

**APPLICATION AS NOTIFIED**

**Hazledine Independent Trustee  
Limited & S Hazledine**

**(RM230311)**

## **QUEENSTOWN LAKES DISTRICT COUNCIL**

### **SERVICE OF NOTICE / LIMITED NOTIFICATION**

**Service of Notice for Limited Notification of a Resource Consent application under Section 95B of the Resource Management Act 1991.**

**The Queenstown Lakes District Council has received an application for a resource consent from:**

Hazledine Independent Trustee Limited, Sam Bolton Hazledine

**What is proposed:**

Land use consent is sought to construct a residential flat and three residential accessory buildings (one of which is within the same building as the residential flat) outside a registered building platform, install two water tanks within the minimum internal setback from the western boundary, pipe a section of the Arrow irrigation race that is located within the site, and to undertake associated landscaping and earthworks.

**The location in respect of which this application relates is situated at:**

The subject site is situated at 123 Slopehill Road, Wakatipu Basin.

**A full copy of this Limited Notified package is available for you to download on the following link:**

<https://www.qldc.govt.nz/services/resource-consents/notified-resource-consents#limited-not-rc> or via our edocs website using RM230311 as the reference <https://edocs.qldc.govt.nz/Account/Login>

**This file can also be viewed at our public computers during normal office hours (8.30am to 5.00pm at these Council offices:**

- **74 Shotover Street, Queenstown;**
- **Gorge Road, Queenstown; and**
- **47 Ardmore Street, Wanaka.**

The Council planner processing this application on behalf of the Council is Vicki Jones, who may be contacted by phone at 021-942-751 or e-mail at [vicki.jones@qldc.govt.nz](mailto:vicki.jones@qldc.govt.nz)

Any person who is notified of this application, but a person who is a trade competitor of the applicant may do so only if that person is directly affected by an effect of the activity to which the application relates that –

- a) adversely affects the environment; and
- b) does not relate to trade competition or the effects of trade competition.

**If you wish to make a submission on this application, you may do so by sending a written submission to the consent authority no later than:**

**Tuesday 19<sup>th</sup> December 2023.**



The submission must be dated, signed by you, and must include the following information:

- a) Your name and postal address and phone number/fax number.
- b) Details of the application in respect of which you are making the submission including location.
- c) Whether you support or oppose the application.
- d) Your submission, with reasons.
- e) The decision you wish the consent authority to make.
- f) Whether you wish to be heard in support of your submission.

You may make a submission by sending a written or electronic submission to Council (details below). The submission should be in the format of Form 13. Copies of this form are available Council website:

[https://www.qldc.govt.nz/services/resource-consents/application-forms-and-fees#other\\_forms](https://www.qldc.govt.nz/services/resource-consents/application-forms-and-fees#other_forms)

You must serve a copy of your submission to the applicant (Hazledine Independent Trustee Limited, Sam Bolton Hazledine, [sam@medrecruit.com](mailto:sam@medrecruit.com)) as soon as reasonably practicable after serving your submission to Council at the following:

c/- Kim Banks  
[kim@brownandcompany.co.nz](mailto:kim@brownandcompany.co.nz)  
Brown and Company Planning Group  
The Forge Building,  
Level 1/20 Athol Street,  
Queenstown

#### QUEENSTOWN LAKES DISTRICT COUNCIL



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(signed by Neil Harkin pursuant to a delegation given under Section 34A of the Resource Management Act 1991)

**Date of Notification: 21<sup>st</sup> November 2023**

#### Address for Service for Consent Authority:

Queenstown Lakes District Council  
Private Bag 50072, Queenstown 9348  
Gorge Road, Queenstown 9300

Phone  
Email  
Website

03 441 0499  
[rcsubmission@qldc.govt.nz](mailto:rcsubmission@qldc.govt.nz)  
[www.qldc.govt.nz](http://www.qldc.govt.nz)

## TechnologyOne ECM Document Summary

Printed On 16-Nov-2023

Class	Description	Doc Set Id / Note Id	Version	Date
PUB_ACC	Attachment K - Form 9	7722609	1	16-Aug-2023
PUB_ACC	Attachment A - AEE - Updated 16.08.23	7722604	1	16-Aug-2023
PUB_ACC	Attachment B - CONO 8243173.4	7722856	1	16-Aug-2023
PUB_ACC	Attachment B - EI 9084160.1	7722857	1	16-Aug-2023
PUB_ACC	Attachment B - Record of Title	7722855	1	16-Aug-2023
PUB_ACC	Attachment C - Building Plans	7722605	1	16-Aug-2023
PUB_ACC	Attachment D - Landscape Plans	7722602	1	16-Aug-2023
PUB_ACC	Attachment D - Updated Earthworks Plan11.10.23 supersedes Fig 03 - 13.10.23	7791466	1	16-Oct-2023
PUB_ACC	Attachment E - UPDATED APA 141 Slopehill Rd 23.08.23	7732977	1	23-Aug-2023
PUB_ACC	Attachment E - UPDATED APA 149 Slopehill Rd 23.08.23	7732974	1	23-Aug-2023
PUB_ACC	Attachment E - UPDATED APA Arrow Irrigation Company - 10.11.23	7820494	1	10-Nov-2023
PUB_ACC	Attachment E- UPDATED APA 121 Slopehill Rd 23.08.23	7732973	1	23-Aug-2023
PUB_ACC	Attachment F - Geotechnical Assessment	7722607	1	16-Aug-2023
PUB_ACC	Attachment G - On site wastewater design	7722606	1	16-Aug-2023

PUB_ACC	Attachment H - Landscape Assessment - Updated 31.08.23	7743166	1	31-Aug-2023
PUB_ACC	Attachment H - On site wastewater design	7617902	1	11-May-2023
PUB_ACC	Attachment I - Preliminary Site Investigation	7722600	1	16-Aug-2023
PUB_ACC	Attachment J - e3 Scientific Memo	7722610	1	16-Aug-2023
PUB_ACC	Environmental Management Plan 3 Nov 2023 - provided 05.11.23	7820526	1	10-Nov-2023
PUB_ACC	RFI response - EI 8243173.5 - 25.05.23	7635369	1	26-May-2023
PUB_ACC	RFI response from applicant - 13.10.23	7791447	1	16-Oct-2023



APPLICATION FOR RESOURCE CONSENT OR  
FAST TRACK RESOURCE CONSENT

# FORM 9: GENERAL APPLICATION



Under Section 87AAC, 88 & 145 of the Resource Management Act 1991 (Form 9)

PLEASE COMPLETE ALL MANDATORY FIELDS\* OF THIS FORM.

This form provides contact information and details of your application. If your form does not provide the required information it will be returned to you to complete. Until we receive a completed form and payment of the initial fee, your application may not be accepted for processing.



## APPLICANT //

- Must be a person or legal entity (limited liability company or trust).
- Full names of all trustees required.
- The applicant name(s) will be the consent holder(s) responsible for the consent and any associated costs.

\*Applicant's Full Name / Company / Trust: **Hazledine Independent Trustee Limited, Sam Bolton Hazledine**

(Name Decision is to be issued in)

All trustee names (if applicable): **Hazledine Independent Trustee Limited, Sam Bolton Hazledine**

\*Contact name for company or trust: **Sam Hazledine**

\*Postal Address: **123 Slopehill Road, Queenstown**

\*Post code:

**9371**

\*Contact details supplied must be for the applicant and not for an agent acting on their behalf and must include a valid postal address

\*Email Address: **sam@medrecruit.com**

\*Phone Numbers: Day

Mobile: **021763363**

\*The Applicant is:



Owner



Prospective Purchaser (of the site to which the application relates)



Occupier



Lessee

Other - Please Specify:



Our preferred methods of corresponding with you are by email and phone.

The decision will be sent to the Correspondence Details by email unless requested otherwise.



## CORRESPONDENCE DETAILS //

If you are acting on behalf of the applicant e.g. agent, consultant or architect please fill in your details in this section.

\*Name & Company: **Kim Banks - Brown & Company Planning Group**

\*Phone Numbers: Day

Mobile: **0210344903**

\*Email Address: **kim@brownandcompany.co.nz**

\*Postal Address: **The Forge Building, Level 1/20 Athol Street, Queenstown**

\*Postcode:

**9300**



## INVOICING DETAILS //

Invoices will be made out to the applicant but can be sent to another party if paying on the applicant's behalf. For more information regarding payment please refer to the Fees Information section of this form.

\*Please select a preference for who should receive any invoices and how they would like to receive them.

Applicant:



Agent:



Other - Please specify:

Email:



Post:



\*Attention: **Sam Hazledine**

\*Postal Address: **123 Slopehill Road, Queenstown**

\*Post code:

**9371**

\*Please provide an email AND full postal address.

\*Email: **sam@medrecruit.com**



## OWNER DETAILS // Please supply owner details for the subject site/property if not already indicated above

Owner Name:

Owner Address:

If the property has recently changed ownership please indicate on what date (approximately) AND the names of the previous owners:

Date:

Names:



## DEVELOPMENT CONTRIBUTIONS INVOICING DETAILS //

If it is assessed that your consent requires development contributions any invoices and correspondence relating to these will be sent via email. Invoices will be sent to the email address provided above unless an alternative address is provided below. Invoices will be made out to the applicant/owner but can be sent to another party if paying on the applicant's behalf.

\*Please select a preference for who should receive any invoices.

