zoned Rural Resource Area in the CODP.

Subdivision consent is required under the CODP for the following:

- As a **Discretionary** Activity under Rule 4.7.4(iii)(b) for creating allotments with an average allotment area of no less than 8 hectares and a minimum allotment area of no less than 2 hectares in an area not identified on the planning maps as Rural-Residential, Rural Resource Area (1) or Rural Resource Area (2) or Rural Resource Area (3).

  Note:

  - *For the purposes of Rule 4.7.4(iii)(b) allotments in excess of 16 hectares are deemed to be 16 hectares for averaging purposes.*

  - *Any application made under (a) and (b) will generally not be publicly notified where it is accompanied by the written approval of every person that may be adversely affected including the owners and occupiers of every adjacent property.*

Land Use consent is required under the Central Otago District Plan for the following:

- As a **Restricted Discretionary** Activity under Rule 4.7.3(vii) for residential building platforms that comply with standards 4.7.3(vii)(a)-(d).
- As a **Discretionary** Activity under Rule 4.7.4(i) for a breach of excavation standards for within the Outstanding Natural Landscape.
- As a **Discretionary** activity under Rule 4.7.4(i) for a breach of rule 4.7.6K where Native Vegetation Clearance will exceed 0.5ha.

Overall, the application seeks resource consent as a **Discretionary** activity.

5.0 DISTRICT PLAN ASSESSMENT

5.1 STANDARDS

For ease of assessment, the relevant chapter standards of the Central Otago District Plan are assessed in **Appendix E**.

The aspects of the proposal that require resource consent have been identified in **Section 4.0** above.
The matters of discretion associated with the residential building platform activity have been included in the standards assessment table in **Appendix E**.

5.2 OBJECTIVES AND POLICIES

The application is required to be assessed against the relevant District Plan objectives and policies. These are assessed below by chapter.

5.2.1 Section 4 Rural Resource Area

- ***4.3.1 Objective - Needs of the District's People and Communities - To recognise that communities need to provide for their social, economic and cultural wellbeing, and for their health and safety at the same time as ensuring environmental quality is maintained and enhanced.***

  Policies: *4.4.1 to 4.4.16, 4.4.18*

  Comment: The proposed rural subdivision development provides for additional housing supply on currently unproductive section of the subject site, while environmental, landscape and amenity values are managed appropriately. The proposal is considered consistent with the above objective and associated policies.

- ***4.3.2 Objective – Outstanding Natural Landscapes and Outstanding Natural Features, and Land in the Upper Manorburn/Lake Onslow Landscape Management Area - To protect the Districts outstanding natural landscapes and outstanding natural features, and land in the Upper Manorburn/Lake Onslow Landscape Management Area (including landforms) from the adverse effects of inappropriate subdivision, use and development.***

  Policies: *4.4.1*

  Comment: The subject site contains approx. 35ha of rural zoned land with an ONL overlay on the western boundary. There is no intention to site dwellings or structures on this portion of the site. It is proposed to upgrade an existing farm access track in this area to use as the formal access to the subdivided sites off Fay Lane. Earthworks in this area are supported by the Landscape Assessment attached in **Appendix C** and the ecological assessment attached in **Appendix D.** It is therefore considered this proposal is consistent with the objectives and policies in place to protect the District's Outstanding Natural Landscapes.

- ***4.3.3 Objective - Landscape and Amenity Values - To maintain and where practicable enhance rural amenity values created by the open space, landscape, natural character and built environment values of the District's rural environment, and to maintain the open natural character of the hills and ranges.***

  Policies: *4.4.1, 4.4.2, 4.4.3, 4.4.8, 4.4.9, 4.4.10, 4.4.11, 4.4.12, 4.4.14, 4.4.18*

  Comment: The proposed rural subdivision development provides for adequately spaced and generously sized lots for future rural lifestyle activity. The proposal includes the provision of building platforms which specifies where future residential buildings will be located, which have been analysed and designed to integrate into the existing landscape and reduce the potential for visual effects from the wider environment.

  This is achieved by locating building platforms in a position that are obstructed by natural landform, and through existing and proposed screen planting. The Landscape Assessment, attached as **Appendix C,** identifies areas appropriate for screen planting mitigation and provides outlooks to the subject site and proposed build platforms from multiple locations.

The assessment concludes that the application is consistent with the above objective and associated policies on maintaining and enhancing rural amenity.

- ***4.3.7 Objective - Soil Resource - To maintain the life-supporting capacity of the District's soil resource to ensure that the needs of present and future generations are met.***

  Policies: *4.4.6, 4.4.10, 4.4.12, 4.4.18*

  Comment: As detailed in Section 7 of this report, the site contains land mapped as LUC Class 6, as identified by Land Use Capability mapping held by Landcare Research. As the subject site is not considered highly productive, nor is it currently used for agriculture productivity, the proposed subdivision for rural lifestyle activity is considered acceptable and not to create reverse sensitivity effects.

  Further to this, the applicant is proposing to retain areas of the subject site that are able to and currently are used as productive pasture. This ensures the productive life supporting capacity of the District's soil resource will be preserved for rural use, while other areas are able to be utilised for rural living. The above, along with the proposed landscape controls and planting, confirm that the proposal is consistent with the above objective and associated policies.

5.2.2 Section 12 District Wide

- ***12.3.1 Objective - Safe and Efficient Roading Network - To promote the safe and efficient operation of the District's roading network.***

  Policies: *21.4.1*

  Comment: The proposal utilizes existing access ways off Fay Lane and an existing farm track to provide further access to the new lots. The farm track is proposed to be upgraded to an appropriate level of service for the intended residential use. It is intended that designs for this and the upgrade and sealing of Fay Lane will be confirmed prior to undertaking subdivision works. The upgraded farm track access will remain in private ownership. All lots will have sufficient vehicle parking on site. The proposal is considered consistent with the above objective and associated policies.

- ***12.3.4 Objective - Avoidance, Remedying or Mitigation of Nuisances - To ensure that activities avoid, remedy or mitigate nuisance to adjoining properties from odour, dust, lightspill, glare and electrical interference.***

  Policies: *12.4.7*

  Comment: The proposed access will involve sealing and upgrading the existing farm track to an appropriate level of service for the intended use and therefore significantly reduce the potential for dust nuisances from gravel roads on the property. Utilizing the existing farm track in favour of a new access reduces land scarring and contains potential light spill to an area of existing use, of which light spill is restricted by natural landforms on site.

  The increase in the level of activity on the site, resulting from the proposed allotments and build platforms, is not expected to generate a level of effect that would result in nuisance to neighbouring sites. Therefore, it is considered that the proposal is consistent with the above Objective and Policy.

5.2.3 Section 16 Subdivision

- ***16.3.1 Objective - Adverse Effects on the Roading Network - To ensure that subdivision avoids, remedies or mitigates adverse effects on the safe and efficient operation of the District's roading network.***

  Policies: *16.4.1, 16.4.2*

  Comment: The associated trip generation from the addition of nine lots anticipated for rural lifestyle activity is relatively minor and is not expected to create a noticeable impact on the local road network. The proposed subdivision will be accessed from Fay Lane, a rural access road that adjoins Queensberry Terrace, which will be upgraded to allow for the extra accesses. Due to the good visibility at the Queensberry Terrace/Fay Lane intersection and subsequent intersections, it is considered the road design is safe and appropriate for the additional vehicle trips and an extension of the sealed surface will result in the maintenance of the safe and efficient operation of the districts roading network

- ***16.3.2 Objective - Services and Infrastructure - To ensure that subdivisions provide all necessary services and infrastructure without adversely affecting the public interest and the ongoing viability of those services and infrastructure.***

  Policies: *16.4.3, 16.4.5*

  Comment: The proposed subdivision development will include the provision of all required service connections including water, serviced through the Queensberry Irrigation Scheme, and electricity extended to the build platforms. New access for vehicle access to lots for future residents will also be provided. Preliminary discussions with CODC on this subdivision agreed that an extension of the sealing of Fay Lane to the boundary of proposed Lot 2 will provide the best roading outcome for this application.

- ***16.3.3 Objective – Hazards - To ensure that subdivision does not facilitate development that may potentially be at risk from hazards.***

  Policies: *16.4.8 Section 17 Hazards*

  Comment: No hazards are identified on the subject site area for the proposed subdivision. Appropriate building platform sites have been provided on the subdivision plan attached as **Appendix B.** It is expected that further investigation and engineered designs for building foundations will be prepared prior to the construction of dwellings on the new allotments.

- ***16.3.4 Objective - Amenity Values - To ensure, where appropriate, that amenity values of the District created by the open space, landscape and natural character values, and areas of significant indigenous vegetation, significant habitat of statutorily managed sports fish and game are not adversely affected by subdivision.***

  Policies: *16.4.4, 16.4.7, 4.4.10*

  Comment: As discussed within the landscape assessment attached as **Appendix C**. The proposed subdivision will include visual mitigation plantings and ecological replanting areas for existing Kanuka. The building platforms identified on the subdivision plan have been situated to ensure the open natural open character and rural amenity of the subject site is maintained. It is considered that this application is consistent with the above objective and associated policies.

- ***16.3.5 Objective - Water and Soil Resources - To ensure that subdivision does not facilitate development that may compromise the life-supporting capacity of the District's water and soil resources.***

  Policies: *16.4.4, 4.4.10*

  Comment: The proposed subdivision occurs at the lowermost elevation of the subject site, with direct access to Fay Lane. The subdivision is designed to incorporate into the existing landscape and ensure future residential buildings are of limited visibility. The site is not as containing highly productive soils and the current rural use of the proposed build platforms is non-productive. The proposed restriction on fencing the outermost boundaries of the site will enable the existing productive uses on the balance allotments to continue unimpeded, while also boosting the biodiversity and native vegetation on the site. It is therefore considered that the proposal is consistent with the above objective and associated policies.

- ***16.3.6 Objective - Heritage Values - To ensure that subdivision does not facilitate development that may adversely affect heritage and cultural values including cultural values of importance to Kai Tahu ki Otago.***

  Policies: *16.4.7, 16.4.10*

  Comment: The site does not include nor neighbour any water bodies. Nevertheless, all proposed earthwork activities associated with forming the access roads and building platforms will provide appropriate environmental management to ensure sediment and erosion is appropriately managed on site. Wastewater will be serviced through onsite disposal systems, which will be established individually at the time of construction. The size of the site and locations of the proposed build platforms is considered to be appropriate for onsite wastewater and is unlikely to have any effects on Heritage or Cultural Values. The proposal is therefore considered consistent with the above objective and associated policy.

- ***16.3.9 Objective - Physical Works Involved in Subdivision - To ensure that the physical works involved in preparing land that is part of the subdivision avoids, remedies or mitigates adverse effects on: (a) The stability of land. (b) Water quality within natural watercourses and the stability of their margins. (c) Neighbouring properties in respect of the effects of noise, dust and vibration.***

  Policies: *16.4.6, 16.4.7, 12.4.3 12.4.7*

  Comment: The physical works involved in preparing the subdivision include forming the access road and individual accesses and building platforms (where required). Such aspects have been designed appropriately to avoid areas of potential instability and will be undertaken with all required earthwork management measures in place. The proposal is considered consistent with the above objective and associated policies.

- ***16.3.11 Objective - Effluent Disposal - To ensure that subdivision in areas without reticulated foul sewage services does not facilitate development that has an adverse effect on soil, surface and groundwater resources, and public health.***

  Policy *16.4.4*

  Comment: Wastewater will be serviced through onsite disposal systems, which will be established individually at the time of construction. The size of the site and locations of the proposed build

platforms is considered to be appropriate for onsite wastewater and unlikely to cause adverse effects on soil and water resources. The proposal is considered consistent with the above objective and policy.

6.0 RMA S104(1)(A) ASSESSMENT OF ENVIRONMENTAL EFFECTS

The actual or potential effects of the proposed activities on the environment have been assessed under the following heading below in *Table 1*.

Table 1. Assessment of Environmental Effects

Effect	Scale of Effect	Assessment of Effect
People and Built Form		
Rural Character	No more than minor	The subdivision and subsequent dwellings may result in some degree of change to the familiar views that are experienced from the nearby and neighbouring properties. However, the panoramic views affording the key amenity values will remain unchanged. The provided Landscape Assessment is attached as **Appendix C**, Section 6 provides a comprehensive assessment of effects that concludes effects of the proposed subdivision will be no more than minor
Visibility	No more than minor	In most instances, only small portions of two to four dwellings are potentially seen at any one time at distances beyond 2kms. When seen, these future dwellings will not be visually prominent, nor will they appear out place as they will form a small central part of the overall Queensberry development. This is confirmed within the Landscape Assessment attached within **Appendix C**. Effects on visibility are considered no more than minor.
Building Density	Less than minor	The proposed subdivision and building platform comply with the relevant size and separation standards in the CODP. The subdivision and building platforms have been designed to ensure built form visibility is minimised, with their locations responding to the site topography which results in a more spread and natural appearing built form.
On-site Amenity	Less than minor	The proposed subdivision and building platforms have been designed to ensure on-site amenity is enhanced for future residents, by locating building platforms in positions that limit inter-visibility between lots and integrate building platforms within the landscape as to appear in logical and unobtrusive location.
Views and Outlook	No more than minor	While some of the future dwellings may be visible from a considerable distance within the Queensberry Hills, the Landscape report has confirmed that any future built form would likely be absorbed into the receiving environment, to be perceived in conjunction with the existing visible residential activity on the site. The design controls proposed will ensure any effects on views and outlook will be no more than minor.
Cumulative Effects	Less than minor	The proposed 9-lot subdivision is located at the Faye Lane end of the subject site, adjacent to existing rural residential activity and on the lower elevations of the site. The proposed

Effect	Scale of Effect	Assessment of Effect
Precedent Effect	Less than minor	subdivision therefore is considered to integrate with the surround landscape and adjacent activity and does not generate cumulative effects in inappropriate locations of the subject site, nor does it create precedent effects.
Reverse Sensitivity	Less than minor	As stated above, the proposed subdivision is located 1km from adjacent rural productive activity in Queensberry Hills, of which the proposed activity is located at an elevated position on the lower extent of the Pisa Range. There is also existing rural residential activity located between the proposed subdivision and Queensberry Hills. Therefore, any effects of reverse sensitivity are existing and are not considered to be exacerbated by the proposal considering the relatively small number of new lots created.
Land, Flora and Fauna		
Vegetation	No more than minor	Ecology assessment attached as **Appendix D** recommends a suite of mitigation measures to ensure effects of the proposed subdivision and vegetation clearance, are no more than minor.
Wildlife	No more than minor	Lizards and Avifauna have been identified as likely inhabiting the site. Fish and ecologically significant invertebrates are less likely to be present due to the site topography. An Ecological assessment on fauna values and effects is attached as **Appendix D.** It concludes that if the mitigation measures and protections recommended within the report are put in place the effects on wildlife are unlikely to be more than minor.
Landform	No more than minor	Landscape assessment is attached as **Appendix C.** No major change to landform proposed, rocky outcrops will still be retained. Earthworks will be limited to upgrading existing access tracks and forming building platforms to mitigate the likelihood of significant change to landform through earthworks. Effects to landform are considered no more than minor.
Waterbodies	Less than minor	The proposed subdivision and building platforms are not anticipated to affect the nearby tributaries of Poison Creek considering all earthworks will be appropriately managed, and road and building platforms are to be designed appropriately to reduce potential for overland flow and erosion.
Groundwater	Less than minor	The proposed subdivision and building platforms are not considered to generate contaminants. The subdivision is considered low lifestyle density and therefore will have a negligible effect on groundwater.
Contamination	Less than minor	
Significant Soils	Less than minor	As detailed in Section 7.3 of this report, the site contains land mapped as LUC Class 6, as identified by Land Use Capability mapping held by Landcare Research. As the subject site is not considered highly productive, nor is it currently used for agriculture productivity, the proposed subdivision for rural residential activity is considered acceptable and not to create reverse sensitivity effects.

Infrastructure		
Water Supply	Less than minor	The applicant is proposing to service the new allotments with water obtained through the Queensberry Irrigation scheme. As confirmed above in section 3.1.1, the applicant has confirmed the available allocation of water shares to ensure the proposed sites are adequately serviced. Water connections will be extended to the building platforms of the proposed allotments.
Effluent Disposal	Less than minor	On-site wastewater disposal systems are proposed to be used on the new allotments. Site and soil suitability testing will be undertaken prior to establishing dwellings on the building platforms. It is considered to be appropriate for wastewater servicing on the subject site. Effects are considered to be less than minor.
Stormwater	Less than minor	Stormwater is proposed to be disposed to land when dwellings are established on site. Due to the size of the allotments and overall area of undeveloped land to be retained, disposal of stormwater to soak pit on the proposed site is considered to be appropriate and effects will be less than minor.
Energy Supply	Minor	Attached within **Appendix E** is a quote from NES for the instillation of electricity connections to the build platforms on the proposed allotments. Trenching will be required to install services, however this is proposed to be consolidated with the earthworks to upgrade the access track, to minimise overall effects on the subject site.
Telecommunication	Less than minor	Telecommunication services will be provided through satellite-based systems which is considered appropriate in this instance.

Economic		
Residential land capacity	Positive	The proposed subdivision will increase the local housing supply by eight, increasing the residential capacity of the area.
Rural Productivity	Less than minor	The site is not identified as “highly productive land”. The site is currently used for low intensity pastoral farming and therefore the impact of the proposed residential lots occupying a small portion of the total site is considered to have a less than minor effect on the rural productivity of the land.
General economy	Positive	The proposed subdivision will increase the local housing supply, increasing the residential capacity and consequential positive effect for economy of the area.

Traffic Generation and Vehicle Movements		
On-Site Parking	Nil	The subdivision does not propose vehicle parking. This will be provided for by the house designs at building consent stage.
Site Access and Vehicle Safety	Less than minor	The proposal includes a new access road along the balance lot south of the proposed lots. From there individual accesses split off to provide safe access to each lot. A detailed road design will be completed prior to engineering approval. Effects are considered less than minor.
Connectivity and Legibility	Nil	Due to the rural lifestyle subdivision characteristics, the proposed individual lot accesses are considered in keeping with the access requirements of such a site and proposal. All accesses provide access to Fay Lane.

Pedestrian and Cyclist Safety	Less than minor	As stated above, the more isolated rural location of the site has meant the practicality of walking and cycling for daily trips in unlikely and infrequent. Therefore, vehicle access only is proposed, although this access is considered safe and appropriate for pedestrians and cyclists to use as vehicle speeds are expected to be low due to the narrow and winding nature of the accesses.
Traffic Generation	Less than minor	The provision of new rural lifestyle lots is considered to have a negligible impact on trip generation effects on the local road network capacity, safety and efficiency. Effects are considered less than minor.
Roading Capacity	Less than minor	

Nuisance		
Noise	Less than minor	The proposed subdivision will have negligible noise effects on neighbouring properties and/or the wider environment.
Odour	Nil	No odour is anticipated from the proposed subdivision.
Hours of Operation	Less than minor	The proposed subdivision and subsequent residential activity have been designed to minimise visual amenity and nuisance effects on the neighbouring properties and wider environment. Therefore, the design of the subdivision is sympathetic to landforms and existing vegetation helps to reduce the presence of residential activity within the rural area to a degree that effects associated with rural lifestyle activity is less than minor.
Dust	Positive	The proposed access upgrade will reduce the potential for dust nuisance associated with vehicles accessing the lots. The number of vehicle trips generated by the proposed subdivision is such that it is not considered to create dust nuisance on Fay Lane. The additional proposal to further upgrade Fay Lane will provide a positive effect.
Air Discharges	Nil	No discharge to air is proposed.
Vibration	Nil	No vibration activities are proposed.
Lighting	Less than minor	The landscape report attached in **Appendix C** recommends restrictions on outdoor lighting to ensure effects from light spill are mitigated within the Rural area. Effects are considered as less than minor

Cultural		
Archaeological and heritage Sites	Nil	No archaeological items or areas are identified on the site area proposed for subdivision. This site contains no known areas of heritage significance. It is considered appropriate that an advice note, advising of accidental discovery protocols be included with any decision

Natural Hazards		
Landslide	Less than minor	The nearby landslide hazard notation as identified through the ORC natural hazards database. However, this notation does not extend to the area of the proposed subdivision. The landform of the proposed subdivision is considered suitable to establish building platforms without significant risk. Effects are considered as less than minor.

Fire	Less than minor	As described within the Landscape Assessment, attached as **Appendix C** , the native vegetation on site, consisting of kanuka and other potentially flammable species do pose a fire risk for establishing dwellings on the subject site. Mitigation, consisting of firebreak areas immediately surrounding build platforms and vegetation replanting areas will ensure effects from fire hazard are less than minor.

Potential significance of ecological effects resulting from subdivision at the Queensberry site if avoidance and mitigation measures are implemented.		
Effect	**Mitigation Measure**	**Overall Level of Adverse Effect**
Loss of indigenous vegetation	Avoidance of higher value vegetation types wherever possible. Replanting of an area of indigenous vegetation within existing pasture at the site, including higher-value plants. Control of existing wilding pines, Scotch broom and gorse at the site.	Less than minor
Loss of Threatened and At Risk plant species	Avoidance of higher value vegetation types wherever possible, and replanting of threatened plants.	Less than minor
Loss of avifauna, invertebrate and lizard habitat	Lizard Management Plan development and implementation. Avoidance of higher value lizard habitat wherever possible. Replanting of indigenous vegetation, providing higher-value avifauna habitat in the long term.	Less than minor
Direct mortality of avifauna during vegetation clearance	Undertake site works outside of the key breeding season for most birds or undertake breeding bird surveys and demarcate areas for avoidance.	Less than minor
Disturbance, injury or death of lizards during construction	Lizard Management Plan	Less than minor
Fragmentation of intact lizard habitat	Lizard Management Plan	Less than minor
Ongoing disturbance and harm to lizards	Lizard Management Plan	Less than minor
Fish injury or death during road construction at ephemeral creeks	Avoidance of instream works during periods of flow	Nil
Sedimentation and contamination of ephemeral creeks during earthworks and construction	Construction Management Plan measures (avoidance of works that may produce sediment or pollutant discharge during periods of flow)	Less than minor
Accidental introduction of pest plant species to the site on construction equipment	Construction Management Plan measures Control of existing pest plants	Less than minor
Introduction of pest plant species from residential plantings	Planting conditions on titles	Less than minor

Table 2 Ecological Effects Assessment - Sourced from Appendix D

The summary of the ecological effects assessment concluded that the measures listed above: *"should be managed through conditions of consent to provide Council with the confidence that risks of the project are managed appropriately and positive benefits are realised. If these measures are adopted, then there will be no clearance of the higher-value vegetation and habitat types at the site, and a minimization of the clearance of Threatened and At-Risk plant species."*

It is proposed that the recommendations made within section 3.1.8 of this report and within the corresponding external reports, are adopted by council as conditions of consent to ensure ecological and landscape effects are mitigated effectively.

Conclusion

The above assessment concludes that the environmental effects of the proposed subdivision will be *no more than minor* when considered in conjunction with the proposed mitigation and controls around the activities.

Table 3. Scale of Environmental Effects

Scale	Description
Nil Effects	No effects at all.
Less than Minor Adverse Effects	Adverse effects that are discernible day-to-day effects, but too small to adversely affect other persons.
Minor Adverse Effects	Adverse effects that are noticeable but that will not cause any significant adverse impacts.
More than Minor Adverse Effects	Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied.
Significant Adverse Effects that Could Be Remedied or Mitigated.	An effect that is noticeable and will have a serious adverse impact on the environment but could potentially be mitigated or remedied.
Unacceptable Adverse Effects	Extensive adverse effects that cannot be avoided, remedied or mitigated.

7.0 RMA S104(1)(B) MATTERS

The application has been assessed against the relevant provisions of the documents referred to in RMA section 104(1)(b) as detailed below. The application has also been assessed against the relevant provisions of the Central Otago District Plan as detailed in previous sections.

7.1 NATIONAL ENVIRONMENTAL STANDARDS (NES)

The NES Assessing and Managing Contaminants in Soil to Protect Human Health Regulations 2011 is relevant to this application as the proposal involves a change in land use and subdivision involving earthworks. A search of the most up to date information from the Otago Regional Council indicates no record of any HAIL activities on subject site. Therefore, the NES does not apply.

The remaining National Environmental Standards are not relevant to this application:

- Air Quality 2004
- Sources of Human Drinking Water 2007
- Electricity Transmission 2009
- Telecommunications Facilities 2016
- Plantation Forestry 2017
- National Environmental Standard for Freshwater 2020
- Marine Aquaculture 2020

- Storing Tyres Outdoors 2021

7.2 OTHER REGULATIONS

No other regulations are relevant to this application.

7.3 NATIONAL POLICY STATEMENTS (NPS)

7.3.1 NPS-HPL

The NPS for Highly Productive Land 2022 came into force on 17 October 2022 and has the purpose to ensure highly productive land is protected for use in land-based primary production. The NPS-HPL applies to Rural Zoned land and is required to be considered for the current application.

Areas of 'Highly Productive Land' are required to be identified and mapped in a Regional Policy Statement within 3 years of the operative date, and within a District Plan 6 months after this. Until this time, highly productive land is defined under clause s3.5(7) of the NPS to be land that:

> *(a) is*
>
> *(i) zoned general rural or rural production; and*
>
> *(ii) LUC 1, 2, or 3 land; but*
>
> *(b) is not:*
>
> *(i) identified for future urban development; or*
>
> *(ii) subject to a Council initiated, or an adopted, notified plan change to rezone it from general rural or rural production to urban or rural lifestyle.*

The identification of Land Use Capability 1,2 and 3 mapping is held by Landcare Research. According to the Land Use Capability mapping, the subject site is identified as LUC Class 6.

As the land is zoned as Rural, and the site contains land mapped as LUC Class 6, the NPS-HPL does not apply. As the subject site is not considered highly productive, nor is it currently used for agriculture productivity, the proposed subdivision for rural lifestyle activity is considered acceptable and not to create reverse sensitivity effects. Such agricultural productive land occurs approximately 1km east of the proposed subdivision, of which other rural lifestyle activity occurs between and therefore such activities exist within the surrounding environment on Fay Lane and the addition of nine lots will not create or exacerbate reverse sensitivity effects.

7.3.2 NPS-IB

The National Policy Statement on Indigenous Biodiversity was implemented in August 2023

The objective of this National Policy Statement is:

a) to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date; and
b) to achieve this:
   (i) through recognising the mana of tangata whenua as kaitiaki of indigenous biodiversity; and
   (ii) by recognising people and communities, including landowners, as stewards of indigenous biodiversity; and
   (iii) by protecting and restoring indigenous biodiversity as necessary to achieve the overall maintenance of indigenous biodiversity; and
   (iv) while providing for the social, economic, and cultural wellbeing of people and communities now and in the future.

No portion of the subject site is contained within a significant natural area, this application is supported by an Ecology Assessment completed by Wildlands Consultants. See Section 9 of the ecology report attached in **Appendix D** for the full assessment of effects of the proposed development on the site.

It is therefore concluded that the proposal is considered consistent with the National Policy Statement on Indigenous Biodiversity.

The following National Policy Statements are not relevant to the current application:

- Electricity Transmission 2008
- New Zealand Coastal Policy Statement 2010
- Renewable Electricity Generation 2011
- Freshwater Management 2020
- National Policy Statement on Urban Development 2020

7.4 OTAGO REGIONAL POLICY STATEMENT

7.4.1 Partially Operative Otago Regional Policy Statement 2019 (RPS)

The Partially Operative Otago Regional Policy Statement (RPS) was notified on 23 May 2015, and the Decision version was released on 1 October 2016. The RPS was made Partially Operative on 15 March 2021 and the Regional Policy Statement for Otago 1998 was revoked.

Overall, the proposal is not considered to be contrary to the provisions of the PORPS. The RPS is given effect to by the CODP, and the previous assessment has determined that the proposal is consistent with the CODP.

7.4.2 Proposed Otago Regional Policy Statement 2021 (PORPS 2021)

The Otago Regional Policy Statement is currently under review. The PORPS 2021 was notified on 26 June 2021 and submissions closed on the 3 September 2021 with further submissions closing on 12 November and 1 December for the Corrigendum.

Since the High Court declaration, the PORPS 2021 has been split into two parts, one which relates to parts deemed to be freshwater planning instrument and the other for parts which are not deemed to be related to freshwater. The 'non-freshwater parts' are continuing through the Schedule 1 process, with the submissions having closed and the hearings panel making recommendations to Council. The 'freshwater parts' were announced as being a freshwater planning instrument in 2022 with additional hearings closing in November 2023 and appeals continuing through Environment Court in 2024.

The PORPS 2021 must have regard given to it, however, as neither part of the PORPS 2021 have been exposed to an independent decision-making process the weighting of the PORPS 2021 is lesser than that of the RPS.

The application does not propose any activities within waterways or wetland areas. All earthworks and construction will be undertaken with appropriate erosion and sedimentation controls to mitigate any adverse effects from the activities. Overall, the proposal is not considered to be contrary to the provisions of the PORPS.

7.5 REGIONAL PLAN: WATER FOR OTAGO

This Regional Plan: Water for Otago (the Water Plan) provides a framework for the use, development, and protection of the freshwater resources of the Otago region, the beds and margins of water bodies, and the issues associated with that use, development, and protection.

There is no proposed alteration of streams, rivers or other waterways, with the exception of installing culverts along the proposed access track to prevent flooding and run off from any ephemeral streams. These will be installed in line with permitted Otago Regional Council standards. Earthworks proposed to formalise the access track along with preparing building platforms and installing services will exceed the permitted standards under the Regional Plan, however it is the applicant's intention to submit an application for residential earthworks to ORC through a separate consenting process. It is considered that earthworks can be completed to a standard that will minimise sedimentation and run off, through the implementation of Earthworks management practices.

Considering the above it is concluded that the application is consistent with the Regional Plan: Water for Otago.

8.0 RMA S106 MATTERS

Section 106 of the RMA allows a consent authority to refuse to grant a subdivision consent, or grant a subdivision consent subject to conditions, if it considers that –

(a) there is a significant risk from natural hazards; or
(c) sufficient provision has not been made for legal and physical access to each allotment to be created by the subdivision.

It has been acknowledged within this application that the subject site contains a large amount of flammable native kanuka vegetation. A key aspect of this proposal involves a firebreak setback from the proposed building platforms, which will involve relocating flammable vegetation to identified ecological enhancement planting areas away from proposed building platforms. Undertaking the proposal as described will appropriately mitigate the fire risk hazard and ensure that there is no significant risk from natural hazards to the subject site.

Furthermore, sufficient provision has been made for legal and physical access to each lot created by the subdivision. It is considered that it will be appropriate for the council to grant the subdivision in this instance.

9.0 RMA PART II MATTERS

The purpose of the Resource Management Act 1991 is to promote the sustainable management of natural and physical resources. The CODC District Plan has already given substance to the principles in Part 2 of the RMA and, therefore, no further assessment against Part 2 matters is required for this application (Environmental Defence Society Incorporated v New Zealand King Salmon [2014] NZSC 38, [2014] 1 NZLR 593). Regardless, the application is considered to represent a sustainable management of natural and physical resources having had regard to the section 6 and 7 matters of the RMA.

10.0 NOTIFICATION AND AFFECTED PARTIES ASSESSMENT

10.1 PUBLIC NOTIFICATION

An assessment of the steps that a consent authority must follow to determine whether to publicly notify an application for resource consent is undertaken in the following tables.

Table 4. Section 95A - Steps for Determining Whether Public Notification Of Consent Applications Is Required Under S95a Of The RMA

Step	RMA Section	Response	Comment
ONE: Mandatory public notification in certain circumstances	95A(3)(a) the applicant has requested that the application be publicly notified	Yes	The applicant requests public notification for this application.
	95A(3)(b) public notification is required under section 95C	No	The applicant requests public notification at the stage of lodging the resource consent application.
	95A(3)(c) the application is made jointly with an application to exchange recreation reserve land under section 15AA of the Reserves Act 1977	No	This application does not involve the exchange of reserve land under the Reserves Act.

The notification assessment has demonstrated that public notification has been requested under Step One, so no further notification assessment needs to be completed.

Accordingly, it is considered appropriate for this application to be processed and considered through public notification.

11.0 CONCLUSION

Resource consent is sought as a **Discretionary Activity** for the establishment of 9 build platforms and subdivision of Lot 3 DP 427927

As the environmental effects of the proposal are considered to be no more than minor and largely constrained within the subject site. The proposal is consistent with the relevant objectives and policies of the District Plan, and it is requested that the application be processed through public notification.

As such it is recommended to Council to grant this application.

APPENDIX A – RECORD OF TITLE

RECORD OF TITLE
UNDER LAND TRANSFER ACT 2017
FREEHOLD

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**697559**
Land Registration District	**Otago**
Date Issued	21 July 2015

Prior References
510388 597226

Estate	Fee Simple
Area	816.7858 hectares more or less
Legal Description	Lot 1 Deposited Plan 487478 and Lot 3 Deposited Plan 427927

Registered Owners
Enfield Limited

Interests

Subject to Section 11 Crown Minerals Act 1991

Subject to Part IV A Conservation Act 1987

Subject to a right to store water over part Lot 3 DP 427927 marked AT and R both on DP 427927 and a right to convey water over part Lot 3 DP 427927 marked ZA, ZB, ZD, ZG, ZH and ZJ all on DP 427927 created by Deed of Easement 18A/715 - 23.1.1997 at 10:43 am

Appurtenant hereto is a right of way created by Transfer 923319.3 - 23.1.1997 at 10:43 am

The easements created by Transfer 923319.3 are subject to Section 243 (a) Resource Management Act 1991

5061639.6 Encumbrance to Contact Energy Limited - 19.7.2001 at 11:48 am

Appurtenant hereto is a right to convey water and electricity and a right to take water specified in Easement Certificate 5083478.4 - 14.9.2001 at 11:12 am

5188518.3 Resolution pursuant to Section 243(f)(ii) Resource Management Act 1991 cancelling the easement conditions marked K, L, M on DP 24448 - 10.4.2002 at 1:30 pm

Appurtenant hereto is a right of way created by Transfer 5188518.13 - 10.4.2002 at 1:30 pm

The easement created by Transfer 5188518.13 is subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right of way created by Transfer 5373354.5 - 15.10.2002 at 9:00 am

The easement created by Transfer 5373354.5 is subject to Section 243 (a) Resource Management Act 1991

Appurtenant hereto is a right of way created by Transfer 5373354.6 - 15.10.2002 at 9:00 am

The easement created by Transfer 5373354.6 is subject to Section 243 (a) Resource Management Act 1991

5960545.8 Consent Notice pursuant to Section 221 Resource Management Act 1991 - produced 7.4.2004 at 9:00 am and entered 23.4.2004 at 9:00 am (affects Lot 3 DP 427927)

Subject to a right of way over part Lot 3 DP 427927 marked J, M, N and O all on DP 427927 created by Easement Instrument 5960545.10 - produced 7.4.2004 at 9:00 am and entered 23.4.2004 at 9:00 am

Appurtenant to Lot 3 DP 427927 is a right of way created by Easement Instrument 5960545.10 - produced 7.4.2004 at 9:00 am and entered 23.4.2004 at 9:00 am

The easements created by Easement Instrument 5960545.10 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant to Lot 3 DP 427927 are rights to convey water and electricity created by Easement Instrument 6597404.6 - 5.10.2005 at 9:00 am

Appurtenant to Lot 3 DP 427927 are rights to convey water created by Easement Instrument 6597404.7 - 5.10.2005 at 9:00 am

7742290.2 Surrender of rights of way over Lot 2 DP 341570 marked M, N, P, Q, R and S all on DP 341570 and over Lot 3 DP 341570 marked T, U, W and V all on DP 341570 as appurtenant to Lot 1 DP 487478 created by Transfers 923319.3 and 5188518.13 - 7.3.2008 at 9:00 am

7838583.7 Surrender of right of way over Lot 4 DP 332080 marked G, H, I and J on DP 332080 as appurtenant to Lot 1 DP 487478 created by Easement Certificate 5960545.10 - 6.6.2008 at 9:00 am

7838583.13 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 6.6.2008 at 9:00 am (affects Lot 3 DP 427927)

Subject to a right (in gross) to convey telecommunications and computer media over part Lot 3 DP 427927 marked EA, EB, F, H, I, J, K, L and AZ all on DP 427927 in favour of Telecom New Zealand Limited created by Easement Instrument 7838583.14 - 6.6.2008 at 9:00 am

The easements created by Easement Instrument 7838583.14 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey and transform electricity over part Lot 3 DP 427927 marked EA, EB, F, U, AS, H, I, J, K, L and AZ all on DP 427927 in favour of Aurora Energy Limited created by Easement Instrument 7838583.15 - 6.6.2008 at 9:00 am

The easements created by Easement Instrument 7838583.15 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right of way over part Lot 3 DP 427927 marked AZ, B, C, D, EA, EB, F, G, H, I, J, K and L all on DP 427927 created by Easement Instrument 7838583.16 - 6.6.2008 at 9:00 am

The easement created by Easement Instrument 7838583.16 is subject to Section 243 (a) Resource Management Act 1991

Subject to a right of way over part Lot 3 DP 427927 marked AZ, B, C, D, EA, EB, F, G, V, U, T, S, R, Q and P all on DP 427927 created by Easement Instrument 7838583.17 - 6.6.2008 at 9:00 am

Appurtenant to Lot 1 DP 487478 are rights of way created by Easement Instrument 7838583.17 - 6.6.2008 at 9:00 am

The easements created by Easement Instrument 7838583.17 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right to convey water over part Lot 3 DP 427927 marked EA, F, U, AS, H, I, J, K, L, EB and AZ all on DP 427927 created by Easement Instrument 7838583.18 - 6.6.2008 at 9:00 am

Appurtenant to Lot 3 DP 427927 are rights to convey water created by Easement Instrument 7838583.18 - 6.6.2008 at 9:00 am

Subject to a right to convey water over part Lot 3 DP 427927 marked EA, F, U, AS and EB all on DP 427927 created by Easement Instrument 7838583.19 - 6.6.2008 at 9:00 am

Appurtenant to Lot 1 DP 487478 is a right to convey water created by Easement Instrument 7838583.19 - 6.6.2008 at 9:00 am

Land Covenant in Easement Instrument 7863269.1 - 1.7.2008 at 9:00 am (affects Lot 3 DP 427927)

Appurtenant to Lot 3 DP 427927 is a right to convey electricity and a right to transform electricity created by Easement Instrument 8399032.9 - 26.3.2010 at 12:41 pm

8622143.1 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 9.11.2010 at 4:38 pm (affects Lot 3 DP 427927)

Subject to a right of way over part Lot 3 DP 427927 marked AZ, B, C, D, EA and EB all on DP 427927, a right to convey water over part Lot 3 DP 427927 marked YB, YC, YD, YE, YF, YG, YH, YI, H, F and EA all on DP 427927 and a right to convey electricity, telecommunications and computer media over part Lot 3 DP 427927 marked EA on DP 427927 created by Easement Instrument 8622143.3 - 9.11.2010 at 4:38 pm

The easements created by Easement Instrument 8622143.3 are subject to Section 243 (a) Resource Management Act 1991

Appurtenant to Lot 1 DP 487478 is a right of way and a right to convey electricity, telecommunications, computer media and water created by Easement Instrument 8638399.4 - 16.11.2010 at 2:47 pm

The right of way easement created by Easement Instrument 8638399.4 is subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey water over part Lot 3 DP 427927 marked AT, R, ZA, ZB,ZD, ZG, ZH, ZJ, EA, F, U, AS, H, I, J, K, L, EB, AZ, YB, YC, YD, YE, YF, YG, YH, YI and YA all on DP 427927 and over part Lot 3 DP 427927 marked A, B, C, and D all on DP 455332 in favour of Queensbury Irrigation Scheme Limited created by Easement Instrument 9218117.2 - 26.10.2012 at 8:54 am

9366859.8 Surrender of the right of way over part marked G on DP 338824 as appurtenant to Lot 1 DP 487478 created by Transfer 923319.3 - 29.5.2013 at 2:26 pm