Details are the same as for invoicing ☒

Applicant: ☐

Landowner: ☐

Other, please specify:

\*Attention:

\*Email:

[Click here for further information and our estimate request form](#)



## DETAILS OF SITE // Legal description field must list legal descriptions for all sites pertaining to the application. Any fields stating 'refer AEE' will result in return of the form to be fully completed.

\*Address / Location to which this application relates:

123 Slopehill Road, Lake Hayes

\*Legal Description: Can be found on the Computer Freehold Register or Rates Notice – e.g Lot x DPxxx (or valuation number)

Lot 4 DP 407786

District Plan Zone(s): Wakatipu Basin Rural Amenity Zone



## SITE VISIT REQUIREMENTS // Should a Council officer need to undertake a site visit please answer the questions below

Is there a gate or security system restricting access by council?

YES ☐ NO ☒

Is there a dog on the property?

YES ☐ NO ☒

Are there any other hazards or entry restrictions that council staff need to be aware of?

YES ☐ NO ☒

If 'yes' please provide information below



## PRE-APPLICATION MEETING OR URBAN DESIGN PANEL

Have you had a pre-application meeting with QLDC or attended the urban design panel regarding this proposal?

☐

Yes

☒

No

☐

Copy of minutes attached

If 'yes', provide the reference number and/or name of staff member involved:



## CONSENT(S) APPLIED FOR // \* Identify all consents sought // ALSO FILL IN OTHER CONSENTS SECTION BELOW

☒

Land use consent

☐

Subdivision consent

☐

Change/cancellation of consent or consent notice conditions

☐

Certificate of compliance

☐

Extension of lapse period of consent (time extension) s125

☐

Existing use certificate

☐

Land use consent includes Earthworks



## QUALIFIED FAST-TRACK APPLICATION UNDER SECTION 87AAC

☐

Controlled Activity

☐

Deemed Permitted Boundary Activity

If your consent qualifies as a fast-track application under section 87AAC, tick here to opt out of the fast track process

☐

## BRIEF DESCRIPTION OF THE PROPOSAL // \* Please complete this section, any form stating 'refer AEE' will be returned to be completed with a description of the proposal

\*Consent is sought to:

Construct buildings outside an approved building platform and including a residential flat.  
Undertake earthworks exceeding 400m<sup>3</sup>.



## APPLICATION NOTIFICATION

Are you requesting public notification for the application?

☐

Yes

☒

No

Please note there is an additional fee payable for notification. Please refer to Fees schedule



## OTHER CONSENTS

### Is consent required under a National Environmental Standard (NES)?

- NES for Assessing and Managing Contaminants in Soil to Protect Human Health 2012

An applicant is required to address the NES in regard to past use of the land which could contaminate soil to a level that poses a risk to human health. Information regarding the NES is available on the website

<https://environment.govt.nz/publications/national-environmental-standard-for-assessing-and-managing-contaminants-in-soil-to-protect-human-health-information-for-landowners-and-developers/>

You can address the NES in your application AEE OR by selecting ONE of the following:

☐

This application does not involve subdivision (excluding production land), change of use or removal of (part of) a fuel storage system. Any earthworks will meet section 8(3) of the NES (including volume not exceeding 25m<sup>3</sup> per 500m<sup>2</sup>). Therefore the NES does not apply.

☐

I have undertaken a comprehensive review of District and Regional Council records and I have found no record 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.



## OTHER CONSENTS // CONTINUED



I have included a Preliminary Site Investigation undertaken by a suitably qualified person.



An activity listed on the HAIL has more likely than not taken place on the piece of land which is subject to this application. I have addressed the NES requirements in the Assessment of Environmental Effects.

☒ Any other National Environmental Standard



Yes



N/A

### Do you need any consent(s) from Otago Regional Council?



Yes



N/A

If Yes have you applied for it?



Yes



No

If Yes supply ORC Consent Reference(s)

If ORC Earthworks Consent is required would you like a joint site visit ?



Yes



No



## INFORMATION REQUIRED TO BE SUBMITTED //

Attach to this form any information required (see below & appendices 1-2).

To be accepted for processing, your application should include the following:



Computer Freehold Register for the property (no more than 3 months old) and copies of any consent notices and covenants  
(Can be obtained from Land Information NZ at <https://www.linz.govt.nz/>).



A plan or map showing the locality of the site, topographical features, buildings etc.



A site plan at a convenient scale.



Written approval of every person who may be adversely affected by the granting of consent (s95E).



An Assessment of Effects (AEE).

An AEE is a written document outlining how the potential effects of the activity have been considered along with any other relevant matters, for example if a consent notice is proposed to be changed. Address the relevant provisions of the District Plan and affected parties including who has or has not provided written approval. See [Appendix 1](#) for more detail.



We prefer to receive applications [electronically](#) – please see Appendix 5 – [Naming of Documents Guide](#) for how documents should be named. Please ensure documents are scanned at a [minimum](#) resolution of 300 dpi. Each document should be no greater than 10mb



## PRIVACY INFORMATION

The information you have provided on this form is required so that your application can be processed under the Resource Management Act 1991 and may also be used in statistics collected and provided to the Ministry for the Environment and Queenstown Lakes District Council. The information will be stored on a public register and may be made available to the public on request or on the company's or the Council's websites.



## FEES INFORMATION

Section 36 of the Resource Management Act 1991 deals with administrative charges and allows a local authority to levy charges that relate to, but are not limited to, carrying out its functions in relation to receiving, processing and granting of resource consents (including certificates of compliance and existing use certificates).

Invoiced sums are payable by the 20th of the month after the work was undertaken. If unpaid, the processing of an application, provision of a service, or performance of a function will be suspended until the sum is paid. You may also be required to make an additional payment, or bring the account up to date, prior to milestones such as notification, setting a hearing date or releasing the decision. In particular, all charges related to processing of a resource consent application are payable [prior to issuing of the decision](#). Payment is due on the 20th of the month or [prior to the issue date](#) – [whichever is earlier](#).



## FEES INFORMATION // CONTINUED

If your application is notified or requires a hearing you will be requested to pay a notification deposit and/or a hearing deposit. An applicant may not offset any invoiced processing charges against such payments.

Section 357B of the Resource Management Act provides a right of objection in respect of additional charges. An objection must be in writing and must be lodged within 15 working days of notification of the decision.

**LIABILITY FOR PAYMENT** – Please note that by signing and lodging this application form you are acknowledging that the details in the invoicing section are responsible for payment of invoices and in addition will be liable to pay all costs and expenses of debt recovery and/or legal costs incurred by QLDC related to the enforcement of any debt.

**MONITORING FEES** – Please also note that if this application is approved you will be required to meet the costs of monitoring any conditions applying to the consent, pursuant to Section 35 of the Resource Management Act 1991.

**DEVELOPMENT CONTRIBUTIONS** – Your development, if granted, may also incur development contributions under the Local Government Act 2002. You will be liable for payment of any such contributions.

A list of Consent Charges is available on the on the Resource Consent Application Forms section of the QLDC website. If you are unsure of the amount to pay, [please call 03 441 0499](tel:034410499) and ask to speak to our duty planner.

Please ensure to [reference any banking payments correctly](#). Incorrectly referenced payments may cause delays to the processing of your application whilst payment is identified.

If the initial fee charged is insufficient to cover the actual and reasonable costs of work undertaken on the application you will be required to pay any additional amounts and will be invoiced monthly as work on the application continues. Please note that if the Applicant has outstanding fees owing to Council in respect of other applications, Council may choose to apply the initial fee to any outstanding balances in which case the initial fee for processing this application may be deemed not to have been paid.



## PAYMENT // An initial fee must be paid prior to or at the time of the application and proof of payment submitted.

Please reference your payments as follows:

Applications yet to be submitted: RM followed by first 5 letters of applicant name e.g RMJONES

Applications already submitted: Please use the RM# reference that has been assigned to your application, this will have been emailed to yourself or your agent.

Please note processing will not begin until payment is received (or identified if incorrectly referenced).

I confirm payment by:

☐

Bank transfer to account 02 0948 0002000 00(If paying from overseas swiftcode is – BKNZNZ22)



Invoice for initial fee requested and payment to follow

☐

Manual Payment (can only be accepted once application has been lodged and acknowledgement email received with your unique RM reference number)

\*Reference

\*Amount Paid: Landuse and Subdivision Resource Consent fees - please select from drop down list below

\$3300 - Non-complying Activities (overall consent status)

(For required initial fees refer to website for Resource Consent Charges or spoke to the Duty Planner by phoning 03 441 0499)

\*Date of Payment

Invoices are available on request





## APPLICATION & DECLARATION

The Council relies on the information contained in this application being complete and accurate. The Applicant must take all reasonable steps to ensure that it is complete and accurate and accepts responsibility for information in this application being so.

☐

If lodging this application as **the Applicant:**

I/we hereby represent and warrant that I am/we are aware of all of my/our obligations arising under this application including, in particular but without limitation, my/our obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to within the Fees Information section.

OR:



If lodging this application as **agent of the Applicant:**

I/we hereby represent and warrant that I am/we are authorised to act as agent of the Applicant in respect of the completion and lodging of this application and that the Applicant / Agent whose details are in the invoicing section is aware of all of his/her/its obligations arising under this application including, in particular but without limitation, his/her/its obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to within the Fees Information section.



PLEASE TICK

I hereby apply for the resource consent(s) for the Proposal described above and I certify that, to the best of my knowledge and belief, the information given in this application is complete and accurate.



Signed (by or as authorised agent of the Applicant) \*\*

Kim Banks

Digitally signed by Kim Banks  
DN: cn=Kim Banks, postalCode=9300, o=Queenstown Lakes District Council, ou=Queenstown Lakes District Council, email=kim.banks@qldc.govt.nz  
Reason: I am the author of this document  
Date: 2023.08.16 14:24+1300

Full name of person lodging this form **Kim Banks**

Firm/Company **Brown & Company**

Dated **16/8/2023**

\*\*If this form is being completed on-line you will not be able, or required, to sign this form and the on-line lodgement will be treated as confirmation of your acknowledgement and acceptance of the above responsibilities and liabilities and that you have made the above representations, warranties and certification.

Section 2 of the District Plan provides additional information on the information that should be submitted with a land use or subdivision consent.

The RMA (Fourth Schedule to the Act) requires the following:

#### 1 INFORMATION MUST BE SPECIFIED IN SUFFICIENT DETAIL

- Any information required by this schedule, including an assessment under clause 2(1)(f) or (g), must be specified in sufficient detail to satisfy the purpose for which it is required.

#### 2 INFORMATION REQUIRED IN ALL APPLICATIONS

- (1) An application for a resource consent for an activity (the activity) must include the following:

- (a) a description of the activity;
- (b) a description of the site at which the activity is to occur;
- (c) the full name and address of each owner or occupier of the site;
- (d) a description of any other activities that are part of the proposal to which the application relates;
- (e) a description of any other resource consents required for the proposal to which the application relates;

Information provided within the Form above

- (f) an assessment of the activity against the matters set out in Part 2;
- (g) an assessment of the activity against any relevant provisions of a document referred to in section 104(1)(b).

- (2) The assessment under subclause (1)(g) must include an assessment of the activity against—

- (a) any relevant objectives, policies, or rules in a document; and
- (b) any relevant requirements, conditions, or permissions in any rules in a document; and
- (c) any other relevant requirements in a document (for example, in a national environmental standard or other regulations).

Include in an attached Assessment of Effects (see Clauses 6 & 7 below)

- (3) An application must also include an assessment of the activity's effects on the environment that—

- (a) includes the information required by clause 6; and
- (b) addresses the matters specified in clause 7; and
- (c) includes such detail as corresponds with the scale and significance of the effects that the activity may have on the environment.

#### ADDITIONAL INFORMATION REQUIRED IN SOME APPLICATIONS

- An application must also include any of the following that apply:
  - (a) if any permitted activity is part of the proposal to which the application relates, a description of the permitted activity that demonstrates that it complies with the requirements, conditions, and permissions for the permitted activity (so that a resource consent is not required for that activity under section 87A(1));
  - (b) if the application is affected by section 124 or 165ZH(1)(c) (which relate to existing resource consents), an assessment of the value of the investment of the existing consent holder (for the purposes of section 104(2A));

## ASSESSMENT OF ENVIRONMENTAL EFFECTS

### Clause 6: Information required in assessment of environmental effects

- (1) An assessment of the activity's effects on the environment must include the following information:
  - (a) if it is likely that the activity will result in any significant adverse effect on the environment, a description of any possible alternative locations or methods for undertaking the activity;
  - (b) an assessment of the actual or potential effect on the environment of the activity;
  - (c) if the activity includes the use of hazardous substances and installations, an assessment of any risks to the environment that are likely to arise from such use;
  - (d) if the activity includes the discharge of any contaminant, a description of—
    - (i) the nature of the discharge and the sensitivity of the receiving environment to adverse effects; and
    - (ii) any possible alternative methods of discharge, including discharge into any other receiving environment;
  - (e) a description of the mitigation measures (including safeguards and contingency plans where relevant) to be undertaken to help prevent or reduce the actual or potential effect;
  - (f) identification of the persons affected by the activity, any consultation undertaken, and any response to the views of any person consulted;
  - (g) if the scale and significance of the activity's effects are such that monitoring is required, a description of how and by whom the effects will be monitored if the activity is approved;
  - (h) if the activity will, or is likely to, have adverse effects that are more than minor on the exercise of a protected customary right, a description of possible alternative locations or methods for the exercise of the activity (unless written approval for the activity is given by the protected customary rights group).
- (2) A requirement to include information in the assessment of environmental effects is subject to the provisions of any policy statement or plan.
- (3) To avoid doubt, subclause (1)(f) obliges an applicant to report as to the persons identified as being affected by the proposal, but does not—
  - (a) oblige the applicant to consult any person; or
  - (b) create any ground for expecting that the applicant will consult any person.

### CLAUSE 7: MATTERS THAT MUST BE ADDRESSED BY ASSESSMENT OF ENVIRONMENTAL EFFECTS

- (1) An assessment of the activity's effects on the environment must address the following matters:
  - (a) any effect on those in the neighbourhood and, where relevant, the wider community, including any social, economic, or cultural effects;
  - (b) any physical effect on the locality, including any landscape and visual effects;
  - (c) any effect on ecosystems, including effects on plants or animals and any physical disturbance of habitats in the vicinity;
  - (d) any effect on natural and physical resources having aesthetic, recreational, scientific, historical, spiritual, or cultural value, or other special value, for present or future generations;
  - (e) any discharge of contaminants into the environment, including any unreasonable emission of noise, and options for the treatment and disposal of contaminants;
  - (f) any risk to the neighbourhood, the wider community, or the environment through natural hazards or the use of hazardous substances or hazardous installations.
- (2) The requirement to address a matter in the assessment of environmental effects is subject to the provisions of any policy statement or plan.

## UNDER THE FOURTH SCHEDULE TO THE ACT:

- An application for a subdivision consent must also include information that adequately defines the following:
  - (a) the position of all new boundaries:
  - (b) the areas of all new allotments, unless the subdivision involves a cross lease, company lease, or unit plan:
  - (c) the locations and areas of new reserves to be created, including any esplanade reserves and esplanade strips:
  - (d) the locations and areas of any existing esplanade reserves, esplanade strips, and access strips:
  - (e) the locations and areas of any part of the bed of a river or lake to be vested in a territorial authority under section 237A:
  - (f) the locations and areas of any land within the coastal marine area (which is to become part of the common marine and coastal area under section 237A):
  - (g) the locations and areas of land to be set aside as new roads.

## Will your resource consent result in a Development Contribution and what is it?

- A Development Contribution can be triggered by the granting of a resource consent and is a financial charge levied on new developments. It is assessed and collected under the Local Government Act 2002. It is intended to ensure that any party, who creates additional demand on Council infrastructure, contributes to the extra cost that they impose on the community. These contributions are related to the provision of the following council services:
  - Water supply
  - Wastewater supply
  - Stormwater supply
  - Reserves, Reserve Improvements and Community Facilities
  - Transportation (also known as Roading)

[Click here for more information on development contributions and their charges](#)

OR Submit an Estimate request \*please note administration charges will apply



Please note that some land use consents can be dealt with as fast track land use consent. This term applies to resource consents where they require a controlled activity and no other activity. A 10 day processing time applies to a fast track consent.

If the consent authority determines that the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.

A fast-track application may cease to be a fast-track application under section 87AAC(2) of the Act.

While it is not essential that your documents are named the following, it would be helpful if you could title your documents for us. You may have documents that do not fit these names; therefore below is a guide of some of the documents we receive for resource consents. Please use a generic name indicating the type of document.

Application Form 9	Engineering Report
Assessment of Environmental Effects (AEE)	Geotechnical Report
Computer Register (CFR)	Wastewater Assessment
Covenants & Consent Notice	Traffic Report
Affected Party Approval/s	Waste Event Form
Landscape Report	Urban Design Report
Ecological Report	



# APPLICATION FOR RESOURCE CONSENT

New shed with residential flat,  
accessory buildings and earthworks

16 August 2023

**BROWN&COMPANY**  
P L A N N I N G   G R O U P



## APPLICATION FOR RESOURCE CONSENT UNDER SECTION 88 AND SECTION 221 OF THE RESOURCE MANAGEMENT ACT 1991

### APPLICANT AND PROPERTY DETAILS

<b>Applicant's name:</b>	Sam Hazledine
<b>Address for Service:</b>	C/- Brown & Company Planning Group <a href="mailto:kim@brownandcompany.co.nz">kim@brownandcompany.co.nz</a> PO Box 1467 Queenstown 9348 Telephone: 03 409 2258 Mobile: 021 034 4903
<b>Address for invoicing:</b>	Sam Hazledine 123 Slopehill Road Queenstown Email: <a href="mailto:sam@medrecruit.com">sam@medrecruit.com</a>
<b>Site Address:</b>	123 Slopehill Road Queenstown
<b>Legal Description:</b>	Lot 4 DP 407786
<b>District Plan Zone:</b>	Wakatipu Basin Rural Amenity Zone
<b>Plan Designations, Limitations or Overlays:</b>	Landscape Character Unit 11
<b>Activity Status:</b>	Non-Complying

Prepared for:	Sam Hazledine
Date:	Version 1 - 11 May 2023 Version 2 – 16 August 2023
Prepared by:	Kim Banks
Reviewed by:	Christine Edgley

### Declaration

*The Council relies on the information contained in this application being complete and accurate. The Applicant must take all reasonable steps to ensure that it is complete and accurate and accepts responsibility for information in this application being complete and accurate.*

*If signing as the Applicant, I/we hereby represent and warrant that I am/we are aware of all of my/our obligations arising under this application including, in particular but without limitation, my/our obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to the Fees Information section.*