Appurtenant to Lot 1 DP 487478 is a right of way created by Easement Instrument 9366859.11 - 29.5.2013 at 2:26 pm

The easements created by Easement Instrument 9366859.11 are subject to Section 243 (a) Resource Management Act 1991

9775897.12 Surrender of the right of way marked R, S, T, UD, UE, UF and UC all on DP 472915 created by Easement Instrument 5960545.10 as appurtenant to Lot 3 DP 427927 - 19.8.2014 at 4:58 pm

10031473.4 Surrender of the right of way marked J, M, N and O all on DP 427927 created by Easement Instrument 5960545.10 as appurtenant to Lot 1 DP 487478 - 21.7.2015 at 12:04 pm

Subject to Section 241(2) Resource Management Act 1991 (affects DP 487478)

10031473.10 Encumbrance to Queensbury Irrigation Scheme Limited - 21.7.2015 at 12:04 pm

10031473.11 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 21.7.2015 at 12:04 pm (affects Lot 1 DP 487478)

Subject to a right (in gross) to convey telecommunications, computer media and electricity over Lot 3 DP 427927 marked J, K, M, N on DP 487254 in favour of Velocitynet Limited created by Easement Instrument 10238315.8 - 5.11.2015 at 5:19 pm

The easements created by Easement Instrument 10238315.8 are subject to Section 243 (a) Resource Management Act 1991

Subject to a right (in gross) to convey electricity over Lot 3 DP 427927 marked K, M, N and a right (in gross) to convey water over Lot 3 DP 427927 marked J, L, N both on DP 487254 in favour of Queensbury Irrigation Scheme Limited created by Easement Instrument 10238315.9 - 5.11.2015 at 5:19 pm

The easements created by Easement Instrument 10238315.9 are subject to Section 243 (a) Resource Management Act 1991

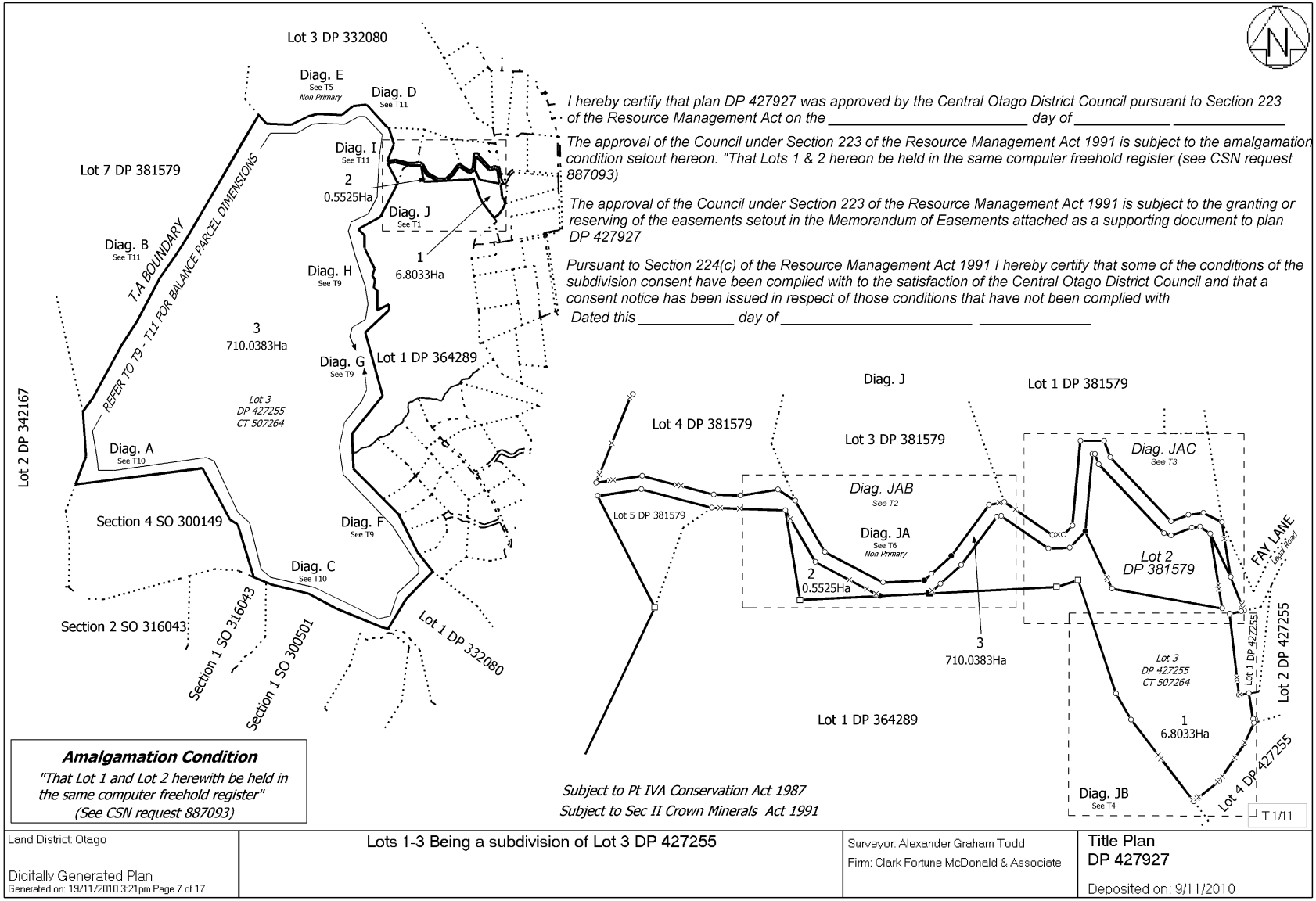
11156405.6 Mortgage to ASB Bank Limited - 29.6.2018 at 3:08 pm

Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Taramea Forest Company 1 Limited

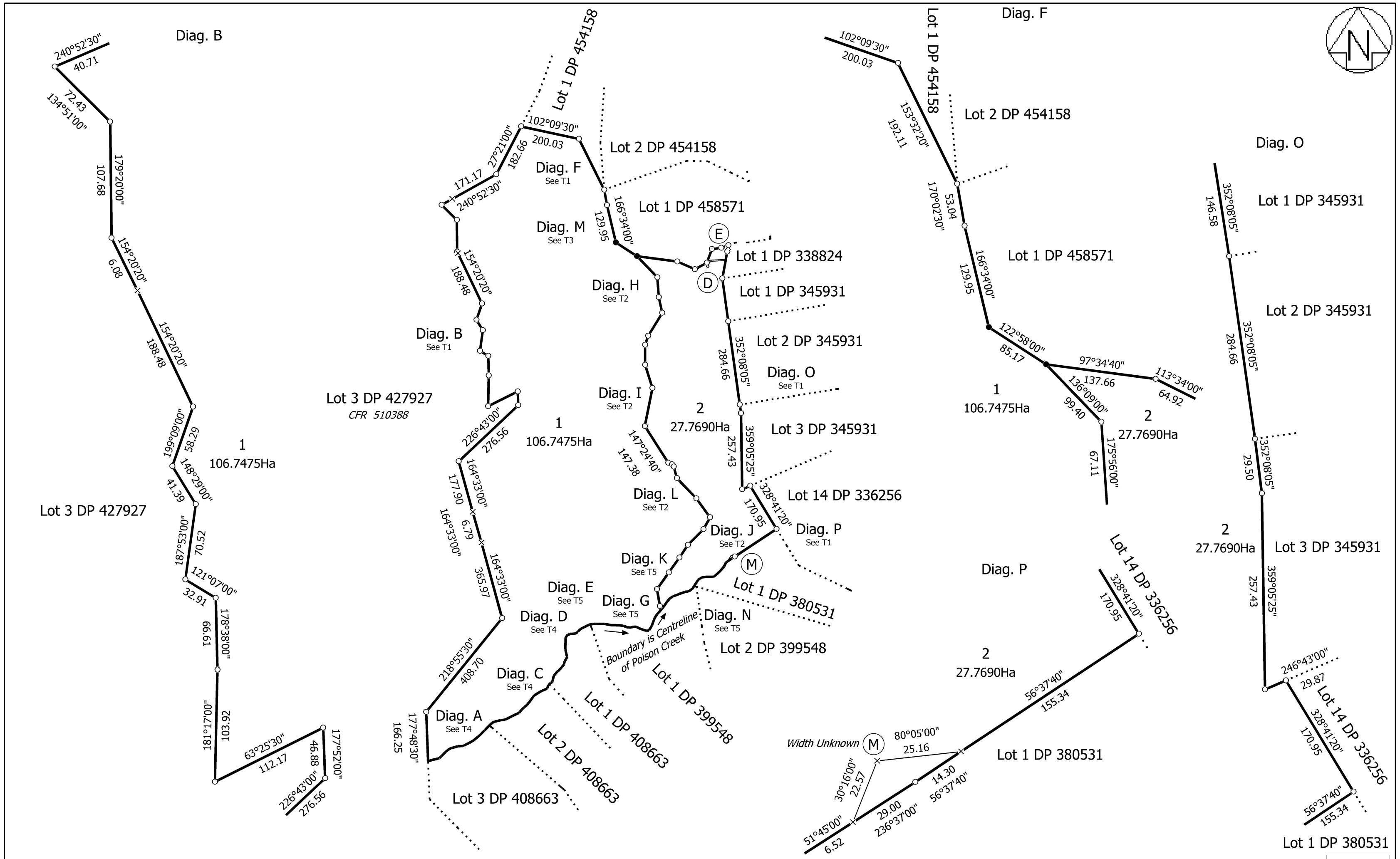
Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Taramea Forest Company 2 Limited

Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Taramea Forest Company 3 Limited

12881259.1 Forestry Right pursuant to the Forestry Rights Registration Act 1983 to Taramea Forest Company 4 Limited - 24.11.2023 at 1:09 pm



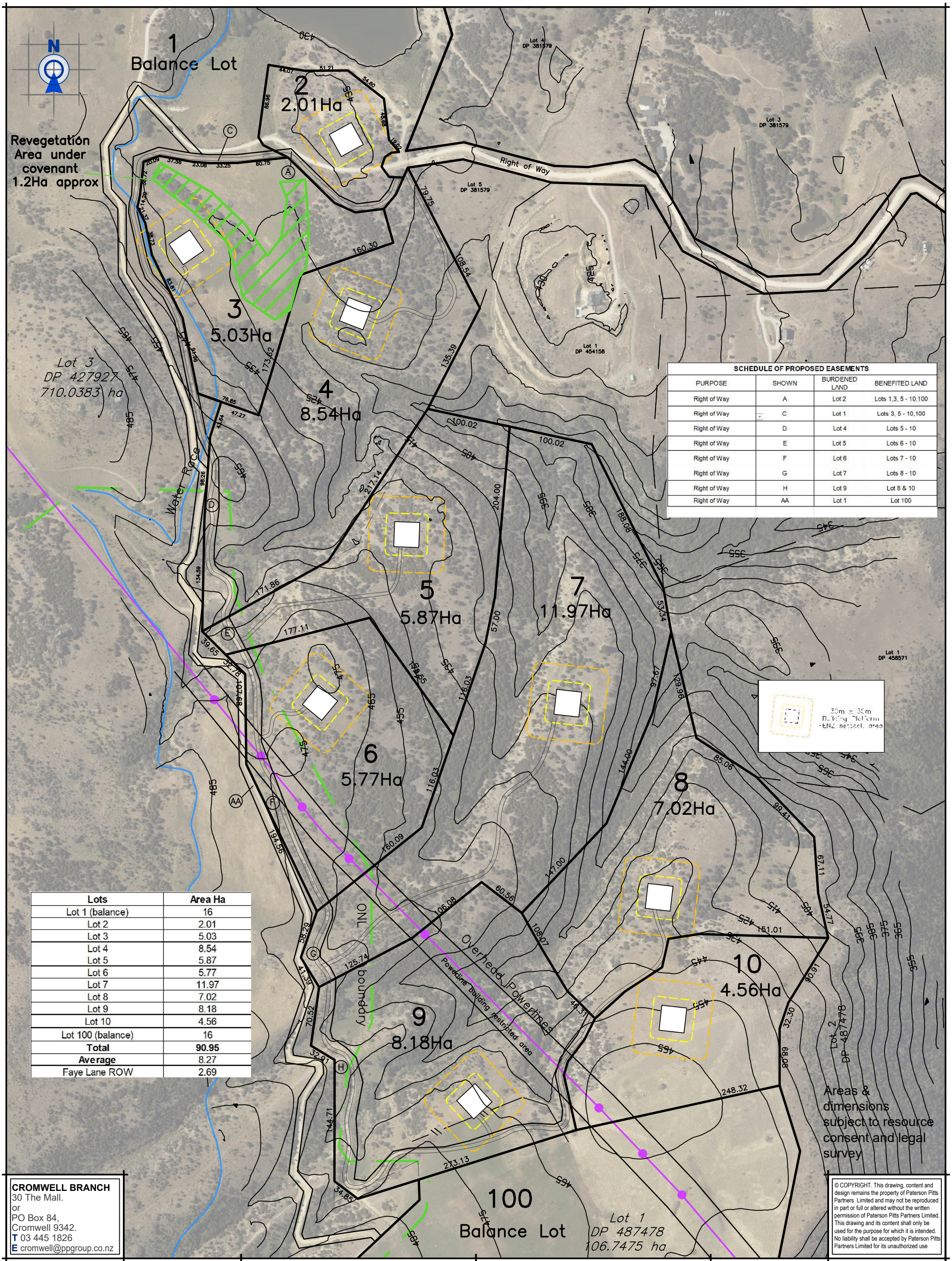
Land District: Otago Digitally Generated Plan Generated on: 19/11/2010 3:21pm Page 7 of 17	Lots 1-3 Being a subdivision of Lot 3 DP 427255	Surveyor: Alexander Graham Todd Firm: Clark Fortune McDonald & Associate	Title Plan DP 427927 Deposited on: 9/11/2010



Subject to Pt IVa Conservation Act 1987

Land District: Otago Digitally Generated Plan Generated on: 01/07/2015 6:47pm Page 3 of 7	LOTS 1 AND 2 BEING A SUBDIVISION OF LOT 2 DP 458571	Surveyor: Myles Eliot Garmonsway Firm: Paterson Pitts Partners Ltd (Cromwell	Title Plan LT 487478 Approved on: 1/07/2015

APPENDIX B – SUBDIVISION PLAN



SCHEDULE OF PROPOSED EASEMENTS

PURPOSE	SHOWN	BURDENED LAND	BENEFITED LAND
Right of Way	A	Lot 2	Lots 1,3, 5 - 10,100
Right of Way	C	Lot 1	Lots 3, 5 - 10,100
Right of Way	D	Lot 4	Lots 5 - 10
Right of Way	E	Lot 5	Lots 6 - 10
Right of Way	F	Lot 6	Lots 7 - 10
Right of Way	G	Lot 7	Lots 8 - 10
Right of Way	H	Lot 9	Lot 8 & 10
Right of Way	AA	Lot 1	Lot 100

Lots	Area Ha
Lot 1 (balance)	16
Lot 2	2.01
Lot 3	5.03
Lot 4	8.54
Lot 5	5.87
Lot 6	5.77
Lot 7	11.97
Lot 8	7.02
Lot 9	8.18
Lot 10	4.56
Lot 100 (balance)	16
Total	**90.95**
Average	8.27
Faye Lane ROW	2.69

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Client/Location:
Enfield Ltd
Queensberry

Purpose/Drawing Title:
Lots 1 - 10 & 100 being a Subdivision of Lot 1 DP 487478 & Lot 3 DP 427927

Surveyed by:	drone	Original Size: A3	Scale: 1:4000
Designed by:	client		DO NOT SCALE
Drawn by:	KWG		
Checked by:	RB		
Approved by:	MG		
Job No: C2855_SCM		Sheet No: 5_1	Revision No: B
			Date Created: 20/10/2023

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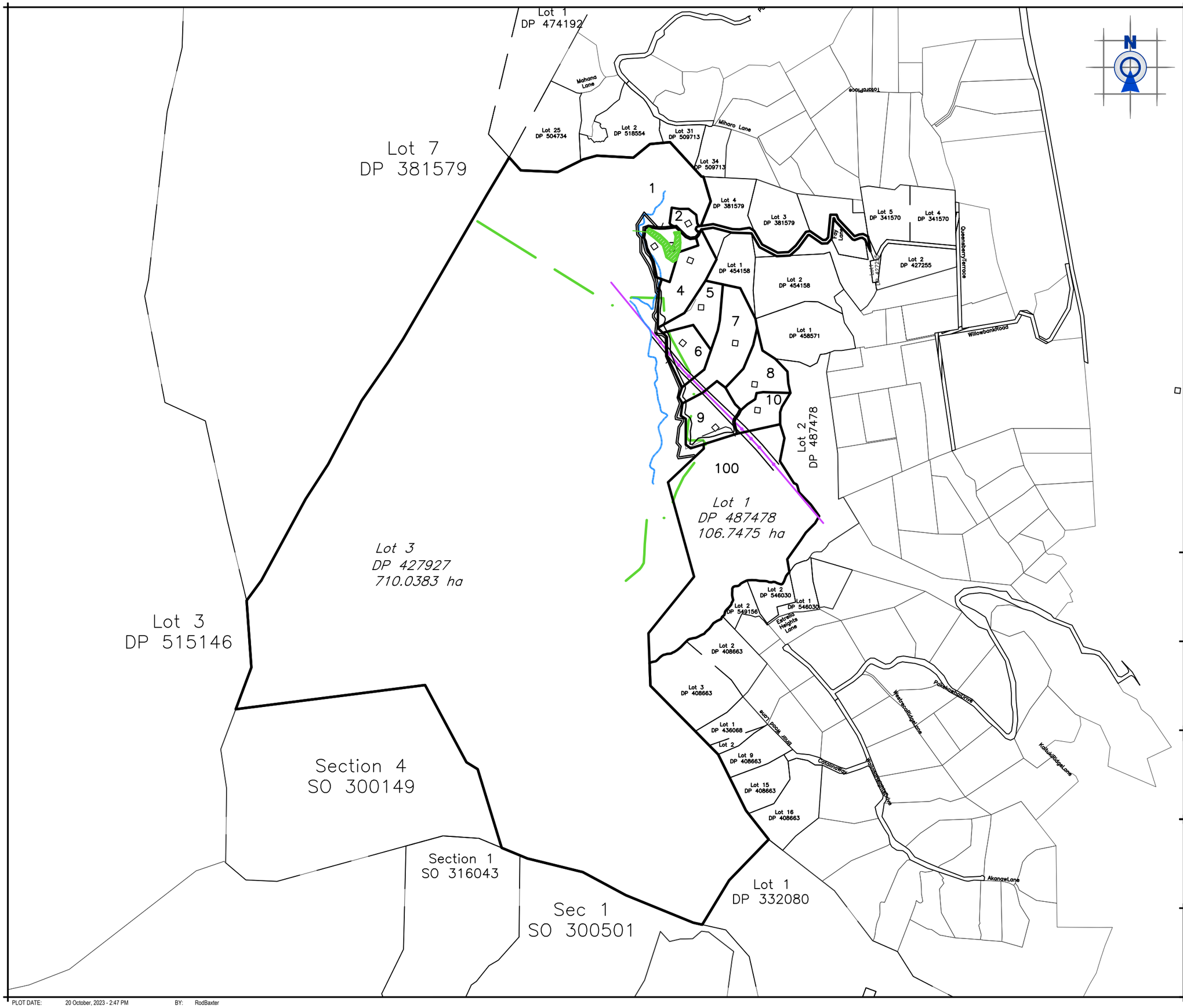

Areas & dimensions subject to resource consent and legal survey

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Client/Location:

Enfield Ltd
Queensberry

Purpose/Drawing Title:

Lots 1 - 10 & 100 being a Subdivision of Lot 1 DP 487478 & Lot 3 DP 427927

Surveyed by:	drone	Original Size:	Scale:
Designed by:	client	A3	1:20000
Drawn by:	KWG		
Checked by:	RB		DO NOT SCALE
Approved by:	MG		
Job Ref: C2855_SCM		Sheet No: 5_2	Revision No: A / Date Created: 20/10/2023

APPENDIX C – LANDSCAPE ASSESSMENT

RMM

ROUGH MILNE MITCHELL
LANDSCAPE ARCHITECTS

rmmla.co.nz

Landscape Assessment Report

Proposed Subdivision Fay Lane, Queensberry 14 May 2024

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Date: 14 May 2024
Status: For Resource Consent

Prepared for: Enfield Ltd

Prepared by:

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Paul Smith
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Reviewed by:

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NZILA Registered Landscape Architect

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Contents

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1 Introduction

1.1 Purpose and Scope

Rough Milne Mitchell Landscape Architects (**RMM**) have been engaged by Enfield Ltd (**the Applicant**) to assist with designing the proposed 11 lot subdivision including the location, size and extent of the building platforms, the landscape mitigation treatment, and outline the future design parameters of future built form. Also, RMM have been engaged to assess the actual and potential landscape and visual effects of this proposal within Lot 1 DP 487478 and Lot 3 DP427927, located at the western end of Fay Lane, Queensberry.

Lot 1 DP 487478 and Lot 3 DP427927 have a combined area of 807.88ha and are referred to as the '**parent property**'. Proposed Lots 1 and 100 are 'balance lots' that will comprise the majority of the parent property. Proposed Lots 2 – 10 that are proposed to contain building platforms will vary in size between 2.01ha and 11.97ha in area, with a combined area of 58.95ha. Lots 2 – 10 are collectively referred to as '**the site**'. The proposed subdivision scheme plan is illustrated on **GA Sheet 3**.

The site is located within the Rural Resource Area – RU. It is not within one of the specific Rural Resource Areas labelled 1 - 5. Under the Central Otago District Plan (**CODP**) the proposed subdivision is a *discretionary activity* because the proposed subdivision is in accordance with Rule 4.7.4(iii)[1].

This landscape assessment report is formatted as per the following:

- A description of the proposal.
- An outline of the relevant policy provisions that are within the CODP.
- The identification and description of the receiving environment, including the site. The receiving environment is described in terms of the landscape's landform, land cover and land use and how those landscape attributes contribute to the receiving environment's existing landscape character and values.
- An assessment of the actual and potential landscape and visual effects, including cumulative effects.
- An assessment against the relevant CODP policy provisions.
- A conclusion.

This report is accompanied by a Graphic Attachment (**GA**), that contains a plan of the proposed subdivision layout and landscape treatment of each lot, aerial images of the site location, the relevant CODP planning map, and photographs of the site taken from the salient viewpoints representing the view from the surrounding public places.

[1] *4.7.4 Discretionary Activity. (iii) Subdivision (b) Creates allotments with an average allotment area of no less than 8 hectares and a minimum allotment area of no less than 2 hectares in an area not identified on the planning maps as Rural-Residential, Rural Resource Area (1) or Rural Resource Area (2) or Rural Resource Area (3).*

1.2 Methodology

The methodology and terminology used in this report has been informed by the Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines[2].

The site and its surrounds were visited on 12 September 2022, 27 June and 13 July 2023 to assist in understanding the landscape character and values within the receiving environment and assessing the proposal's actual and potential landscape and visual effects.

This report is tailored to suit the nature of the project and its context including the framework of the governing legislation. The statutory documents containing provisions relevant to the proposal are found in the Resource Management Act 1991 (**RMA**) and the CODP. The CODP gives effect to the RMA within the context of the site and provides the policy framework against which this landscape assessment has been evaluated.

The table included in **Figure 1** outlines the rating scales that are referred to in this report. The table included in **Figure 2** is a comparative scale between the seven-point scale, and the RMA s95 notification determination test.

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High

Figure 1. The seven-point landscape and visual effects rating scale.[3]

Very Low	Low	Low - Moderate	Moderate	Moderate - High	High	Very High
Less than Minor	Minor		More than Minor		Significant	

Figure 2. The comparative scale of degree of effects.[4]

[2] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022.

[3] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 140.

[4] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 151.

2 Description of the Proposal

2.1 Description of the Proposal

It is proposed to subdivide the parent property into 11 lots. Lots 1 and 100 will be balance lots and Lots 2 – 10 will contain the proposed development. The design of the proposed subdivision, including lot sizes and layout, the location, size and extent of the building platforms, accessways and the landscape mitigation treatment is illustrated on **GA Sheets 3 - 14.**

The details of the proposal are set out in the documents that accompany the resource consent application. These details are not repeated here other than to note the following points that are relevant to an assessment of landscape and visual effects.

2.1.1 Building Platforms

- Lots 2 – 10 will vary in size between 2.01ha and 11.97ha.
- Each of these nine lots will contain a 30m x 30m (900m^2) building platform.
- The overall building footprint of future built form, including all structures within each building platform will not exceed 450m^2. All outdoor residential activities will be contained with the building platforms.
- Each building platform will have a 6m height limit above existing ground level.
- The external cladding of future dwellings will be in accordance with the following:
    - External materials are limited to timber, corrugated / metal cladding, local stone e.g. schist and stucco plaster type finish.
    - Exterior colours will be dark and recessive with a maximum light reflectivity value (**LRV**) of 20% in the range of browns, greens and greys; and
    - Natural timbers will be left to weather, or stain colours shall be of a natural hue or black, rather than bright or non 'natural' looking colours; and
    - Roof cladding will have a maximum LRV of 20%, in the range of browns and greys, and finished with a matte surface.
    - Window trim, gutters and downpipes will be the same colour as the roof, and have a maximum LRV of 20%, in the range of browns and greys.
- Outdoor wood burner fireplaces are prohibited. This does not include barbeques, pizza ovens or similar.
- Firewood storage will be located within 5m of the dwelling.
- Curtains, blinds, tinted windows or similar will be placed on all east facing windows.
- All external lighting will be low intensity, down lighting only and will not be used to highlight buildings or landscape features. External lighting will be located within the building platform area only. All exterior lighting attached to buildings, will be at a height no greater than 1.8m above finished ground level, and will not create light spill beyond the building platform. External lighting not attached to buildings will not exceed 1.2m above ground level. Flood lighting or accent lighting is not permitted.
- Fences are limited to within the building platforms and shall be transparent rural or pool style fencing, such as post-and-wire, post-and-rail fences, glass, or transparent pool fencing.

2.1.2 Access

- Access to each of the nine proposed lots will be via an upgraded accessway and new driveways.

2.1.3 Earthworks

- Earthworks will include the upgrading of the existing accessway, constructing driveways and create levelled areas within the building platforms to accommodate future dwellings, sheds and outdoor areas.

2.1.4 Landscaping

- The management company in charge of the Kanuka Enhancement Ecological Areas will be established prior to each lot gaining title. The management company will be responsible for the creating an Indigenous Plant Restoration Plan prepared by a suitably qualified ecologist.
- Future lot owners will be responsible for the relocation of Kanuka to the Kanuka Ecological Enhancement Areas prior to completion of their respective dwellings.
- All proposed native vegetation within Lots 9 and 10, outside of the Fire Emergency New Zealand (**FENZ**) setback areas will be planted prior to each lot gaining title.
- All other proposed landscaping requirements will be undertaken prior to the completion of their respective dwellings.
- All proposed native vegetation will consist of plant species from the Low Flammability Plant List and will have a mature height of 3m or more, as listed below, and will be planted in accordance with the following:
    - All plants will be implemented at 1m spacings or less.
    - All plants will be planted with a slow-release fertiliser.
    - All plants will have bark mulch, or similar installed.
    - All plants will have pest protection sleeves installed.
    - If a plant dies, it will be replaced within the following planting season.
- All native vegetation outside of the fire defensible areas will be retained.
- Native vegetation within the FENZ 10m setback (which includes the building platform) and FENZ 30m setback will be managed as per the following. Also refer to **GA Sheets 3 - 14**.
    - FENZ 10m Setback:
        - All highly flammable plants will be replanted within the Kānuka Ecological Area. If a plant dies, it will be replaced within the following planting season.
        - Isolated clumps of low flammability plant species may be located within this space.
        - Dead branches, twigs, leaf litter and the like shall be cleared regularly from underneath and around all plants.
    - FENZ 30m Setback:
        - All highly flammable plant species will be replanted and replaced with low flammability plant species. If a plant dies, it will be replaced within the following planting season.
        - Dead branches, twigs, leaf litter and the like shall be cleared regularly from underneath and around all plants.
- No exotic tree species with wilding potential shall be planted within the site.

Suitable Low Flammability Species

Fuchsia excorticata	Kotukutuku	4m tall after 5 years. Mature height 6m.
Pseudopanax crassiofolius	Horoekea/Lancewood	2m tall after 5 years. Mature height 12m.
Pseudopanax arboreus	Five finger	3m tall after 5 years. Mature height 6m.
Coprosma robusta	Karamu	3m tall after 5 years. Mature height 5m.
Coprosma repens	Taupata	3m tall after 5 years. Mature height 5m.
Carpodetus serratus	Putaputaweta	6m tall after 5 years. Mature height 10m.
Griselinia littoralis	Papauma/Broadleaf	3m tall after 5 years. Mature height 6m.
Macropiper excelsum	Kawakawa/Peppertree	2m tall after 5 years. Mature height 4m.

3 Relevant Policy Provisions

3.1 Central Otago District Plan

The CODP gives effect to the RMA, in particular Section 6b and Sections 7c and 7f. The below policy matters and those included in Appendix 1 of this report have been taken into consideration when assessing the proposed subdivision.

The site is located within the Rural Resource Area – RU, but not within one of the specific Rural Resource Areas labelled 1 - 5. The site is not located within an Outstanding Natural Feature (**ONF**), or a Significant Amenity Landscape (**SAL**). The very western portion of the site is situated within the Outstanding Natural Landscape (**ONL**) of the Pisa Range with the majority of the site being located immediately downslope of the Pisa Ranges ONL, refer to **GA Sheets 4, 5, 15, 16 and 18**.

The proposed subdivision is in accordance with Rule 4.7.4(iii)[5] because the average lot area for the 11 lots exceeds 8ha in area, and all lots are larger than 2ha in area. For reference, Lots 1 and 100 are considered to be 16ha in area when calculating the average lot size, as per Rule 4.7.4 (iii)[6]. Therefore, the proposed subdivision is a *discretionary activity*.

The objectives and policies under 4.7.4(iii)(b) that are relevant to the proposed subdivision have been considered when assessing the proposal. The key issues of concern being effects on open space, landscape character, natural character and amenity values. An assessment against these objectives and policies is also included in Section 6 below.

[5] *4.7.4 Discretionary Activity. (iii) Subdivision (b) Creates allotments with an average allotment area of no less than 8 hectares and a minimum allotment area of no less than 2 hectares in an area not identified on the planning maps as Rural-Residential, Rural Resource Area (1) or Rural Resource Area (2) or Rural Resource Area (3).*

[6] *For the purposes of Rule 4.7.4(iii)(b) allotments in excess of 16 hectares are deemed to be 16 hectares for averaging purposes.*

4 The Existing Environment

4.1 The Extent of the Receiving Environment

The extent of the receiving environment, being the environment that may be affected either positively or adversely by the proposed is illustrated on **GA Sheet 15**. The receiving environment encompasses the area of Queensberry, Luggate-Cromwell Road / SH6, Luggate-Tarras Road / SH8A, and Clutha River/Mata-Au between the northeast toe of the Pisa Range and southern toe of the Grandview Range. The receiving environment is limited to the north and south, due to the topography which limits visibility. It extends north to Glen Foyle Road and Sheep Skin Creek / 1km east of Luggate, and south to the 90-degree bend along Luggate-Tarras Road / SH8A.

4.2 Description of the Receiving Environment

4.2.1 Landform

The receiving environment is comprised of:

- The steep rocky slopes of the Pisa Range which rise to the southwest.
- The deeply incised Clutha River/Mata-Au and its associated flat alluvial river terraces that follow along the base of the Pisa Range to the north, south and east.
- The Grandview Range which forms the mountain backdrop to the east, further backdropped by the Dunstan Mountains to the southeast.

Geographically, Queensberry forms part of the Pisa Range that ascends south to Mt Pisa, standing at 1963masl. The Pisa Range is a fault block mountain range orientated northeast to southwest. The majority of the mountain side is steep comprising of numerous incised gullies that descend to the Clutha River/Mata-Au. Its lower slopes are mostly folded and rolling, less steep and contain a series of open elevated terraces and knolls. These variations in landform are easily understood from within Queensberry but are difficult to depict from further afield.

4.2.2 Land Cover and Land Use

The original indigenous vegetation of the area would have consisted of extensive areas of tussock land. Including hard and silver tussock (*Poa cita*) within the lower slopes, with fescue, tussock (*Festuca novae-zelandiae*) and blue tussock (*Poa colensoi*) and narrow leaved snow tussock (*Chionochloa rigida*) at higher levels, and shrubland of matagouri *(Discaria toumoutou*), manuka (*Leptospermum scoparium*), kānuka (*Kunzea ericoides*), stands of silver beech (*Nothofagus menziesii*), and Hall's totara (*Podocarpus laetus*).

This vegetation cover has been substantially modified by farming practices, pastoral grazing, rabbit infestation and rural lifestyle development. Rural activities on the river terraces include pastoral grazing, cropping that is intensified by pivot irrigation, horticulture, viticulture and rural living. These existing patterns of land use express a rural working landscape character based on the productive value of the land and underlying landform, particularly across the open, flat terraces.

Queensberry comprises a rural living development. To the north and south, accessed off Pukerangi Drive and Pukekowhai Drive, respectively, are two distinct and unconnected clusters of rural living development separated by Poison Creek gully. These rural living properties vary in size between 3.2ha and 54ha. Dwellings within these properties have been generally located on the gentler slopes, whilst utilising the more rugged landform consisting of rocky outcrops and indigenous vegetation that

assist with visually screening development from further afield locations. A number of properties have recently been subdivided within the vicinity of the site, including at 41 Westreca Ridge Lane creating two lots of 4.72 and 4.7, and at 51 Westreca Ridge Lane creating two lots of 3.48ha and 5.19ha.

At a local scale, these two areas of rural living development are separated by Poison Creek gully and the lower large, open, elevated, flat river terrace that sits at approximately 300masl above Luggate-Cromwell Road / SH6. The terrace is accessed by Queensberry Terrace and Willowbank Road. Development on the terrace is comprised of 2ha to 32ha rural properties. These properties comprise of a wide range of land use activities in response to the flatter terrace topography including lifestyle farming, viticulture, horticulture, private lodges, retreat accommodation, and home-based businesses.

The Queensberry development, including the site is situated within Unit 6 of the 2008 Central Otago Landscape Study[7], refer to **GA Sheet 17**. The landscape study states that the foothills landscapes, "*are quite visually exposed though there are folds and rocky outcrops in the landform, and groups of trees that could conceal development*" [8] and that this area has a Visual Absorption Capacity of 4 out of 7, meaning that it has a moderate tolerance for change. It concludes that "*New development would be likely to be very obvious in this unit, though additional development may be able to be absorbed in the foothills of the Pisa and Dunstan Ranges.*"[9]

Above Queensberry, the Pisa Conservation Area is a 23,000ha public reserve area located within the upper slopes of the Pisa Range, approximately 1km beyond the site to the southwest. The Pisa Track is used by people walking, running, mountain biking and horse trekking, with the track providing access to Snow Farm, Roaring Meg Pack Track and Rock Peak Track access from the Crown Range Road look out.[10] The area is classified as an ONL comprising a highly natural landscape, consisting of schist rock tor, rock outcrops, and tussock grassland and remnant pockets of indigenous tree / shrub vegetation. These upper slopes are clearly legible, conveying the landscape's formative patterns and processes.

The level of natural character substantially varies between the intensively developed and cultivated rural environment of the river terraces, the rural living development on the foothills that surround the site and the rugged upper slopes of the Pisa Range.

The Luggate-Cromwell Road / SH6 forms the main transport link between Cromwell, Luggage and Wānaka, following the base of the Pisa Range. The Luggate-Tarras Road / SH8A traverses across the elevated terrace east of the Clutha River/Mata-Au, turning southeast at Māori Point, and proceeding as Bells Lane, before intersecting with the Tarras-Cromwell Road / SH8.

Early Ngai Tahu Māori used the Clutha River/Mata-Au as an inland route for seasonal food gathering, particularly Tuna (long-fin eel), considered a taonga (treasured species) forming a key component of their tribal identity. Queensberry Inn and stables (1887) was used by early gold miners and travellers.

4.3 Description of the Site

The 58.95ha site is located approximately 5kms southeast of the small rural settlement at Luggate. Access is via the top end of Fay Lane. The site is situated between the rural living developments accessed off Pukerangi Drive and Pukekowhai Drive. The site is situated between 400 to 440masl,

[7] Central Otago District Rural Review. Landscape Assessment Report and Recommendations. 2008.

[8] Central Otago District Rural Review. Landscape Assessment Report and Recommendations. 2008. Page 36.

[9] Central Otago District Rural Review. Landscape Assessment Report and Recommendations. 2008. Page 36.

[10] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.doc.govt.nz/globalassets/documents/parks-and-recreation/tracks-and-walks/otago/wanaka-outdoor-pursuits-brochure.pdf.

some 100m above the elevated terrace that Queensberry Terrace and Willowbank Road run north to south along.

The upper slopes within the site have a gentle gradient sloping eastward. The gentler slopes coincide with the localised spurs bisected by a number of unnamed streams in deeply incised gullies. The slopes increase in steepness as they descend into two steep incised gullies, that run west to east towards the Clutha River/Mata-Au. Indigenous vegetation and extensive amounts of schist outcrops are associated with the incised gullies. Also, there is a local knoll at the western end of Fay Lane, at the southern end of a man-made pond (within the parent property), and a small open grassed area situated west of the knoll.

The Ecological Report has described and illustrated the extent of the vegetation coverage in detail.[11] Notably, the site is covered in varied densities of kānuka dominant scrub and shrubland, with smaller areas of olearia, fescue tussock, matagouri, coprosma, pasture grass.

The Ecological Report has assessed the significance of the indigenous vegetation and habitats on the site. This assessment has concluded that "*The indigenous vegetation and habitats on the site as a whole meet all four of the significance criteria (representativeness, diversity and pattern, rarity and distinctiveness, and ecological context), and are therefore considered significant*" [12].

A gravel access track at the northern end of the site, extends north to south from Fay Lane at the northern end of the site through the parent property. The transmission line that runs north to south through the site is situated near and generally runs parallel with this access track.

4.4 Landscape Values of the Receiving Environment

The landscape values of the receiving environment (physical, perceptual and associative) form the baseline, along with the policy provisions, for an assessment of landscape and visual effects. The landscape values of the receiving environment (including the site) stem from its past and present landscape attributes and associated use. The landscape values that are relevant to an assessment of the proposed development are listed below.

4.4.1 Physical

"***Physical*** *means both the natural and human features, and the action (and interaction of natural and human processes over time*."[13]

The landscape character of the area reflects that of a rural character, derived from the interplay between the natural and modified rural environments. Natural elements in the landscape being the large-scale landforms of the Pisa Range and foothills which form the visual backdrop to Queensberry and the Clutha River/Mata-Au corridor. The Pisa Range generally displays a high level of natural character due to the rugged steep terrain, rocky outcrops, tussock grasslands and grey scrub vegetation. This contrasts with the flat modified river terraces and valley floor of the Upper Clutha Basin, which extends from the Clutha River/Mata-Au to the Pisa Range, and which is primarily used

[11] Wildlands Ltd. Assessment of Ecological Effects for a Proposed 10 Lot Subdivision. Dated October 2023. Pages 5 - 21.

[12] Wildlands Ltd. Assessment of Ecological Effects for a Proposed 10 Lot Subdivision. Dated October 2023. Page 33.

[13] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 79. Typical physical factors include geology, topography, hydrology, ecology, climate, vegetation, biological elements settlement patterns, buildings, heritage features and tāngata whenua features within the landscape.

for intensive agricultural, horticultural, and rural residential use. Land holdings within this area range from 700ha to small rural residential and rural lifestyle blocks of 35ha – 2ha in area.

The Pisa Range is identified as an ONL, further described as 'a large block mountain displaying summit tors, active patterned ground, and broad crests. It forms the imposing backdrop to Cromwell and the Upper Clutha Valley and is the westernmost block mountain range in Otago. Summit vegetation consists of predominately native cushion field, with denser snow tussock, and stands of kānuka / manuka. This ONL generally has a high level of natural character, with a very distinctive landform, minimal visible human modification, and is a coherent landscape of a significant scale.'

The SAL overlay extends over the Grandview Ridge and Eastern Hills and Terraces, including the distinctive Bend Terrace landform at Tarras. This transitional landscape comprised of mountain foothills, ridgelines, and highly legible terrace landforms, conveys a sense of enclosure and high level of visual amenity to the Clutha River/Mata-Au valley and Upper Clutha basin dividing the Tarras Bendigo basin. Specific values for this area are not outlined in the CODP but the amenities afforded by this SAL backdrop provide for spectacular views over the upper Clutha Valley, surrounding mountain peaks, and a distinct contrast to the flat plains.

4.4.2 Perceptual

"*Perceptual* *means both direct sensory experience and broader interpretation through the senses. While sight is the sense most typically applied to landscape assessment, direct sensory perception importantly includes all the senses.*"[14]

Sensory and aesthetic qualities include extensive views of the surrounding Upper Clutha and Tarras Bendigo basins. The distinctive basins and glacial outwash terraces surrounded by mountainous landforms creates a strong sense of place, enclosure, and highly legible landscape. The land use patterns are a response to the combination of these landforms, soil types and climate.

Exposure to the natural processes of the climate and weather make this semi-arid setting one with high perceptual and aesthetic values contributed by the high visual coherence, naturalness and legibility displayed by the rock tors, and depauperate vegetation cover emphasising the enclosing broad scale landforms.

Transient qualities are associated with seasonal changes, weather systems, and light effects, which at times of the day and year further emphasise and accentuates of the sheer scale and bulk of the surrounding contrasting landforms. Further transient values are contributed by the seasonal colour variations in the exotic vegetation, particularly poplars, which confer a rich golden colour to the landscape. At other times of the year snow cover also accentuates landform details contributing to moderate-high aesthetic values**.**

These factors contribute to distinctive rural character. The area has been identified as distinct based on its environmental character. The amenity values of the rural environment are dominated by Central Otago's unique, semi-arid landscape of broad basins separated by mountain ranges with sparse vegetation, covered in tussock grassland and pasture, and broken by schist rock outcrops. This

[14] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 79. Typical perceptual factors include geomorphic legibility (how obviously a landscape expresses the geomorphic processes), wayfinding and mental maps (legibility or visual clarity of landmarks, routes, nodes, edges, and areas of different character), memorability, coherence (the extent to which patterns reinforce each other, for example between human patterns and underlying natural landscape), aesthetic qualities and views.

landscape retains a high degree of natural character and has significant scenic values identified by the ONL, ONF and SAL overlays.

4.4.3 Associative

"*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 the qualities of a landscape."*[15].

At a local level, the associative values of the receiving environment are very high, recognised by the ONL classification within the Pisa Range, which accommodates the Pisa Conservation Area. This 23,000ha public reserve offers a wide range of recreational activities, including a network of walking, mountain bike and cross-country ski trails, opportunities for hunting and four-wheel driving.

The area also has strong associative values linked to cultural, historical, and recreational practises, particularly the nearby Clutha River/Mata-Au providing a mode of transport and as a mahinga kai resource. The rich cultural history is derived from the early Māori explorers, pastoral runholders and gold miners. Mining artefacts, including tailings relate to the cultural history of the area that is directly related to the resources of the land.

[15] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 79. Typical associative factors include cultural (tangata whenua) and historic values, as well as shared and recognised attributes such as recreational opportunities.

5 Assessment of Landscape and Visual Effects

5.1 Potential Issues

The proposed subdivision will result in an increased density of development with the potential to cause adverse cumulative effects and erode existing landscape character and visual amenity values within Queensberry, Pisa Range ONL and wider Upper Clutha Basin landscape.

5.2 Assessment of Visual Effects

Whether the proposal is considered appropriate is determined by the visual effects on the receiving environment, if the proposal satisfies the CODP policy provisions and whether the landscape values attributed to this setting are retained or whether, if adversely affected, effects can be satisfactorily avoided, remedied or mitigated.

"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. A visual assessment is one method to help understand landscape effects." [16]

The significance of the visual effect is influenced by the visibility, distance, duration of the view, the scale and nature of the proposal, the context in which it is seen, and the size of the viewing audience.

A desktop analysis and on-site investigation found that the proposed subdivision will be limited to public roads and the Pisa Range Ridge Track, while the viewing audience comprises the general public, and residents of neighbouring and nearby properties. Of note is that viewpoints are located at varying distances and elevations, as illustrated on **GA Sheet 19**. The proposed subdivision will be potentially visible from the following locations:

- Luggate-Tarras Road / SH8A.
- Luggate Cromwell Road / SH6.
- Pukerangi Drive.
- Queensberry Terrace and Willowbank Road.
- Pukekowhai Drive and Wailana Heights Drive.
- Pisa Range Ridge Track.
- Private properties north, east and south of the site.

Six-meter-tall profile poles were positioned within the centre of each lot to mark the location and height of the proposed building platform. The poles were used for assessing the extent of visibility from these public places, noting that the profile poles were not visible from any of the surrounding public places with the human eye.

Views towards the proposed building platforms and their associated activities are experienced from the Luggate-Tarras Road / SH8A, Queensberry Terrace, and Fay Lane. The **GA** includes panorama

[16] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 135.

photographs representing the views gained from these locations, with a viewpoint location plan illustrating where these photos were taken from. Refer to **GA Sheets 19 - 27**.

5.2.1 Luggate-Tarras Road / SH8A – Viewpoints 1 - 4

The Luggate-Tarras Road / SH8a is situated on the far side of the Clutha River/Mata-Au to the east, connecting Tarras, Luggate and Wānaka. Unobstructed views extend across dry grassland, river terraces to the hummocky terrain of the Queensberry Hills and steep backdrop slopes of the Pisa Range, which dominate the scene. There are numerous dwellings scattered across these hills, although they are subservient to the large-scale landform setting, they vary in visibility according to the viewing angle, sun angle and seasonal changes. The Harris Mountains and Minaret Range are visible in the distance to the west and the distinctive forms of Roy's Peak, Mount Alta, and Black Peak. The Dunstan Mountains are visible to the east. Visual amenity is derived from the vast sense of scale and open space, the transient quality of light, seasonal variations and weather of the scene highlighting the highly legible landscape character of the enclosing landforms.

The dark coloured, predominantly kānuka clad site is visible when travelling north and south from an approximate 4.8km stretch of Luggate-Tarras Road / SH8A, refer to **GA Sheet 19**. The number of future dwellings that will be seen is dependent on the direction a road user is travelling and their location, as listed below.

- Future dwellings within Lots 5 and 7 – 10 are potentially seen when travelling south from the northern part of this 4.8km stretch of road, as represented by **Viewpoint 2.**
- Future dwellings within Lots 5 – 8 and 10 are potentially seen when travelling south from the northern part of this 4.8km stretch of road, as represented by **Viewpoint 3.**
- Future dwellings within Lots 4 – 7 are potentially seen when travelling north from the southern part of this 4.8km stretch of road, as represented by **Viewpoint 4.**

Conversely, when travelling north past Viewpoint 2 or south past Viewpoint 4, future dwellings will not be seen as they are outside a road user's primary and peripheral field of view.

The proposed vegetation has been located to assist with the screening of future built form within each of the above-mentioned lots. However, full screening will not be achieved because the proposed mitigation vegetation is limited in extent due to existing topography and the vegetation is required to achieve the FENZ setback guidelines[17]. Once the proposed vegetation has matured, only dark, recessive, and non-reflective rooflines and the upper parts of gable facades standing no more than 2m above the 3m tall vegetation will be seen.

Although no more than five additional dark recessively clad rooflines will be seen at any one time, they will not be prominent to the point that they detract from the view. This is because they will form a very small part of the overall view by road users travelling at 100km/h and at a distance of 3.3km – 3.5km away and will not break the line or form of any skylines. Additionally, when potentially seen, they will appear between the rural living developments to the north and south, and approximately 80m below the most elevated dwellings within these neighbouring developments. Therefore, they will appear in keeping the pattern of development on the lower slopes of the Pisa Range.

Accessways ascending / descending the hillside may also be seen. These small, linear cleared areas tucked in between existing and proposed kānuka will be difficult at best to see. This is because the accessways are situated on gentler slopes as to avoid any cut faces, which is the most visible aspect

[17] https://www.fireandemergency.nz/farms-rural-properties-and-rural-businesses/rural-property-checklist/

of the existing road network within Queensberry. Also, the kānuka will visually mitigate and break up any potential long, straight accessways.

Visibility of future dwellings will be highlighted at night-time, mostly during the winter months as they will introduce additional lighting on the lower slopes of the Pisa Range. The proposed lighting rules means that outdoor lighting will be specifically designed to prevent light spill. Importantly, any outdoor lighting will be limited to downlighting, located below 1.8m above finished ground level, directed downward and away from the boundaries of each building platform. Additionally, curtains, blinds, tinted windows or the like will be installed on all east facing windows within future dwellings are required. These design measures will assist with reducing the potential visual effects of indoor lighting.

Like built form, the additional lighting will be centrally located within and cohesively forming part of the overall Queensberry development. Notably, lights associated with future dwellings will be situated 80m below the most elevated existing dwellings. Due to this, they will not impact on silhouette of the Pisa Range against the night sky.

Overall, the degree of adverse effects on existing landscape character and visual amenity as experienced from Luggate-Tarras Road / SH8A will be **low to low-moderate**.

5.2.2 Luggate-Cromwell Road / SH6 – Viewpoints 5 - 6

Luggate-Cromwell Road / SH6 skirts around the toe of the Pisa Range providing access between Wānaka, Luggate and Cromwell, and to Queensberry. The river terrace flats convey an open pastural landscape character, allowing for unobstructed views to the surrounding mountains, with brief views to the Clutha River/Mata-Au. Visual amenity is derived from the open views over the pastoral river terraces, the native vegetation and rock outcrops over the scarp faces and rolling hummocky landform on the Queensberry Hills and the steep upper slopes of the Pisa Range and the skyline. The distant views to the Grandview Range, to the northeast and the Dunstan Mountains to the south also contribute to a road user's amenity. The development on the Queensberry Hills is evident, with varying amounts of visible built form as road users travel along this road.

The dark coloured, predominantly kānuka clad site is visible when travelling north and south from an approximate 500m stretch of Luggate-Cromwell Road / SH6, refer to **GA Sheet 19**. Future dwellings within Lots 5, 6, 8, and 10 will potentially be visible when travelling north and south along this stretch of road, as represented by **Viewpoint 5.**

As mentioned above, the proposed vegetation has been located to assist with screening future built albeit full screening will not be achieved. Rather, only dark, recessive, and non-reflective rooflines and the upper parts of gable facades will be seen above the 3m tall vegetation.

At most only a glimpse of these four dark recessively clad rooflines will be gained, when travelling at 100km/h along this 500m stretch of road, and with the view being perpendicular (outside a road users' primary field of view) to the road alignment. Therefore, future dwellings when seen at 1.8kms away, beyond a scarp face seen in the foreground of the view and not break the line or form of any skylines they will not be visually prominent. Also, they will not appear out place as they will form a small part within the centre of the overall Queensberry development.

Lighting will highlight the visibility of these future dwellings at night-time, during the winter months. The proposed conditions on outdoor lighting, and the inclusion of curtains, blinds, tinted windows, or the like have been drafted to reduce the amount of potential light spill. Similar to the above, additional lighting associated with these four future dwellings will cohesively form part of the Queensberry development. This is because road users will see these additional lights in sequence with other night-time lights immediately north and south of the site.

Overall, the degree of adverse effects on existing landscape character and visual amenity as experienced from Luggate-Tarras Road / SH8A will be **low**.

5.2.3 Pukerangi Drive – Viewpoint 7

Pukerangi Drive provides access to the rural living properties north of the site. When ascending Pukerangi Drive, views towards the parent property are potentially seen for the short stretch of road along alongside 175 Pukerangi Drive, refer to Viewpoint 7. However, the site is 2kms away and not seen due to the intervening landform. Therefore, the proposed subdivision will not adversely affect the rural amenity and landscape character experienced from Pukerangi Drive.

5.2.4 Queensberry Terrace and Willowbank Road – Viewpoints 8 - 10

Queensberry Terrace and Willowbank Road run north - south, forming the 'main' road on the open elevated river terrace within the Queensberry development area. A rural character dominates the scene, conveyed by paddocks, shelterbelts, farm sheds, orchards and vineyards and post-and-wire fencing. This terrace is mainly comprised of rural blocks, generally used for small-scale farming, horticulture, and viticulture.

The Queensberry Hills development area extends beyond the terrace, with the steep slopes of the Pisa Range forming the backdrop. The natural character of the mountainside is highlighted by the patterns of indigenous vegetation, rock tors and rocky outcrops, located on the steeper scarp faces and within the incised gullies. Visual amenity is derived from the pleasant rural setting, sense of openness, and views across the farmed flats to the Pisa Range.

The kānuka clad site is seen from approximately 1.6kms of these two roads, refer to **GA Sheet 19**. It forms part of the midground of the view to the west, as part of the Pisa Range's lower slopes. The number of future dwellings that will be seen is dependent on the direction a road user is travelling and their location, as listed below.

- Future dwellings within Lots 8 and 10 are potentially seen when travelling north and south along Queensberry Road, as represented by **Viewpoint 8**.
- Future dwellings within Lots 8 and 10 are potentially seen when north and west along Willowbank Road, as represented by **Viewpoint 9**. Conversely, when travelling south and east future dwellings will not be seen as they are outside a road users primary and peripheral field of view.
- Future dwellings are not seen from **Viewpoint 10**.

Queensberry Road and Willowbank Road are located approximately 1km from the toe of the escarpment. Therefore, the scarp faces, varied topography and vegetation, coupled with the viewing angle will screen the majority of future built form within Lots 8 and 10. The upper parts of future built form, including dark, recessively clad and non-reflective rooflines and the upper parts of gable facades are potentially seen. Due to this, their dark recessive cladding will not be visually prominent due to the surrounding and immediate backdrop of the dark coloured kānuka vegetation.

Additionally, small portions of additional, visible built form will form a very small part of the overall scene experienced from these two roads. Also, they will not appear out place as they will be seen in the context of other residential dwellings that can be seen on the terrace and upper slopes within the Queensberry development and nestled amongst screening vegetation (not break the line or form of any skylines) that replicates the natural vegetation pattern that exists over the site.

Overall, the degree of adverse effects on existing landscape character and visual amenity as experienced from Queensberry Road and Willowbank Road will be **very low to low**.

5.2.5 Pukekowhai Road and Wailana Heights Drive – Viewpoints 11 - 12

Pukekowhai Road winds approximately 3.3kms uphill from SH6, providing access to Wailana Heights Drive, Catalina Way and two private lanes, all of which have a sealed surface. All of these roads are south of the site, varying between 1.2kms and 2.7kms away. These public roads are likely to be only utilised by the local residents, their guests and people accessing the Pisa Range Track.

Whilst the profile pole was difficult to see, the roof line of a future dwelling within Lot 10 may be seen beyond the proposed native vegetation from an approximate 420m stretch of Pukekowhai Road and Wailana Heights Drive, refer to **GA Sheet 19 and Viewpoints 11 and 12**. A very small sliver of a dark recessively clad roof line not breaking the line or form of any skylines, seen at 1.5kms away, beyond the nearby residential development and within such a large vista will not detract from the amenity that road users currently appreciate. Therefore, the degree of adverse effects on existing landscape character and visual amenity will be **very low to nil**.

5.2.6 Pisa Range Ridge Track – Viewpoints 13 - 14

The Pisa Range Ridge Track provides the public walking, mountain biking and horse trekking access through the Pisa Conservation Area from Wailana Heights Drive through to Snow Farm, Roaring Meg Pack Track and Rock Peak Track access from the Crown Range Road look out.[18]

Elevated, broad sweeping views over the Upper Clutha and the Tarras Bendigo Basins, Lake Wānaka, Lake Hawea and Lake Dunstan to the surrounding mountains are gained from this trail. Visual Amenity is derived from both the naturalness of the native vegetation and rock outcrops on the Pisa Range and the grandeur of the views that are experienced.

The majority of the site is not visible when ascending and descending the trail, due to intervening topography. At most, the dark recessively clad, and non-reflective roof line within Lot 10 may be seen from a 200m stretch of this 30km long trail, refer to **GA Sheet 19**. This roofline will form a very small part of the overall view gained from this track, when seen at a distance 2.8kms away, beyond the existing development accessed off Pukekowhai Drive, refer to **Viewpoints 13 and 14**. Therefore, given the context and viewing distance the degree of adverse effects on existing landscape character and visual amenity experienced from this trail will be **very low to nil**.

5.2.7 Private Properties

There are numerous rural properties located within the vicinity of the proposed subdivision. Residents north and east of the site that are potentially most affected by future dwellings are at 141, and 173 Fay Lane, 2 and 12 Miharo Lane and 296 and 346 Pukerangi Drive. To the south it includes the most elevated and northern most properties at 43 and 44 Briar Wood Lane, and 15 Estrella Heights Lane.

Although the development will result in changes to existing landscape character within a portion of the site, available views into the site from these nearby properties are limited, due to landform and existing vegetation.

The effects of the proposal on existing landscape character and values potentially experienced from the residences of these nearby private properties have not been directly assessed, as access has not been sought. The subdivision and subsequent dwellings may result in some degree of change to a familiar view as experienced from a stationary perspective from these private dwellings. However, the panoramic views affording the key amenity values will remain unchanged. Consequently, the degree of effects on existing landscape character and visual amenity as experienced from

[18] chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://www.doc.govt.nz/globalassets/documents/parks-and-recreation/tracks-and-walks/otago/wanaka-outdoor-pursuits-brochure.pdf.

surrounding properties will vary depending on location, distance, and elevation, however any such change will be **very low to low**.

5.2.8 Summary

In summary, the proposed subdivision, including building platforms and accessways will be centrally located within the Queensberry development. The dark recessively clad rooflines and upper parts of no more than five future dwellings will potentially be seen, but mostly screened by existing and proposed native vegetation from short stretches of the surrounding public roads. In most instances, only small portions of two to four dwellings are potentially seen at distances beyond 2kms.

When seen, these future dwellings will not be visually prominent, nor will they appear out place as they will form a small central part of the overall Queensberry development. Lighting will highlight the visibility of these future dwellings at night-time, during the winter months. However, these additional lights will be seen in sequence and in keeping with other night-time lights immediately north and south of the site. Importantly, future dwellings will be located 80m below the most elevated dwellings, so they will not extend up the mountainside and consequently will not impact on the silhouette of the Pisa Range against the night sky.

Overall, the degree of adverse effects on existing landscape character and visual amenity as experienced from the surrounding public and private places will be **very low to low-moderate**.

5.3 Assessment of Landscape Effects

"*A landscape effect is an outcome for a landscape value. … Change itself is not an effect: landscapes change constantly. It is the implications of change on landscape values that is relevant*." [19]

Landscape effects are assessed against the existing landscape character and values of the receiving environment.

The proposed subdivision will increase the amount of development within Queensberry by nine additional dwellings that will be less than 450m^2 in area and 6m in height. Due to topographical and vegetation constraints, all indoor and outdoor living will be contained within the 900m^2 building platforms. Subsequently, there is potential for this rural living development to be adversely effected, both individually and cumulatively the open space and rural landscape character within the receiving environment.

The central location of the proposed subdivision, between the rural living development to the north and south, accessed of Pukerangi and Pukekowhai Drive, respectively is the primary factor in mitigating the proposals potential adverse effects on open space and rural landscape character. This is because the proposal is considered to be infill development rather than sprawl between these two areas of existing development. Secondly, because the development is situated below the existing access track within the parent property and located 80m below the most elevated properties within Queensberry. This surrounding development provides the context along with the hummocky topography that enables the absorption of the proposed development within Queensberry. Notably, by being on these lower slopes, the proposal lies outside the ONL boundary and will not impact on the open, upper slopes of the Pisa Range, that display a high level of natural character, have minimal visible human modification and are a coherent landscape of a significant scale. Nor does the proposal spread into the more open hillsides to the north and south, where rural living development is not situated.

[19] 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines'. Tuia Pita Ora New Zealand Institute of Landscape Architects, July 2022. Page 135.

The proposed subdivision has been designed in accordance with the CODP minimum and average allotment size[20] that are used to assist with maintaining the open space values of the rural environment. Importantly, the size and layout of the proposed lots that vary between 2 – 12ha in area are generally consistent with the existing pattern of development within Queensberry, which vary in size between 3 and 12ha, refer to **GA Sheet 16**.

As outlined in the Central Otago Landscape Study, the hummocky complex nature of the Queensberry landform affords the opportunity to absorb development. Notably, the proposed building platform locations and lot layout respond to the topography within the site, its has taken all opportunities to minimise the impacts from landform change, avoiding the removal of rock outcrops and removal of native vegetation by utilising existing accessways, and placing new accessways and building platforms within the open areas of grassland on the gentle slopes of the local spurs. Also, the building platforms with their 6m height limits are situated where development will avoid potential visual effects on the skylines.

Due to the above, the proposed nine building platforms will be in keeping, consistent and well absorbed within the existing rural living character and development patterns within Queensberry. Therefore, the adverse effects on open space and rural character of the receiving environment will be **low**.

The development will reduce the natural character of the receiving environment by removing approximately 0.6ha of existing native vegetation and 2.7ha of exotic grassland to provide space for future dwellings, their outdoor spaces and accessways. Notably, the removal of existing vegetation is where it is less dense, and that the densely vegetated gullies will remain intact.

The ecological report has concluded that the initial removal of the kānuka vegetation will be of a more than minor effect.[21] Defined as "*Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied*". [22]

The ecological report makes a number of recommendations to avoid, remedy and mitigate the more than minor ecological effects, including:

- *"Driveways to follow the route that minimises removal of indigenous shrubs and rock tors.*
- *Main access road gully crossings to be located to avoid all Olearia lineata.*
- *The extent of vegetation clearance permitted by landowners to be limited to a maximum area considered reasonable for establishing a house and section.*
- *Pest plant control to be undertaken, to include Scotch broom, gorse, wilding conifers, crack willow, and surveillance for and removal of new species introductions.*
- *A Lizard Management Plan and Wildlife Act Authority application to be developed, clearly demonstrating mitigation of adverse effects of the development on lizards.*
- *A Construction Management plan to be developed, to describe how potential adverse effects on ecological values outside of the construction zones will be managed.*
- *Consideration of robust formal protection of higher value parts of the site should be considered.*
- *A woody indigenous plant community restoration plan to be prepared by a suitably qualified ecologist that identifies areas and species to be planted, management measures to ensure*

[20] CODP - Rule 4.7.4 (iii).

[21] Central Otago District Rural Revie. Landscape Assessment Report and Recommendations. 2008. Page 42.

[22] Central Otago District Rural Revie. Landscape Assessment Report and Recommendations. 2008. Page 42.

successful establishment, and reporting requirements. This area to be approximately one hectare. Suggested components of the plan are a revegetation area in grassland at the north of the site, underplanting within kānuka scrub at four locations across the site, and plantings within wetlands at four gully heads". [23]

The proposal has adopted the Wildlands recommendations. Subsequently the Wildlands ecological report concludes that the long-term ecological effects of the proposed subdivision will be less than minor, and that a net positive ecological outcome (relative to the current situation) is possible over the long term. [24]

The extent of the proposed earthworks will be restricted to the formation / levelling of the building platform and the upgrading and formation of the 3m wide accessways. All areas of exposed earthworks will be sown with grass within the first planting season (spring September / October or late summer March / April) to achieve vegetation cover within 60 days after construction.

Upgrading and constructing approximately 800m of the main accessway and less than 100m of accessways to Lots 5, 6, and 7 are located within the ONL, refer to **GA Sheet 5**. These accessways are located immediately down slope of the existing farm track, noting, that widening the existing farm track may result in cut scars across the hillside. Instead, although located within the ONL, the proposed accessways are situated on gently sloping land and will avoid any cut scars, and are located away from its elevated open slopes of the Pisa Range that highly contribute to its outstanding landscape values. Although, the accessway will result in a reduction in native vegetation that will be mitigated by the recommendations in the Wildlands Report, it will have a very low degree of effect on the ONL values of the Pisa Range.

Overall, the proposal will have a **low to low-moderate** degree of adverse effects on the existing landscape values of the site and its receiving environment.

[23] Central Otago District Rural Revie. Landscape Assessment Report and Recommendations. 2008. Page 52.

[24] Central Otago District Rural Revie. Landscape Assessment Report and Recommendations. 2008. Page 52.

6 Assessment Against the Central Otago District Plan

6.1 Central Otago District Plan

The actual and potential landscape effects are assessed above against the landscape character and values of the receiving environment and overall are of a **low to low-moderate** degree. Based on Figure 2 above, this equates to a minor degree of adverse effects. For completeness the following assessment is undertaken against the relevant objectives, policies and rules in the CODP.

In relation to the proposal, the relevant environmental outcomes anticipated by the CODP are as follows:

- The adverse effects on the Central Otago landscape and natural character of any new structure or works are avoided, remediated, or mitigated.
- Built development being designed and located so that the open space, landscape and natural character of the district's hillsides, ranges, terraces, prominent places, and natural features are maintained, or enhanced without compromising their landscape and amenity values.

The potential landscape and visual effects arising from the proposed subdivision as a discretionary activity are addressed with reference to the relevant objectives and policies of the CODP.

6.1.1 Chapter 4 – Rural Resource Area

4.3.3 Objective - Landscape and Amenity Values

To maintain and where practicable enhance rural amenity values created by the open space, landscape, natural character and built environment values of the District's rural environment, and to maintain the open natural character of the hills and ranges.

4.4.2 Policy – Landscape and Amenity Values

To manage the effects of land use activities and subdivision to ensure that adverse effects on the open space, landscape, natural character and amenity values of the rural environment are avoided, remedied or mitigated through:

(a) The design and location of structures and works, particularly in respect of the open natural character of hills and ranges, skylines, prominent places and natural features,

(b) Development which is compatible with the surrounding environment including the amenity values of adjoining properties,

(e) The location of tree planting, particularly in respect of landscape values, natural features and ecological values,

(g) Encouraging the location and design of buildings to maintain the open natural character of hills and ranges without compromising the landscape and amenity values of prominent hillsides and terraces.

Explanation

Central Otago has a unique landscape in the context of New Zealand. The District is dominated by parallel mountain ranges separated by broad valley basins and has a semi-arid character. This type of landscape is sensitive to modification. To sustainably manage what is considered a significant

resource of the District, for both present and future generations, care must be taken with respect to the impact of activities on landscape and natural character.

The open space and natural character of the rural environment is also seen as a significant resource of the District. These values are capable of being compromised by commercial, industrial and/or residential forms of development not traditionally found in a rural context.

Response:

As discussed above, the proposed development will be centrally located between two existing rural living development, below the ONL of the Pisa Range as to avoid any potential effects on these prominent slopes. This central location, including its elevation, lot sizes and access off Fay Lane is compatible with the existing rural living development patterns within Queensbury. Also, it will be nestled discreetly within the existing complex landform and native vegetation that is capable of absorbing built form, as recognised in the Central Otago Landscape Study. [25]

Further to this, all development, including curtilage will be confined to the 900m^2 building platform, comprising a 6m height limit, and controls on the maximum size of built form, external cladding and lighting. Future dwellings will not breach the skyline, and the open natural character and amenity values of the surrounding hills, ranges, including prominent places and natural features will be maintained by the low density of dwellings, careful location of building platforms and controls on planting.

Policy 4.4.10

To ensure that the subdivision and use of land in the Rural Resource Area avoids, remedies, or mitigates adverse effects on:

(a) - The open space, landscape, and natural character amenity values of the rural environment in particular the hills and ranges.

(c) – The production and amenity values of the neighbouring properties.

(g) – The heritage and cultural values of the District.

particularly through the use of minimum (and average) allotment sizes.

Explanation

Minimum allotment sizes for subdivision are considered to be the best practicable methods to control adverse effects. In some instances, adherence to an arbitrary minimum is not always the most appropriate approach.

Response:

The proposed subdivision has been designed in accordance with the CODP minimum and average allotment size[26]. These proposed lot sizes vary between 2 – 12ha in area and the layout responds to the site topography resulting in development that will be generally consistent with the existing pattern of rural living development within Queensberry which varies in size between 3 and 12ha. Regarding this, and the response above, the proposed subdivision has been located and designed to mitigate

[25] Central Otago District Rural Review. Landscape Assessment Report and Recommendations. 2008. Page 36.

[26] CODP - Rule 4.7.4 (iii).

the potential adverse effects on the open space, landscape, and natural character amenity values within this rural environment.

As assessed above, the subdivision and subsequent dwellings may result in some degree of change to the familiar view that are experienced from the nearby and neighbouring properties. However, the panoramic views affording the key amenity values will remain unchanged. Consequently, the degree of effects on visual amenity will be **very low to low**.

The proposed subdivision will not impact on the productive use on any neighbouring land, noting that the parent property is one of the largest land holdings within the Queensberry area and that the proposed development is confined to the hill slopes and removed by over 100 masl from the productive land use on the terrace below.

7 Conclusion

It is proposed to subdivide Lot 1 DP 487478 and Lot 3 DP427927 into 11 lots. The subdivision will be located at the western end of Fay Lane, Queensberry. Proposed Lots 1 and 100 are 'balance lots' that will comprise the majority of the 807.88ha parent property. Proposed Lots 2 – 10 will each contain building platforms, accessways and will vary in size between 2.01ha and 11.97ha in area, in accordance with CODP Rule 4.7.4(iii).

The potential visual effects will be reduced and / or mitigated by dark recessively clad rooflines, and mostly screened by existing and proposed native vegetation from short stretches of the surrounding public roads and the Pisa Range Ridge Track. In most instances, only small portions of two to four dwellings are potentially seen at any one time at distances beyond 2kms.

When seen, these future dwellings will not be visually prominent, nor will they appear out place as they will form a small central part of the overall Queensberry development. Lighting will highlight the visibility of these future dwellings at night-time, during the winter months. However, these additional lights will be seen in sequence and in keeping with other night-time lights immediately north and south of the site. Importantly, future dwellings will be located 80m below the most elevated dwellings, so they will not be seen as extended up the mountainside where and will not adversely affect the silhouette of the Pisa Range.

Overall, the visual effects resulting from the proposed subdivision are summarised as:

- Luggate-Tarras Road / SH8A – Low to low-moderate.
- Luggate Cromwell Road / SH6 – Low.
- Pukerangi Drive – Nil.
- Queensberry Terrace and Willowbank Road – Very low to low.
- Pukekowhai Drive and Wailana Heights Drive – Very low to nil.
- Pisa Range Ridge Track – Very low to nil.
- Private Properties – Very low to low.

Regarding landscape effects, the proposed subdivision will increase the amount of development within Queensberry by nine additional dwellings. Subsequently this development has the potential to adversely affect, both individually and cumulatively the open space and rural landscape character within the receiving environment. These adverse effects will be mitigated and the proposal will be appropriately absorbed in the landscape for the following reasons;

- The proposed subdivision will be infill development being centrally located between the rural living development to the north and south of the site, accessed of Pukerangi and Pukekowhai Drive, respectively. The proposed development is within an area that has been identified in the Central Otago Landscape Study as containing hummocky and complex topography that affords the opportunity to absorb development.
- The development is situated below the most elevated properties within Queensberry. Importantly, it will not extend up or impact on the open, upper slopes of the Pisa Range, that display a high level of natural character and is a coherent landscape of a significant scale.

- The proposed subdivision has been designed in accordance with the CODP minimum and average allotment size[27] that are used to assist with maintaining the open space values of the rural environment.
- The size and layout of the proposed lots are generally consistent with the existing pattern of development within Queensberry and respond to the natural topography of the landscape.
- The recommendations in the ecological report form part of the proposal. Therefore, as concluded by the ecological report the long-term ecological effects of the proposed subdivision will be less than minor, and a net positive ecological outcome (relative to the current situation) is possible over the long term.

Overall, the proposal will have a **low to low-moderate** degree of adverse effects on the existing landscape values of the site and its receiving environment. Regarding this, the proposed development will satisfy the relevant landscape and amenity objectives and policies relating to subdivision, and land use development within the Rural Resource Area.

[27] CODP - Rule 4.7.4 (iii).

RMM

ROUGH MILNE MITCHELL
LANDSCAPE ARCHITECTS

Proposed Subdivision - Fay Lane, Queensberry
Graphic Attachment to Landscape Assessment Report

14 May 2024

Document Information

Project
Proposed Subdivision
Address
Fay Lane, Queensberry
Client
Enfield Limited
Document
Graphic Attachment to Landscape Assessment Report
Status
For Resource Consent
Revision
1 For Resource Consent 14.05.2024
Prepared By
Rough Milne Mitchell Landscape Architects Ltd
Project Number: 22258
Author: Zoe Cox and Paul Smith
Peer Reviewed: Nikki Smetham

Disclaimer
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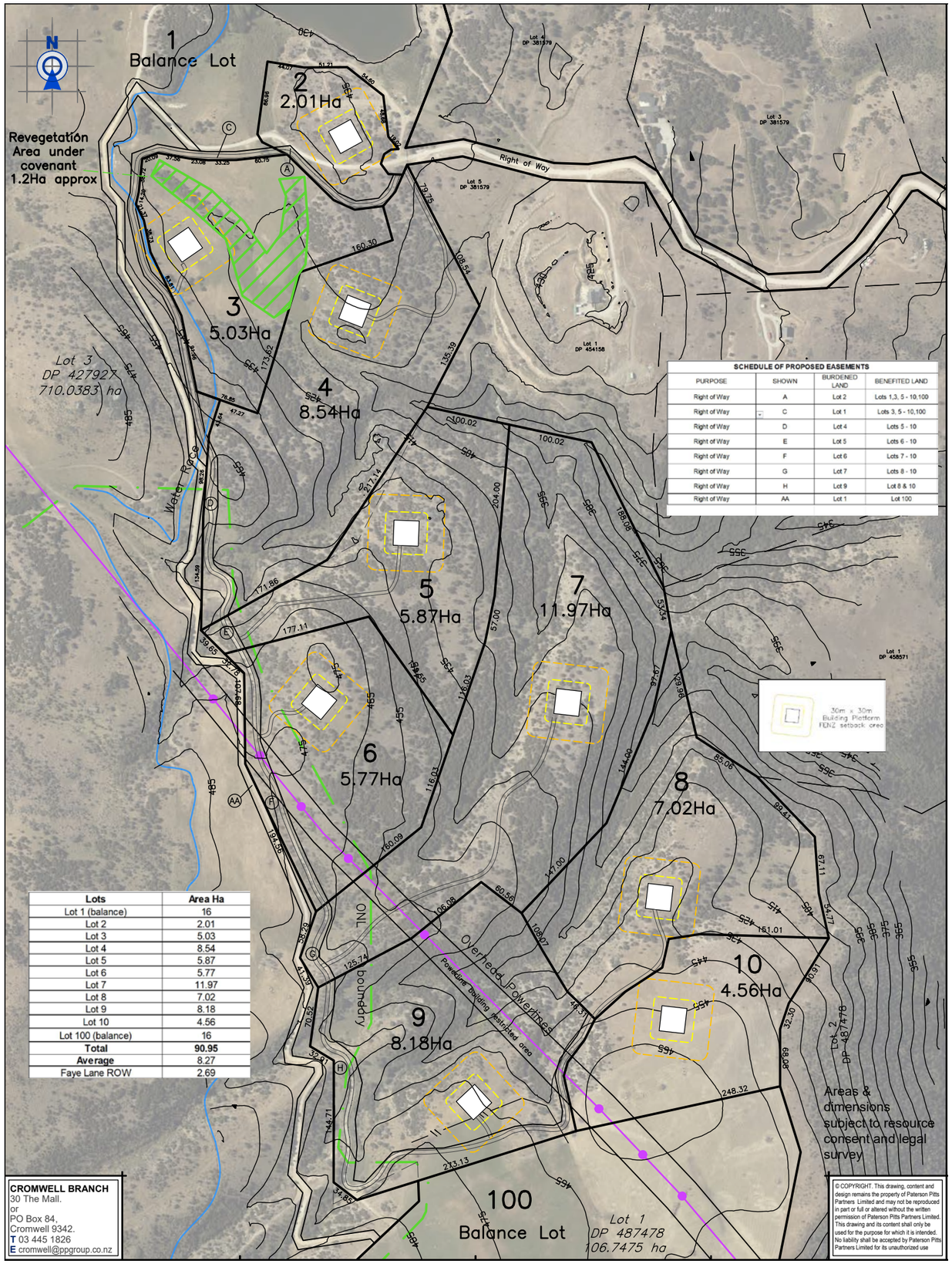
Contents

PPG Scheme Plan



SCHEDULE OF PROPOSED EASEMENTS

PURPOSE	SHOWN	BURDENED LAND	BENEFITED LAND
Right of Way	A	Lot 2	Lots 1,3, 5 - 10,100
Right of Way	C	Lot 1	Lots 3, 5 - 10,100
Right of Way	D	Lot 4	Lots 5 - 10
Right of Way	E	Lot 5	Lots 6 - 10
Right of Way	F	Lot 6	Lots 7 - 10
Right of Way	G	Lot 7	Lots 8 - 10
Right of Way	H	Lot 9	Lot 8 & 10
Right of Way	AA	Lot 1	Lot 100

Lots	Area Ha
Lot 1 (balance)	16
Lot 2	2.01
Lot 3	5.03
Lot 4	8.54
Lot 5	5.87
Lot 6	5.77
Lot 7	11.97
Lot 8	7.02
Lot 9	8.18
Lot 10	4.56
Lot 100 (balance)	16
Total	**90.95**
Average	8.27
Faye Lane ROW	2.69

CROMWELL BRANCH
30 The Mall.
or
PO Box 84,
Cromwell 9342.
T 03 445 1826
E cromwell@ppgroup.co.nz