*If signing as agent of the Applicant, I/we hereby represent and warrant that I am/we are authorised to act as agent of the Applicant in respect of the completion and lodging of this application and that the Applicant is aware of all of his/her/its obligations arising under this application including, in particular but without limitation, his/her/its obligation to pay all fees and administrative charges (including debt recovery and legal expenses) payable under this application as referred to the Fees Information section.*

*I hereby apply for the resource consent(s) for the Proposal described above and I certify that, to the best of my knowledge and belief, the information given in this application is complete and accurate.*

*Kim Banks*

.....  
for Brown & Company Planning Group  
on behalf of

**Sam Hazledine**

16 August 2023

## ATTACHMENTS

- A**      An assessment of effects on the environment in accordance with the Fourth Schedule to the Act.
- B**      Record of Title and Instruments
- C**      Building Plans
- D**      Landscape Plans
- E**      Written Approvals
- F**      Geotechnical Assessment
- G**      On Site Wastewater Assessment
- H**      Landscape Assessment
- I**      Preliminary Site Investigation
- J**      e3 Scientific Memo
- K**      Form 9



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## FOURTH SCHEDULE ASSESSMENT OF EFFECTS ON THE ENVIRONMENT

### 1. A DESCRIPTION OF THE PROPOSAL

#### 1.1. Scope of this Document

This Assessment of Effects on the Environment (**AEE**) is submitted in fulfilment of the applicant's duties under the Resource Management Act 1991 (**RMA**). The AEE addresses matters relating to this land use consent application to the Queenstown Lakes District Council (**QLDC** or **the Council**) for the proposal.

This AEE has been prepared in accordance with the requirements of section 88 and the Fourth Schedule of the RMA and provides all information necessary for a full understanding of the proposal and the effects it will have on the environment. To this end, the AEE contains the following information:

- A description of the site and surrounding locality;
- Development and consent history;
- A description of the proposal;
- Relevant provisions of the QLDC's Proposed District Plan (**PDP**);
- An assessment of effects on the environment;
- Section 104D Assessment;
- Part 2 RMA considerations; and
- Section 95 Assessment.

#### 1.2. The site and locality

The site is located at 123 Slopehill Road, Lake Hayes (Lot 4 DP 407786) on the northern side of the upper extent of Slopehill Road. The site is located within the Wakatipu Basin Rural Amenity Zone (**WBRAZ**) of the QLDC Proposed District Plan (**PDP**).

The site is a 4ha roughly square shaped lot with an approved building platform located 20m from the road boundary. An existing dwelling is partly located within and in the general vicinity of the building platform, with a storage shed, horse shed, and several consented extensions and accessory buildings located outside of the platform.

To the north-eastern side of the existing dwelling is an artificially made pond, to the northwest and north-east are gravelled horse arenas. The paddocks to the north of the arena have been designed for horses. A secondary race ('Strains Race') of the Arrow Irrigation Channel meanders west-east through the northern portion of the site.

Along the southern road boundary of the site there is a 3.5m high grassed mound with a row of mature poplar trees which provide partial screening of the site from Slope Hill Road. There is also a 2m high vegetated mound along the western boundary of the site adjacent to the right of way.

Vehicle access to the site is provided via a right of way easement through the adjacent Lot 2 DP 407786. The location of the easement can be seen on the Record of Title in **Attachment B**.

The extent and location of the site is shown in **Figure 1 and 2** below.

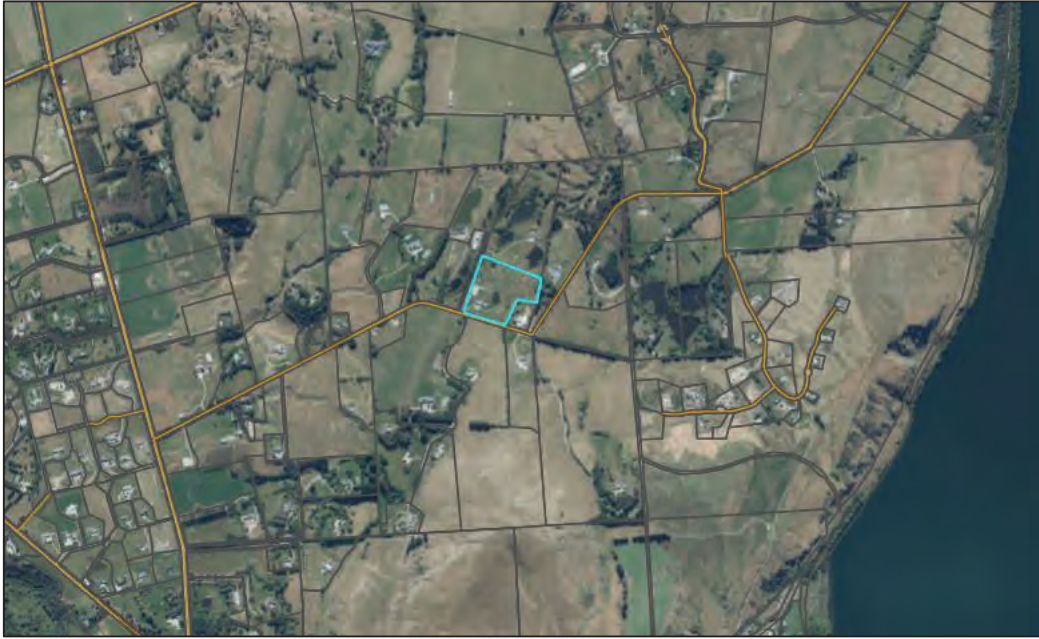


Figure 1: Site location (outlined in turquoise)



Figure 2: Site location (outlined in turquoise) (Source: QLDC GIS Mapping)

### 1.2.1. Title interests

Title information for the site is contained in **Attachment B**. The following instruments are of relevance to the proposal and have been considered.

- Consent Notice 8243173.4 – This consent notice was created at the time of the previous subdivision and specifies a number of conditions relevant to residential development of the site. These conditions have been met in association with existing development on the site. The consent notice will continue to apply to the site and is not proposed to be varied as part of this application. Of note is that condition (e)(ii) of this consent notice requires compliance with the Landscape Structure Plan approved under RM980486 which requires retention of the boundary planting within the adjacent site, Lot 3 DP 407786, and replacement of pines with native species in a progressive manner to provide equal or better screening.

### 1.3. Development and Consent History

<b>RM110713</b>	Consent to undertake 13,000m <sup>3</sup> of earthworks.
<b>RM120730</b>	Consent to construct a dwelling that extends outside of an approved building platform, establish a tennis court outside of an approved building platform and undertake associated earthworks.
<b>RM130299</b>	Consent to vary Condition 1 of RM120730 to incorporate and extension consisting of an additional bedroom located on the south side of the consented dwelling.
<b>RM150130</b>	Consent to vary Condition 1 of RM120730 to alter the design and location of the approved car port.
<b>RM210095</b>	Consent to undertake additions and alterations to the residential unit and shed, construction of a yoga studio/pool house, swimming pool and plant room and a horse shed located outside of the building platform, with associated breaches to site setbacks, and associated earthworks standards.

### 1.4. The proposal

The applicant proposes to construct a three-bay shed to provide a covered shelter for horses currently grazing on the property, and this shed is also proposed to include a residential flat to provide on-site accommodation for the horse carer. Additionally, two other accessory structures are proposed to provide storage and an open-sided cover for the horses. Details of the proposed buildings are set out below and shown on the plans included as **Attachment C** and **Attachment D**.

#### 1.4.1. Proposed buildings

##### Three-bay shed & residential flat

The proposed three-bay shed is positioned to the north of the existing dwelling, on a lower terrace north of the existing horse arena and south of the existing water race. In this location the shed is located below an existing landscaped bund which runs along the northern edge of the horse arena, and is adjacent to an existing unformed access to the right of way. The shed is proposed to be located 10m from the western boundary and right of way.

The shed is designed with a central gable roof, with lean-to's on each side. The shed has three roller doors on the western elevation oriented towards the right of way access, and two doors on the eastern elevation.

A residential flat is proposed to be located within the north-eastern corner of the shed, with an adjoining internal single car parking space within the shed.

The total floor area of the building is 217m<sup>2</sup>, made up of 147m<sup>2</sup> of barn area, 42.5m<sup>2</sup> for the residential flat, and 27.5m<sup>2</sup> for the single residential garage. The building has a maximum height at the central gable of 6.14m, 3.72m at the lean-to, and 5m to the eaves. The building will be set on foundations of 225mm, and the total height is therefore 6.365 above ground level. Some filling is proposed in the area of this building, as discussed further below, resulting in a minor breach of 270mm to the maximum



height limit (6.5m) on the eastern side of the central ridgeline of the roof. The extent of the height breach is shown on Figure 5 of the Landscape Plans in **Attachment D**.

The shed, including roller doors, is proposed to be constructed of in Coloursteel in 'FlaxPod' matte colour (LRV 6%). External lighting will include downlights located no more than 2.5m high from finished ground level and be directed downward.

#### Open-sided horse shelter & storage shed extension:

Two accessory structures are also proposed to be constructed on the site to provide open-sided cover for horses to shelter from sun or rain. These are shown as structures 'B1' and 'F' on the landscape plan in **Attachment D**.