Not to Scale
Data Source: Paterson Pitts Group

Proposed Development Plan - North

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

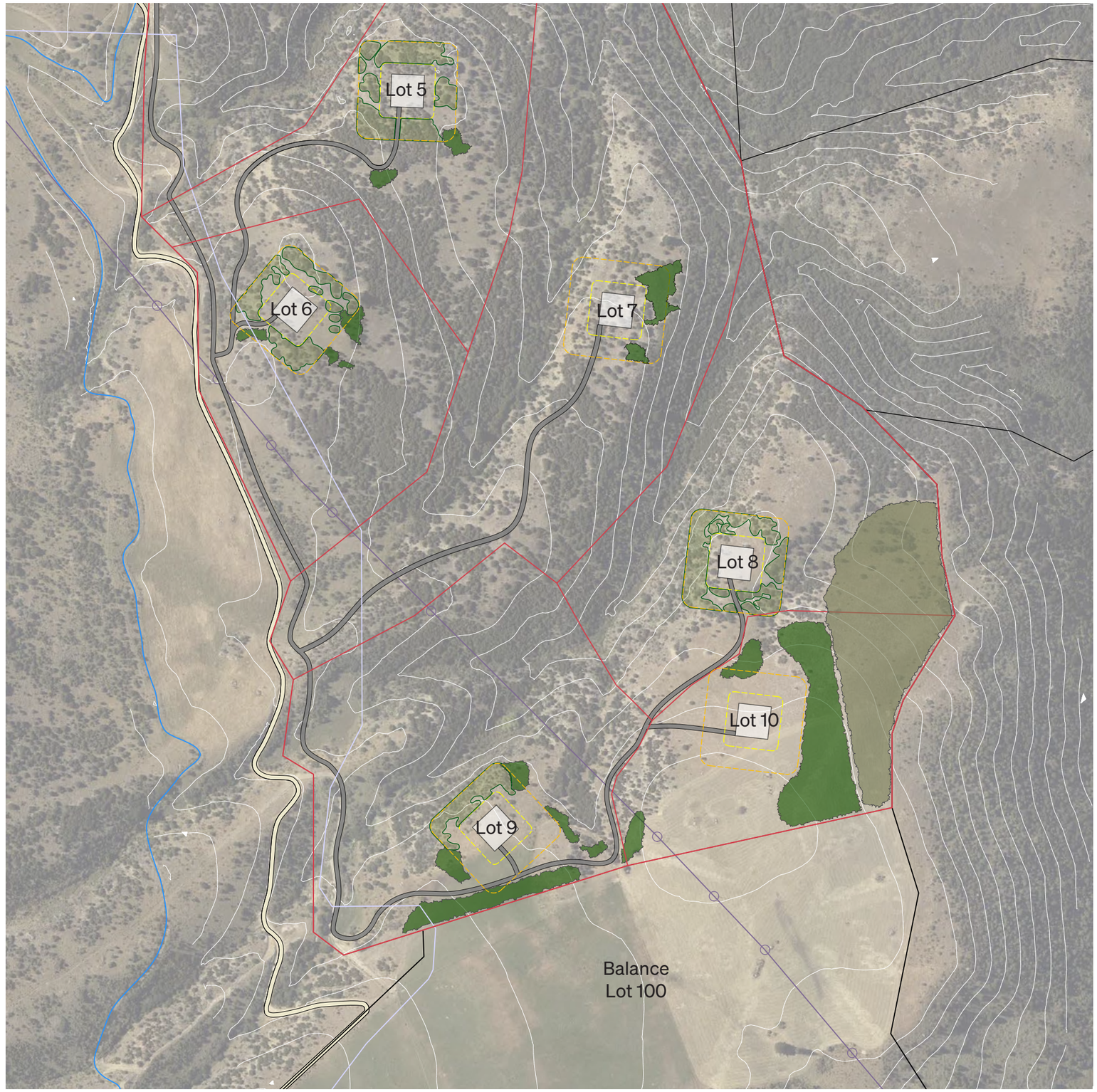
0 200m

Scale: 1:4000 @ A3

Proposed Development Plan - South

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area



0 200m

Scale: 1:4000 @ A3

Proposed Landscape Plan - Lot 2

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
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- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 3

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 4

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 5

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 6

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

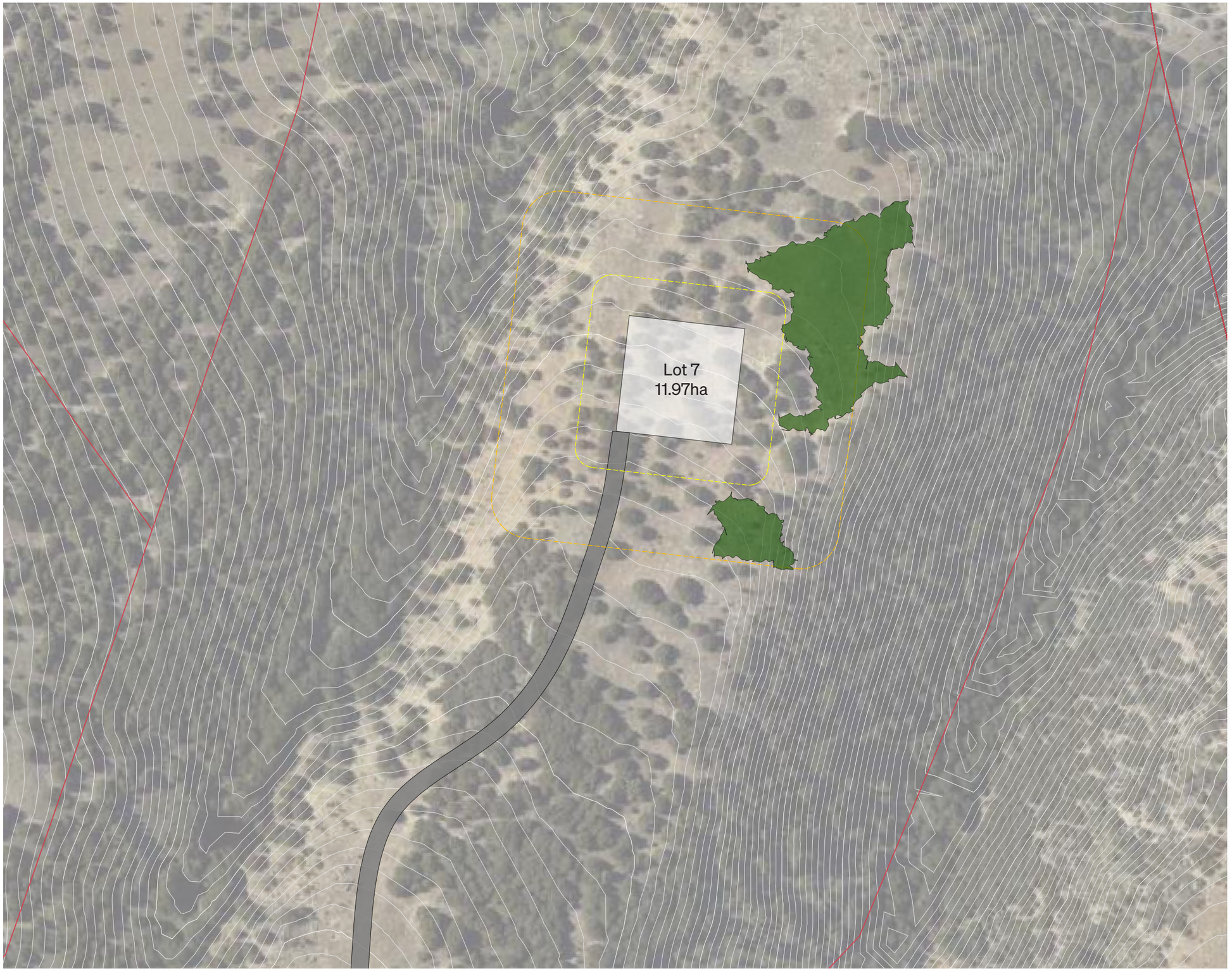
0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 7

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area



0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 8

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 9

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

0 50m

Scale: 1:1000 @ A3

Proposed Landscape Plan - Lot 10

Legend

- Site Boundary & Proposed Lot Boundaries
- 10m Contours
- Proposed Accessways
- Existing Farm Accessway
- Existing Water Race
- Power Lines
- ONL Line
- Proposed Building Platform
- FENZ 10m Setback
- All highly flammable plant species within the Building Platform and FENZ 10m setback shall be removed and replanted within the Kanuka Enhancement Ecolgical Areas.
- FENZ 30m Setback
- Existing Kanuka within the FENZ 30m setback shall be incrementally replanted within the Kanuka Enhancement Ecolgical Areas and replaced with native vegetation that has no more than a low-moderate flammability rating.
- All existing Native Vegetation outside the FENZ 30m setback and accessways shall be retained.
- Proposed native vegetation that has no more than a low-moderate flammability rating.
- Kanuka Enhancement Ecological Area

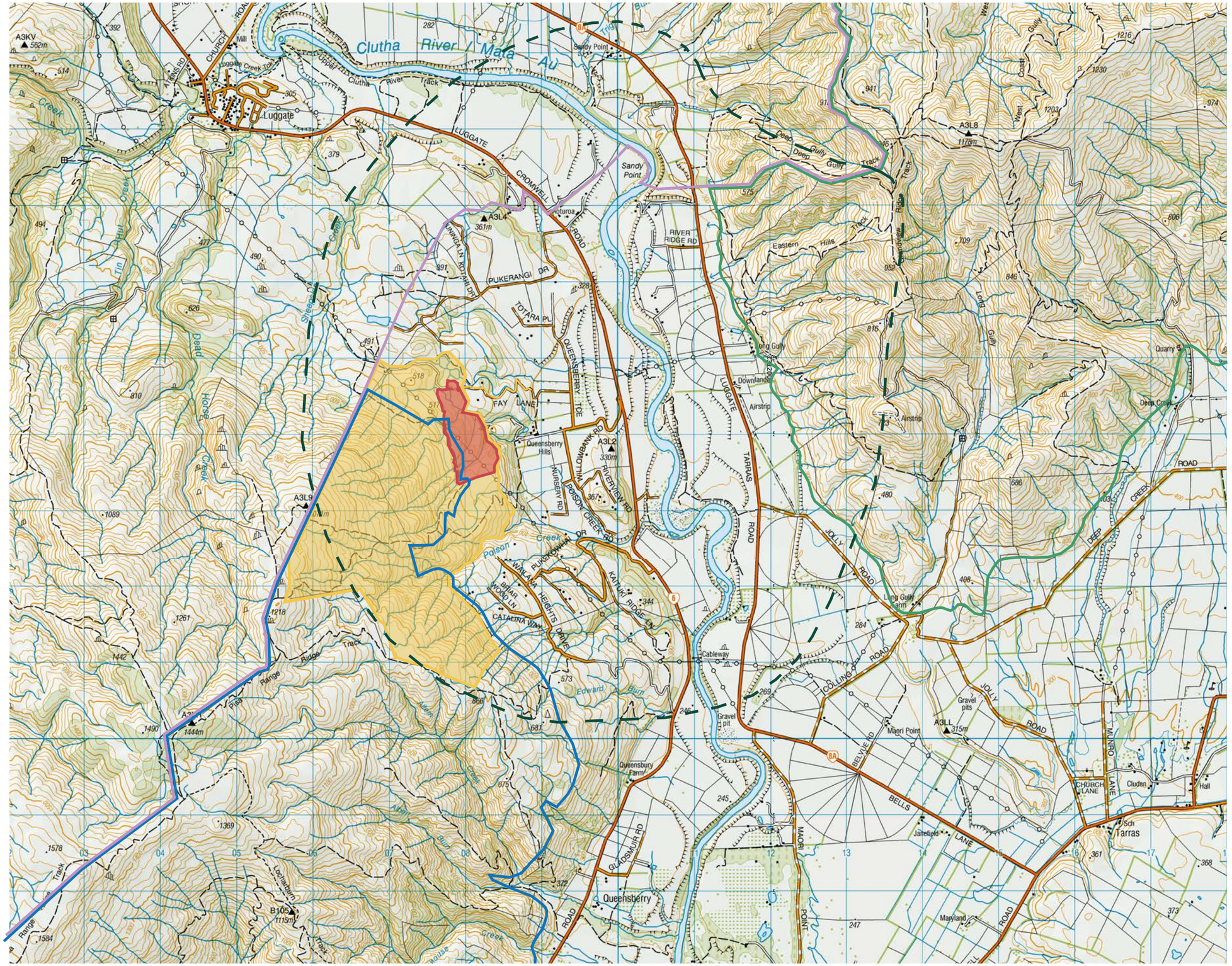
0 50m

Scale: 1:1000 @ A3

Receiving Environment Plan

Legend

- The Parent Property
- The Site
- The Receiving Environment
- Outstanding Natural Landscape
- Significant Amenity Landscape
- Distirct Boundary



Scale: Grid Square - 1km x 1km
Data Source: www.topomap.co.nz

Local Context Plan

Legend

	The Parent Property - 817ha
	The Site - 59ha
	Outstanding Natural Landscape
	Significant Amenity Landscape

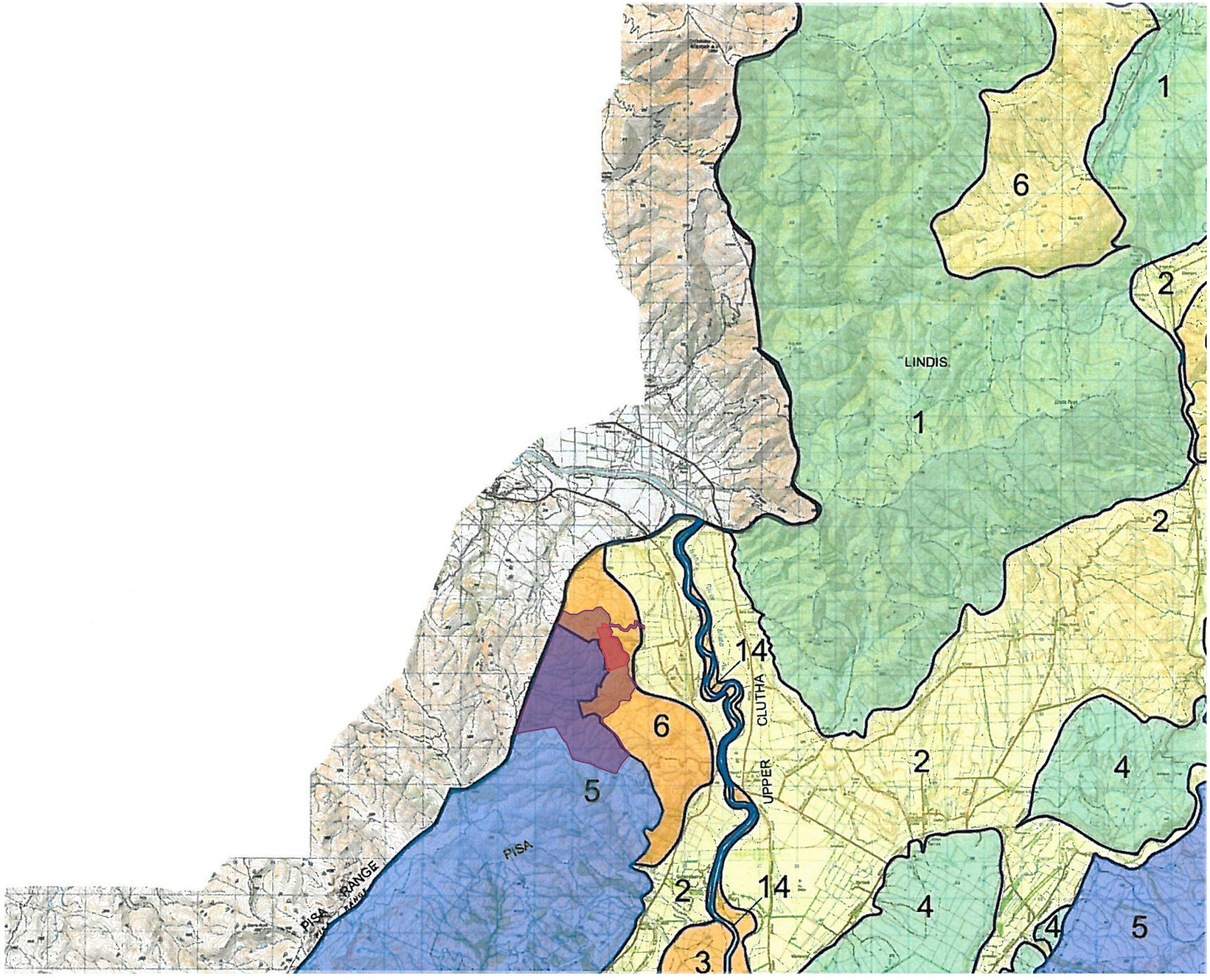
0 1km

Data Source: maps.codc.govt.nz

Central Otago District Landscape Assessment

Legend

	The Parent Property
	The Site
	Extreme Sensitivity
	High Sensitivity
	Significant Sensitivity
	Moderate Sensitivity
	Limited Sensitivity
	Low Sensitivity
6	Landscape Unit Number

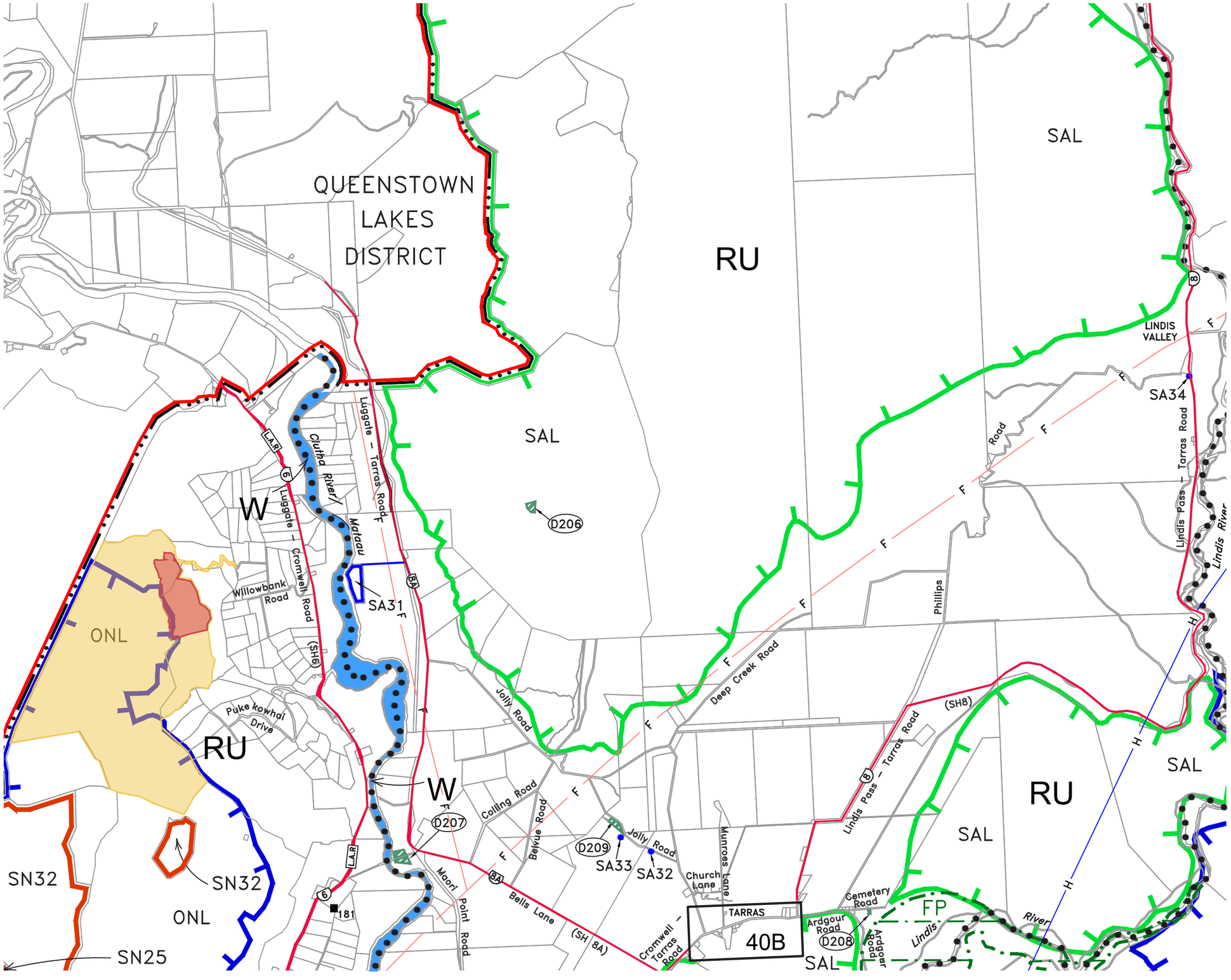


Scale: 1:100,000 @ A3
Central Otago District Council

Central Otago District Planning Map 46

Legend

- The Parent Property
- The Site

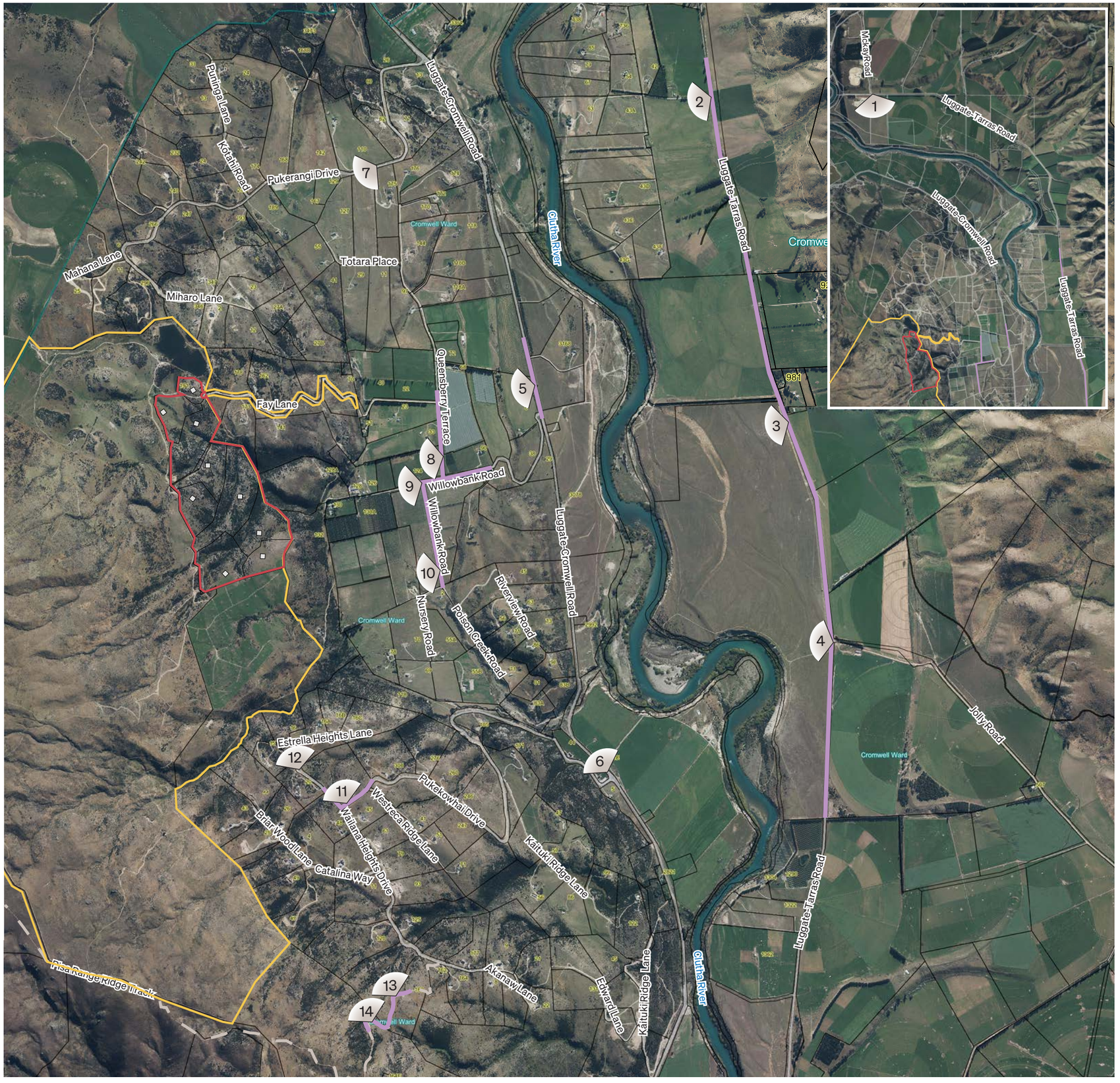


Scale: 1:60,000 @ A3
Central Otago District Council

Viewpoint Location Plan

Legend

	The Parent Property
	The Site
#	Viewpoint Locations
	Stretches of public roads where the site can be seen from.



Notes:

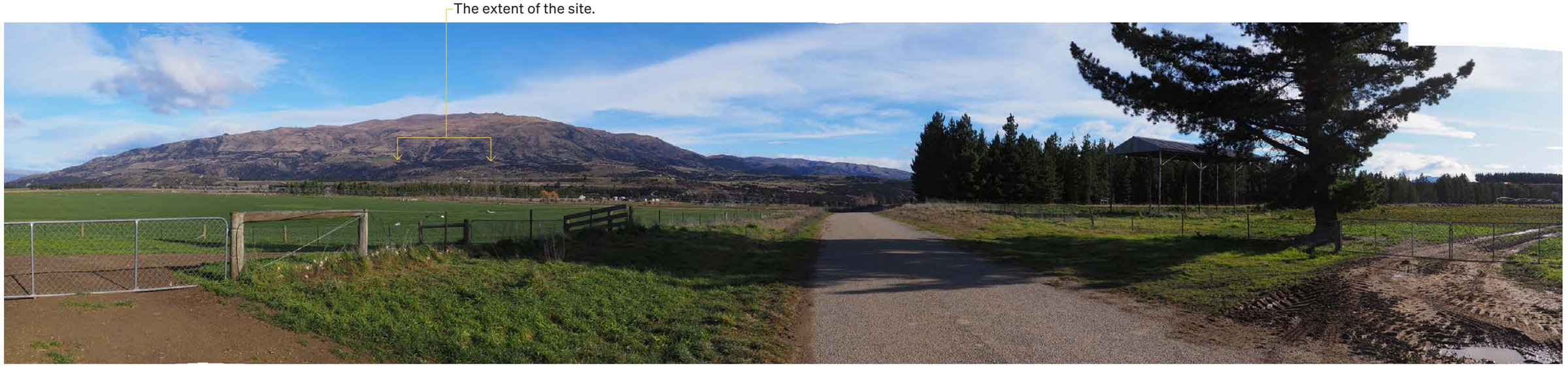
- Viewpoint Photographs 1 - 14 were taken between 12noon and 3pm on both the 13th and 17th of July 2023.
- Photos were captured on a Canon EOS 7D Mark II camera with a 50mm Focal Length. The camera was using the panorama function that assists with correctly overlapping individual portrait photographs.
- The panorama photos have been created from seven individual portrait photographs so they have a horizontal field of view of approximately 127 degrees. This captures the human eyes primary field of view.
- The panorama photos were created in Adobe Photoshop, using the photomerge tool.

0 1km

Data Source: maps.codc.govt.nz

Viewpoint Photographs

Viewpoint 1: Located at the interesection of SH8A and McKay Road. The photograph represents the view to the south towards the site, that is approximately 5.9km away.



Viewpoint 2: Located near the interesection of SH8A and River Ridge Road. The photograph represents the view to the west towards the site, that is approximately 3.5km away.

Viewpoint Photographs

Viewpoint 3: Located beside 981 Luggate-Tarras Road / SH8A. The photograph represents the view to the west towards the site, that is approximately 3.3km away.

Viewpoint 4: Located near the interesection of SH8A and Jolly Road. The photograph represents the view to the west towards the site, that is approximately 3.5km away.

Viewpoint Photographs

Viewpoint 5 Located 200m north of the near the interesection of Luggate-Cromwell Road / SH8 and Willowbank Road. The photograph represents the view to the west towards the site, that is approximately 1.8km away.

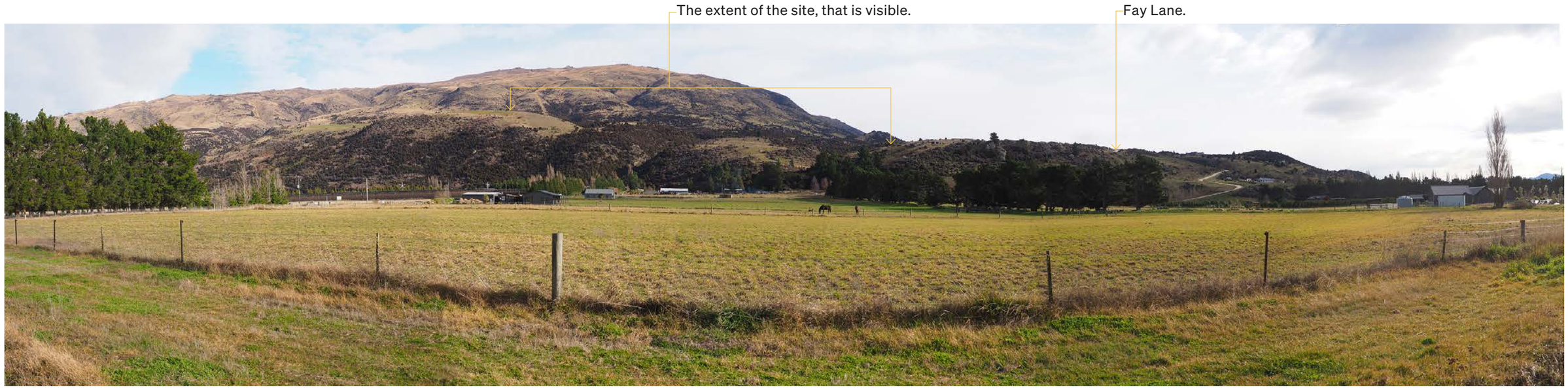
Viewpoint 6: Located beside the interesection of Luggate-Cromwell Road / SH8 and Pukekowhai Road. The photograph represents the view to the north towards the site, that is approximately 2.3km away.

Viewpoint Photographs

The site is situated behind this landform, that Pukerangi Drive and Miharo Lane are located on.

Viewpoint 7: Located beside 175 Pukerangi Drive. This photograph represents the view to the southwest towards the site, that is approximately 2.0km away.

Viewpoint Photographs



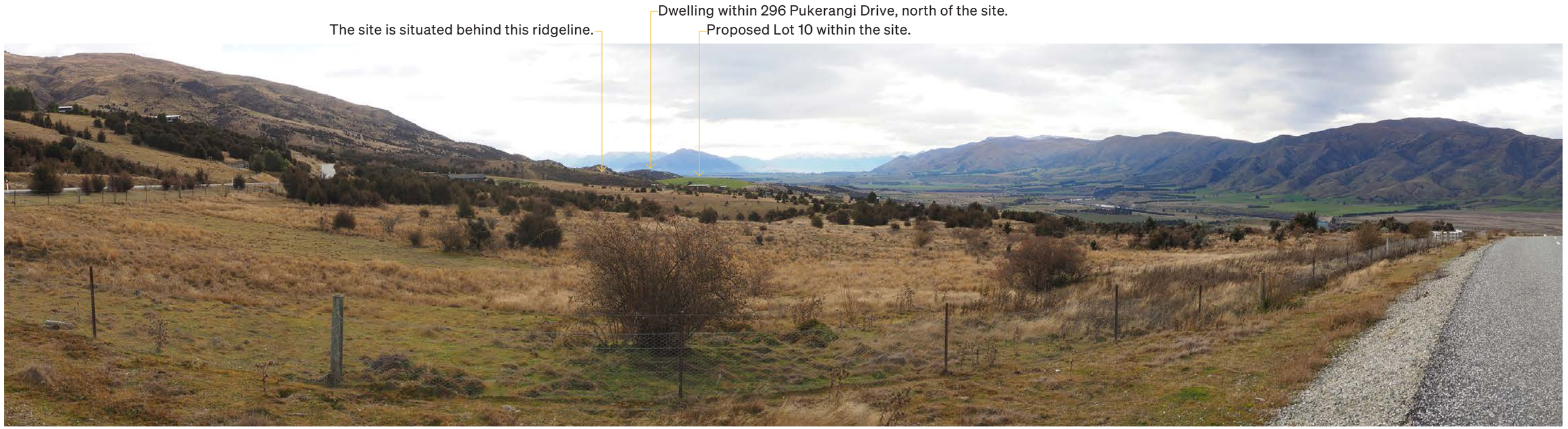
Viewpoint 8: Located at the southern end of Queensberry Terrace. The photograph represents the view to the west towards the site, that is approximately 1.2km away.

Viewpoint 9: Located at the 90 degree bend along Willowbank Road. The photograph represents the view to the west towards the site, that is approximately 1.0km away.

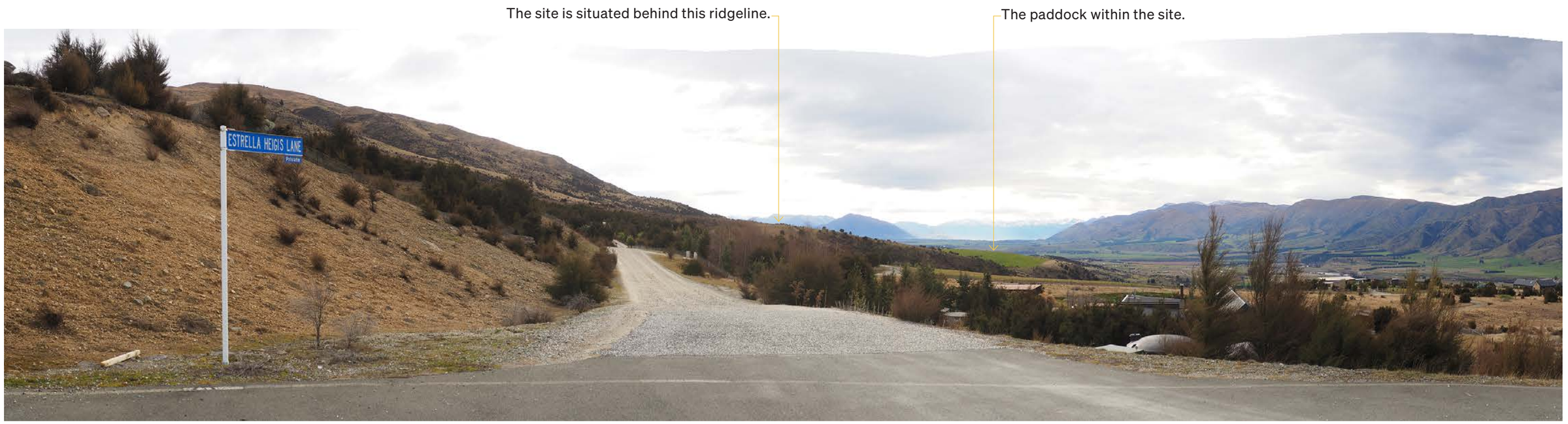
Viewpoint Photographs

Viewpoint 10: Located near the southern end of Willowbank Road, near Poison Creek Road. This photograph represents the view to the west towards the site, that is approximately 1.0km away.

Viewpoint Photographs

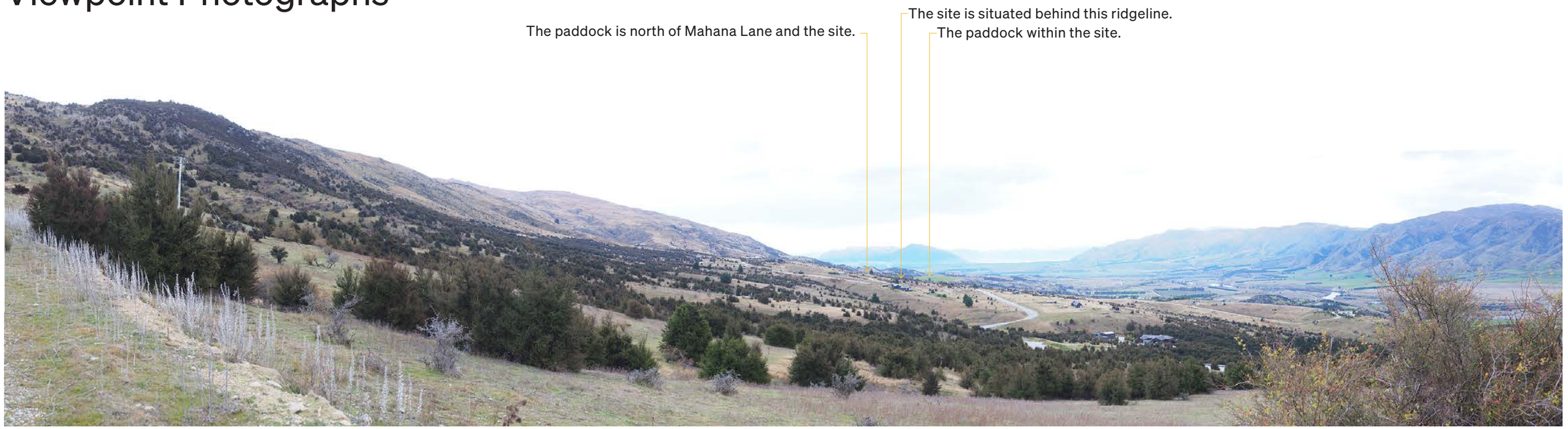


Viewpoint 11: Located near the interesection of Pukekowhai Road and Wailana Heights Drive. This photograph represents the view to the north towards the site, that is approximately 1.5km away.

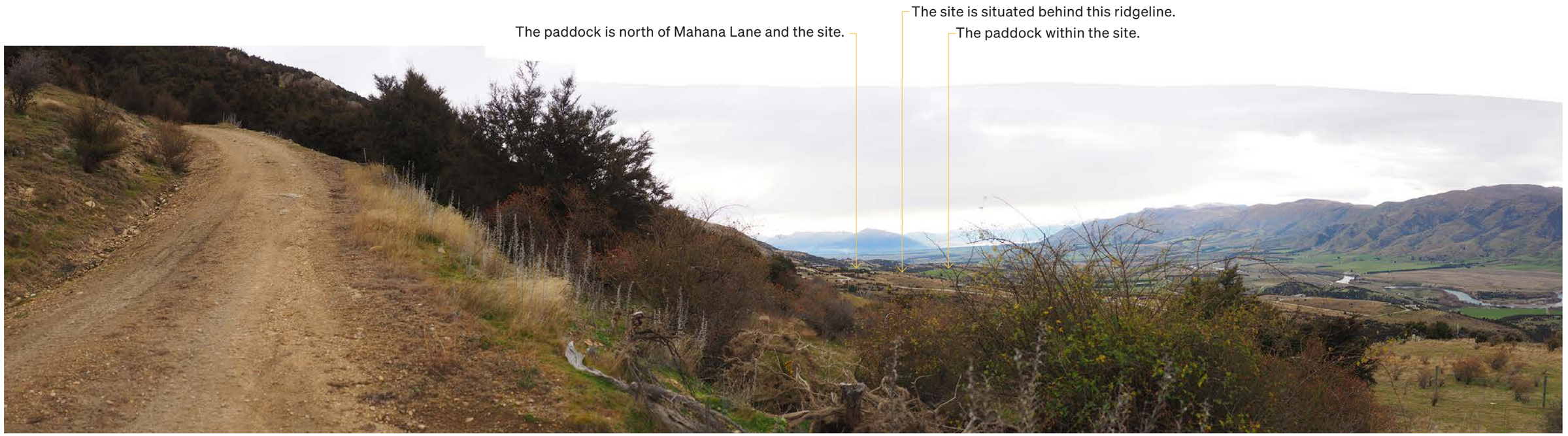


Viewpoint 12: Located at the northern end of Wailana Heights Drive, where it adjoins Estrella Heights Lane. This photograph represents the view to the north towards the site, that is approximately 1.2km away.

Viewpoint Photographs



Viewpoint 13: Located along the lower section of the Pisa Range Ridge Track, approximately 500 from Wailana Heights Drive. This photograph represents the view to the north towards the site, that is approximately 2.7km away.



Viewpoint 14: Located along the lower section of the Pisa Range Ridge Track, approximately 850 from Wailana Heights Drive. This photograph represents the view to the north towards the site, that is approximately 2.8km away.

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ASSESSMENT OF ECOLOGICAL EFFECTS FOR A PROPOSED 10 LOT SUBDIVISION, QUEENSBERRY, CENTRAL OTAGO

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ASSESSMENT OF ECOLOGICAL EFFECTS FOR A PROPOSED 10 LOT SUBDIVISION, QUEENSBERRY, CENTRAL OTAGO

View of the northern part of the site showing kānuka-dominated shrubland, rocky outcrops and gully.

Contract Report No. 6568

October 2023

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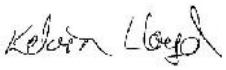


Kelvin Lloyd
Senior Principal Ecologist
Wildland Consultants Ltd

1. INTRODUCTION

1.1 Overview

Paterson Pitts Group on behalf of their client are preparing a resource consent application for a 10 lot subdivision on the western side of the upper Clutha River near Queensberry, in Central Otago District. The site covers approximately 50 hectares of rural zoned land on an area of hillside and schist gullies. An 'Outstanding Natural Landscape line' passes across the southeastern margin of the site, but all proposed buildings and roads are located below and outside of it. The application is likely to require a resource consent hearing.

An Assessment of Ecological Effects (AEE) of the proposed subdivision is required to support the resource consent application. This report describes the ecological values of the site, the likely ecological effects of the proposed subdivision, and opportunities to avoid, remedy or mitigate these effects.

1.2 Site description

The Queensberry site is located on the northeastern side of the Pisa Range, about five kilometres southeast of Luggate (Figure 1). Access is gained from the end of Fay Lane. The site comprises an elevated and moderately dissected hillside and plateau which sits above old outwash plains and alluvial terraces of the Clutha River, with elevation ranging from about 400 to 440 metres above sea level. The site is cut by four prominent gullies, which join with a larger gully at the eastern edge of the site. No permanent streams are present within the site, but ephemeral streams are present in the four main gullies. Schist outcrops are common on ridges above the gullies, and are occasionally present elsewhere. Small wetlands are present at the heads of the four main gullies.

The current land use is predominantly dryland cattle farming, with a small area of cultivated and irrigated land at the southeastern corner of the site. Vegetation at the site consists mainly of regenerating kānuka *(Kunzea serotina*)-dominant scrub and shrubland, with smaller areas of grassland, wetland, herbfield and rock cliffs.

2. METHODS

2.1 Desktop assessment

Information on the site was compiled and reviewed, including aerial imagery, topographic mapping, potential ecosystem mapping, and other information from relevant reports and databases.

A desktop assessment was undertaken for lizards, avifauna, invertebrates, freshwater fish, and spring annual plant species. For lizards this involved searching the Department of Conservation Bioweb Herpetofauna database for records within a 20-kilometre radius of the site. The avifauna analysis involved searching the online eBird database for bird records within a five kilometre radius of the site between January 2019 and April 2023. For freshwater fish, the New Zealand Freshwater Fish Database was searched for records near the site.

For terrestrial invertebrates this involved searching the online database iNaturalist for invertebrate records within five kilometres of the location of the proposed development. iNaturalist is a citizen science-based initiative where enthusiasts and experts alike can upload observations. Only photographed observations were included in results so that they could be verified. Google Scholar was also searched for papers or studies that had been conducted in the immediate vicinity of the site, and habitat descriptions and photographs were reviewed to determine the likely invertebrate species that live there. Species with conservation statuses other than Not Threatened, new species, and short-range endemics were all considered of conservation concern, and listed in the results.

While iNaturalist currently provides the best desktop information for invertebrates, it is limited in usefulness due to bias in observer ability, expertise, and interests. A desktop survey is not a substitute for a field survey conducted by an invertebrate ecologist, which would increase the probability of determining the presence or absence of species of conservation concern.

2.2 Field visit

A two-day site visit was undertaken on 3-4 November 2022, during which the site was assessed on foot and targeted searches for rare plant species were undertaken. Vegetation and habitat types were mapped and described following the structural classes in Atkinson (1985). Field mapping was undertaken using hard copy aerial imagery (A3 size at a scale of 1:4000) and was later digitised using ArcGIS software. Vascular plant species observed were recorded and are listed in Appendix 1. Bird species observed at the site were also recorded.

A lizard survey was also undertaken at the site between 14-17 March 2023, subsequent to the desktop assessment which indicated lizards were very likely to be present.

2.3 Ecological significance assessment

The ecological values of the site were assessed, and their ecological significance was assessed using the criteria outlined in the National Policy Statement for Indigenous Biodiversity (NPS-IB). These criteria are reproduced in Appendix 2 of this report. The assessment also took into account any ecological matters that are identified as important in the Central Otago District Plan.

2.4 Assessment of ecological effects

Potential impacts of the proposal on ecological values (vegetation, avifauna, lizards, invertebrates, and freshwater) were assessed separately. The potential effects of the project were also assessed against relevant indigenous vegetation clearance rules in the Central Otago District Plan and provisions of the NPS-IB. Potential measures for avoiding, minimising, and/or remediating adverse effects of the proposal on ecological values were identified and evaluated, along with suggested management actions.

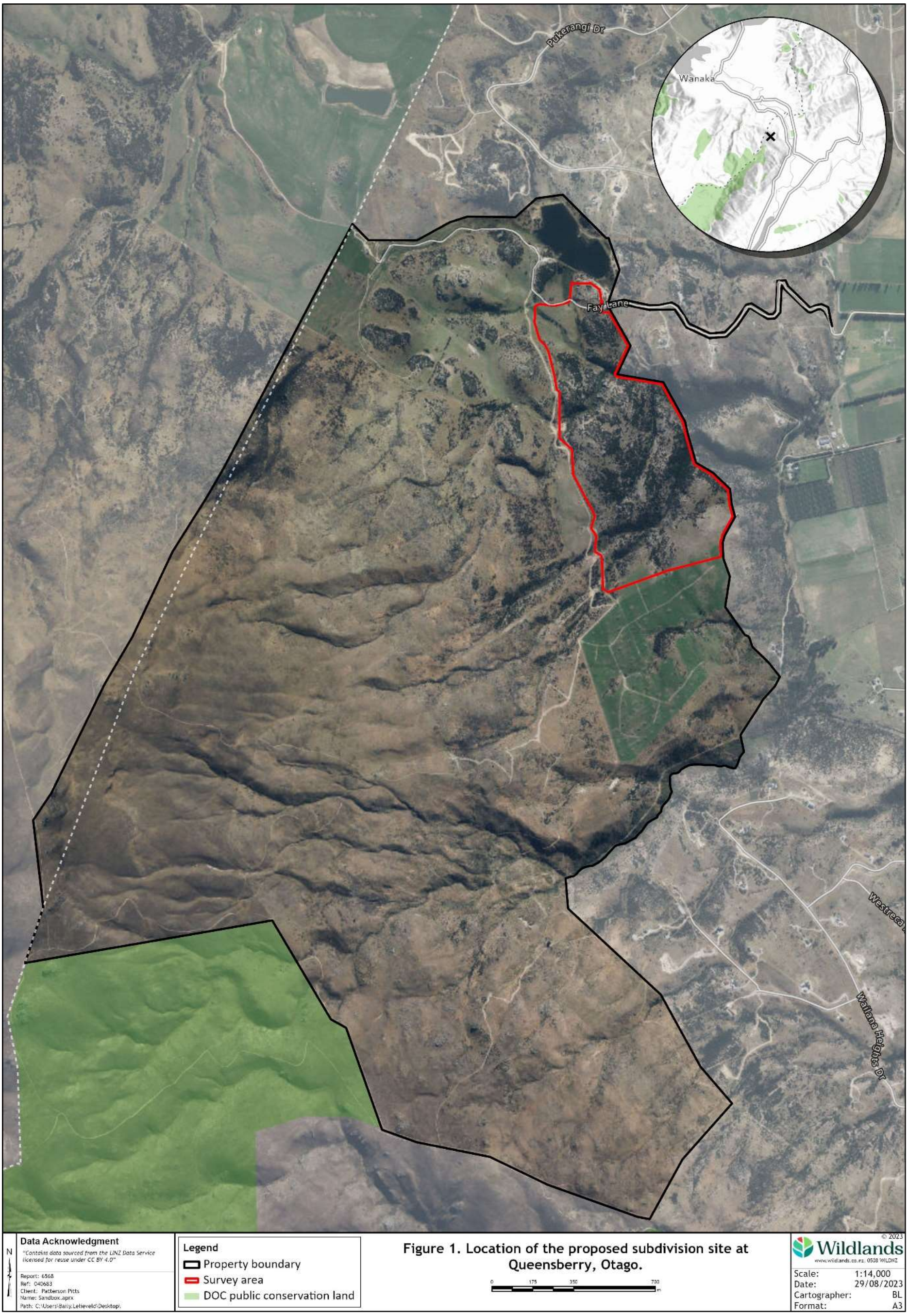


Figure 1. Location of the proposed subdivision site at Queensberry, Otago.

3. ECOLOGICAL CONTEXT

3.1 Pisa Ecological District

The site is located within Pisa Ecological District, which comprises the Pisa Range and the flats south of Wānaka. The climate is relatively dry and sub-continental, with variable annual rainfall, and prevailing northwest winds (McEwen 1987).

The main current land cover type in Pisa Ecological District is high elevation tall tussock grassland (33,258 hectares; 40% of the Ecological District), followed by low producing grassland (26%), high producing exotic grassland (15%), mixed exotic shrubland (3%), and mānuka (*Leptospermum scoparium*) and kānuka shrubland (2%). There are only very small remnants of indigenous forest, including remnants of silver beech (*Lophozonia menziesii*) and Hall's tōtara (*Podocarpus laetus*) forest.

3.2 Potential natural ecosystems

Potential natural ecosystem mapping (Wildland Consultants 2020) suggests that forest dominated by Hall's tōtara, mountain toatoa (*Phyllocladus alpinus*), and kāpuka/broadleaf (*Griselinia littoralis*) (CLF1) is likely to have originally covered most of the site, with matai (*Prumnopitys taxifolia*)-broadleaved forest (CLF13) on the alluvial plains at the base of the plateau and kānuka-*Olearia* treeland (TI2) on the lower dry slopes between the plains and the Clutha River to the east (Figure 2). Plant species from each of these ecosystems are likely to have been distributed across the site in different micro-habitats.

3.3 Protected areas

One QEII covenant area protecting kānuka forest is present to the east of the site (Figure 3). Several protected areas administered by the Department of Conservation are also present within about five kilometres of the site. Mata-au Scientific Reserve, Long Gully Conservation Area and marginal strips along the Clutha River are located to the east of the site, and Poison Creek Conservation Area is to the southeast. The large Pisa Conservation Area lies to the south of the site. Several small protected areas lie to the north of the site near Luggate, including Luggate Creek Scenic Reserve, Fallburn Scenic Reserve, Reko Point Conservation Area and Newcastle Scenic Reserve. The proposed Queenstown Lakes District Plan Schedule of Significant Natural Areas (Chapter 33.9) includes a significant natural area comprising the Luggate Creek gorge (Luggate Creek SNA D).

3.4 Threatened environment classification

The site is covered by a mix of land environments which have less than 10%, 10-20%, and 20-30% of their original indigenous cover remaining (Figure 4) (Cieraad *et al*. 2015).

4. VEGETATION AND HABITATS

4.1 Overview

Sixteen vegetation and habitat types were identified at the site (Table 1 and Figure 5), including kānuka forest, scrub and shrubland, other shrubland associations, and small areas of herbfield and wetland. Figure 6 shows the subdivision works superimposed on the vegetation mapping.

Table 1: Vegetation and habitat types at the proposed subdivision site at Queensberry.

Vegetation Type	Area (hectares)
1. Kānuka forest	1.5
2. Kānuka-*Olearia lineata* forest	1.2
3. Kānuka scrub	11.4
4. Kānuka shrubland	19.0
5. Kānuka-korokio shrubland	5.4
6. *Coprosma*-*Olearia*-kānuka/bracken shrubland	0.9
7. Korokio-matagouri-(desert broom-*Olearia lineata*) shrubland	0.3
8. Korokio-kānuka-matagouri shrubland and rockland mosaic	4.4
9. Rocky outcrops within kānuka scrub/shrubland	0.4
10. *Olearia lineata*/rautahi/musk marsh	0.3
11. Fescue tussock-matagouri grassland	0.3
12. Musk-rautahi-exotic grasses marsh	0.9
13. Kānuka/brown top-hawkweed-St John's wort grassland	7.3
14. Cultivated pasture	5.2
15. (Kānuka)/pātōtara-grassland sedge herbfield and stonefield	0.6
16. (Kānuka)/*Raoulia* herbfield	0.5

4.2 Vegetation and habitat type descriptions

1. Kānuka forest

Large mature kānuka up to seven metres tall and 25 centimetres in diameter dominate the canopy locally in sites with deeper, moist soils (Plate 1). The understorey is generally sparse, and incudes occasional shrubs of tūmatakuru/matagouri (*Discaria toumatou*), *Coprosma propinqua*, *C. crassifolia* and a very few *Olearia lineata*. Many vines of large leaved pōhuehue (*Muehlenbeckia australis*) and tātarāmoa/bush lawyer (*Rubus cissoides*) are present, along with less frequent clematis (*Clematis marata*). The margins of creeks and rocky banks near creeks contain many ferns, including Richard's spleenwort (*Asplenium richardii*), triangular hard fern (*Blechnum volcanicum*), water fern (*Histiopteris incisa*), shield fern (*Polystichum neozelandicum*) and punui/prickly shield fern (*Polystichum vestitum*), and occasional rautahi (*Carex coriacea*). Korimako/bellbird (*Anthornis melanura*) and riroriro/grey warbler (*Gerygone igata*) were abundant in this habitat during the site visit.

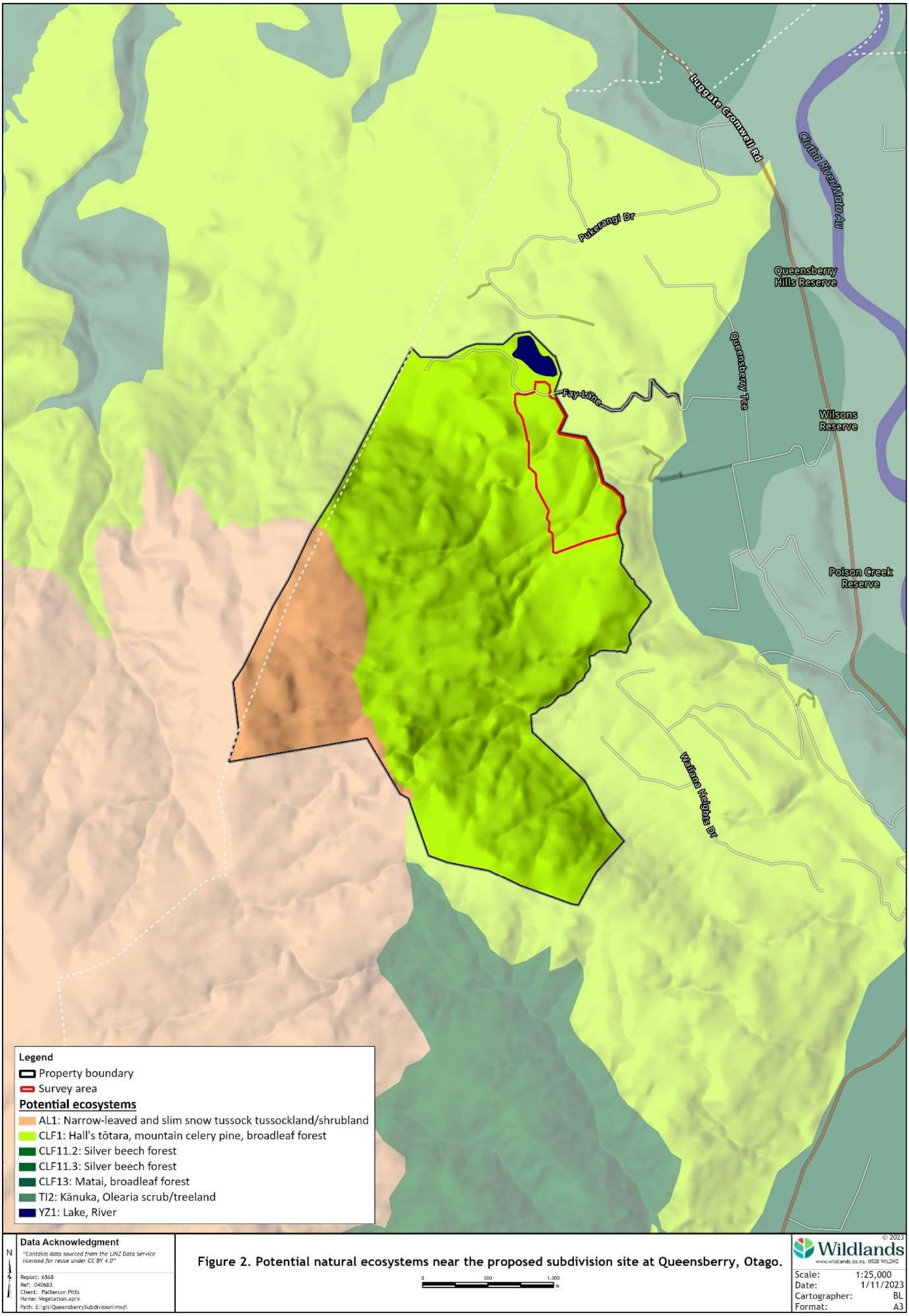


Figure 2. Potential natural ecosystems near the proposed subdivision site at Queensberry, Otago.

Figure 3. Protected areas near to the proposed subdivision site at Queensberry, Otago.

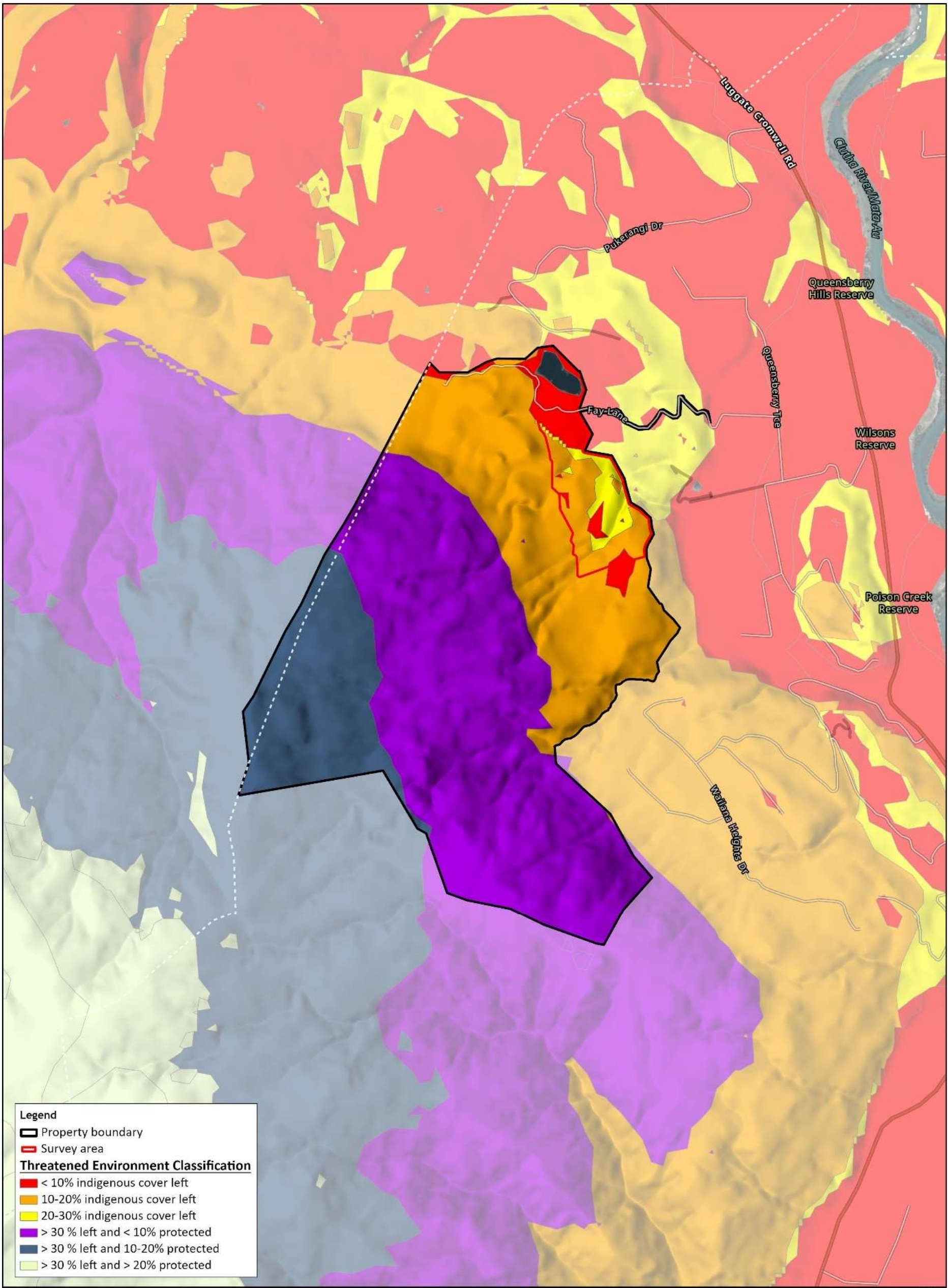


Figure 4. Threatened Environment Classification of the proposed subdivision site at Queensberry, Otago.

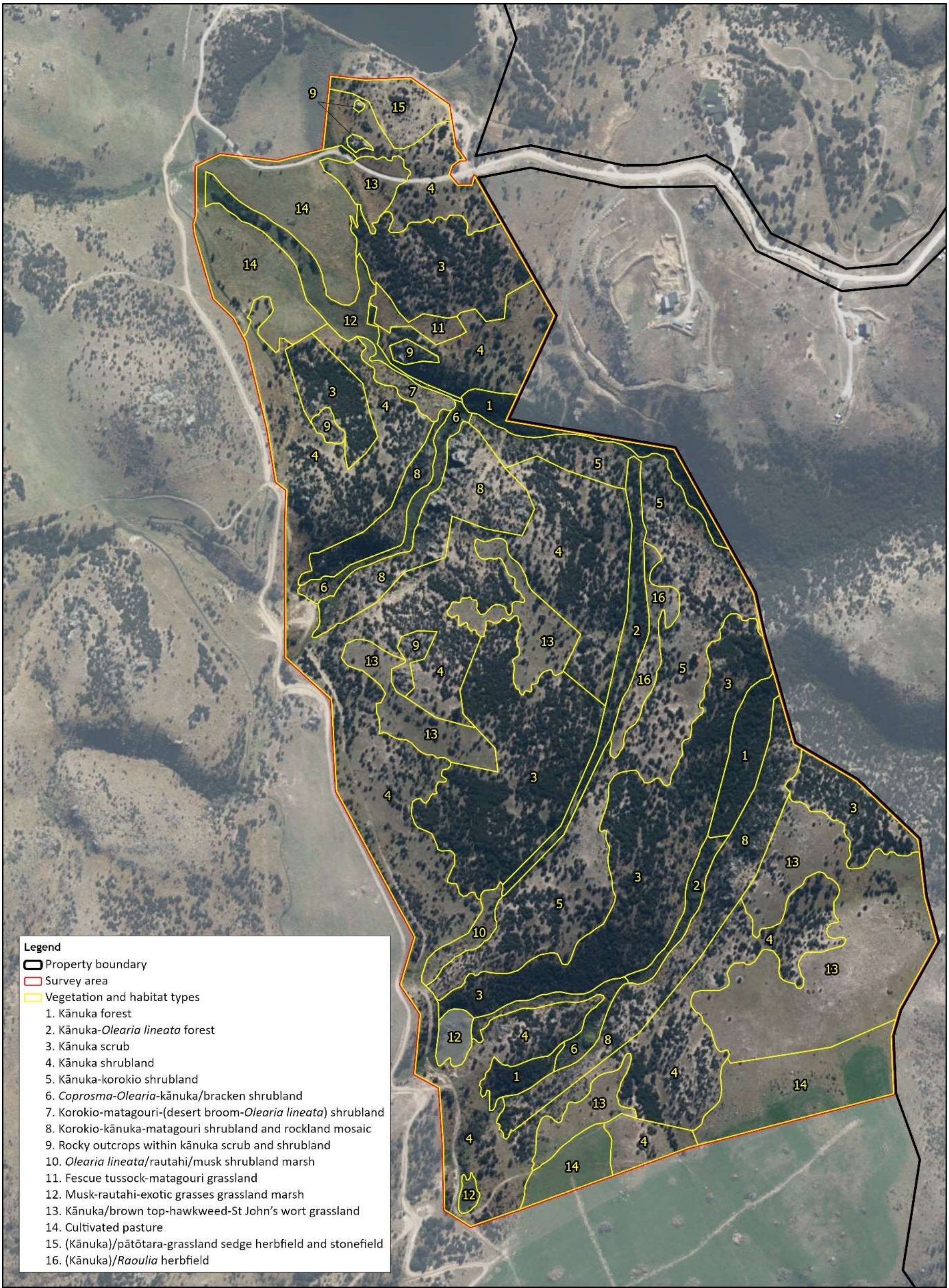
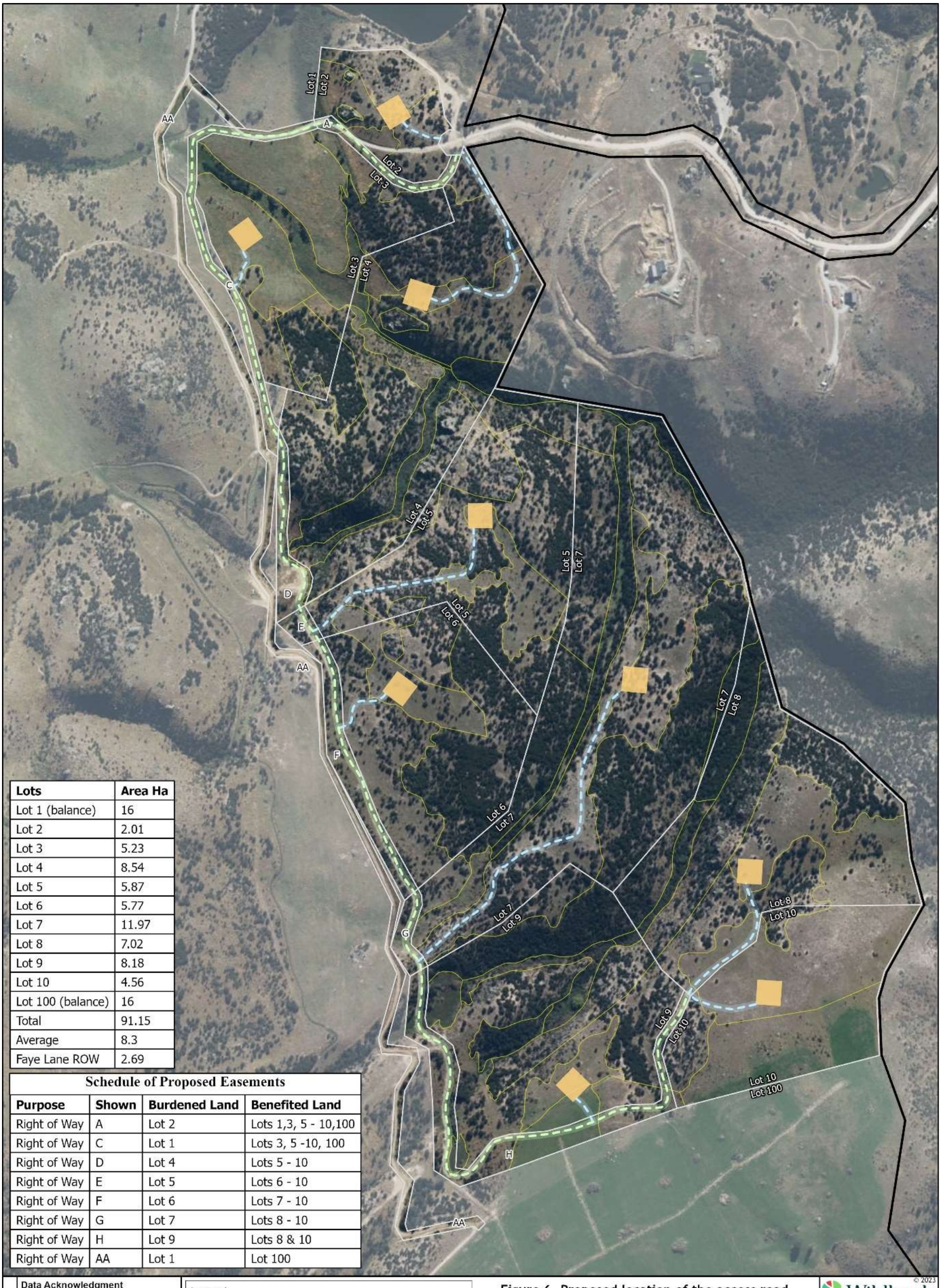


Figure 5. Vegetation and habitats at the proposed subdivision site at Queensberry, Otago.



Lots	Area Ha
Lot 1 (balance)	16
Lot 2	2.01
Lot 3	5.23
Lot 4	8.54
Lot 5	5.87
Lot 6	5.77
Lot 7	11.97
Lot 8	7.02
Lot 9	8.18
Lot 10	4.56
Lot 100 (balance)	16
Total	91.15
Average	8.3
Faye Lane ROW	2.69

Schedule of Proposed Easements

Purpose	Shown	Burdened Land	Benefited Land
Right of Way	A	Lot 2	Lots 1,3, 5 - 10,100
Right of Way	C	Lot 1	Lots 3, 5 -10, 100
Right of Way	D	Lot 4	Lots 5 - 10
Right of Way	E	Lot 5	Lots 6 - 10
Right of Way	F	Lot 6	Lots 7 - 10
Right of Way	G	Lot 7	Lots 8 - 10
Right of Way	H	Lot 9	Lots 8 & 10
Right of Way	AA	Lot 1	Lot 100

N

Data Acknowledgment

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Report: 6568
Ref: 040683
Client: Patterson Pitts
Name: Vegetation.aprx
Path: E:\gis\QueensberrySubdivision\mxd\

Legend

- Property boundary
- Vegetation and habitat types
- Building platforms
- Residential lot
- Access road
- Driveway

Figure 6. Proposed location of the access road, driveways and residential lots at the Queensberry site.

0 100 200 m

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Scale: 1:4,000
Date: 1/11/2023
Cartographer: BL
Format: A3

Plate 1: Kānuka forest in the northern gully.

2. Kānuka-*Olearia lineata* forest

Large mature kānuka up to seven metres tall dominate the canopy, along with frequent *Olearia lineata*, along two of the gullies that pass through the site. The understorey is generally sparse, with occasional shrubs of matagouri, *Coprosma* species and korokio (*Corokia cotoneaster*). Occasional vines of large leaved pōhuehue and bush lawyer are present. Exotic grasses and tussock hawkweed (*Hieracium lepidulum*) are common as ground cover. The southernmost gully also contains one adult kōwhai (*Sophora microphylla*), and a few Scotch broom (*Cytisus scoparius*).

3. Kānuka scrub

Kānuka scrub forms extensive patches, mainly on south-facing slopes. Kānuka to five metres tall form the canopy, and are very dense in places (Plate 2). A lower tier contains scattered shrubs of mainly korokio, matagouri, *Coprosma propinqua* and *C. crassifolia*, with less frequent desert broom (*Carmichaelia petriei*) and sweet briar (*Rosa rubiginosa*). A few mānuka are also present. There are small open areas between shrubs with a ground cover of hawkweed (*Pilosella officinarum*), scarlet pimpernel (*Anagallis arvensis*) and exotic grasses with bare soil. Drier open areas contain sheep's sorrell (*Rumex acetosella*), St John's wort (*Hypericum perforatum*) and Australian sheep's burr (*Acaena agnipila*), with some bare stony ground. The east-facing slopes above the southern gully have frequent tussock hawkweed and hawkweed in the ground cover beneath the kānuka canopy, along with occasional raruahe/bracken (*Pteridium esculentum*) and bush lawyer.

Plate 2: Kānuka scrub on hillsides across the gully.

4. Kānuka shrubland

Kānuka shrubland is widespread on sunny slopes and on ridges. Kānuka up to four metres tall, dominates the canopy. There are also occasional large matagouri to three metres tall and infrequent mānuka. A range of other shrub species is present as a lower tier at varying abundance but generally only as occasional shrubs, including korokio and matagouri, less frequent sweet briar and a very few *Olearia lineata*. Korokio is more abundant in drier stony areas. Desert broom, porcupine shrub (*Melicytus alpinus*) and fescue tussock (*Festuca novae-zelandiae*) are also scattered throughout. Large-leaved pōhuehue is draped over shrubs in places. A few large exposed rocks are present among the shrubs. A cluster of Scotch broom and gorse (*Ulex europaeus*) is present in proposed Lot 2 near the wetland boundary (Figure 6), and there are a few radiata pine (*Pinus radiata*) scattered throughout.

Open areas with no shrub canopy are scattered throughout the shrubland, sometimes forming reasonably large areas (Plate 3). Most of these areas have well developed soil and contain a cover dominated by brown top (*Agrostis capillaris*) and scarlet pimpernel. There are also some areas with drier more poorly developed soil which are dominated by St John's wort, sheep's sorrell, Australian sheep's burr, bare ground, moss, and a very few individuals of mat daisy (*Raoulia apicinigra*).

Plate 3: Kānuka shrubland with clearings dominated by exotic grasses and St John's wort. A large wilding radiata pine is also present in the photograph.

5. Kānuka-korokio shrubland

Kānuka is the dominant shrub species, along with frequent korokio and less frequent sweet briar, matagouri and desert broom, on the northern slope of the main gully (Plate 4). Bracken is locally common in the understorey. Areas of loose bare stones occupy much of the ground between shrubs, along with frequent woolly mullein (*Verbascum thapsus*) and moth mullein (*Verbascum virgatum*), and some exotic grasses and native cudweed (*Euchiton audax*). The shrubland is generally quite open, and occupies gravelly and stony soils on moderately steep north facing slopes.

Plate 4: Kānuka-korokio shrubland on north-facing slopes above the main gully.

6. *Coprosma-Olearia*-kānuka/bracken shrubland

A diverse array of species forms an open shrubland in one of the gullies. The most common species are *Coprosma propinqua*, *C. crassifolia*, *Olearia lineata*, mountain akeake (*O. avicenniifolia*) and kānuka. Other shrubs present include korokio, koromiko (*Veronica salicifolia*), tauhinu *(Oxothamnus leptophyllus*), matagouri, poataniwha (*Melicope simplex*), Scotch broom and sweet briar (Plate 5). Bracken is abundant throughout, often forming dense patches in between shrubs. Scrub pōhuehue (*Muehlenbeckia complexa*) is abundant in places. Smaller more open areas contain a mix of tall fescue (*Lolium arundinaceum)*, cocksfoot (*Dactylis glomerata*), white clover (*Trifolium repens*) and sheep's sorrell. Damper areas adjacent to the ephemeral creeks contain occasional large rautahi, with triangular hard fern and shield fern. The southernmost gully also contains two mature crack willow *(Salix xfragilis*) trees (Plate 6).

Plate 5: Diverse shrubland in the northern gully, with rock bluffs also visible.

Plate 6: *Coprosma-Olearia*-kānuka/bracken shrubland in the base of the southern gully. A stand of denser *O. lineata* is present in the top centre of the plate, and a crack willow tree at top left.

7. Korokio-matagouri-(desert broom-*Olearia lineata*) shrubland

Korokio, sweet briar, *Coprosma* species, matagouri and desert broom are the main shrub species, with some *Olearia lineata* and kānuka also present. Bracken and moth mullein are frequently present, and there are dense swards of exotic grasses in places. This type occupies a small area on the north-facing slope above the gully at proposed Lot 3.

8. Korokio-kānuka-matagouri shrubland and rockland mosaic

This habitat primarily occupies steep north-facing slopes above some of the main gullies (Plate 7). It is characterised by numerous rock cliffs, rock stacks and talus slopes with steep stony slopes between them. Slopes between the cliffs contain a shrubland dominated by korokio, kānuka and matagouri along with *Coprosma propinqua*, *C. crassifolia*, porcupine shrub, sweet briar, poataniwha and a few desert broom (Plate 8). Clematis, bush lawyer and bracken are also occasionally present, as are wilding conifers. There is bare stony ground in places, with a few patches of *Raoulia* species. Kānuka becomes dominant and denser lower down the slopes. Moth mullein is scattered in stonier areas, along with hawkweed.

Plate 7: Shrubland and rockland in the northern gully. A wilding Douglas fir (*Pseudotsuga menziesii*) is visible at the top of the image.

Plate 8: Shrubland and rockland on north facing slopes near the northern gully.

9. Rocky outcrops within kānuka scrub/shrubland

Small rocky outcrops within kānuka scrub and shrubland on well-developed soils are a feature of the site (Plate 9). As well as being distinct habitats of fauna, these outcrops have plant species assemblages distinct from the surrounding kānuka-dominated scrub or shrubland, and the rocklands at the site (which are much drier and have poorer soil). Shrubs are common around the margins of the rock outcrops, including korokio, sweet briar, porcupine shrub, *Coprosma* species, bush snowberry (*Gaultheria antipoda*) and kānuka. Rock ledges and crevices contain grassland sedge (*Carex breviculmis*), hawkweed, tussock hawkweed, creeping pōhuehue (*Muehlenbeckia axillaris*), scrub pōhuehue, little hard fern (*Blechnum penna-marina*) and sheep's sorrell. Blue tussock (*Poa colensoi*) and fescue tussock are occasional also.

Plate 9: The margins of a rocky outcrop at the north of the site.

10. *Olearia lineata*/rautahi/musk marsh

Small areas of marsh are present in the heads of some of the gullies at the site. There are scattered shrubs and small trees of *Olearia lineata*, including a number of standing dead stems, along with *Coprosma propinqua*, desert broom and sweet briar (Plate 10). Rautahi and exotic grasses are dense in drier areas, along with occasional foxglove (*Digitalis purpurea*) and *Juncus* species. Wetter areas of the marsh are dominated by musk (*Erythranthe moschata*) and monkey musk (*Erythranthe guttata*). The downstream end of the marsh in the northern gully is dominated by dense bracken with woolly mullein and dandelion (*Taraxacum officinale*), and shrubs of *Olearia lineata* and kānuka. The southern marsh also includes a patch of raupō (*Typha orientalis*).

Plate 10: Scattered *Olearia lineata* within marsh habitat at the northern gully.

11. Fescue tussock-matagouri grassland

Fescue tussock and matagouri (up to *c.*1 metre tall) are the main species in a grassland patch on the margin of kānuka scrub, along with occasional sweet briar. Areas between tussocks are dominated by brown top, with some hawkweed and tussock hawkweed (Plate 11).

12. Musk-rautahi-exotic grasses marsh

Exotic grasses (including brown top, sweet vernal (*Anthoxanthum odoratum*), cocksfoot and Yorkshire fog (*Holcus lanatus*)) are dominant across marsh habitat in the heads of gullies, along with frequent rautahi. White clover, Californian thistle (*Cirsium arvense*), prickly sow thistle (*Soncus asper*), Scotch thistle (*Cirsium vulgare*) and dandelion (*Taraxacum officinale*) are also frequent. Wetter areas are composed of musk, toad rush (*Juncus bufonius*), *Juncus edgariae*, and sharp spike sedge (*Eleocharis acuta*). There are occasional pukio (*Carex secta*), and a few shrubs of *Coprosma propinqua*.

Plate 11: Fescue tussock-matagouri grassland at the north of the site.

13. Kānuka/brown top-hawkweed-St John's wort grassland

Frequently dense exotic grasses dominated by brown top form the predominant cover in areas of grassland throughout the site, along with less abundant hawkweed and St John's wort, and some sheep's sorrell, moth mullein, Australian sheep's burr and occasional fescue tussock (Plate 12). Small areas of bare ground contain lichens and mosses. Scattered shrubs and occasional trees of kānuka up to four metres tall are present throughout the grassland, and in places these form small dense patches. Other shrub species present at lower abundance and height (less than two metres tall) include matagouri, korokio, *Coprosma propinqua*, *C. crassifolia*, sweet briar and porcupine shrub. There are also a few saplings of *Olearia lineata* in the northernmost location of this habitat type.

Plate 12: Kānuka/brown top-hawkweed-St John's wort grassland.

14. Cultivated pasture

Areas at the south of the site, within proposed Lots 9 and 10 (Figure 6), have been cultivated and contain high-producing exotic pasture. White clover and sheep's sorrell are also present. A few rocks are present, surrounded by shrubs of kānuka and porcupine shrub.

15. (Kānuka)/pātōtara-grassland sedge herbfield and stonefield

Bare stones and rocks cover much of the habitat in an area at the northern end of the site, with lichens and mosses as ground cover. Kānuka (up to three metres tall) and occasional matagouri, are scattered throughout (Plate 13). Other shrubs at low abundance include porcupine shrub and *Coprosma propinqua*. Exotic grasses are occasionally present, including brown top and vulpia hair grass (*Vulpia myuros*). Pātōtara (*Leucopogon fraseri*) is abundant in places along with grassland sedge, and there are occasional patches of *Raoulia australis*. Rabbit droppings are prolific, and there is heavy browse evident on shrubs. A bulldozed track traverses the area.

Plate 13: Ephemeral rock pools in the herbfield/stonefield.