Structure 'B1' comprises a 16m long x 5m wide shelter located east of the proposed shed and residential flat. The shelter is a pergola type structure, having open sides with posts at 4m spacings and a sloping covered roof. There is no cladding or sides proposed on this structure. The height of the structure is 2.2m (above a FFL of 432.5) on the lower southern side, and 3.08 on the northern side.

A second structure (shown as structure 'F') is proposed as an extension of an existing shed (shown as structure 'A') on the property. The extension is 6m x 6m, and will be attached to and extending north from the existing shed. The height of the structure is also 2.2m on the lower (southern) side, and 3.08 on the northern side.

The roof of these shelters is proposed in Coloursteel 'FlaxPod' matte colour (LRV 6%).

#### **1.4.2. Earthworks and piping of Arrow Irrigation Race**

The proposed structures are located in proximity to the Arrow Irrigation Race which is located across the northern part of the property. As such, the applicant has consulted with the Arrow Irrigation Company and a solution has been agreed to pipe the section of the race, and connect this to an existing section of piping within the centre of the property. The proposed alignment for the piping of the race is shown on the Landscape Plans in **Attachment D**. APA has been obtained from the Arrow Irrigation Company and is included in **Attachment E**.

Alongside the piping, it is proposed to undertake earthworks within the area of the proposed shed and existing open race alignment to level off that part of the site. This will provide a level area of land for the proposed shed and flat building, and additional open space to the residential flat. Proposed earthworks are detailed on the Landscape Plans in **Attachment D**, and comprise a total volume of 725m<sup>3</sup>, across a total area of 1640m<sup>2</sup>. The maximum height of fill is 1.5m. An Environmental Management Plan (EMP) will be required for the proposed earthworks and the applicant accepts a condition requiring this.

The piping of the race and levelling of this area allows the residential flat to be sited in compliance with the required 10m western boundary setback.

#### **1.4.3. Landscaping**

Additional landscape planting is proposed to integrate the new built form into the landscape and provide filtered screening from wider views as set out in the Landscape Plan included as **Attachment D**.

Deciduous tree planting is proposed north of the buildings within the newly levelled area of the existing water race, and also along the western boundary alongside the right of way.

Planting of native tussocks and shrubs is proposed within the existing mound located north of the horse arena and south of the building.

#### 1.4.4. Access and servicing

The site has an existing connection to the potable water supply network, with on-site wastewater treatment and stormwater disposal. The proposed building, including the residential flat facilities, will be connected to these existing systems, with both being designed as required at the time of building consent.

A geotechnical assessment has been undertaken and is included in **Attachment F**. This report confirms ground conditions are appropriate for the construction of the building and makes recommendations for on-site wastewater and stormwater disposal. A proposed design for the on-site wastewater system is included in **Attachment G**.

Vehicle access to the shed and residential flat is proposed to be obtained via the adjacent Right of Way easement. An informal access currently exists in this location. A gravel turning area will be formed between the building and existing driveway for manoeuvring vehicles.

Two new 25,000L water tanks are proposed to be located within the existing landscaped bund south of the shed to provide further firefighting supply to the residential flat. The location of these tanks is shown in the Landscape Plan included as **Attachment D**.

## 2. RESOURCE MANAGEMENT MATTERS

The site is located within the WBRAZ of the PDP. The zoning of this land has not been appealed and the majority of activities and standards for the Zone have gone beyond challenge and can therefore be treated as operative.

The proposed activity is assessed under the relevant activity rules and standards (in **Tables 1** and **2** below).

**Table 1: PDP Activities**

Rule	Activity	Activity Status
<b>Chapter 24 – Wakatipu Basin</b>		
24.4.3	The use of land or buildings for residential activity except as otherwise provided for in Table 24.1 and subject to the standards in Table 24.2	<b>Permitted</b>
24.4.7	The construction of buildings for residential activity outside a building platform approved by a resource consent and registered on the applicable record of title on a site where there is such a building platform	<b>Non-Complying</b>
24.4.18	The construction of buildings for non-residential activities not otherwise provided for in Table 24.1	<b>Restricted Discretionary</b>

**Table 2: PDP Standards**

Rule	Activity	Status	Consent Required?
<b>Chapter 24 – Wakatipu Basin</b>			
24.5.1.4*	<b>Residential Density</b> Any site in the Wakatipu Basin Rural Amenity Zone located wholly outside the Precinct in	<b>Non-Complying</b>	<b>No</b> – A residential flat only is proposed. The proposal remains compliant with the permitted density of one

Rule	Activity	Status	Consent Required?
	respect of which resource consent creating the site was granted before 21 March 2019, and a record of title subsequently issued, and with an area less than 80 hectares, a maximum of one residential unit per site		residential unit per site, which includes a residential flat of up to 150m <sup>2</sup> in the WBRAZ.
24.5.2	<b>Residential Flats</b> 24.5.2.1 Within the Wakatipu Basin Lifestyle Precinct, any residential flat must be separated from the principal residential unit by no more than 10 metres. 24.5.2.2 Rule 24.5.2.1 does not apply to a residential flat located within a building platform approved by a resource consent, and registered on the applicable record of title.	<b>Restricted Discretionary</b>	<b>No</b> – The site is not located within the Wakatipu Basin Lifestyle Precinct.
24.5.4	<b>Building Material and Colours</b> Any building and its alteration, including shipping containers that remain on site for more than six months, are subject to the following: All exterior surfaces* must be coloured in the range of browns, greens or greys including: 1. Pre-painted steel and all roofs must have a light reflectance value not greater than 20%; and 2. All other exterior surface** finishes, except for schist, must have a light reflectance value of not greater than 30%. *Excludes soffits, windows and skylights (but not glass balustrates) **Includes cladding and built landscaping that cannot be measured by way of light reflectance value but is deemed by Council to be suitably recessive and have the same effect as achieving a light reflectance value of 30%	<b>Restricted Discretionary</b>	<b>No</b> - Materials and colours will comply with this standard.
24.5.6	<b>Building Coverage</b> The building coverage of all buildings on a site not subject to Rule 24.5.5 must not exceed 15% of net site area, or 500m <sup>2</sup> , whichever is the lesser	<b>Restricted Discretionary</b>	<b>Yes</b> - the existing buildings comprise approximately 1,200m <sup>2</sup> GFA (dwelling, garage and sheds), with 270m <sup>2</sup> consented un-built extensions. The proposed additional buildings will comprise an additional 217 + 80 + 36.5m <sup>2</sup> (333.5m <sup>2</sup> ) GFA, making a total coverage of 1803m <sup>2</sup> . The total footprint of buildings on the site will therefore exceed 500m <sup>2</sup> . However, the overall site coverage is 4.5% and remains well below the



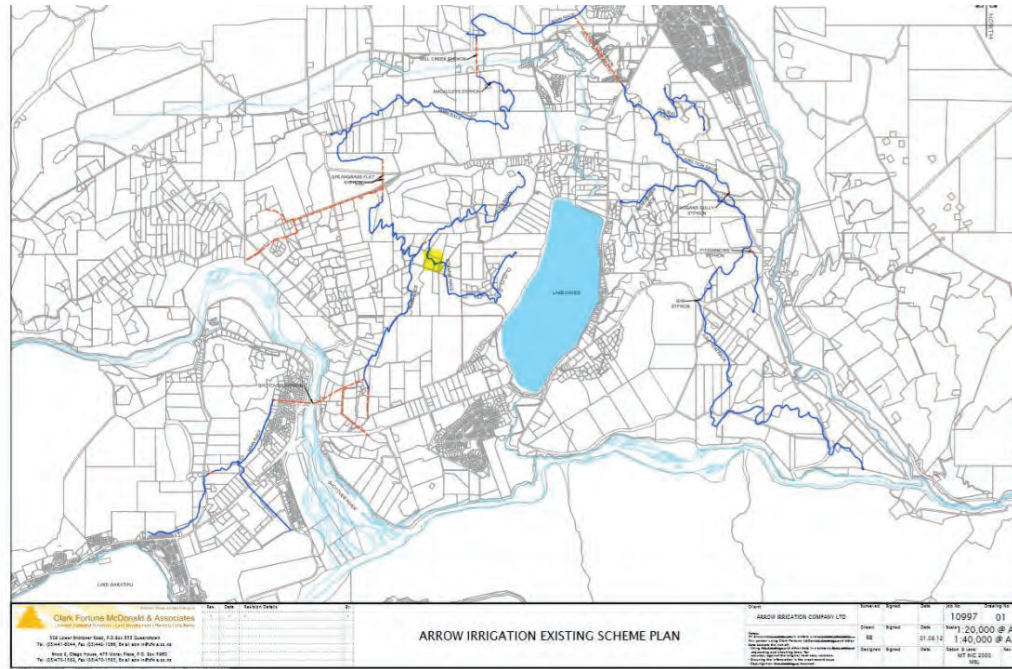
Rule	Activity	Status	Consent Required?
			15% standard. It is also noted that pergolas are excluded from the definition of "Building Coverage" and as such the open horse shelter may not be required to be included.
24.5.7	<b>Setback from internal boundaries</b> The minimum setback of any building from internal boundaries shall be 10m	<b>Restricted Discretionary</b>	<b>Yes</b> – fire fighting water tanks are located closer than 10m to the internal boundary.
24.5.8.1	<b>Height of buildings</b> The maximum height of buildings shall be 6.5m	<b>Restricted Discretionary</b>	<b>Yes</b> – the maximum height of the shed with residential flat is 6.365m. Some filling is proposed in this location, resulting in a small area of the roof which breaches this height by 270mm.
24.5.8.2	<b>Height of buildings</b> The maximum height of buildings shall be 8m	<b>Non-Complying</b>	<b>No</b> – the maximum height of the building is less than 8m.
24.5.9	<b>Setback from roads</b> 1. The minimum setback of any building from any road boundary (other than an unformed road) shall be 75m in the Precinct and 20m in the Rural Amenity Zone. 2. The minimum setback of any building from any unformed road shall be 20m in the Rural Amenity Zone and Lifestyle Precinct. 3. Rules 24.5.9.1 and 24.5.9.2 do not apply to the construction of buildings for residential activity pursuant to Rule 24.4.5.	<b>Restricted Discretionary</b>	<b>No</b> – the buildings are set back more than 20m from the road boundary.
24.5.11	<b>Setback from boundaries of non-residential buildings housing animals</b> The minimum setback from boundaries for any building whose primary purpose is to house animals shall be 30m.	<b>Restricted Discretionary</b>	<b>No</b> – the shed is for intermittent shelter for horses and includes a residential flat. The permanent housing of animals is not the primary purpose of the building.
24.5.12	<b>Setback of buildings from waterbodies</b> The minimum setback of any building from the bed of a wetland, river or lake shall be 30m.	<b>Restricted Discretionary</b>	<b>No</b> – the definition of "river" does not include an artificial water course including an irrigation canal or water supply race; and so this rule does not apply to the part of the Arrow Irrigation Race located within the site.