16. (Kānuka)/*Raoulia* herbfield

Areas of bare shingly ground above the main gully are interspersed with areas of abundant *Raoulia* species including *R. australis* and *R. beauverdii*. Many small seedlings of kānuka (up to five centimetres tall) are present, and scattered small shrubs of sweet briar, kānuka, korokio and desert broom (Plate 14). A few individuals of blue tussock, grassland sedge, patōtara, St John's wort, scarlet pimpernel, and Australian sheep's burr are present. This vegetation type occupies an area of ridge crest with very dry, gravelly soils.

Plate 14: Kānuka/*Raoulia* herbfield at the centre of the site.

5. FLORA

5.1 Overview

The site provides habitats for quite a large number of indigenous and exotic plant species, with 139 vascular plant species recorded, comprising 75 indigenous plant species and 64 exotic plant species (Appendix 1).

5.2 Threatened, At Risk, and locally uncommon species

One Threatened and six At Risk species (de Lange *et al.* 2018), and one locally uncommon plant species, were recorded at the site (Table 1).

Table 1: Threatened, At Risk, and locally uncommon vascular plant species present on the site.

Species	Common Name	Status
Acaena dumicola		Locally uncommon
Carmichaelia petriei	Desert broom	At Risk-Declining
Discaria toumatou	Matagouri	At Risk-Declining
Leptospermum scoparium	Mānuka	At Risk-Declining
Olearia lineata		At Risk-Declining
Raoulia australis		At Risk-Declining
Raoulia beauverdii		At Risk-Declining
Kunzea serotina	Kānuka	Threatened-Nationally Vulnerable

Mānuka and kānuka are members of the Myrtaceae family of plants. Like other members of the Myrtaceae, their threat status was elevated as a precautionary measure at that time due to the threat posed by the imminent invasion of myrtle rust (*Austropuccinia psidii*). Myrtle rust is yet to invade the lower South Island, and to date, kānuka has not been greatly affected by myrtle rust in northern New Zealand. Kānuka, and to a lesser extent mānuka, are extensively present along the upper Clutha River and on the lower northern slopes of the Pisa Range.

Matagouri remains widespread and abundant in southern New Zealand, including the Pisa ED, and has increased in extent in many areas of hill country.

Of the other At Risk species, desert broom was the most common, and reasonably frequent in many parts of the site. It is threatened by stock and feral animal browsing.

Many trees and saplings of *Olearia lineata* were observed across the site. Most of these were in moister areas, within the gullies and small wetlands, but there were also scattered individuals in kānuka-dominated shrublands and scrub. Loss of habitat and recruitment failure are threats to this species, but the site provides extensive habitat for this species and there was evidence of regeneration.

Raoulia australis and *R. beauverdii* were both observed in the area of herbfield vegetation. Loss of habitat is the biggest threat to these species.

The indigenous bidibid *Acaena dumicola* (Not Threatened) was observed at a few places on the margins of kānuka shrubs in kānuka shrubland at the centre of the site (Vegetation Type 4), all in the upper area of proposed Lot 5. *Acaena dumicola* is common in South Canterbury, but is uncommon in Otago, where it is only known from the Macraes area, Bendigo and the Queensberry area.

The site contains habitat suitable for a number of threatened spring annual plant species, including New Zealand mousetail (*Myosurus minimus* subsp. *novae-zelandiae*, Threatened-Nationally Vulnerable) and *Ceratocephala pungens* (Threatened-Nationally Critical). These species favour disturbed habitats, often on the edges of shrubs. Considerable search effort was undertaken for spring annuals during the November site visit, but no individuals were observed.

5.3 Pest plant species

Eight ecological weed species were observed at the site, five of which are also designated as pest plants in the Otago Pest Management Plan (Otago Regional Council 2019) (Table 2).

Table 2: Pest plant species recorded at the site.

Species	Common Name	Abundance Within Site	Otago RPMP Status
Cytisus scoparius	Scotch broom	Occasional, locally common on western boundary	Pest – sustained control
Jacobaea vulgaris	Ragwort	Rare in pasture	Pest – sustained control
Lupinus arboreus	Tree lupin	Rare in pasture at north of site (Lot 3)	None
Pinus radiata	Radiata pine	Occasional large trees, and rare saplings	Pest – progressive containment
Pseudotsuga menziesii	Douglas fir	One tree observed, in northern gully	Pest – progressive containment
Ribes uva-crispa	Gooseberry	Occasional in stony areas of kānuka shrubland	None
Salix ×fragilis	Crack willow	Two trees in southern gully	None
Ulex europaeus	Gorse	Rare	Pest – sustained control

Radiata pine (*Pinus radiata*) is occasionally present across the site, mainly as mature trees, but there are also a few younger saplings present. One Douglas fir was also observed. These do not currently threaten ecological values at the site, but present a long term threat as large long-lived trees that displace indigenous vegetation.

Scotch broom (*Cytisus scoparius*) was most commonly recorded along the western boundary of Lot 2, and on the western boundary of Lot 7 just east of the power lines. Scattered individuals were also observed in the gullies. Scotch broom is capable of rapid expansion, particularly when stock are removed, and can displace indigenous plant species. It is usually controlled by spraying of herbicide, which can also inadvertently affect surrounding indigenous vegetation. For these reasons, it is best and most efficiently controlled when at low abundance.

Gooseberry (*Ribes uva-crispa*) was observed occasionally, mainly within kānuka shrubland on stony soils, but it could potentially displace indigenous vegetation from rock outcrop habitat. Its's fleshy fruits are dispersed by birds.

Two large trees of crack willow were observed in the southernmost gully. This species is unlikely to spread into drier areas of the site, but it has the potential to form dense stands along damper gullies at the site, displacing indigenous species.

6. FAUNA

6.1 Avifauna

Twenty-two bird species were recorded at the site, comprising 14 exotic species and eight indigenous species (Table 3). Tōrea/South Island pied oystercatcher (*Haematopus finschi*) was observed at the site and is classified as At Risk-Declining (Robertson *et al.* 2021). Although not observed during the site visit, kārearea/eastern falcon (*Falco novaeseelandiae novaeseelandiae*, Threatened Nationally Vulnerable) and pihoihoi/ New Zealand pipit (*Anthus novaeseelandiae novaeseelandiae*, At Risk- Declining) are also commonly found in the surrounding area and are likely to use the site.

Table 3: Bird species recorded during the site visit (3-4 November 2022).

Species	Common Name	Status
Indigenous		
Haematopus finschi	South Island pied oystercatcher/tōrea	At Risk Declining
Anthornis melanura melanura	Bellbird/korimako	Not Threatened
Mohoua novaeseelandiae	Brown creeper/pipipi	Not Threatened
Gerygone igata	Grey warbler/riroriro	Not Threatened
Tadorna variegata	Paradise shelduck/pūtangitangi	Not Threatened
Zosterops lateralis lateralis	Silvereye/tauhou	Not Threatened
Rhipidura fuliginosa fuliginosa	South Island fantail/pīwakwaka	Not Threatened
Larus dominicanus dominicanus	Southern black-backed gull/karoro	Not Threatened
Circus approximans	Swamp harrier/kāhu	Not Threatened
Exotics		
Gymnorhina tibicen	Australian magpie	Introduced and Naturalised
Callipepla californica	California quail	Introduced and Naturalised
Fringilla coelebs	Chaffinch	Introduced and Naturalised
Carduelis flammea	Common redpoll	Introduced and Naturalised

Species	Common Name	Status
Sturnus vulgaris	Common starling	Introduced and Naturalised
Prunella modularis	Dunnock	Introduced and Naturalised
Turdus merula	Eurasian blackbird	Introduced and Naturalised
Carduelis carduelis	Goldfinch	Introduced and Naturalised
Chloris chloris	Greenfinch	Introduced and Naturalised
Passer domesticus	House sparrow	Introduced and Naturalised
Alauda arvensis	Skylark	Introduced and Naturalised
Turdus philomelos	Song Thrush	Introduced and Naturalised
Emberiza citrinella	Yellowhammer	Introduced and Naturalised

Of the indigenous bird species observed, karoro/southern black-backed gull (*Larus dominicanus dominicanus*), kāhu/swamp harrier (*Cirus approximans*) and tōrea/South Island pied oystercatcher (*Haematopus finschi*, At Risk Declining) will forage within the open habitat. Korimako/bellbird (*Anthornis melanura*), rironiro/grey warbler (*Gerygone igata*), pipipi/brown creeper (*Mohoua novaeseelandiae)*, pīwakawaka/ South Island fantail (*Rhipidura fuliginosa fuliginosa*) and tauhou/ silvereye (*Zosterops lateralis*) are birds predominantly of forest and scrub areas. During the site visit, many bellbirds were observed in the kānuka forest.

From the desktop eBird survey, 38 species have been recorded in the area since January 2019, with 23 indigenous and 15 exotic species (Table 4).

Table 4: Bird species recorded in eBird within a five-kilometre radius of the Queensbury property between January 2019 and April 2023.

Species Name	Common/Māori Name	Threat Classification
Indigenous		
Falco novaeseelandiae novaeseelandiae	Eastern falcon/kārearea	Threatened Nationally Vulnerable
Charadrius bicinctus bicinctus	Banded dotterel/pohowera	At Risk Declining
Chroicocephalus bulleri	Black-billed gull/tarāpuka	At Risk Declining
Anthus novaeseelandiae novaeseelandiae	New Zealand pipit/pīhoihoi	At Risk Declining
Haematopus finschi	South Island pied oystercatcher/tōrea	At Risk Declining
Phalacrocorax carbo novaehollandiae	Black shag/māpunga	At Risk Relict
Microcarbo melanoleucos brevirostris	Little shag/kawaupaka	At Risk Relict
Anthornis melanura melanura	Bellbird/korimako	Not Threatened
Anas gracilis	Grey teal/tētē-moroiti	Not Threatened
Gerygone igata	Grey warbler/rironiro	Not Threatened
Todiramphus sanctus vagans	New Zealand kingfisher/kōtare	Not Threatened
Tadorna variegata	Paradise shelduck/pūtangitangi	Not Threatened
Himantopus himantopus leucocephalus	Pied stilt/poaka	Not Threatened
Porphyrio melanotus melanotus	Pūkeko	Not Threatened
Circus approximans	Swamp harrier/kāhu	Not Threatened
Chrysococcyx lucidus lucidus	Shining cuckoo/pīpīwharauroa	Not Threatened
Zosterops lateralis lateralis	Silvereye/tauhou	Not Threatened
Rhipidura fuliginosa fuliginosa	South Island fantail/pīwakawaka	Not Threatened
Larus dominicanus dominicanus	Southern black-backed gull/karoro	Not Threatened

Species Name	Common/Māori Name	Threat Classification
Vanellus miles novaehollandiae	Spur-winged plover	Not Threatened
Prosthemadera novaeseelandiae novaeseelandiae	Tūī	Not Threatened
Hirundo neoxena neoxena	Welcome swallow/warou	Not Threatened
Egretta novaehollandiae	White-faced heron/matuku moana	Not Threatened
Exotics		
Gymnorhina tibicen	Australian magpie	Introduced and Naturalised
Callipepla californica	California quail	Introduced and Naturalised
Fringilla coelebs	Chaffinch	Introduced and Naturalised
Acanthis flammea	Common redpoll	Introduced and Naturalised
Prunella modularis	Dunnock	Introduced and Naturalised
Turdus merula	Eurasian blackbird	Introduced and Naturalised
Carduelis carduelis	Goldfinch	Introduced and Naturalised
Chloris chloris	Greenfinch	Introduced and Naturalised
Passer domesticus	House sparrow	Introduced and Naturalised
Anas platyrhynchos	Mallard	Introduced and Naturalised
Columba livia	Rock pigeon	Introduced and Naturalised
Alauda arvensis	Skylark	Introduced and Naturalised
Turdus philomelos	Song thrush	Introduced and Naturalised
Sturnus vulgaris	Starling	Introduced and Naturalised
Emberiza citrinella	Yellowhammer	Introduced and Naturalised

Kārearea/eastern falcon (*Falco novaeseelandiae novaeseelandiae*) is the only species classified as Threatened Nationally Vulnerable . This species may utilise the site, with the rock outcrops and rock cliffs likely to be the most suitable habitat for breeding.

Six indigenous species are classified as At Risk, including four Declining species, pohowera/banded dotterel (*Charadrius bicinctus bicinctus*), tarāpuka/black-billed gull (*Chroicocephalus bulleri*), pihoihoi/New Zealand pipit (*Anthus novaeseelandiae novaeseelandiae*), tōrea/South Island pied oystercatcher (*Haematopus finschi*), and two Relict māpunga/black shag (*Phalacrocorax carbo novaehollandiae*) and kawaupaka/ little shag (*Microcarbo melanoleucos brevirostris*). South Island pied oystercatcher, and New Zealand pipit may use grassland and herbfield areas at the site on occasions to forage and potentially breed. Banded dotterel may use these areas to forage, but not breed. Predominant shrubland and scrub at the site does not provide valuable habitat for feeding or breeding of these species.

6.2 Terrestrial invertebrates

Only three observations of one indigenous species were recorded on iNaturalist within five kilometres of the proposed development - *Phaulacridium otagoense*, a range-restricted grasshopper. This species may be found in rocky areas and grassland on-site. Although currently listed as Not Threatened, the grasshopper's naturally small range is threatened by hybridisation with the more common and widespread *P. marginale*, which is expanding its distribution (Sivyer 2016).

Other invertebrates of conservation concern present on the site may include moths, weevils, and ground beetles. A field survey would be required to further assess invertebrate values present on-site.

6.3 Lizards

Lizard species recorded within a 20-kilometre radius of the site are listed below and their closest record and likelihood of being found on site are detailed in Table 4. Threat classifications are from Hitchmough *et al.* 2021.

- Otago skink (*Oligosoma otagense*) – Threatened – Nationally Endangered
- Lakes skink (*Oligosoma* aff. *chloronoton* "West Otago") – Threatened – Nationally Vulnerable
- Nevis skink (*Oligosoma toka*) – At Risk – Declining
- Tussock skink (*Oligosoma chionochloescens*) – At Risk – Declining[1]
- McCann's skink (*Oligosoma maccanni*) – Not Threatened
- Kawarau gecko (*Woodworthia* "Cromwell") – At Risk – Declining
- Southern Alps gecko (*Woodworthia* "Southern Alps") – At Risk – Declining

No lizards were observed during the 3-4 November 2022 site visit (although conditions were wet and cold at the time). A subsequent lizard survey undertaken between 14-17 March 2023 detected three species of lizard on site. These species were tussock skink, McCann's skink, and Kawarau gecko. The likelihood of any other lizard species being present on the site is considered to be very low, due to the location and elevation of the site (lizard species in the region can be restricted to certain elevations) and the presence of introduced mammalian predators.

The methods used during the lizard survey, the results of the survey, and further recommendations for lizard management are detailed in the lizard survey memo (Appendix 3 of this report).

[1] Previously referred to as southern grass skink (*Oligosoma* aff. *polychroma* Clade 5). Tussock skink is a recently described species (Jewell 2022) derived from a taxonomic split of southern grass skink which has not yet been attributed a National Threat Classification. It is considered likely to be attributed a National Threat Classification of 'At Risk – Declining', the same as southern grass skink.

Table 4: Lizard species recorded within a 20-kilometre radius of the proposed subdivision site and the estimated likelihood of each species occurring on site.

Common Name	Scientific Name	National Threat Classification[1]	Regional Threat Classification[2]	Recorded Distance from Site	Likelihood of Presence on Site
Otago skink	*Oligosoma otagense*	Threatened – Nationally Endangered	Regionally Endangered	10 km	Unlikely – has suffered severe range reductions largely due to introduced mammalian predation
Lakes skink	*Oligosoma* aff. *chloronoton* "West Otago"	Threatened – Nationally Vulnerable	Regionally Vulnerable	15 km	Unlikely – found in damp/rocky gullies but generally at higher elevations in the region
Nevis skink	*Oligosoma toka*	At Risk – Declining	Regionally Declining	19 km	Unlikely – only known from higher elevations in the region
Tussock skink	*Oligosoma chionochloescens*	At Risk – Declining	Regionally Declining	1 km	Confirmed present on site during lizard survey –widespread species often found in grassy areas
McCann's skink	*Oligosoma maccanni*	Not Threatened	Not Threatened	>1 km	Confirmed present on site during lizard survey –widespread species often found in rocky and relatively dry areas
Kawarau gecko	*Woodworthia* "Cromwell"	At Risk – Declining	Regionally Declining	1 km	Confirmed present on site during lizard survey –widespread species found in areas with creviced rock outcrops/loose rocks, may utilise shrubland
Southern Alps gecko	*Woodworthia* "Southern Alps"	At Risk – Declining	Regionally Declining	6.5 km	Unlikely – outside geographical range, replaced by Kawarau gecko south/west of Clutha River

[1] National Threat Classifications for lizards are from Hitchmough *et al.* (2021).
[2] Regional Threat Classifications for lizards are from Jarvie *et al*. (2023).

6.4 Pest animals

Many rabbits (*Oryctolagus cuniculus*) were observed at the site, particularly in the grassy areas and open shrubland on sunny faces. Pig (*Sus scrofa*) rooting was occasionally observed. Other pest animals, including feral cats (*Felis catus*), brushtail possums (*Trichosurus vulpecula*), mustelids (*Mustela* spp.), European hedgehogs (*Erinaceus europaeus*), rats (*Rattus* spp.) and mice (*Mus muscula*) are also likely to be present at the site.

7. FRESHWATER HABITATS

The freshwater habitats at the site are ephemeral creeks draining the main gullies. These are characterised by significant fluctuations in water flow, with periods of weeks or months where there is no surface water flow. The sites were visited in spring following a large rainfall event, and all gullies contained small streams.

A review of the New Zealand Freshwater Fish Database (Stoffels 2022) shows four records of survey effort within the site and the area immediately surrounding it. Of these only one survey observed the presence of any species, a brook char (*Salvelinus fontinalis*) near the pond on the other side of Fay Lane from the proposed site. The lack of fish observations despite evidence of survey effort confirms the ephemeral nature of these waterways. There is the potential that some individuals may colonise the waterways while they are flowing, but these individuals will be unable to establish a stable population. Populations of freshwater fish are therefore most unlikely to be present in ephemeral streams at the site.

Freshwater macroinvertebrates may inhabit the waterways of the site when there is flowing water present. These will likely be larval stages of highly mobile adults able to disperse from nearby permanent waterways to deposit eggs in the temporarily available habitat. New Zealand has no macroinvertebrate species specifically adapted for ephemeral habitats (Wissinger *et al.* 2009), so all species found in ephemeral waterways are those able to capitalise on the habitat availability. This recolonization can be rapid provided that there is a nearby source to support the macroinvertebrate populations (Stuart *et al*. 2021).

8. ECOLOGICAL SIGNIFICANCE

8.1 Vegetation and habitat values

The value of the indigenous vegetation on the site is evaluated according to the ecological significance criteria in Appendix 1 of the National Policy Statement for Indigenous Biodiversity (NPS-IB) (Ministry for the Environment 2023). Only one criterion has to be met for a site to be assessed as significant. A significance assessment has been completed for indigenous vegetation and habitats on the site as a whole (Table 5), and for the individual vegetation and habitats within the site (Table 6). The full significance criteria from the NPS-IB are reproduced in Appendix 2 of this report.

Table 5: Ecological significance assessment for the proposed Queensberry subdivision site, using the criteria from the NPS-IB.

Criterion	Definition	Comment	Criterion met?
Representativeness	Representativeness is the extent to which the indigenous vegetation or habitat of indigenous fauna in an area is typical or characteristic of the indigenous biodiversity of the relevant ecological district. An area that qualifies as an SNA under this criterion has at least one of the following attributes: - indigenous vegetation that has ecological integrity that is typical of the character of the ecological district. - habitat that supports a typical suite of indigenous fauna that is characteristic of the habitat type in the ecological district and retains at least a moderate range of species expected for that habitat type in the ecological district.	The site contains mainly kānuka-dominated vegetation communities that are regenerating following a long history of grazing and fires, and these communities provide good examples of disturbance-induced vegetation in the Pisa ED. These communities are relatively common in the district, and are likely to be more common than would naturally be expected. Plant species assemblages at the site include a consistent occurrence of species that are typically associated with these landforms in the present day environment, including kānuka, mānuka, desert broom, korokio, *Olearia* species, *Carex* species and *Coprosma* species. The occurrence of *Olearia lineata* in gullies, and infrequently throughout kānuka shrubland, gives these communities a higher value. Likewise, rock cliffs and rock outcrops at the site contain vegetation that is fairly typical of these habitats. However, there is an absence of the indigenous broadleaved and conifer species that would be present in vegetation communities at a more advanced stage of regeneration following farming, and only one kōwhai was observed. A moderate range of indigenous avifauna and herpetofauna is present, or likely to be present, at the site, and represents at least a moderate range of the species expected in the Pisa ED. Freshwater values are low, as streams are ephemeral at the site. invertebrates Overall, the site is considered to have moderate to high value in regards to representativeness, and is considered to meet this criterion.	Yes
Diversity and pattern	Diversity and pattern is the extent to which the expected range of diversity and pattern of biological and physical components within the relevant ecological district is present in an area. An area that qualifies as a significant natural area under this criterion has at least one of the following attributes: - at least a moderate diversity of indigenous species, vegetation, habitats of indigenous fauna or communities in the context of the ecological district. - presence of indigenous ecotones, complete or partial gradients or sequences.	The site contains a moderate diversity of species for the Pisa ED, but a relatively high diversity of landforms and associated vegetation and habitat types including relatively flat plateau tops, broad gentle ridges, deeply incised gullies with rock cliffs, rocky outcrops, and small gully wetlands. These contribute to a high diversity of habitats and ecological patterns over a relatively small area. This criterion is met.	Yes
Rarity and distinctiveness	Rarity and distinctiveness is the presence of rare or distinctive indigenous taxa, habitats of indigenous fauna, indigenous vegetation or ecosystems.	The site supports several plant species that are listed as Threatened or At Risk. The site is known to support two At Risk lizard species. The site also provides habitat for eastern falcon,	Yes

Criterion	Definition	Comment	Criterion met?
	An area that qualifies as an SNA under this criterion has at least one of the following attributes: - provides habitat for an indigenous species that is listed as Threatened or At Risk (declining) in the New Zealand Threat Classification System lists. - an indigenous vegetation type or an indigenous species that is uncommon within the region or ecological district. - an indigenous species or plant community at or near its natural distributional limit. - indigenous vegetation that has been reduced to less than 20 per cent of its pre-human extent in the ecological district, region, or land environment. - indigenous vegetation or habitat of indigenous fauna occurring on naturally uncommon ecosystems. - the type locality of an indigenous species. - the presence of a distinctive assemblage or community of indigenous species. - the presence of a special ecological or scientific feature.	New Zealand pipit, banded dotterel and South Island pied oystercatcher. No populations of freshwater fish are likely to be present at the site.	
Ecological context	Ecological context is the extent to which the size, shape, and configuration of an area within the wider surrounding landscape contributes to its ability to maintain indigenous biodiversity or affects the ability of the surrounding landscape to maintain its indigenous biodiversity. An area that qualifies as an SNA under this criterion has at least one of the following attributes: - at least moderate size and a compact shape, in the context of the relevant ecological district. - well-buffered relative to remaining habitats in the relevant ecological district. - provides an important full or partial buffer to, or link between, one or more important habitats of indigenous fauna or significant natural areas. - important for the natural functioning of an ecosystem relative to remaining habitats in the ecological district.	The site is relatively large and rectangular in shape. It occupies a landscape position that is well defined by the deep gully to the east, the hillsides to the west, and the lower alluvial plains to the southeast, giving the site a degree of cohesion and definition that is conducive to its long-term ecological sustaining. The site is part of a larger area of similar landforms running along the lower eastern margins of the Pisa Range, which contains patches of indigenous vegetation and habitats similar to those found at the site. It is also within five kilometres of a range of different habitat types on river terraces and hillsides with different vegetation communities. As a part of this network of indigenous vegetation and habitats over the wider area, the site is considered to have moderate values in relation to buffering and natural functioning of the wider ecosystem.	Yes

Table 6: Ecological significance assessment using the criteria from the NPS-IB, for vegetation and habitat types at the proposed Queensberry subdivision site.

Vegetation Type(s)	Representativeness	Diversity and Pattern	Rarity and Distinctiveness	Ecological Context	Significant?	Comments
1 Kānuka forest	Y	N	Y	N	Yes	Forest at the site is a small example of mature kānuka forest in the Pisa ED, with typical composition, structure and functioning of the present-day. Kānuka is listed as nationally Threatened. A greater variety of indigenous tree species would have been historically present (pre-human) in forested gullies.
2 Kānuka-*Olearia lineata* forest	Y	N	Y	N	Yes	Forest with a component of *Olearia lineata* is uncommon in the Pisa ED, and the forest at the site is a small but typical example of this. The forest supports Threatened and At Risk plant species. A greater variety of indigenous tree species would have been historically present (pre-human) in these areas.
3 Kānuka scrub	Y	N	Y	N	Yes	Kānuka scrub at the site has ecological integrity typical of the present-day Pisa ED, even though species composition is relatively low. It could be expected to mature into kānuka forest if undisturbed. Kānuka scrub would not have been the historic (pre-human) cover in these areas, but has likely regenerated because of its responsiveness after disturbance, and because it is not palatable to stock or feral browsing animals. Kānuka would historically only have been dominant on stony, drier soils within the site. On deeper soils, a greater variety of indigenous tree species would have been present.
4 Kānuka shrubland	N	N	Y	N	Yes	Kānuka shrubland at the site is at a young stage of regeneration, and has large areas of exotic grassland within it and a low diversity of indigenous species. This type of vegetation is well represented in the region, in greater abundance than would naturally be the case. There are a few plants of desert broom and a very few plants of *Olearia lineata* in the shrubland, although the shrubland is not important for the persistence of these species, and these species are likely to be excluded as the shrubland matures. The shrubland occurs on less stony soils with reasonable moisture retention. Kānuka scrub would not have been the historic (pre-human) cover in these areas, but has likely regenerated because of its responsiveness after disturbance, and because it is not palatable to stock or feral browsing animals. A greater variety of indigenous tree species would have been present. The shrubland provides habitat for Threatened and At Risk avifauna and lizards, but is not important for the persistence of these species at the site. Nevertheless, the rarity criterion is met because the shrubland provides habitat for Threatened and At Risk flora and fauna species.

Vegetation Type(s)	Representativeness	Diversity and Pattern	Rarity and Distinctiveness	Ecological Context	Significant?	Comments
5 Kānuka-korokio shrubland	Y	N	Y	N	Yes	This shrubland at the site is a good example of typical shrubland on stony soils in the Pisa ED, containing moderate species diversity with a high abundance of korokio.
6 *Coprosma-Olearia*-kānuka/bracken shrubland	Y	Y	Y	N	Yes	This shrubland supports a healthy population of *Olearia lineata*, in habitat where this species is likely to be maintained and increase in abundance in the long term as vegetation succession continues. The shrubland incorporates a moderately high diversity of shrub species. The habitat provides a good example of its type in the Pisa ED, although it would have originally contained a greater diversity and dominance of broadleaved species.
7 Korokio-matagouri-(desert broom-*Olearia lineata*) shrubland	Y	N	Y	N	Yes	This shrubland has moderate ecological integrity and is a relatively large example of its type in the Pisa ED that supports several Threatened and At Risk flora and fauna species.
8 Korokio-kānuka-matagouri shrubland and rockland mosaic	Y	Y	Y	N	Yes	This mosaic provides a good example of korokio-dominated vegetation and rock cliffs, typical of the Pisa ED. The habitat supports several Threatened and At Risk flora and fauna species, including a moderate diversity of indigenous lizard species.
9 Rocky outcrops within 31anuka scrub/shrubland	Y	N	Y	N	Yes	The rocky outcrops at the site contain good examples of a typical landform in the Pisa ED, with maintenance of a species assemblage typical of these habitats. The habitat supports several Threatened and At Risk flora and fauna species.
10 *Olearia lineata*/rautahi/musk shrubland marsh	Y	N	Y	N	Yes	These wetlands are typical of small gully wetlands in the Pisa ED that have been reduced in extent, and although modified contain a moderate diversity of indigenous species including abundant *Olearia lineata*. The habitat supports several Threatened and At Risk flora and fauna species. Populations of freshwater fish are most unlikely to be present, due to the ephemeral nature of streams.
11 Fescue tussock-matagouri grassland	N	N	N	N	No	This grassland occupies a very small area, and much better examples are available in the district.
12 Musk-rautahi-exotic grasses grassland marsh	Y	N	N	N	Yes	Wetlands in the Pisa ED have been reduced in extent, and this wetland at the site is a good example of a gully head wetland even though modified and degraded.
13 Kānuka/brown top-hawkweed-St John's wort grassland	N	N	N	N	No	The grassland is dominated by exotic species and does not represent an indigenous vegetation type typical of the Pisa ED. Lizards will utilise the habitat, but it is not important to their persistence at the site.
14 Cultivated pasture	N	N	N	N	No	The pasture is dominated by exotic species and does not represent an indigenous vegetation type typical of the Pisa ED. Lizards and birds may utilise the habitat, but it is not important to their persistence.

Vegetation Type(s)	Representativeness	Diversity and Pattern	Rarity and Distinctiveness	Ecological Context	Significant?	Comments
15 (Kānuka)/pātōtara-grassland sedge herbfield and stonefield	Y	N	Y	N	Yes	Although small in area and modified by bulldozer activity, this provides a modified example of its type in the Pisa ED. The rock substrates provide ideal habitat for lizards.
16 (Kānuka)/*Raoulia* herbfield	Y	N	Y	N	Yes	This herbfield is a good example of its type in the Pisa ED, and supports threatened *Raoulia* species. However, this herbfield will most likely be replaced by regenerating kānuka shrubland over time.

The indigenous vegetation and habitats on the site as a whole meet all four of the significance criteria (representativeness, diversity and pattern, rarity and distinctiveness, and ecological context), and are therefore considered significant (Table 5).

Most of the vegetation and habitat types at the site also individually meet at least one of the criteria for significance, and on this basis may also be considered significant (Table 6). The most commonly met criteria are representativeness (reflecting the diverse range of vegetation and habitats at the site dominated by indigenous species typical of the Pisa ED), and rarity and distinctiveness (reflecting habitat across the site that supports several Threatened and At Risk flora and fauna species).

8.2 Avifauna ecological values

The shrubland and forest vegetation at the site provides habitat for a wide range of non-threatened indigenous birds that forage and breed within these habitats.

South Island pied oystercatcher, and New Zealand pipit may use grassland and herbfield areas at the site on occasions to forage and potentially breed. Banded dotterel may use these areas to forage, but not breed. Predominant shrubland and scrub at the site does not provide valuable habitat for feeding or breeding of these species, and the values of the site for these species are considered low.

Eastern falcon may also utilise the site, with the rock outcrops and rock cliffs likely to be the most suitable habitat for breeding. In the context of the wider landscape, the value of the site for eastern falcon is considered moderate to high due to the open grassland, tussock, scrubland, forest edges and rocky outcrops which are favoured by this species.

8.3 Terrestrial invertebrates

Based on the desktop assessment and habitats present at the site, there is a low likelihood of populations of Threatened or At Risk species being present at the site. The site will contain common, Not Threatened species of the general area. In the absence of a field assessment the overall value of habitats for terrestrial invertebrate fauna is unknown.

8.4 Lizard ecological values

A lizard survey (Appendix 3) detected three species of indigenous lizard on the site. These species were tussock skink, McCann's skink, and Kawarau gecko. This is considered to represent an indigenous lizard assemblage on the site comprised of widespread species typically found in the surrounding lowlands.

8.5 Freshwater fauna values

Based on the desktop assessment, there is a very low potential for fish species to reside within the waterways of the site due to the ephemeral nature of the streams. Macroinvertebrate species are able to rapidly colonise ephemeral freshwater habitats

from nearby permanent waterways, given a sufficient source population. The overall value of freshwater fauna and the habitat available to it is considered low.

9. ECOLOGICAL EFFECTS ASSESSMENT

9.1 Overview

The proposed subdivision works include construction of roads, infrastructure installation, and construction of dwellings and driveways. The proposed locations of these works are marked in Figure 6, with underlying vegetation types also shown. The proposed main access road requires a 10 metre wide construction corridor, while the driveways require a four metre wide corridor. Proposed building platforms are 30 × 30 metres, and are surrounded by a 10 × 10 metres vegetation clearance buffer for fire safety and a further 20 × 20 metres zone where vegetation maintenance is required combined with incremental replacement with low to moderate flammability species.

Potential direct ecological effects of the proposed subdivision works are:

- Loss of indigenous vegetation
- Loss of Threatened and At Risk plant species
- Loss of avifauna, lizard and invertebrate habitat
- Direct mortality of avifauna during vegetation clearance
- Disturbance, injury or death of lizards during construction
- Fish injury or death during road construction at ephemeral creeks
- Sedimentation and contamination of ephemeral creeks during earthworks and construction
- Accidental introduction of pest plant species to the site on construction equipment

The proposed subdivision would result in new roading and nine residential dwellings at the site. Potential indirect ecological effects of this land use change at the site are:

- Introduction of pest plant species from residential plantings
- Ongoing disturbance and harm to lizards and avifauna
- Fragmentation of intact lizard habitat

9.2 Loss of indigenous vegetation

Clearance of vegetation with at least some indigenous component would result from construction of the main access road, construction of driveways, and clearance of designated building platforms. An estimate of the areas affected based on the site plans (Figure 6) is as follows:

- *Main access road*: this road is approximately 2.1 kilometres long, with an overall required clearance width of 10 metres, and existing cleared width of approximately four metres. Potential clearance is about 1.26 hectares of vegetation.

- *Driveways*: combined length is approximately 1.4 kilometres. Assuming a width of four metres, then potential clearance from the driveways is about 0.56 hectares.

- *Building platforms*: assuming a maximum clearance zone of 40 × 40 metres, then potential clearance from the nine building sites is approximately 1.44 hectares.

With these assumptions, an estimated total area of 3.3 hectares of vegetation clearance will result from the subdivision development. Some of this vegetation clearance will include indigenous species.

Details of the composition and structure of vegetation affected by the proposed clearance are given in Table 7. This analysis is based on a walk-through survey of the proposed main access road, driveways and building platforms. Routing of driveways was assumed to take the line that avoids indigenous vegetation where possible. Based on this analysis, the vegetation and habitat affected by clearance can be grouped into three general compositional and structural classes:

- Exotic grassland
- Exotic grassland-dominant with only a few scattered indigenous shrubs
- Kānuka-dominant shrubland

The areas of these vegetation classes affected by clearance are summarized in Table 8. Overall, approximately 2.7 hectares of exotic-dominant grassland vegetation would be cleared, containing approximately 328 indigenous shrubs scattered within the grassland, and small patches of mat daisy at Lot 7. Approximately 0.6 hectares of indigenous-dominant vegetation would be cleared, containing abundant kānuka, occasional mānuka and matagouri, and a few desert broom, porcupine shrub and korokio.

Maintenance of kānuka and mānuka within a 20 metre buffer around the building platforms would also be undertaken. This would involve trimming of dead branches to reduce fire risk.

9.3 Loss of Threatened and At Risk plant species

The proposed subdivision would result in the loss of many kānuka (Threatened-Nationally Vulnerable), and several matagouri (At Risk-Declining) and mānuka (At Risk-Declining). As previously noted, the threat statuses of these species are considered precautionary due to the widespread abundance of these species in the Pisa ED and surrounding regions and/or the current low impact of myrtle rust, and are not given much weight in this assessment.

Desert broom (At Risk-Declining) is widespread and relatively common across the site, and there is plenty of habitat available for this species. Browse by stock and feral animals is likely to pose a greater threat to this species than habitat loss at the site. Based on a walk-through survey, it is estimated that about 30 plants of desert broom may be cleared during construction activities.

Olearia lineata (At Risk-Declining) is relatively common across the site in gullies and marsh habitat, but scarce elsewhere. There is adequate habitat at the site for this species to increase in abundance. Recruitment failure is a known threat for this species, but some regeneration was noted at the site. A few *Olearia lineata* are present in gullies

Table 7: Vegetation and habitats likely to be affected by vegetation clearance at the proposed subdivision at Queensberry.

Construction Activity	Broad Vegetation Type	Estimated Length/Area	Actual Vegetation Removal
Access Road			
	Cultivated pasture	610m	Exotic species only
	Kānuka/brown top-hawkweed-St John's wort grassland	40m	Exotic species, and possibly a few kānuka shrubs
	Kānuka shrubland	1,450m	Exotic pasture for c.860 metres, with no indigenous shrubs. Exotic pasture with scattered kānuka and small matagouri for c.282 metres. Denser shrubland for c.308 metres, comprising mainly shrubs of kānuka, and a few matagouri and desert broom (c.1,848m2 of clearance).
Driveways			
Lot 2	Kānuka shrubland	50m	Mainly exotic species, a few shrubs of kānuka and matagouri, possibly a few desert broom.
Lot 3	Cultivated pasture	49m	Exotic pasture, no indigenous shrubs.
Lot 4	Kānuka scrub; Kānuka shrubland; Fescue tussock-matagouri grassland	76m 187m 20m	Mainly exotic pasture, but several trees and shrubs of kānuka, possibly matagouri and desert broom. Exotic species, and a few small matagouri and desert broom
Lot 5	Kānuka shrubland; Kānuka/brown top-hawkweed-St John's wort grassland	239m 21m	Exotic species, and many kānuka shrubs. Exotic species
Lot 6	Kānuka shrubland; Kānuka/brown top-hawkweed-St John's wort grassland	38m 41m	Exotic species, several kānuka and possibly a few matagouri Mainly exotic species, a few kānuka
Lot 7	Kānuka shrubland; Kānuka-korokio shrubland	46m 390m	Exotic species, several kānuka and possibly a few matagouri. Exotic species, many kānuka shrubs, several korokio shrubs, possibly a few matagouri and desert broom.
Lot 8	Kānuka shrubland; Kānuka/brown top-hawkweed-St John's wort grassland	20m 149m	Exotic species, possibly a few kānuka. Exotic species.
Lot 9	Cultivated pasture	35m	Exotic pasture, no indigenous shrubs.
Lot 10	Cultivated pasture	84m	Exotic pasture, no indigenous shrubs.
Building Platforms and Fire Clearance Zone			
Lot 2	Kānuka shrubland Kānuka)/pātōtara-grassland sedge herbfield and stonefield	40m2	Exotic pasture, bare ground, scattered kānuka to 3.5 metres tall, a few matagouri
Lot 3	Cultivated pasture	40m2	Exotic pasture species throughout

Construction Activity	Broad Vegetation Type	Estimated Length/Area	Actual Vegetation Removal
Lot 4	Fescue tussock-matagouri grassland Kānuka shrubland Kānuka scrub	40m2	Exotic pasture, few matagouri, about 15 kānuka, a few small desert broom, 1 porcupine shrub, few hard fescue
Lot 5	Kānuka shrubland Kānuka/brown top-hawkweed-St John's wort grassland Korokio-kānuka-matagouri shrubland and rockland mosaic	40m2	Exotic pasture, scattered kānuka and mānuka shrubs (many dead standing stems)
Lot 6	Kānuka/brown top-hawkweed-St John's wort grassland Kānuka shrubland	40m2	Exotic pasture, few matagouri, kānuka and mānuka
Lot 7	Kānuka-korokio shrubland	40m2	Exotic herbs and grasses, bare ground, scattered shrubs (kānuka, mānuka, matagouri), small patches of mat daisy.
Lot 8	Kānuka/brown top-hawkweed-St John's wort grassland Kānuka shrubland	40m2	Exotic pasture, a few small kānuka, 2 coprosma, 2 korokio, 1 porcupine shrub, 2 small desert broom
Lot 9	Kānuka/brown top-hawkweed-St John's wort grassland Cultivated pasture	40m2	Exotic pasture and a few shrubs of kānuka, matagouri, coprosma, korokio, one porcupine shrub and one desert broom.
Lot 10	Cultivated pasture	40m2	Exotic pasture species throughout

Table 8: Areas of exotic grassland, exotic grassland-dominant with only a few indigenous shrubs, and kānuka-dominant shrubland affected by vegetation clearance at the proposed subdivision at Queensberry.