Rule	Activity	Status	Consent Required?
24.5.13	<b>Farm buildings</b> The maximum gross floor area of any farm building shall be 50m <sup>2</sup>	<b>Restricted Discretionary</b>	<b>No</b> – The floor area of the barn area of the three bay shed exceeds 50m <sup>2</sup> , however the building does not meet the definition of a farm building as it is not for “farming activity” as defined under the PDP.
24.5.19	<b>Firefighting water and access</b> New buildings for residential activities where there is no reticulated water supply, or any reticulated water supply is not sufficient for firefighting, must have one of the following: either a sprinkler system installed and plumbed with a maintained static water storage supply of at least 7,000 litres available to the system, or water supply and access for firefighting that meets the following requirements: <ol style="list-style-type: none"> <li>Water storage of at least 45,000 litres shall be maintained (excluding potable water storage for domestic use) with an outlet connection point that can provide 1500L/min (25 L/s) and any necessary couplings;</li> <li>A hardstand area with a minimum width of 4.5m and length of 11m located within 6m of the firefighting water supply connection point and capable of supporting a 20 tonne fire service vehicle;</li> <li>The connection point or the firefighting water supply must be located more than 6m and less than 90m from the building for residential activities and be accessible by emergency service vehicles during fire events;</li> <li>Access from the property road boundary to the hardstand area capable of accommodating a 20 tonne fire service vehicle.</li> </ol>	<b>Restricted Discretionary</b>	<b>No</b> – firefighting requirements were addressed as part of RM210095 and a condition of consent was imposed requiring compliance with this standard. Additionally, it is proposed to establish two new 25,000L water tanks to provide further fire fighting supply for the residential flat.
<b>Chapter 25 - Earthworks</b>			
25.5.4	<b>Table 25.2 - Maximum Volume</b> Wakatipu Basin Rural Amenity Zone and Precinct – 400m <sup>3</sup>	<b>Restricted Discretionary</b>	<b>Yes</b> – the volume of earthworks proposed is 725m <sup>3</sup> .
25.5.11	Earthworks over a contiguous area of land shall not exceed the following area: 25.5.11.1 2,500m <sup>2</sup> where the slope is 10° or greater.	<b>Restricted Discretionary</b>	<b>No</b> – the area of earthworks is less than 10,000m <sup>2</sup> .

Rule	Activity	Status	Consent Required?
	25.5.11.1 10,000m <sup>2</sup> where the slope is less than 10°. 25.5.11.1 2,500m <sup>2</sup> at any one time for the construction of a trail.		
25.5.12	Erosion and sediment control measures must be implemented and maintained during earthworks to minimise the amount of sediment exiting the site, entering water bodies, and stormwater networks.  Note:  Compliance with this standard is generally deemed to be compliance with Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland region. Auckland Council Guideline Document GD2016/005.	<b>Restricted Discretionary</b>	<b>No</b> – An EMP will be prepared for the works prior to construction. The applicant accepts a condition of consent requiring the submission of an EMP to Council for review and approval.
25.5.13	Dust from earthworks shall be managed through appropriate dust control measures so that dust it does not cause nuisance effects beyond the boundary of the site	<b>Restricted Discretionary</b>	<b>No</b> – An EMP will be prepared for the works prior to construction. The applicant accepts a condition of consent requiring the submission of an EMP to Council for review and approval.
25.5.19	<b>Water bodies</b>  21.5.19.1 Earthworks within 10m of the bed of any water body, or any drain or water race that flows to a lake or river, shall not exceed 5m <sup>3</sup> in total volume, within any consecutive 12-month period.	<b>Restricted Discretionary</b>	<b>Yes</b> - The Arrow Irrigation Channel has two primary races and numerous secondary races branching off the two main races. The Morven Ferry race carries water from Arrowtown southeast to Morven Ferry, and terminates at the Kawareau River where a discharge point delivers water into the river. The Frankton race carries water southwest to the Frankton Flats and terminates at the Frankton Arm of Lake Wakatipu where a discharge point delivers water into the Lake <sup>1</sup> .  The race flowing through the subject site is part of a secondary branch off the main race, referred to as the 'Strains Race'. This section of the race provides water supply to

<sup>1</sup> Arrow Irrigation Company Limited - RM20.049, Assessment of Environmental Effects, available online at <https://www.orc.govt.nz/consents-and-compliance/current-notified-applications/arrow-irrigation-company-limited-rm20049>

Rule	Activity	Status	Consent Required?
			Threepwood, and it is understood that this water may reach Lake Hayes in places. Refer to image below.



**Figure 3:** Arrow Irrigation Scheme Map, with site highlighted in yellow (Source: Arrow Irrigation Company Limited - RM20.049, Assessment of Environmental Effects, available online at <https://www.orc.govt.nz/consents-and-compliance/current-notified-applications/arrow-irrigation-company-limited-rm20049>)

### 2.1.1. Summary of consents required

In summary, the following consents are required for the proposal:

#### **Under the PDP:**

- **Non-Complying** activity under Rule 24.4.7 for the construction of buildings for residential activity (being that part of the shed to be used as a residential flat) located outside a building platform.
- **Restricted Discretionary** activity under Rule 24.4.18 for the construction of buildings for non-residential activity (being that part of the shed to be used to house horses) located outside a building platform.
- **Restricted Discretionary** activity under Rule 24.5.6 for total building coverage on the site exceeding 500m<sup>2</sup>.
- **Restricted Discretionary** activity under Rule 24.5.7 for a breach to the minimum 10m internal boundary setback for the proposed water tanks.
- **Restricted Discretionary** activity under 24.5.8.1 for a 270mm breach to the maximum 6.5m height limit.

- **Restricted Discretionary** activity under Rule 25.5.4 for a total earthworks volume exceeding 400m<sup>3</sup>.
- **Restricted Discretionary** activity under Rule 25.5.19 for earthworks within 10m of the bed of any water body, or any drain or water race that flows to a lake or river, that exceeds 5m<sup>3</sup> in total volume.

**Other consents:**

- The applicant applies for any other consents necessary to enable the proposal.

Overall, resource consent is required for a **Non-Complying** activity.

### 3. WHERE IT IS LIKELY THAT AN ACTIVITY WILL RESULT IN ANY SIGNIFICANT ADVERSE EFFECT ON THE ENVIRONMENT, A DESCRIPTION OF ANY POSSIBLE ALTERNATIVE LOCATIONS OR METHODS FOR UNDERTAKING THE ACTIVITY:

No significant adverse effects on the environment will arise, and no other alternatives were considered.

### 4. AN ASSESSMENT OF THE ACTUAL OR POTENTIAL EFFECT ON THE ENVIRONMENT OF THE PROPOSED ACTIVITY:

#### 4.1. Introduction

This assessment of effects on the environment addresses:

- The permitted baseline and existing environment;
- Effects on landscape character and visual amenity;
- Positive effects; and
- Summary of effects on the environment.

#### 4.2. Permitted/Consented Baseline and existing/receiving environment

When determining the actual and potential effects of an application for resource consent, the permitted baseline allows a comparison of the potential adverse effects of the proposal against what is permitted as of right under the District Plan (the permitted baseline) and what could lawfully be undertaken on the land by way of any existing consents (the existing environment).

##### 4.2.1. Permitted Baseline

Section 104(2) of the Resource Management Act states that when forming an opinion on whether there are adverse effects from an activity on the environment, the consent authority may disregard adverse effects if the plan explicitly permits that certain activity.

The following development is enabled on the site as of right:

- Farming activity, including farm buildings up to 50m<sup>2</sup> in area.
- Residential activity (excluding buildings), including a Residential Flat up to 150m<sup>2</sup> in floor area.
- Building height of 6.5m.
- Building coverage of 5% of the site area, or 500m<sup>2</sup>, whichever is lesser.
- Earthworks of up to 400m<sup>3</sup> per site within any consecutive 12-month period.

#### 4.2.2. Existing Environment

The consented activity onsite includes a residential dwelling and several consented external buildings including a pool house/yoga studio, pool, storage shed and horse shed. The locations of existing and consented buildings are indicated on the landscape plans in **Attachment D**. It is noted that the pool and pool house (consented under RM210095) has not yet been implemented and the consent remains active and has not lapsed.

The existing environment also includes horse grazing and equestrian activities.

#### 4.3. Effects on landscape character and visual amenity

As set out in Section 1.4 above, the proposal will introduce additional built form on the subject site, located outside of an approved building platform. The site is located within Landscape Character Unit 11 – Slope Hill ‘Foothill’ (**LCU 11**).

A Landscape Assessment has been undertaken for the proposal (included as **Attachment H**) and provides a detailed consideration to the characteristics of the landscape character unit and the effects of the proposed activity.

Schedule 24.8 of the PDP notes that LCU 11 is generally characterised by elevated and complex patterning of hills ranging from moderate to steeply sloping in places, with vegetation consisting of exotic shelter belts and amenity planting and remnant gully vegetation. Older dwellings in the LCU are noted to be well integrated into the landform and established vegetation.

The proposed sheds, horse shelters and residential activity will support and be consistent with rural activity on the site. The structures will provide shelter for horses on the property, and the residential flat will provide accommodation for the horse carer. The design of the buildings is consistent with that expected of typical farm buildings on large rural land holdings, and will utilise recessive colours to reduce visual prominence. The buildings remain mostly below the maximum height specified for the zone, and located on a lower terrace below an existing landscaped bund which provides partial screening. The minor breach of 270mm on a part of the roof of the residential flat building will not be discernible. Additional landscaping is proposed to integrate the building into the surroundings, provide filtered screening, and contribute to the natural amenity of the site.

The Landscape Assessment **Attachment H** considers the proposal to be appropriate and able to be absorbed on the site and within the landscape character unit. The location is within a leafy and rolling hills area, with the site being well contained when viewed from public and private places by the rolling topography and existing landscaped mounds and planting. Proposed planting will assist in further blending the built form with the existing rural character deciduous amenity plantings surrounding the site.

The landscape assessment notes the structures will have brief visual effects to users of the right of way along the western boundary. To the west of the right of way, within the property located at 113 Slopehill Road, there is extensive established tree planting, and the shed will not be visible from this property. Consent notice 8243173.4 requires the boundary planting within 113 Slopehill Road to be retained to provide ongoing screening between the two properties.

A small area of earthworks is proposed in order to level and pipe the Arrow Irrigation Race, and create a flat area around the residential flat. Approval has been obtained from the Arrow Irrigation Company to pipe the race (Refer **Attachment E**). The earthworks will result in a minor change to the existing ground level, with the maximum height of fill being in the location of the race. The race is an artificial feature, and the levelling of this area will create a landform that will integrate with, and not be dissimilar to, the remainder of the site. The area of earthworks will not be visible from public areas being well setback from the road frontage, at the rear of the site beyond the existing landscaped mound.

Overall, the landscape assessment concludes that the site is able to absorb the proposed development and will maintain the rural characteristics of the character unit with at most ‘very low’ effects. As such, any adverse effects from the proposed building and associated works will be less than minor.



#### 4.4. Positive effects

The proposal will enable the applicant to provide for the welfare of the family horses through providing an option for shade in summer and shelter during the winter months. The proposed residential flat will provide an on-site accommodation option for the horse carer, contributing to residential housing capacity and staff accommodation in the district. The proposed landscaping will further add to the amenity of the landscape character unit.

#### 4.5. Summary of effects on the environment

When considered overall, effects from the proposal will be no more than minor.

### 5. ASSESSMENT UNDER THE RELEVANT OBJECTIVES AND POLICIES

#### 5.1. Operative District Plan

The site has been rezoned under the PDP as WBRAZ, and there are no outstanding appeals in relation to the land's zoning. However, there are outstanding appeals in relation to the PDP provisions that relate to the WBRAZ that are of relevance to the assessment of the proposal. Therefore, an assessment of the relevant objectives and policies of the Operative District Plan (**ODP**) is provided below.

The relevant ODP objectives and policies are assessed as follows.

*Table 3: ODP provisions*

Provision	Detail	Assessment
<b>Section 4 – District Wide</b>		
<b>Objective 4.2.5</b>	<b>Subdivision, use and development being undertaken in the District in a manner which avoids, remedies or mitigates adverse effects on landscape and visual amenity values.</b>	As detailed in this assessment, the location is within a landscape of leafy and rolling hills, with the site itself being well contained when viewed from public and private places by the rolling topography and existing landscaped mounds and planting. A 3.5m high grassed mound with a row of mature poplars exists along the southern road boundary of the site which limits visibility from Slope Hill Road. There is also a 2m high vegetated mound along the western boundary of the site adjacent to the right of way. The proposal will therefore not be highly visible from public places.
Policy 1	(a) To avoid, remedy or mitigate the adverse effects of development and/or subdivision in those areas of the District where the landscape and visual amenity values are vulnerable to degradation. (b) To encourage development and/or subdivision to occur in those areas of the District with greater potential to absorb change without detracting from landscape and visual amenity values. (c) To ensure subdivision and/or development harmonises with local topography and ecological systems and other nature conservation values as far as possible.	
Policy 4	(a) To avoid, remedy or mitigate the adverse effects of subdivision and development on the visual amenity landscapes which are: <ul style="list-style-type: none"> <li>highly visible from public places and other places which are frequented by members of the public generally (except any trail as defined in this Plan); and</li> <li>visible from public roads.</li> </ul> (b) To mitigate loss of or enhance natural character by appropriate planting and landscaping	

Provision	Detail	Assessment
Policy 8	<p>(a) to ensure that the density of subdivision and development does not increase to a point where the benefits of further planting and building are outweighed by the adverse effect on landscape values of over domestication of the landscape.</p> <p>(b) to encourage comprehensive and sympathetic development of rural areas.</p>	<p>blending the built form with the existing rural character.</p> <p>The proposal achieves the objective and associated policies.</p>
Policy 9	<p>(a) outstanding natural landscapes and features and visual amenity landscapes by:</p> <ul style="list-style-type: none"> <li>encouraging structures which are in harmony with the line and form of the landscape;</li> <li>avoiding, remedying or mitigating any adverse effects of structures on the skyline, ridges and prominent slopes and hilltops;</li> <li>encouraging the colour of buildings and structures to complement the dominant colours in the landscape;</li> <li>encouraging placement of structures in locations where they are in harmony with the landscape;</li> <li>promoting the use of local, natural materials in construction.</li> </ul> <p>(b) Visual amenity landscapes</p> <ul style="list-style-type: none"> <li>by screening structures from roads and other public places by vegetation whenever possible to maintain and enhance the naturalness of the environment; and</li> </ul> <p>(c) All rural landscapes by</p> <ul style="list-style-type: none"> <li>limiting the size of signs, corporate images and logos</li> <li>providing for greater development setbacks from public roads to maintain and enhance amenity values associated with the views from public roads.</li> </ul>	
<b>Section 5 – Rural Areas</b>		
<b>Objective 1</b>	<b>To protect the character and landscape value of the rural area by promoting sustainable management of natural and physical resources and the control of adverse effects caused through inappropriate activities.</b>	
Policy 1.4	Ensure activities not based on the rural resources of the area occur only where the character of the rural area will not be adversely impacted.	<p>The proposal will enable the continuation of rural activities (horse riding) on the site.</p> <p>The proposal achieves the policy.</p>
Policy 1.6	Avoid, remedy or mitigate adverse effects of development on the landscape values of the District.	<p>The selected position for the shed, residential flat and open shelter on a lower terrace below an existing landscaped bund provides mitigation of visibility and the site is able to absorb the proposed building. Proposed planting will</p>
Policy 1.7	Preserve the visual coherence of the landscape by ensuring all structures are to be located in areas with the potential to absorb change.	



Provision	Detail	Assessment
		assist in blending the built form with the existing rural character. The proposal achieves the policy.
Policy 1.8	Avoid remedy or mitigate the adverse effects of the location of structures and water tanks on skylines, ridges, hills and prominent slopes.	The proposed buildings are not located on a skyline, ridge, hill or prominent slope. The proposal achieves the policy.
<b>Objective 3</b>	<b>Avoiding, remedying or mitigating adverse effects of activities on rural amenity.</b>	
Policy 3.5	Ensure residential dwellings are setback from property boundaries, so as to avoid or mitigate adverse effects of activities on neighbouring properties.	The buildings comply with required boundary setbacks. Water tanks are proposed within the setback however will be partially integrated into the existing landscaped mound. The western boundary adjoins a Right of Way and is not located in close proximity to the adjacent site or residential dwellings. To the west of the right of way, within 113 Slopehill Road, there is extensive established tree planting which is required to be maintained by consent notice conditions registered on the title, and the shed will not be visible from this property. The building being located 2.4m closer to the boundary than required will not adversely affect neighbouring properties. The proposal achieves the policy.

## Conclusion – Objectives and Policies of the ODP

Based on the above assessment, the proposal is not considered to be contrary to the relevant objectives and policies of the ODP.

## 5.2. Proposed District Plan

The relevant objectives and policies are contained within Chapter 24 of the PDP. Where an objective or policy has been appealed and that appeal is yet to be resolved, it is denoted with an asterisk (\*).