Construction Activity	Vegetation Class	Estimated Area	Actual Indigenous Vegetation Clearance
Access Road			
	Exotic grassland	8,820m2	None
	Exotic grassland-dominant, only a few indigenous shrubs	1,932m2	Estimated c.100 kānuka and c.15 matagouri. Present as scattered individuals amongst exotic grassland.
	Kānuka-dominant shrubland	1,848m2	Vegetation is dominated by kānuka, with some matagouri, and a few desert broom
Driveways			
	Exotic grassland	1,352m2	None
	Exotic grassland-dominant, only a few indigenous shrubs	1,912m2	Estimated c.100 kānuka, c.10 matagouri, and c.5 desert broom. Present as scattered individuals amongst exotic grassland.
	Kānuka-dominant shrubland	2,516m2	Vegetation is dominated by kānuka, with some matagouri, a few korokio and one or two desert broom. All within Lots 5 and 7 driveways.
Building Platforms			
	Exotic grassland	3,200m2	None
	Exotic grassland-dominant, only a few indigenous shrubs	9,600m2	Estimated c.50 kānuka, 20 mānuka, 10 matagouri, 3 porcupine shrub, 10 desert broom, 2 korokio and 3 coprosma. Present as scattered individuals amongst exotic grassland.
	Kānuka-dominant shrubland	1,600m2	Vegetation is dominated by kānuka and exotic grasses, with several mānuka and matagouri, and patches of mat daisy.
Total Activities			
	Exotic grassland	13,372m2	None
	Exotic grassland-dominant, only a few indigenous shrubs	13,444m2	Estimated c.250 kānuka, 20 mānuka, 35 matagouri, 15 desert broom, 3 porcupine shrub, 2 korokio and 3 coprosmas (total of 328 shrubs). These are present as scattered individuals amongst exotic grassland, or occasionally as small clusters of two or three plants.
	Kānuka-dominant shrubland	5,964m2	Vegetation is dominated by kānuka, with occasional mānuka and matagouri. Patches of mat daisy present at Lot 7.

just downstream of where the main access road crosses the gullies, but these are not within the construction zone. The proposed subdivision will not result in adverse effects on this species.

Raoulia australis and *R. beauverdii* are present in one small area of herbfield at the site, within Lot 7. Loss of habitat is the biggest threat to these species. The building platform for Lot 7 currently includes a small portion of this habitat within the fire setback zone, and disturbance during construction is possible.

The bidibid *Acaena dumicola* was observed in the upper part of proposed Lot 5, well outside of the proposed works associated with the subdivision.

9.4 Loss of fauna habitat

Avifauna

The proposed subdivision would result in the loss of mainly shrubland and grassland habitat used by birds. The site supports mainly non-threatened indigenous and exotic bird species of shrubland and forest habitats, such as bellbird, grey warbler and fantail. The loss of habitat resulting from the subdivision would have a low level of effect on birds at the site, because the area of shrubland and grassland to be cleared represents a very small proportion of the total habitat available at the site, and bird populations at the site are likely to be limited more by predation and low plant species diversity than by habitat availability.

The grassland areas of the site may provide temporary foraging habitat for the South Island oystercatcher, eastern falcon, banded dotterel, swamp harrier, and New Zealand pipit. The loss of these habitats is unlikely to be significant given their limited extent at the site and the wide availability of extensive more favourable habitat in the surrounding area. The proposed vegetation clearance would have negligible effect on these species.

Possible nesting sites for eastern falcon are present in the rock cliffs at the site. The proposed subdivision would have no effects on this, as no construction activities are proposed for these areas.

Overall, the effects of habitat loss on birds are assessed as minor. Nevertheless, ground works and vegetation clearance should be undertaken outside of the breeding season (August to February).

Lizards

The planned subdivision will remove areas of lizard habitat (i.e., through clearance of rank grass and other dense ground cover vegetation, removal of loose rocks) in order to prepare the site for construction. This would highly likely result in a loss of habitat for At Risk lizard species such as tussock skink and Kawarau gecko. A Lizard Management Plan (LMP) and a Wildlife Act Authority (WAA) from the Department of Conservation are required for the project to address adverse effects on lizards. These aspects are discussed further in Section 10.2, Lizard Management.

Fragmentation of Lizard Habitats

The proposed subdivision footprint is situated within a wider matrix of suitable habitat for lizards (e.g., rocky outcrops, open grassy areas) leading up to the Pisa Range to the west, and extending to grassy areas and areas of shrubland immediately east of the subdivision site. There is a dirt road and a strip of agricultural land directly to the west of the site which may reduce connectivity between appropriate lizard habitats. However, the loss of habitat at this site from the subdivision development will potentially further reduce the connectivity with other lizard subpopulations. The effect due to fragmentation is likely to be no more than minor, because the suitability of remaining surrounding habitats for facilitating connectivity is moderate to negligible.

Invertebrates

The planned subdivision will remove areas of invertebrate habitat, including soil and vegetation. However, given that no invertebrate survey has been undertaken, the effects on terrestrial invertebrates is unknown.

9.5 Direct mortality of avifauna during vegetation clearance

There is potential for some disturbance to avifauna during the construction period, but given the large size of the site it could be expected that birds will simply move into the adjoining habitat if construction is undertaken outside of the breeding season. There will be a localised increase in noise and vehicle traffic in the completed development, but the bird species present are not likely to be significantly affected by this and are likely to be able to adapt to increased urbanisation (Spurr 2012).

Removal of shrubs and trees could cause mortality of birds that are nesting in them. Once birds start breeding, indigenous bird species are protected under the Wildlife Act (1953). Therefore, vegetation clearance should, as far as possible, avoid the August-February period when most of these species breed. Alternatively, if works are to be undertaken during the breeding season, an avifauna survey of breeding activity should be undertaken by a qualified ecologist before works commence. This may require activities to avoid particular breeding sites while breeding activity is occurring. The requirement for an avifauna survey if works are undertaken during the breeding season could be captured in a Construction Management Plan, that details how potential adverse effects during construction will be managed.

Similarly, earthworks and ground clearance can lead to mortality of breeding adult birds, eggs and nestlings. Therefore, ground works should be undertaken outside of the breeding season or an avifauna survey must be undertaken to confirm that no birds are breeding within the works site.

9.6 Disturbance, injury or death of lizards during construction

Where lizards are present, vegetation and habitat clearance (i.e., destruction of rock outcrops/removal of loose rocks) and earthworks may result in disturbance, harm or death of lizards within the subdivision footprint. Unmanaged clearance of vegetation and other lizard habitat (particularly rocky areas) may result in sub-lethal effects to lizards by the following mechanisms:

- Displacement of lizards into unsuitable adjacent habitat (i.e., areas with a lack of rocky retreats or adequate ground cover vegetation) that are not able to support significant lizard populations.
- Loss of established food sources.
- Exposure to predators due to displacement as a result of habitat loss.
- Increased competition for limited resources and consequent reduction in survival and breeding success.

The size of existing lizard populations is likely to be already constrained by predation pressure from introduced mammalian predators. As such, displacement of lizards into surrounding habitat may have a moderate adverse effect on the resident population of lizards.

9.7 Fish injury or death during road construction at ephemeral creeks

It is very unlikely but possible that indigenous fish are present in the creeks. Works in the beds of the creeks could result in their injury and/or death.

9.8 Sedimentation and contamination of ephemeral creeks during earthworks and construction

Construction activities may result in increased sedimentation of streams due to a combination of ground disturbance and loss of vegetation to filter runoff. This increased sediment load can impact the survival and reproduction of both fish and macroinvertebrate species within impacted waterways. The use of machinery in the works area could result in contaminants entering the waterways, including petrochemicals and heavy metals, which can be taken up by plants, poison fauna and affect the food web. While there is unlikely to be any species present within the ephemeral streams to be negatively impacted, consideration should be given to populations that are present in the receiving catchment when these streams are flowing. These permanent waterways will have a wider diversity of fish and macroinvertebrates present and are therefore more likely to be affected by sediment or pollutant discharges.

9.9 Accidental introduction of pest plant species to the site on construction equipment

Pest plant species may be introduced and widely spread through the introduction of seeds on machinery and other equipment.

9.10 Ongoing disturbance and harm to lizards

Ongoing disturbance may be caused by light, noise and dust, and harm may be caused by vehicle strikes along newly-formed tracks during earthworks and construction.

9.11 Introduction of pest plant species from residential plantings

Pest plants from residential gardens at the site could spread into indigenous vegetation. The magnitude of effect from this is likely to be minor, as long as pest plants outlined in the Otago Regional Pest Management Plan are not planted.

9.12 Overall level of effect

The potential extent of adverse effects resulting from the proposed subdivision is summarised in Table 9. The following effects framework has been used:

- Nil Effects
  No effects at all.
- Less than Minor Adverse Effects
  Adverse effects that are discernable day-to-day effects, but to which ecological values are resilient.
- Minor Adverse Effects
  Adverse effects that are noticeable but will not cause any significant adverse impacts.
- More than Minor Adverse Effects
  Adverse effects that are noticeable that may cause an adverse impact but could be potentially mitigated or remedied.
- Significant Adverse Effects that could be remedied or mitigated
  An effect that is noticeable and will have a serious adverse impact on the environment but could potentially be mitigated or remedied.
- Unacceptable Adverse Effects
  Extensive adverse effects that cannot be avoided, remedied or mitigated.

Table 9: Potential effects of the proposed subdivision at Queensberry on ecological features and values.

Effect	Extent of Effect
Loss of indigenous vegetation	More than minor
Loss of Threatened and At Risk plant species	Minor
Loss of lizard habitat	More than minor
Loss of avifauna habitat	Minor
Loss of invertebrate habitat	Unknown
Direct mortality of avifauna during vegetation clearance	More than minor
Disturbance, injury or death of lizards during construction	Significant
Fragmentation of intact lizard habitat	Minor
Ongoing disturbance and harm to lizards	Minor
Fish injury or death during road construction at ephemeral creeks	Less than minor
Sedimentation and contamination of ephemeral creeks during earthworks and construction	More than minor
Accidental introduction of pest plant species to the site on construction equipment	More than minor
Introduction of pest plant species from residential plantings	More than minor

10. MEASURES TO AVOID, MINIMISE, AND/OR REMEDIATE POTENTIAL ADVERSE EFFECTS

The NPS-IB requires all significant adverse effects of the subdivision on indigenous biodiversity to be managed by applying the effects management hierarchy, and all non-significant adverse effects to be managed to give effect to the objective and policies of the NPS-IB. The objective is to maintain indigenous biodiversity across Aotearoa New Zealand so that there is at least no overall loss in indigenous biodiversity after the commencement date. Policy 13 also requires that restoration of indigenous biodiversity is promoted and provided for.

This section outlines options to avoid, minimise, remediate, and mitigate the potentially adverse ecological effects of the proposed development.

10.1 Avoidance and minimisation measures

Avoiding or Minimising Clearance of Higher-Value Vegetation and Habitat

Clearance of areas of indigenous vegetation and habitat with higher ecological values has been avoided as much as possible, by siting roading and building platforms in areas of lower-value vegetation wherever possible while still maintaining a functional subdivision layout. Specifically, building platforms are generally positioned in existing clearings dominated by exotic species. Where this is not possible, building platforms are positioned in areas of kānuka shrubland that are more open with a high component of exotic species, or if this is not possible then within more open areas of kānuka-korokio shrubland. The same approach has been applied to the positioning of driveways.

The main access road follows an existing formed track, and construction involves widening this track rather than creating a new route. This avoids additional vegetation clearance. The access road largely traverses exotic vegetation or kānuka shrubland, and avoids areas of high-value habitat. Importantly, areas of high-value rock habitat and wetlands have been avoided. At gully crossings, all *Olearia lineata* can be avoided by locating the access road upstream of individuals of this species.

Exceptions to the above are the proposed positioning of Lots 2 and 7. The 30 × 30 metre zones for building platforms at these lots include small portions of higher-value habitats. The northern part of the Lot 2 building platform extends into a portion of rocky habitat within the (kānuka)/pātōtara-grassland sedge herbfield and stonefield, which includes high value lizard habitat. The northeastern part of the Lot 7 building platform extends into a small area of the (kānuka)/*Raoulia* herbfield, with potentially high habitat values for At Risk *Raoulia* species. The potential for construction activities to adversely affect these areas should be avoided, by adjusting the proposed locations of these building platforms.

If these measures are adopted, then there will be no clearance of the higher-value vegetation and habitat types at the site, and a minimization of the clearance of Threatened and At Risk plant species.

There is also the possibility of ongoing vegetation clearance by residential lot owners. This could be avoided by limiting the extent of indigenous vegetation clearance permitted on lots to a maximum area considered reasonable for establishing a house and section.

Avoid Potential Stream Disturbance or Discharge During Periods of Flow

Due to the ephemeral nature of the waterways within the site, any negative effects can easily be avoided by conducting necessary in-stream works when the beds are dry. Additionally, the potential effects of increased sediment or potential pollutant runoff can also be avoided by conducting these during periods of dry beds. This is particularly valuable as it will limit any impacts on surrounding permanent waterways.

To ensure that potential adverse effects of construction activities are further mitigated, it is suggested that a Construction Management Plan is developed and approved prior to site works commencing.

10.2 Remediation measures

Planting of Indigenous Vegetation on an Area of Exotic Grassland

The proposed subdivision would result in the loss of approximately 0.6 hectares of indigenous-dominant vegetation. Approximately 328 indigenous shrubs scattered within exotic grassland-dominant vegetation would also be lost. Using a standard spacing between plants of one metre, a replanting area of approximately 328 m^2 would be required to remediate for the loss of the shrubs scattered within exotic grassland. Therefore, the minimum total area of indigenous replanting required at the site to ensure replacement of cleared indigenous vegetation and cleared scattered shrubs would be approximately 0.63 hectares.

The effect of the loss of indigenous vegetation has been assessed as more than minor. To give effect to the objective and policies of the NPS-IB, an appropriate remediation action for this loss is the planting of at least an equivalent area, and preferably a larger area, of existing exotic grassland with indigenous vegetation. The NPS-IB requires a precautionary approach to effects management, and the promotion and provision of indigenous biodiversity restoration. With these factors in mind, a replanting area of approximately one hectare is considered appropriate to recognise the principles of the NPS-IB and attain a net gain in indigenous vegetation cover at the site.

This vegetation planting should include the indigenous species that were cleared (kānuka, mānuka, matagouri, korokio, coprosmas, and desert broom). The replanting area could also include a selection of other suitable ecologically important trees and shrubs that would historically have been present at the site, to enhance ecological values over the long term.

Higher value ecologically appropriate indigenous plant species that could be planted at the site are listed in Table 9. Many of these species reflect the potential natural vegetation at the site (Figure 2), but are currently absent or at very low abundances within the site. Their introduction to the site would provide seed sources for enriching the habitat in the long term. Planting these species would be feasible, based on

observations at similarly dry sites in the district. Naturally-established kōwhai, kōhūhū (*Pittosporum tenuifolium*), *Olearia odorata*, and kōhūhū/broadleaf (*Griselinia littoralis*) have been observed in the Pisa ED, while planted mānatu/lowland ribbonwood (*Plagianthus regius*), fierce lancewood (*Pseudopanax ferox*), mountain toatoa (*Phyllocladus alpinus*) and Hall's tōtara (*Podocarpus laetus*) are present on residential properties (A. Wells. personal observation). Any new plantings would need to be protected from rabbit and hare browse, which has been a significant constraint on growth and survival of previously planted indigenous trees in the district. Construction of rabbit-proof fencing around a planting site would be another option. Provision of water can help in the early stages of growth, and also help to form a tall, dense grass cover which is not preferred by rabbits. If higher value planting is selected as a remediation activity, then it is suggested that an ecological management plan is compiled to guide the planting, covering the location, composition, spacing, establishment, and initial maintenance of plantings, and including contingency strategies in the event of plantings failing to establish.

Table 9: Higher value indigenous tree and shrub species suitable for planting at the Queensberry site.

Species	Common Name	Notes
Carpodetus serratus	Piripiriwhata, marbleleaf	Moderate height growth, food source for indigenous birds
Griselinia littoralis	Kāpuka, broadleaf	Hardy, exposure tolerant, highly palatable
Myrsine australis	Māpou	Shade tolerant, slow growth
Olearia lineata		Small tree that prefers deep soils, often in riparian habitats, important for invertebrates
Olearia odorata		Shrub that prefers fertile sites on toeslopes, important for invertebrates
Phyllocladus alpinus	Mountain toatoa	Slow growing, better planted on deep soils
Pittosporum tenuifolium	Kōhūhū	Moderate height growth, hardy
Plagianthus regius	Lowland ribbonwood	Fast growth on fertile soils, better planted in deeper soils
Podocarpus laetus	Hall's tōtara	Slow growing, better planted on deep soils
Prumnopitys taxifolia	Matai	Slow growing, moderately shade tolerant
Pseudopanax ferox	Fierce lancewood	Moderate growth rate, fruit source for indigenous birds when mature, best planted on deeper soils
Sophora microphylla	Kōwhai	Slow growth, can grow in deep soils or in rocky habitats, important food source for indigenous birds

This planting would not only replace the area of indigenous vegetation and habitat lost, but would also increase plant diversity and enhance habitat values for indigenous birds at the site. It would also replace the Threatened and At Risk plant species cleared, and would provide an opportunity to increase the abundance of desert broom and *Olearia lineata*, species which are relatively uncommon in the wider district.

At least part of this revegetation would preferably be undertaken within a single, relatively cohesive area with favourable soil conditions, in order to minimise edge effects, increase plant survivorship, and provide optimal avifauna habitat outcomes. An ideal location is within exotic pasture in the northern portion of Lot 3, to the north of the small ephemeral creek and wetland (Figure 7). This area contains exotic grassland,

is relatively sheltered, and has relatively deep soils, important factors in aiding successful vegetation establishment. Further, this location would allow portions of the ephemeral creek and high-value wetland habitat at Lot 3 to be included in the replanting area. This wetland habitat is dominated by exotic species with only occasional indigenous shrubs, and replanting of indigenous species such as *Olearia lineata*, *Olearia bullata*, kōwhai, *Carex* spp. and *Juncus* spp. would provide additional ecological benefits for this important wetland.

To provide ecological benefits over the wider site, it is also suggested that scattered underplanting of kānuka scrub with higher value ecologically important species is undertaken. Small openings within kānuka scrub are likely to provide favourable conditions for the establishment of higher value species. Four general locations are suggested, providing a wide coverage of the site (Figure 7). Planting of approximately 50 plants at each location would provide additional ecological benefits over the long term.

Planting of ecologically important indigenous species within and surrounding four wetlands at gully heads at the site is also suggested (Figure 7), to enhance the ecological condition of these important wetlands. Planting of approximately 50 woody plants at each wetland location would provide additional ecological benefits over the long term. Consideration could also be given to additional enhancement of the wetlands through planting indigenous non-woody wetland species such as *Juncus* spp. and *Carex* spp.

Pest Plant Control

There is the opportunity to control pest plants at the site, to ensure the maintenance and enhancement of ecological values. The most urgent requirement for weed control at the site is control of Scotch broom while it is at relatively low density, and also of gorse. Key areas for their control are within grassland along the southwestern boundary of the site, and within a patch of grassland at the north of the site (marked in Figure 7). The wilding conifers scattered across the site, and the crack willow in the gullies at the south of the site (Figure 7), should also be killed standing or felled, to reduce the risk of future invasion of these species. Pest plant control could be undertaken prior to subdivision.

Surveillance should be undertaken for new pest plant incursions. Species to be particularly vigilant for at the site are wilding conifers, elder (*Sambucus nigra*), hawthorn (*Crataegus monogyna*), and rowan (*Sorbus aucuparia*), and any individuals detected of these species should be eradicated rapidly. It is suggested that surveillance for and control of weeds along the main access road is undertaken for a period of five years following construction of the road, so that any introductions during the construction phase are likely to be dealt with.

Planting by Residents

The planting within lots of any weed referred to in a relevant pest management strategy and/or non-statutory regional weed management strategy should be prohibited, in addition to the following pest plant species:

- Elder (*Sambucus nigra*)
- Hawthorn (*Crataegus monogyna*)

- Sycamore (*Acer pseudoplatanus*)
- Rowan (*Sorbus aucuparia*)
- Buddleia (*Buddleja davidii*)

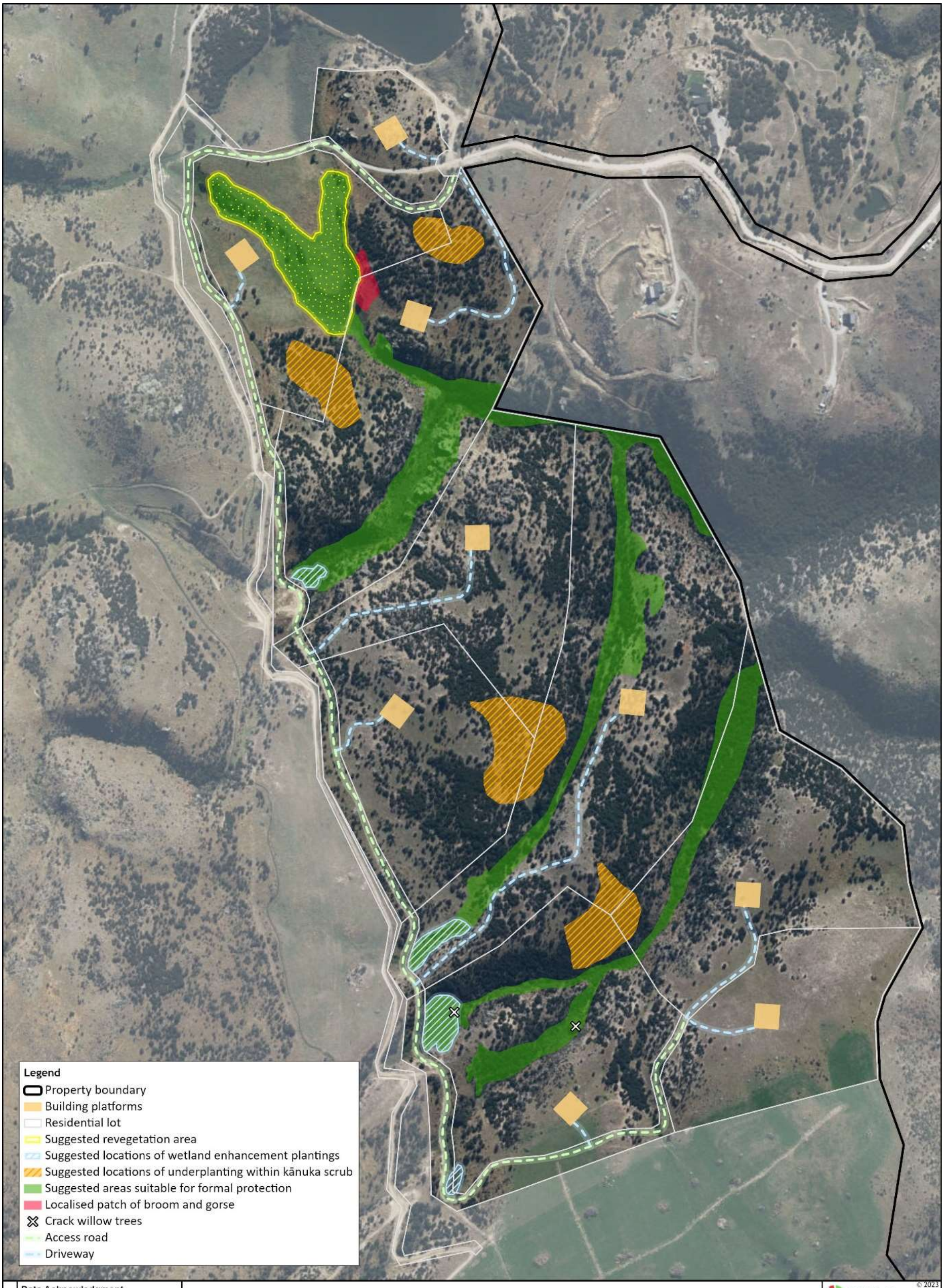

Figure 7. Locations of suggested revegetation and enhancement planting, and higher-value areas suitable for formal protection, at the proposed Queensberry subdivision site.

- *Cotoneaster* spp. (particularly *Cotoneaster simonsii*)
- Chilean flame creeper (*Tropaeolum speciosum*)
- Eucalyptus (*Eucalyptus* spp.)
- Naturalised plums and cherries (*Prunus* spp.)
- Exotic conifers: *Pinus* spp., *Pseudotsuga menziesii, Larix* spp., *Cupressus* spp.

Planting of indigenous species by residents should ideally comprise only ecologically-appropriate species, including any of the indigenous species recorded at the site (Appendix 1).

Measures to Minimise Pest Plant Spread

Pest plant species can be introduced and widely spread through the introduction of seeds on machinery and other equipment. There is the opportunity to minimize this risk by requiring operators to undertake sterilization of machinery and equipment prior to entering the site.

The risk of pest plant introduction will also be higher over the long term following subdivision. This increased risk could be managed by requiring Lot holders to control key pest plant species (as listed above) on their land.

Lizard Management

All indigenous lizards, birds and some indigenous invertebrates are protected under the Wildlife Act (1953). It is an offence to disturb or destroy lizards without a Wildlife Act Authorisation (WAA; also known as a wildlife permit) from the Department of Conservation. A permit must be obtained from the Department before any protected wildlife (and/or their habitats) can be disturbed, handled, translocated or killed.

A WAA is required to carry out modification or land development that has adverse impacts on indigenous New Zealand lizards. As the subdivision site provides habitat for indigenous lizard species, including At Risk species, a Lizard Management Plan (LMP) is required. LMPs are often required as a resource consent condition, as are continuing to meet all other legal obligations (such as obtaining required permits) when carrying out consented activities.

In the first instance, where any rocky habitat can be avoided, major effects such as habitat loss, death and disturbance to some indigenous lizards, such as Kawarau geckos, may be reduced. However, as lizards within the area are also inhabiting open grassy areas and open shrubland throughout the site, which is likely to be affected during subdivision development, the retention of all lizard habitat will not be possible. As such, avoiding habitat loss will not be possible. Therefore, a LMP and WAA will be required to address this.

The LMP and WAA are currently being developed by the applicant, in consultation with Wildlands and Department of Conservation, and will form stand-alone documents accompanying the consent application. The LMP will detail a comprehensive plan that clearly avoids, mitigates, offsets or compensates for the losses of lizard populations and their habitats. Wildlife management actions could include avoidance, and/or relocation of lizards and site management (habitat enhancement, pest management, monitoring)

at specific sites. The Department will need to be reasonably confident that, on balance, lizard populations will not be worse off than prior to development of the subdivision. This may include use of in situ mitigation management of lizards or the use of compensatory tools elsewhere.

Together with the LMP, the wildlife permit allows for the impacts on lizards and the management of effects, including through salvage and habitat enhancement measures.

10.3 Formal protection

In evaluating vegetation clearance proposals, the Central Otago District Plan (Section 4.7.6KA III 4) requires consideration of "the means of protecting the ecological values of the site, including consideration of positive ecological benefits that can be achieved through fencing off and protecting ecological values in conjunction with the clearance activity."

Robust protection is suggested for at least the parts of the site with higher ecological values, through land covenants placed on property titles requiring maintenance of existing indigenous vegetation and habitats. Higher value areas include the four main gullies and surrounding rock cliffs, the area of (kānuka)/*Raoulia* herbfield, and areas of kānuka forest (Figure 7). If adopted, the suggested revegetation area within Lot 3 could also be included.

If protection measures were included in the proposal, they would provide important additional long term ecological benefits.

10.4 Assessment of potential effects with avoidance and mitigation

The potential level of ecological effects has been assessed on indigenous lizards, invertebrates, avifauna, vegetation, and freshwater habitat with avoidance and mitigation outlined in Table 10, which gives an indication of how effects could be significantly reduced with mitigation measures in place.

Table 10: Potential significance of ecological effects resulting from subdivision at the Queensberry site if avoidance and mitigation measures are implemented.

Effect	Mitigation Measure	Overall Level of Adverse Effect
Loss of indigenous vegetation	Avoidance of higher value vegetation types wherever possible. Replanting of an area of indigenous vegetation within existing pasture at the site, including higher-value plants. Control of existing wilding pines, Scotch broom and gorse at the site.	Less than minor
Loss of Threatened and At Risk plant species	Avoidance of higher value vegetation types wherever possible, and replanting of threatened plants.	Less than minor
Loss of avifauna, invertebrate and lizard habitat	Lizard Management Plan development and implementation. Avoidance of higher value lizard habitat wherever possible. Replanting of indigenous vegetation, providing higher-value avifauna habitat in the long term.	Less than minor

Effect	Mitigation Measure	Overall Level of Adverse Effect
Direct mortality of avifauna during vegetation clearance	Undertake site works outside of the key breeding season for most birds, or undertake breeding bird surveys and demarcate areas for avoidance.	Less than minor
Disturbance, injury or death of lizards during construction	Lizard Management Plan	Less than minor
Fragmentation of intact lizard habitat	Lizard Management Plan	Less than minor
Ongoing disturbance and harm to lizards	Lizard Management Plan	Less than minor
Fish injury or death during road construction at ephemeral creeks	Avoidance of instream works during periods of flow	Nil
Sedimentation and contamination of ephemeral creeks during earthworks and construction	Construction Management Plan measures (avoidance of works that may produce sediment or pollutant discharge during periods of flow)	Less than minor
Accidental introduction of pest plant species to the site on construction equipment	Construction Management Plan measures Control of existing pest plants	Less than minor
Introduction of pest plant species from residential plantings	Planting conditions on titles	Less than minor

11. CONCLUSIONS AND RECOMMENDATIONS

Resource consent is being sought for a 10 lot subdivision near Queensberry. The site is located above the upper Clutha River, within the Pisa Ecological District.

The vegetation at the site has been classified into 16 communities, incorporating a range of habitats including gully wetlands, hillslopes, ridges, rock cliffs and rock outcrops. Kānuka-dominated communities, with varying accompanying species, make up most of the vegetation types. One Threatened, six At Risk and one locally uncommon plant species were recorded at the site, and five pest plant species.

The indigenous vegetation and habitats at the site have been assessed using the significance criteria in the NPS-IB. The site meets all of the criteria, and is therefore ecologically significant. Individually, most of the vegetation types dominated by indigenous species also meet one or more of the criteria, and are therefore considered ecologically significant in their own right.

The vegetation within the site is utilised by a range of indigenous forest bird species, and may also be used by the South Island pied oystercatcher (At Risk-Declining), eastern falcon (Threatened–Nationally Vulnerable), and New Zealand pipit (At Risk-Naturally Uncommon). A lizard survey at the site detected three indigenous lizard species, including two At Risk species. Therefore, a Lizard Management Plan and Wildlife Act Authority are required as part of the consent application, to demonstrate mitigation of adverse effects of the development on lizards.

The Ecological Effects Assessment finds that the removal of indigenous vegetation and changes to habitat will have potentially adverse effects on flora and fauna ranging from

minor to significant, including loss of Threatened and At Risk species and their habitat, habitat fragmentation, and introduction of pest plants. Several management measures to avoid, minimise and remediate these adverse effects are outlined. Key measures are:

1. Driveways to follow the route that minimises removal of indigenous shrubs and rock tors.

2. Main access road gully crossings to be located to avoid all *Olearia lineata.*

3. The extent of vegetation clearance permitted by landowners to be limited to a maximum area considered reasonable for establishing a house and section.

4. Pest plant control to be undertaken, to include Scotch broom, gorse, wilding conifers, crack willow, and surveillance for and removal of new species introductions.

5. A Lizard Management Plan and Wildlife Act Authority application to be developed, clearly demonstrating mitigation of adverse effects of the development on lizards .

6. A Construction Management plan to be developed, to describe how potential adverse effects on ecological values outside of the construction zones will be managed.

7. Consideration of robust formal protection of higher value parts of the site should be considered.

8. A woody indigenous plant community restoration plan to be prepared by a suitably qualified ecologist that identifies areas and species to be planted, management measures to ensure successful establishment, and reporting requirements. This area to be approximately one hectare. Suggested components of the plan are a revegetation area in grassland at the north of the site, underplanting within kānuka scrub at four locations across the site, and plantings within wetlands at four gully heads.

These measures should be managed through conditions of consent to provide Council with the confidence that risks of the project are managed appropriately and positive benefits are realised.

If all of the remediation and management measures outlined in this report are implemented and adhered to, Wildlands consider that the long-term ecological effects of the proposed 10 lot subdivision will be less than minor, and that a net positive ecological outcome (relative to the current situation) is possible over the long term.

ACKNOWLEDGMENTS

The landowner is thanked for providing access to the property and assistance during the field survey.

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PLANT SPECIES RECORDED DURING THE SURVEY

Key: * exotic species

Species	Common Name	Plant Type
*Acaena agnipila**	Australian sheeps bur	Dicot herb
Acaena caesiiglauca	Bidibidi, piripiri	Dicot herb
Acaena dumicola	Bidibidi, piripiri	Dicot herb
Acaena novae-zelandiae	Red bidibidi	Dicot herb
*Agrostis capillaris**	Brown top	Grass
*Aira caryophyllea**	Silvery hair grass	Grass
*Anagallis arvensis**	Scarlet pimpernel	Dicot herb
Anthosachne solandri	Native wheatgrass, blue wheatgrass	Grass
*Anthoxanthum odoratum**	Sweet vernal	Grass
*Anthriscus caucalis**	Beaked parsley	Dicot herb
*Aphanes arvensis**	Parsley piert	Dicot herb
Aristotelia fruticosa	Shrubby wineberry	Shrub
Arthropodium candidum	Grass lily, repehinapapa	Monocot herb
Asplenium flabellifolium	Necklace fern	Fern
Asplenium richardii	Richard's spleenwort	Fern
Blechnum minus	Swamp kiokio	Fern
Blechnum penna-marina	Little hard fern	Fern
Blechnum vulcanicum	Triangular hard fern	Fern
Brachyglottis southlandica		Dicot herb
*Bromus diandrus**	Ripgut brome	Grass
Carex breviculmis	Grassland sedge	Sedge
Carex coriacea	Cutty grass, rautahi	Sedge
Carex flagellifera	Glen Murray tussock	Sedge
Carex secta	Pūrei, pūkio	Sedge
Carmichaelia petriei	Desert broom	Shrub
Celmisia gracilenta	Slender mountain daisy, pekapeka	Dicot herb
*Cerastium fontanum**	Mouse-ear chickweed	Dicot herb
*Cerastium glomeratum**	Annual mouse-ear chickweed	Dicot herb
Cheilanthes sieberi	Rock fern	Fern
*Cirsium arvense**	Californian thistle	Dicot herb
*Cirsium vulgare**	Scotch thistle	Dicot herb
Clematis marata	Clematis	Vine
*Conium maculatum**	Hemlock	Dicot herb
Coprosma crassifolia	Thick-leaved coprosma, mikimiki	Shrub
Coprosma dumosa	Mikimiki	Shrub
Coprosma petriei	Turfy coprosma	Shrub
Coprosma propinqua	Mingimingi, mikimiki	Shrub
Corokia cotoneaster	Korokio	Shrub
Crassula sieberiana	Stonecrop	Dicot herb
*Crepis capillaris**	Hawksbeard	Dicot herb
*Cytisus scoparius**	Scotch broom	Shrub
*Dactylis glomerata**	Cocksfoot	Grass
*Digitalis purpurea**	Foxglove	Dicot herb
Discaria toumatou	Matagouri, tūmatakuru	Tree
Eleocharis acuta	Sharp spike sedge	Sedge
*Echium vulgare**	Vipers bugloss	Dicot herb
Epilobium nummulariifolium	Creeping willow herb	Dicot herb
Epilobium pubens	Willow herb	Dicot herb
*Erodium cicutarium**	Storksbill	Dicot herb

Species	Common Name	Plant Type
Euchiton audax	Native cudweed	Dicot herb
Festuca novae-zelandiae	Fescue tussock, hard tussock	Grass
*Festuca rubra**	Red fescue	Grass
*Galium aparine**	Cleavers	Dicot herb
Galium trilobum	Native bedstraw	Dicot herb
Gaultheria antipoda	Bush snowberry	Shrub
Geranium microphyllum	Geranium	Dicot herb
Helichrysum filicaule	Slender everlasting daisy	Dicot herb
*Hieracium lepidulum**	Tussock hawkweed	Dicot herb
Histiopteris incisa	Water fern, mātātā	Fern
*Holcus lanatus**	Yorkshire fog	Grass
Hydrocotyle moschata	Pennywort	Dicot herb
*Hypericum humifusum**	Trailing St John's wort	Dicot herb
*Hypericum perforatum**	St John's wort	Dicot herb
*Hypochaeris radicata**	Catsear	Dicot herb
Hypolepis millefolium	Thousand-leaved fern	Fern
*Jacobaea vulgaris**	Ragwort	Dicot herb
*Juncus articulatus**	Jointed rush	Rush
*Juncus bufonius**	Toad rush	Rush
Juncus edgariae	Leafless rush, wī	Rush
*Juncus effusus**	Soft rush	Rush
Kunzea serotina	Kānuka, makahikatoa	Tree
*Lactuca serriola**	Prickly lettuce	Dicot herb
*Leontodon taraxacoides**	Hawkbit	Dicot herb
Leptospermum scoparium	Mānuka, tea tree	Tree
Leucopogon fraseri	Dwarf heath, pātōtara	Shrub
Lolium arundinaceum	Tall fescue	Grass
*Lupinus arboreus**	Tree lupin	Shrub
Luzula banksiana var. rhadina	Woodrush	Rush
*Marrubium vulgare**	Horehound	Dicot herb
Melicytus alpinus	Porcupine shrub	Shrub
*Mimulus guttatus**	Monkey musk	Dicot herb
*Mimulus moschatus**	Musk	Dicot herb
Muehlenbeckia australis	Large-leaved pōhuehue	Vine
Muehlenbeckia axillaris	Creeping pōhuehue	Vine
Muehlenbeckia complexa	Scrub pōhuehue, wire vine	Vine
*Mycelis muralis**	Wall lettuce	Dicot herb
*Myosotis arvensis**	Field forget-me-not	Dicot herb
*Navarretia squarrosa**	Californian stinkweed	Dicot herb
Olearia avicenniifolia	Mountain akeake	Shrub
Olearia lineata		Tree
Oxothamnus leptophyllus	Tauhinu	Shrub
*Pilosella officinarum**	Mouse-ear hawkweed	Dicot herb
*Pinus radiata**	Radiata pine	Tree
Poa colensoi	Blue tussock	Grass
*Poa trivialis**	Rough-stalked meadow grass	Grass
Polystichum neozelandicum	Shield fern	Fern
Polystichum vestitum	Prickly shield fern	Fern
*Pseudotsuga menziesii**	Douglas fir	Tree
Pteridium esculentum	Bracken, rārahu, rauaruhe	Fern
Pterostylis areolata	Green-hooded orchid	Orchid
Raoulia apicinigra	Mat daisy	Dicot herb
Raoulia australis		Dicot herb
Raoulia beauverdii		Dicot herb
*Ribes uva-crispa**	Gooseberry	Shrub
*Rosa rubiginosa**	Sweet briar, briar rose	Shrub
Rubus schmidelioides	Bush lawyer, tātarāmoa	Vine

Species	Common Name	Plant Type
Rumex acetosella	Sheeps sorrel	Dicot herb
*Rumex obtusifolius**	Broad-leaved dock	Dicot herb
Rytidosperma gracile		Grass
*Rytidosperma racemosum**	Danthonia	Grass
*Sagina procumbens**	Procumbent pearlwort	Dicot herb
*Salix xfragilis**	Crack willow	Tree
*Sedum acre**	Stonecrop	Dicot herb
Senecio glomeratus	Native groundsel, fireweed	Dicot herb
Senecio minimus	Native fireweed	Dicot herb
Senecio quadridentatus	Cotton fireweed, pekapeka	Dicot herb
*Solanum nigrum**	Black nightshade	Dicot herb
*Sonchus asper**	Prickly sow thistle	Dicot herb
Sophora microphylla	Kōwhai	Tree
*Stellaria alsine**	Bog stitchwort	Dicot herb
Stellaria gracilenta	Chickweed	Dicot herb
*Stellaria media**	Chickweed	Dicot herb
Stellaria parviflora	Native chickweed	Dicot herb
*Taraxacum officinale**	Dandelion	Dicot herb
*Trifolium arvense**	Haresfoot trefoil	Dicot herb
*Trifolium dubium**	Suckling clover	Dicot herb
*Trifolium repens**	White clover	Dicot herb
Typha orientalis	Raupō	Monocot herb
*Ulex europaeus**	Gorse	Shrub
*Urtica urens**	Nettle	Dicot herb
*Verbascum thapsus**	Woolly mullein	Dicot herb
*Verbascum virgatum**	Moth mullein	Dicot herb
Veronica salicifolia	Koromiko	Shrub
*Veronica verna**		Dicot herb
*Vicia sativa**	Vetch	Dicot herb
Viola cunninghamii	White violet	Dicot herb
Vittadinia australis	White fuzzweed	Dicot herb
*Vulpia myuros**	Vulpia hair grass, rats tail fescue	Grass
Wahlenbergia violacea	NZ harebell	Dicot herb

APPENDIX 2

CRITERIA FOR IDENTIFYING AREAS THAT QUALIFY AS SIGNIFICANT NATURAL AREAS (SNAS) AS DEFINED IN APPENDIX 1 OF THE NATIONAL POLICY STATEMENT FOR INDIGENOUS BIODIVERSITY

This appendix sets out the criteria for identifying significant indigenous vegetation or significant habitats of indigenous fauna in a specific area, so that the area qualifies as an SNA.

What qualifies as an SNA

(1) An area qualifies as an SNA if it meets any one of the attributes of the following four criteria:

- (a) representativeness:
- (b) diversity and pattern:
- (c) rarity and distinctiveness:
- (d) ecological context.

(2) If an area would qualify as an SNA solely on the grounds that it provides habitat for a single indigenous fauna species that is At Risk (declining), and that species is widespread in at least three other regions, the area does not qualify as an SNA unless:

- (a) the species is rare within the region or ecological district where the area is located; or
- (b) the protection of the species at that location is important for the persistence of the species as a whole.

(3) If an area would qualify as an SNA solely on the grounds that it contains one or more indigenous flora species that are Threatened or At Risk (declining), and those species are widespread in at least three other regions, the area does not qualify as an SNA unless:

- (a) the species is rare within the region or ecological district where the area is located; or
- (a) the protection of the species at that location is important for the persistence of the species as a whole.

Context for assessment

(1) The context for an assessment of an area is:

- (a) its ecological district; and
- (b) for the rarity assessment only, its ecological district, its region and the national context.

Manner and form of assessment

(1) Every assessment must include at least:

- (a) a map of the area; and
- (b) a general description of its significant attributes, with reference to relevant criteria (as specified below); and

(c) a general description of the indigenous vegetation, indigenous fauna, habitat, and ecosystems present; and

(d) additional information, such as the key threats, pressures, and management requirements; and

(e) for SNAs in areas of Crown-owned land referred to in clause 3.8(8), the conservation management strategy or plan or national park management plan that applies to the area.

(2) An assessment under this appendix must be conducted by a suitably qualified ecologist (which, in the case of an assessment of a geothermal ecosystem, requires an ecologist with geothermal expertise).

A Representativeness criterion

(1) Representativeness is the extent to which the indigenous vegetation or habitat of indigenous fauna in an area is typical or characteristic of the indigenous biodiversity of the relevant ecological district.

Key assessment principles

(2) Significant indigenous vegetation has ecological integrity typical of the indigenous vegetation of the ecological district in the present-day environment. It includes seral (regenerating) indigenous vegetation that is recovering following natural or induced disturbance, provided species composition is typical of that type of indigenous vegetation.

(3) Significant indigenous fauna habitat is that which supports the typical suite of indigenous animals that would occur in the present-day environment. Habitat of indigenous fauna may be indigenous or exotic.

(4) Representativeness may include commonplace indigenous vegetation and the habitats of indigenous fauna, which is where most indigenous biodiversity is present. It may also include degraded indigenous vegetation, ecosystems and habitats that are typical of what remains in depleted ecological districts. It is not restricted to the best or most representative examples, and it is not a measure of how well that indigenous vegetation or habitat is protected elsewhere in the ecological district.

(5) When considering the typical character of an ecological district, any highly developed land or built-up areas should be excluded.

(6) The application of this criterion should result in identification of indigenous vegetation and habitats that are representative of the full range and extent of ecological diversity across all environmental gradients in an ecological district, such as climate, altitude, landform, and soil sequences. The ecological character and pattern of the indigenous vegetation in the ecological district should be described by reference to the types of indigenous vegetation and the landforms on which it occurs.

Attributes of representativeness

(7) An area that qualifies as an SNA under this criterion has at least one of the following attributes:

(a) indigenous vegetation that has ecological integrity that is typical of the character of the ecological district:

(b) habitat that supports a typical suite of indigenous fauna that is characteristic of the habitat type in the ecological district and retains at least a moderate range of species expected for that habitat type in the ecological district.

B Diversity and pattern criterion

(1) Diversity and pattern is the extent to which the expected range of diversity and pattern of biological and physical components within the relevant ecological district is present in an area.

Key assessment principles

(2) **Diversity of biological components** is expressed in the variation of species, communities, and ecosystems. Biological diversity is associated with variation in physical components, such as geology, soils/substrate, aspect/exposure, altitude/depth, temperature, and salinity.

(3) **Pattern** includes changes along environmental and landform gradients, such as ecotones and sequences.

(4) **Natural areas** that have a wider range of species, habitats or communities or wider environmental variation due to ecotones, gradients, and sequences in the context of the ecological district, rate more highly under this criterion.

Attributes of diversity and pattern

(5) An area that qualifies as a significant natural area under this criterion has at least one of the following attributes:

(a) at least a moderate diversity of indigenous species, vegetation, habitats of indigenous fauna or communities in the context of the ecological district:

(b) presence of indigenous ecotones, complete or partial gradients or sequences.

C Rarity and distinctiveness criterion

(1) Rarity and distinctiveness is the presence of rare or distinctive indigenous taxa, habitats of indigenous fauna, indigenous vegetation or ecosystems.

Key assessment principles

(1) **Rarity** is the scarcity (natural or induced) of indigenous elements: species, habitats, vegetation, or ecosystems. Rarity includes elements that are uncommon or threatened.

(2) **The list of Threatened and At Risk species** is regularly updated by the Department of Conservation. Rarity at a regional or ecological district scale is defined by regional or district lists or determined by expert ecological advice. The significance of nationally listed Threatened and At Risk species should not be downgraded just because they are common within a region or ecological district.

(3) **Depletion of indigenous vegetation or ecosystems** is assessed using ecological districts and land environments.

(4) **Distinctiveness** includes distribution limits, type localities, local endemism, relict distributions, and special ecological or scientific features.

Attributes of rarity and distinctiveness

(5) An area that qualifies as an SNA under this criterion has at least one of the following attributes:

(a) provides habitat for an indigenous species that is listed as Threatened or At Risk (declining) in the New Zealand Threat Classification System lists:

(b) an indigenous vegetation type or an indigenous species that is uncommon within the region or ecological district:

(c) an indigenous species or plant community at or near its natural distributional limit:

(d) indigenous vegetation that has been reduced to less than 20 per cent of its pre-human extent in the ecological district, region, or land environment:

(e) indigenous vegetation or habitat of indigenous fauna occurring on naturally uncommon ecosystems:

(f) the type locality of an indigenous species:

(g) the presence of a distinctive assemblage or community of indigenous species:

(h) the presence of a special ecological or scientific feature.

D Ecological context criterion

(1) Ecological context is the extent to which the size, shape, and configuration of an area within the wider surrounding landscape contributes to its ability to maintain indigenous biodiversity or affects the ability of the surrounding landscape to maintain its indigenous biodiversity.

Key assessment principles

(2) Ecological context has two main assessment principles:

(a) the characteristics that help maintain indigenous biodiversity (such as size, shape, and configuration) in the area; and

(b) the contribution the area makes to protecting indigenous biodiversity in the wider landscape (such as by linking, connecting to or buffering other natural areas, providing 'stepping stones' of habitat or maintaining ecological integrity).

Attributes of ecological context

(3) An area that qualifies as an SNA under this criterion has at least one of the following attributes:

(a) at least moderate size and a compact shape, in the context of the relevant ecological district:

(b) well-buffered relative to remaining habitats in the relevant ecological district:

(c) provides an important full or partial buffer to, or link between, one or more important habitats of indigenous fauna or significant natural areas:

(d) important for the natural functioning of an ecosystem relative to remaining habitats in the ecological district.

LIZARD SURVEY MEMO

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22 May 2023 (updated with lizard taxonomic changes November 2023)

Lynn Wills
c/- Enfield Ltd
22 Stowell Drive
Cromwell 9310

ljlmwills@gmail.com
Delivered via email

Dear Lynn

LIZARD MANAGEMENT AT QUEENSBERRY SUBDIVISION

Enfield Ltd engaged Wildland Consultants (Wildlands) to undertake a lizard survey at the western end of Fay Lane in Queensberry, Central Otago. The site is the location of a proposed subdivision and associated road development.

All native lizard species are protected by the Wildlife Act (1953, s63 (1) (c)), which is administered by the Department of Conservation (DOC). Under the Act lizards must not be harmed, disturbed or killed without a Wildlife Act Authority (WAA; wildlife permit) from DOC. It is standard practice for a Lizard Management Plan (LMP) to be prepared and provided with a WAA application, if lizards are found to be present at a site.

This letter summarises the results of the survey and concludes that a LMP and associated WAA are required for this subdivision.

Lizard Survey

Between 14-17 March 2023, Cameron Thorp and Jade Christiansen (Herpetologists) undertook a lizard survey to determine the lizard species and habitat values present on the site. Thirty Gee's minnow traps were set up on 14 March and subsequently checked daily (totalling 90 trap nights). Visual searches for active/basking lizards and manual hand-searches (i.e. lifting rocks and pieces of wood, checking beneath kānuka (*Kunzea serotina*) bark) were undertaken across the site for *c*.16 hours during the survey period.

Survey Results

At least three indigenous lizard species were detected during the lizard survey, detailed below:

- 59 McCann's skinks (*Oligosoma maccanni*; Not Threatened).

- 3 tussock skinks[1] (*Oligosoma chionochloescens*; At Risk – Declining).
- 19 Kawarau geckos (*Woodworthia* "Cromwell"; At Risk – Declining).
- 3 unidentified skinks.

Of these, 24 McCann's skinks, two tussock skinks and one Kawarau gecko were caught in Gee's minnow traps. The remaining skinks were observed basking or actively moving through the terrain, or detected during manual searches. The majority of the remaining Kawarau geckos were detected under rocks or in deep crevices in rock tors, while several were detected under pieces of wood. Three skinks were seen but were unable to be identified. These unidentified skinks are considered highly likely to be McCann's skinks, due to the abundance of this species on site and their size.

The likelihood of any other lizard species being present on the site is considered to be very low, due to the location and elevation of the site (lizard species in the region can be restricted to certain elevations) and the presence of introduced mammalian predators.

Lizard Habitats

Lizards are present in most vegetation and habitat types throughout the site. Figure 1 shows the locations of lizards detected during the survey.

Vegetation and habitat types where lizards are confirmed to be present, or considered highly likely to be present, include:

- 3. Kānuka scrub
- 4. Kānuka shrubland
- 5. Kānuka-korokio shrubland
- 6. *Coprosma-Olearia*-kānuka/bracken shrubland
- 7. Korokio-matagouri-(desert broom-*Olearia lineata*) shrubland
- 8. Korokio-kānuka-matagouri shrubland and rockland mosaic
- 9. Rocky outcrops within kānuka scrub/shrubland
- 11. Fescue tussock-matagouri grassland
- 13. Kānuka/brown top-hawkweed-St John's wort grassland
- 15. (Kānuka)/pātōtara-grassland sedge herbfield and stonefield
- 16. (Kānuka)/*Raoulia* herbfield

Lizards are considered to be present in varying densities across these vegetation and habitat types. The highest densities of lizards are considered to be present in areas where there are rocky outcrops and tors interspersed with shrubland, e.g. within Vegetation and Habitat Types 8 and 9, such as along the tops and sides of the northernmost and southernmost large gullies on the site. Lizards, particularly skinks, are also considered to be present in high-moderate densities in patches of dense grass/tussock or other dense ground cover vegetation surrounded by areas of more open shrubland and grassland, e.g. within Vegetation and Habitat Type 4.

Lizards are considered to be present in lower densities in areas with less complex ground cover, e.g. within Vegetation and Habitat Type 13.

[1] Previously referred to as southern grass skinks (*Oligosoma* aff. *polychroma* Clade 5).

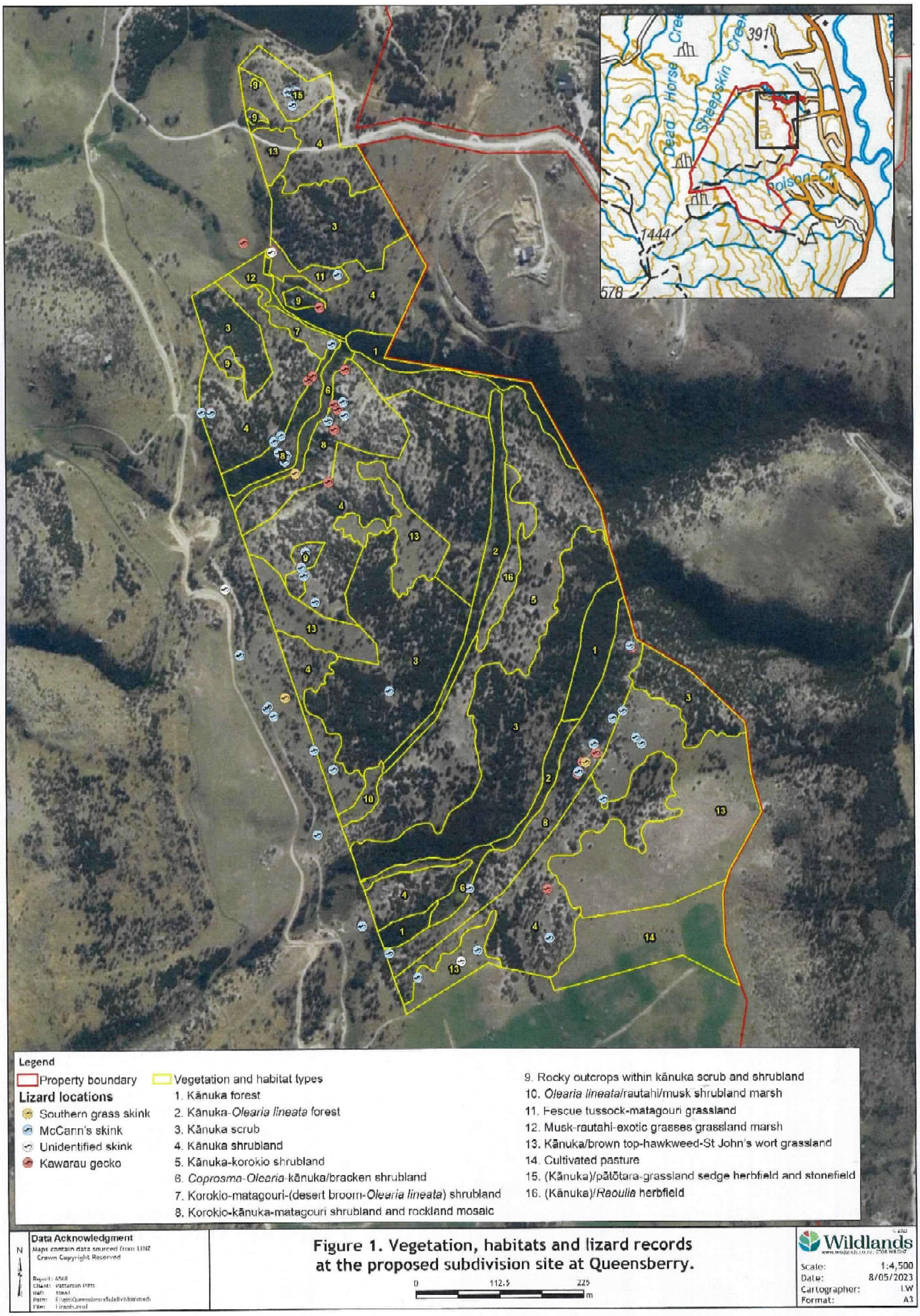

Figure 1. Vegetation, habitats and lizard records at the proposed subdivision site at Queensberry.

Plate 1: Example of korokio-kānuka-matagouri shrubland and rockland mosaic (Vegetation and Habitat Type 8) where lizards were detected in the north of the Queensberry subdivision site. 15 March 2023.

Plate 2: A tussock skink captured during the lizard survey at the Queensberry subdivision site. 16 March 2023.

Recommendations

There is likely to be a very large sized population of McCann's skink (Not Threatened) and Kawarau gecko (At Risk – Declining), and a relatively small sized population of tussock skink (At Risk – Declining), present across the site. Therefore, there is a requirement for a Lizard Management Plan and associated Wildlife Act Authority application for this subdivision.

A walkover of the site with the site engineer, surveyor and project herpetologist is also recommended to be undertaken prior to the preparation of the LMP and finalisation of the subdivision Lots and road development footprints. This may enable avoidance of high-quality lizard habitat, specifically areas of rocks and dense indigenous ground cover vegetation.

Once the Lots and road development footprints are finalised, the LMP can be provided and contain the following recommendations:

- Ways to adequately avoid lizards and their habitats where possible, following an onsite meeting with the site engineer and surveyor.

- A thorough assessment of alternatives to lizard salvage, including.
  - Compensation or other suitable means to enhance lizard populations offsite.
  - Creation of lizard reserves on site within high-quality lizard habitats, amenity plantings with lizard friendly plants such as fescue tussock (*Festuca novae-zelandiae*), mingimingi (*Coprosma propinqua*), scrub pōhuehue (*Muehlenbeckia complexa*), and porcupine shrub (*Melicytus alpinus*), and formation of rock piles.
  - Salvage and relocation of lizards to an alternative offsite location, if sufficient avoidance or onsite mitigation is not feasible.

A Lizard Management Plan will follow the principles of lizard transfer in New Zealand outlined in.[1]

Yours sincerely

Cameron Thorp
Ecologist/Herpetologist

[1] Department of Conservation 2019: Key principles for lizard salvage and transfer in New Zealand. Lizard Technical Advisory Group. Department of Conservation, Wellington.

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Section 4 – Rural Resource Area

Ref	Standard and Non-Compliance Status		Compliance	
			Y/N	Comments
4.7.2(ii) Subdivision				
(i) Minimum Allotment Sizes	No minimum lot sizes apply to areas identified "Rural Resource Area". Therefore Rule 4.7.4(iii) applies.	D	**Y**	The average allotment size is 8.27 hectares.
(ii) Separation Distances for Dwellings	*Where the development of the site is to accommodate a dwelling, the plan of subdivision shall identify a building platform for a dwelling with no less than the following separation distances from any existing dwelling, dwelling under construction, other registered building platform identified on a plan of subdivision, or any urban area: Rural Residential - 50 metres*	RD	**Y**	The proposed building platforms are located greater than 50m apart from one another and any existing residential building or building platform.
(iii) Concept Plans	*The setback from internal boundaries for any building housing animals shall be 30m.*	D	**N/A**	Not applicable to Rural Resource Area zone.
(iv) Maximum Number of Allotments for Residential Activities	No maximum number of allotments apply to areas identified "Rural Resource Area". Therefore Rule 4.7.4(iii) applies.	D	**N**	The proposed subdivision will result in nine new rural residential lots.
(v) Access Formed	*No additional accesses are to be created to any State highway.*	D	**Y**	The new accesses are proposed from Fay Lane.
4.7.3(vii) Residential Building Platform *A residential building platform that are not provided for in Rule 4.7.2(i), 4.7.2(ia), 4.7.2(ib) and Rule 4.7.2(vii) is a discretionary (restricted) activity provided the following standards are complied with.*				
(a) General Standards	*The relevant standards set out in 4.7.6 are complied with.*	D	**Y**	The relevant standards set out in 4.7.6 are provided below, in this table.
(b) Residential Activities Per Site	*There shall be no more than one residential activity on the relevant certificate of title unless additional residential activity is required to accommodate people working the property and their families*	D	**Y**	The proposal includes a single residential building platform per lot in order to accommodate a single residential activity per site.
(c) Access	*No additional formed accesses are to be created to any State Highway.*	D	**Y**	The proposal does include any new access to a State Highway.
(d) Separation Distances	*Where the dwelling is not located on a building platform established by way of resource consent a 50 metre separation distance to any existing dwelling, any dwelling under construction, any residential building platform established by way of resource consent, or any urban area shall apply. Council shall restrict the exercise of its discretion to the following matters:*	D	**Y**	The proposal includes building platform on each new lot for future residential activity. The building platforms have been assessed against the relevant matters below.
	1. Whether or not the building and associated development or future building located on the residential building platform can be appropriately screened from public view by topographical features appropriate planting or other screening having regard to the open			Landscape Assessment Provided by RMM proposes a suite of controls to ensure effects from any future built

Ref	Standard and Non-Compliance Status	Compliance	
		Y/N	Comments
	space, landscape, natural character and amenity values of the rural environment.		form on public views is no more than minor
	2. Whether the siting of the building and associated development or future building located on the residential building platform will give rise to earthworks including access carriageways and planting, which will adversely affect the open space, natural character and amenity values.		The RMM Landscape Assessment confirms that utilising the existing farm track for access will result in less effect from the formation than creating a new access road. Controls on earthworks have been proposed to ensure effects on natural character and open space will be no more than minor.
	3. Whether the building and associated development or future building located on the residential building platform will maintain the open natural character of hills and ranges, without compromising the landscape and amenity values of prominent hillsides and terraces, including any skyline or terrace edge.		The RMM Landscape Assessment confirms the proposed build platforms are appropriate for future dwellings and have the ability for planting and residential use to take place without adverse effects to the amenity values of prominent hill sides and terraces.
	4. The colour scheme for the building which should in general be darker than the background in which it is set		As detailed in Section 3.1.4, it is proposed to control the appearance of future residential units within the proposed building platforms via colour and materials to minimise adverse effects.
	5. Whether the building and associated development or future building located on the residential building platform will have adverse cumulative effects when assessed in conjunction with existing and consented unimplemented built development including any residential building platforms established by way of resource consent.		The subject site is located at the undeveloped western end of Fay Lane. There are no nearby unimplemented developments to be assessed in conjunction at this stage.
	6. Any objectives and policies relevant to the above matters.		The relevant objectives and policies are assessed in Section 5.2 of this report.
	7. Methods to avoid, remedy or mitigate the effects of existing activities including potential for reverse sensitivity, the provision of screening, landscaping and methods for noise control		A consent notice is proposed to ensure all future purchasers are aware of the rural environment and associated activities.
	8. Provision of services, including fire fighting water supply.		Services will be reticulated to the buildable areas of each allotment. Fire fighting supply will be provisioned on each lot by future purchasers when a dwelling is constructed.

4.7.6 Rural Resource Area – General Standards

Ref	Standard	Compliance	
		Y/N	Comments
A. Bulk and Location Requirements	*(a) Yards* *a minimum yard of 10 metres for all other buildings and buildings* *used for residential activity and/or an accommodation facility on* *land subject to the Rural Residential notation shall be provided to* *all adjoining property boundaries (including roads) provided that a* *minimum yard of 20 metres shall be provided to all State highways* *and Arterial Roads*	**Y**	
B. Traffic Generation and Characteristics of Activities	*(b) (i) No more than 3 persons shall be engaged in any activity of a commercial, industrial or manufacturing nature except in areas identified as "Rural Residential" ([RR]) on the planning maps. For the purpose of this rule, farming, horticulture, viticulture, network utilities and forestry activities are excluded from an activity of a commercial, industrial or manufacturing nature.*	**N/A**	
	(c) No activity shall involve the attraction of the public to a site for community related services or events other than for temporary activities.	**N/A**	
C. Tree Planting		**N/A**	
D. Visual Effect of Buildings and Structures	*i) Finish - All buildings shall be finished in any of the following materials:* *(i) Timber/Composite Weatherboard (vertical and horizontal).* *(ii) Plaster/Adobe/Rammed Earth/Masonry Products/Concrete.* *(iii) Stone.* *(iv) Coloured steel excluding unpainted zincalume and unpainted corrugated iron.* *(v) Weathered corrugated iron* *(vi) Brick*	**Y**	All future dwellings will be required to meet the colour and finish controls as proposed within the application landscape assessment and underlying consent notice requirements to minimise the visual effect of the dwellings and ensure compliance with District Plan standards
	(ii) Colour: Exterior Walls, Accents and Trim *The exterior walls, accents and trim for all buildings and structures shall be in a colour or colours selected from the* *following colour palette, provided that the colours of exterior walls shall be in a low sheen:*	**Y**	

4.7.6 Rural Resource Area – General Standards

Ref	Standard	Compliance	
		Y/N	Comments
	Browns, greens, grey blue, greys, terracotta, tussock and dark reds provided that such colours shall have a Reflectivity Value (RV) of less than 38%.		
	(iii) Colour: Roofs *The roofs of all buildings shall be in a low sheen in any colour that has a RV of less than 32% or shall be unpainted natural products such as timber shingles or slate.* *Note: Colours of roofs are to be similar to and darker than the surrounding landscape colours.*	**Y**	
	(b) All buildings and structures shall not protrude onto a skyline or above a terrace edge when viewed from a public road or other public place at a distance not exceeding 2 kilometres from the building or structure.	**Y**	
E. Noise		**Y**	
F. Storage		**N/A**	
G. Provision of Services	*(a) Effluent Disposal* *Any site intended to accommodate a household unit or any activity that generates human effluent shall be either connected to an existing sewerage scheme at the owners cost (provided that the scheme has the capacity to accommodate the waste generated) or if such a scheme is not available the site shall be capable of effective disposal of effluent safely within the site.*	**Y**	Each site will utilise onsite wastewater disposal systems, at the time of constructing a dwelling, these will be confirmed to be appropriate for the site and compliant with council requirements as part of future building control applications.
	(b) Water Supply *At the time of subdivision or prior to the issue of building consent to erect a residential building, the owner shall provide a safe and adequate water supply…*	**Y**	It is proposed to reticulate drinking water to the buildable areas of each allotment. Compliance with Drinking water standards and treatment requirements will be confirmed prior to S224c.
	(c) Access, Loading and Manoeuvring *Access, loading and manoeuvring requirements shall be provided in accordance with Rule 12.7.1 page 12:13 and Rule 12.7.3 page 12:17.*	**Y**	The extension of Fay Lane and the formalisation of the existing farm track will ensure appropriate access to each of the proposed allotments is provided. Track and Roading designs will be finalised during the Engineering Approval process.

4.7.6 Rural Resource Area – General Standards

Ref	Standard	Compliance	
		Y/N	Comments
	(d) Parking *Parking shall be provided in accordance with Rule 12.7.2 (pg 12:16) and Table 12.3 (pg 12:25).*	**Y**	All sites will have adequate provision for on-site parking.
H. Signs	*1. Shall be situated on the property to which they relate provided that no more than two pre warning signs having a maximum area of 1m2 each are permitted within 500 metres of the site entrance.* *2. Shall comprise a single sign not exceeding a total of 3m2 in area.* *3. Shall not obscure driver visibility to and from access ways* *4. Shall not be constructed using reflective material, or flashing or animated components.* *5. Shall not be illuminated.* *6. Shall comply with Rule 12.7.5(v) at page 12:21.*	**N/A**	No signage is proposed
I Riparian Margins		**N/A**	
J. Earthworks for Access tracks and Extraction Activities		**N**	Details on proposed earthworks are discussed under section 3.1.3 of this application. Extraction quantities are proposed as follows and are not compliant with Permitted standards: Disturbance Type / Area 30mx 30m build platforms / 8100m² Access track from Fay Lane / 16,000m² Fay Lane Upgrade / Extension / 26,600m² Application has been made for a breach of this standard.
K. Areas of Significant Indigenous Vegetation, Habitats of Indigenous Fauna and Wetlands		**N/A**	No part of site identified within the DP as being areas of significant vegetation or wetland
KA. Clearance of Indigenous Vegetation		**N**	Section 3.1.8 contains full details on vegetation clearance proposed. The application has been made for a breach of this standard. The ecological report calculated that approximately 2.7 hectares of grassland vegetation would be cleared, approximately 0.6 hectares of kānuka, mānuka and matagouri would also be cleared.
L. Outstanding Natural Landscapes, Outstanding Natural Features and Land inthe Upper Manorburn/Lake Onslow Lands cape Management Area		**N**	700m of access track to the building platforms will be formed within the ONL. This will breach the permitted

4.7.6 Rural Resource Area – General Standards

Ref	Standard	Compliance	
		Y/N	Comments
			excavation standards and as such this application is applying to breach this standard.

Section 16 – Subdivision

Ref	Standard and Non-Compliance Status	Compliance	
		Y/N	Comments
16.7 GENERAL STANDARDS			
16.7.1 Subdivision Code of Practice	*The physical design and construction of works to be carried out as part of the subdivision or as required by a condition of consent will generally be in accordance with Council's Code of Practice for Subdivision (see Method 16.5.2 page 16:11). Modification may be made to the requirements of this Code by any conditions of consent.*	**Y**	The proposed subdivision will be in accordance with *Council's Code of Practice for Subdivision.*
16.7.2 Services, Infrastructure and Roading Within a Subdivision	*(a) The subdivider shall be responsible for providing all reticulation, services and roading within the subdivision. The subdivider shall also ensure that services are provided to the boundary of each allotment. All costs of tying into existing services and infrastructure (including roading, footpaths and kerb and channel (or other similar systems)) shall rest with the subdivider.*	**Y**	The proposed subdivision will be fully serviced, including the provision of all relevant services to each proposed lot.
	(b) The subdivider shall be responsible for the forming, grassing and where necessary, irrigating of all berms, and for establishing landscaping that is required as a condition of consent. An irrigation system may be required as a condition of consent and this shall be installed at the cost of the subdivider.	**Y**	As this is a rural lifestyle subdivision no berming is proposed. However, the applicant will complete all proposed landscape mitigation planting prior to 224c in line with issued conditions.
	(c) Lighting shall be installed within all urban subdivisional roads and shall be designed and installed in accordance with the requirements of NZS 6701:1983. Lighting reticulation to be installed shall be cost effective with regard to future availability, operating costs and maintenance. Lighting components must be approved by Council.	**N/A**	
	(d) The consent holder or successor in title shall be responsible for providing kerb crossing places and vehicle entrances to all allotments intended to accommodate a dwelling or other building.	**Y**	The proposed lots will include vehicle crossings.
	(e) The consent holder shall provide for Council's consent, a proposed name or names for any new subdivisional road and when approved it shall be the consent holder's responsibility to supply and erect appropriate signs of a design consistent with the road sign design used in that particular locality.	**N/A**	The proposed subdivision will include private access roads not to be vested to Council and existing vested roads.
	(f) The subdivider shall provide, as part of the design and construction of any private way or access lot servicing more than 2 allotments, common facilities for postal delivery and refuse collection services. Facilities for these services shall be provided in a co-ordinated and tidy manner which promotes ease of access and use, the design of which is to be compatible with the existing streetscape.	**Y**	The proposed subdivision includes a common facilities area at the Fay Lane end for ease of access and servicing.
16.7.3 Services, Infrastructure and Roading Servicing the Subdivision	*All services, infrastructure and roading that service the land within a subdivision shall be of a standard adequate to meet the intended use of the subdivision.*	**Y**	All proposed services and roading will be of a standard to that for the anticipated use – for rural lifestyle activity.
16.7.5 Minimum Access Widths - Rural Areas	*Minimum access width in rural areas shall be as follows:- Rights of way, access lots = 6 metres legal, 4 metres formed. Crossfalls of a minimum of 6% shall be provided to ensure water drains freely from the carriageway*	**Y**	The proposed private access ways will meet the minimum design widths and crossfall.

Ref	Standard and Non-Compliance Status	Compliance	
		Y/N	Comments
16.7.6 Maximum Gradients for Carriageways	*The maximum gradients for carriageways shall be as follows – Private access - 1 in 5*	**Y**	The proposed private access ways will meet the minimum design gradient. Final designs will be confirmed prior to engineering approval of subdivision works.
16.7.7 Access to Back Land	*The design of every subdivision shall give consideration to the future development of adjoining land and the Council, may, as a condition of consent, require the creation of reserves, roads or the formation of roads to the boundary of adjoining land to facilitate future development.*	**N/A**	The proposed subdivision occurs in a rural zone not adjacent to any future anticipated residential development
16.7.8 Existing Buildings or Other Developments	Where any subdivision includes land that has existing buildings or other developments located upon it, Council will require that the individual allotments upon which the existing buildings or other developments are situated have independent connections to all utilities servicing the land and that appropriate easements are created to protect existing services. Separate drainage and water connections will generally be required for each property. In special circumstances, however, "drains in common" or a shared water connection with separate tobys may be consented to.	**N/A**	The land proposed for development has no existing buildings or developments.
16.7.9 Stability of Land	*Prior to considering an application, the Council may require the production of a report from a geologist or engineer experienced in the field of land stability showing that each site in the proposed subdivision is suitable for the permitted activities on that site and the erection of buildings. A report from an appropriately qualified and experienced person may be required where any other potential hazard may affect land subject to the application*	**Y**	Information available on the ORC Natural Hazard mapping confirms that the proposed subdivision is safe and appropriate on the subject site.
16.7.10 Electricity and Telephone Services	*The design and provision to each allotment of electricity and telephone utility services shall comply with the standards of the relevant network utility operator (that is referred to in the context of this rule as a 'provider') provided that electricity and telephone utility services are to be located underground in urban areas unless this is demonstrated to be impracticable (apart from the Industrial Resource Area) and other areas if Council so determines as a condition of consent.*	**Y**	The proposed subdivision anticipates telephone utility services provided through a satellite based system. Electricity will be reticulated to the buildable areas of each allotment.
16.7.11 High Voltage Transmission Lines	*Where subdivision activities are to occur in close proximity to high voltage transmission lines (being 20 metres either side of the centre line of that transmission line) such subdivisions shall, through the design of sites and the location of roads and reserves under the route of the line:* *(a) Ensure that ease of access to transmission lines is maintained so that maintenance and inspections of transmission lines to avoid risk of injury and/or property damage can occur;* *(b) Be designed so that there will be no need to erect buildings within 20 metres of the centre line on each of high voltage transmission lines; and* *(c) Facilitate building platforms for residential dwellings where the main living area will not face the transmission lines.*	**Y**	The proposed subdivision is designed to ensure access to the transmission lines are maintained.
16.7.12 Amalgamation Conditions	*In addition to the circumstances set out in section 220(1)(b) of the Act Council may impose amalgamation conditions for the following purposes:* *(a) To ensure adequate legal and/or physical access is available to the land being subdivided.*	**N/A**	No amalgamations are proposed within this application.

Ref	Standard and Non-Compliance Status	Compliance	
		Y/N	Comments
	(b) To maintain the integrity of network utility services and/or infrastructure that serves or crosses the land being subdivided. *(c) To maintain and enhance amenity values, particularly with respect to landscape values.* *(d) To meet minimum allotment size requirements.* *(e) To reduce the non-compliance of an existing allotment* *(f) To meet yard and/or separation requirements.* *(g) To facilitate boundary adjustments.* *(h) For any other purpose consistent with the above.*		

APPENDIX F – CODC NES RECORD SEARCH

NES RECORD SEARCH

Application

Paterson Pitts Limited Partnership PO Box 84, Cromwell 9342	Number NES230032 Application date 23/08/23 Phone 03 445 1826 Mobile Email rod.baxter@ppgroup.co.nz

Property

Valuation No.	2842107723
Location	191 Fay Lane, Queensberry
Legal Description	Lot 1 DP 487478, Lot 3 DP 427927
Area (hectares)	817.8356

Resource consents

Resource Area: Rural Resource Area

Consents:

16/11/2016 RC 160228: Land use consent to construct a bladed fence line and pipeline breaching Rule 4.7.6J(a)

No information in relation to HAIL activities could be found on this record.

15/11/2016 RC 160229: Application for change and cancellation of consent notice conditions

No information in relation to HAIL activities could be found on this record.

14/04/2015 RC 150041: Two lot subdivision

No information in relation to HAIL activities could be found on this record.

13/05/2014 RC 140048: Five lot rural subdivision

No information in relation to HAIL activities could be found on this record.

15/05/2013 RC 130060: Cancellation of consent notice conditions from RC 030345

No information in relation to HAIL activities could be found on this record.

24/02/2012 RC 110265: Variation to RC 070275

No information in relation to HAIL activities could be found on this record.

26/11/2010 RC 100258: Two lot subdivision

No information in relation to HAIL activities could be found on this record.

27/10/2010 RC 100210: Variation to RC 090283

No information in relation to HAIL activities could be found on this record.

23/08/2010 RC 100187: Boundary adjustment subdivision

No information in relation to HAIL activities could be found on this record.

19/08/2010 RC 100180: Variation to RC 090283

No information in relation to HAIL activities could be found on this record.

16/07/2010 RC 100155: Variation to RC 090283

No information in relation to HAIL activities could be found on this record.

08/03/2010 RC 090283: Four lot subdivision

No information in relation to HAIL activities could be found on this record.

14/01/2010 RC 090241: Four lot subdivision boundary adjustment

No information in relation to HAIL activities could be found on this record.

25/10/2007	RC 070275: Three lot rural subdivision
	No information in relation to HAIL activities could be found on this record.
30/01/2007	RC 060318: 25 lot rural subdivision and building platforms
	No information in relation to HAIL activities could be found on this record.
26/06/2006	RC 060112 Variation to conditions of RC's 040294 and 050452
	No information in relation to HAIL activities could be found on this record.\
28/02/2006	RC 060005: Cancellation of Condition 1 of RC 050452
	No information in relation to HAIL activities could be found on this record.
14/02/2006	RC 050433: Variation to conditions of RC 040294
	No information in relation to HAIL activities could be found on this record.
01/02/2006	RC 050452: Subdivision boundary adjustment
	No information in relation to HAIL activities could be found on this record.
22/10/2004	RC 040294: Eight lot rural subdivision creating five records of title
	No information in relation to HAIL activities could be found on this record.
16/01/2004	RC 030345: Four lot rural subdivision
	No information in relation to HAIL activities could be found on this record.
a07/04/1999	RC 990027: Queensbury Hills tenure review subdivision
	Information provided in support of this application indicates that the wider area has a history of gold mining. It did not identify any specific mined areas on the site. Mining activities are Item E7 on the HAIL and may trigger NES-CS requirements if undertaken on the site

Building

Consents/Permits/Compliance Schedules:	
03/08/2023	BC 230542: Demolition of farm dam (PIM Application Only)
	No information in relation to HAIL activities could be found on this record.
01/11/2013	BC 130670: Erect a new implement shed
	Fuel storage tanks can be associated with rural sheds. Fuel storage tanks are Item A17 on the HAIL and may trigger NES-CS requirements if present on the site.

Preliminary Site Investigations and Detailed Site Investigations

No information in relation to the above could be found on the property file.

Aerial Photographs

Council's aerial photographs on the site date back to 2006. These records indicate the presence of the following activities:

Shed and livestock pens on north west corner of Lot 3 DP 427927. Livestock dips and fuel storage tanks can be associated with these activities and are Items A8 and A17 on the HAIL respectively. Livestock dips and fuel storage tanks may trigger NES-CS requirements if present on the site.
Source: Council's aerial photographs dated 2019

Disclaimer: The Council does not hold records directly relating to activities on the Hazardous Activities and Industries List (HAIL). In the event some information is available it cannot be guaranteed as correct or complete and therefore may not satisfy your request. We therefore recommend you undertake further investigation to determine whether any HAIL activities exist on the site.

Adam Vincent
Planning Officer - Consents

Date: 30 August 2023