The relevant provisions are provided and assessed below:

*Table 4: PDP provisions*

Provision	Detail	Assessment
<b>Chapter 24 – Wakatipu Basin</b>		
<b>Objective 24.2.1*</b>	<b>Landscape character and visual amenity values in the Wakatipu Basin are maintained or enhanced.</b>	A detailed landscape assessment has been undertaken and concludes that the proposal will have a very low effect on visual amenity and will maintain the existing rural character of the surrounding landscape.

Provision	Detail	Assessment
		The proposal achieves the objective.
Policy 24.2.1.2*	Ensure subdivision and development is designed (including accessways, services, utilities and building platforms) to minimise inappropriate modification to the natural landform.	The proposed building is located on a lower terrace in a relatively flat location that requires minimal earthwork. . The proposal achieves the policy.
Policy 24.2.1.3*	Ensure that subdivision and development maintains or enhances the landscape character and visual amenity values identified in Schedule 24.8 - Landscape Character Units.	A detailed landscape assessment has been undertaken and considers the proposal against the values identified for LCU 11. The proposal achieves the policy.
Policy 24.2.1.4*	Maintain or enhance the landscape character and visual amenity values of the Rural Amenity Zone including the Precinct and surrounding landscape context by: <b>a.</b> controlling the colour, scale, form, coverage, location (including setbacks) and height of buildings and associated infrastructure, vegetation and landscape elements	The proposed shed mostly complies with height limits (with the exception of a small area of 270mm breach) and standards for recessive and non-reflective colours and materials. The proposal breaches maximum site coverage. The presence of rural buildings of the style proposed is not unexpected on a property of this size, and the buildings are consistent with permitted activities on the site being rural living and residential activity. Although the proposal breaches site coverage, a large portion of the property will still remain vacant and open. The proposal achieves the policy.
Policy 24.2.1.6*	Provide for farming, commercial, community, recreation, tourism and other non-residential related activities that rely on the rural land resource, subject to maintaining or enhancing landscape character and visual amenity values.	Rural sheds of this nature are anticipated in association with farming activities, which are permitted on the site and also adjacent sites. Although the buildings do not strictly provide for farming activities (as defined by the PDP) they will support a rural based activity by providing shelter for horses, and accommodation for the horse carer. Horse grazing activities rely on the rural land resource. The landscape assessment concludes that the proposal will maintain landscape character and visual amenity values. The proposal achieves the policy.
Policy 24.2.1.9	Control earthworks and vegetation clearance to minimise adverse effects on landscape character and visual amenity values.	Some earthworks are required to create a level area around the proposed residential flat. The proposed earthworks will be consistent with the landform across

Provision	Detail	Assessment
		the remainder of the site. No vegetation clearance is proposed. The proposal achieves the policy.
Policy 24.2.1.11	Provide for activities that maintain a sense of spaciousness in which buildings are subservient to natural landscape elements.	The landscape assessment concludes that the proposal can be absorbed within the landscape and will maintain landscape character and visual amenity values. The proposal achieves the policy.
Policy 24.2.1.12	Manage lighting so that it does not cause adverse glare to other properties, roads or public places or degrade views of the night sky.	Lighting will be directed downwards and comply with PDP standards. The proposal achieves the policy.
<b>Objective 24.2.2</b>	<b>Non-residential activities maintain or enhance amenity values</b>	The shed and residential flat will be accessed via an existing Right of Way. The non-residential use is associated with rural activity on the site and is anticipated as part of the character and amenity of the zone. The proposal achieves the objectives and associated policies.
Policy 24.2.2.1*	Ensure traffic, noise and the scale and intensity of non-residential activities do not have an adverse impact on landscape character and amenity values, or affect the safe and efficient operation of the roading and trail network or access to public places.	
Policy 24.2.2.2	Ensure the effects generated by non-residential activities (e.g. traffic, noise, and hours of operation) are compatible with surrounding uses.	
<b>Objective 24.2.3</b>	<b>Reverse sensitivity effects are avoided or mitigated where rural living opportunities, visitor and tourism activities, community and recreation activities occur.</b>	The proposed buildings are associated with horse grazing and are not for productive farming activities (as defined by the PDP). The sheds will provide an option for shelter and the horses will not be permanently kept in the barn. There is sufficient separation between the barn and existing residential buildings on adjacent sites. The proposal achieves the objectives and associated policies.
Policy 24.2.3.2*	Ensure reverse sensitivity effects on rural living and non-residential activities are avoided or mitigated.	
Policy 24.2.3.3	Support productive farming activities such as agriculture, horticulture and viticulture in the Rural Amenity Zone by ensuring that reverse sensitivity issues do not constrain productive activities.	
<b>Objective 24.2.4</b>	<b>Subdivision and development, and use of land, maintains or enhances water quality, ecological quality, and recreation values while ensuring the efficient provision of infrastructure.</b>	
Policy 24.2.4.1	Avoid adverse cumulative impacts on ecosystem services and nature conservation values.	The site of the proposed buildings and flat does not contain any significant ecological or natural conservation values. The proposal achieves the policy.
Policy 21.2.4.4*	Provide adequate firefighting water and emergency vehicle access to ensure an efficient and effective emergency response.	Two buried firefighting storage tanks are proposed within the landscaped bund south of the proposed shed. The proposal achieves the policy.
Policy 24.2.4.7	Ensure traffic generated by non-residential development does not individually or cumulatively compromise road safety or efficiency.	The shed and residential flat will be accessed via an existing Right of Way. The non-residential use is associated with rural activity on the site and is anticipated as part of the

Provision	Detail	Assessment
		<p>character and amenity of the zone. As the horse carer will reside on the site additional traffic movements as a result of the proposal will be very low.</p> <p>The proposal achieves the policy.</p>
Policy 24.2.4.9	Encourage the planting, retention and enhancement of indigenous vegetation that is appropriate to the area and planted at a scale, density, pattern and composition that enhances indigenous biodiversity values, particularly in locations such as gullies and riparian areas, or to provide stability.	<p>Additional planting is proposed as detailed on the landscape plan, and will be consistent with the existing planting on site.</p> <p>The proposal achieves the policy.</p>
<b>Chapter 25 - Earthworks</b>		
<b>Objective 25.2.1</b>	<b>Objective – Earthworks are undertaken in a manner that minimises adverse effects on the environment, including through mitigation or remediation, and protects people and communities.</b>	<p>The scale of earthworks is minor and will be consistent with the topography of the remainder of the site.</p> <p>An EMP and ESCP will be developed to manage potential erosion and sedimentation effects. A condition of consent is accepted requiring the provision of an EMP to Council for review and approval prior to commencement of construction.</p> <p>The proposal achieves the objective.</p>
Policy 25.2.1.1	Ensure earthworks minimise erosion, land instability, and sediment generation and offsite discharge during construction activities associated with subdivision and development.	<p>An EMP and ESCP will be developed to manage potential erosion and sedimentation effects. A condition of consent is accepted requiring the provision of an EMP to Council for review and approval prior to commencement of construction.</p> <p>The proposal achieves the policy.</p>
Policy 25.2.1.4	Manage the scale and extent of earthworks to maintain the amenity values and quality of rural and urban areas.	<p>The proposed earthworks are designed to create a more natural contour. The scale of earthworks will be consistent with the landform to the rear and will maintain the existing rural amenity.</p> <p>The proposal achieves the policy.</p>
Policy 25.2.1.5	Design earthworks to recognise the constraints and opportunities of the site and environment.	<p>The proposed earthworks enable the opportunity to re-level an area of an artificial irrigation race, and create an additional area of open space adjacent to the residential flat.</p> <p>The proposal achieves the policy.</p>
Policy 25.2.1.9	Manage the potential adverse effects arising from exposing or disturbing accidentally discovered material by following the Accidental Discovery Protocol in Schedule 25.10.	<p>A condition of consent is accepted requiring compliance with the</p>

Provision	Detail	Assessment
		Accidental Discovery Protocol in Schedule 25.10. The proposal achieves the policy.

### Conclusion – Objectives and Policies of the PDP

The objectives and policies of the PDP in relation to the Wakatipu Basin have been identified by the Environment Court as a significant policy shift compared to the ODP. Accordingly, the PDP provisions, although under appeal, are to be afforded greater weight than the ODP provisions.

Notwithstanding, based on the above assessment, the proposal is not considered to be contrary to the relevant objectives and policies of either the ODP or PDP and therefore a weighting assessment is not required.

### 5.3. Regional Policy Statement, Regional Plans and other planning instruments

The Otago Regional Policy Statement (RPS) sets the direction for future management and promotion of the sustainable management of the region's natural and physical resources, as well as providing the policy context for regional plans and establishing the framework for district plans.

The Partially Operative RPS 2019 (PORPS2019) was declared partially operative on 15 March 2021, at which time the RPS 1998 was also revoked. Following a 2019 review of the region's freshwater management framework and the introduction in 2020 of new national regulations, the PORPS2019 has now been reviewed, and the Proposed Otago Regional Policy Statement 2021 (PRPS2021) was notified on 26 June 2021.

The PRPS2021 identifies eleven significant resource management issues for the region and explains how national direction will be applied in the Otago context. The eleven issues can be broken down into natural asset-based issues, place-based issues, and those issues relating to economic and domestic pressures, cumulative impacts and resilience.

The proposed development has been considered against the objectives and policies of the PORPS2019 and the PRPS2021. The development is generally consistent with the broad policy direction of both Regional Policy Statements, to ensure rural lifestyle and rural residential development occurs in locations that are suitable for such development, and to maintain rural character.

The PORPS2019 (non-freshwater parts) are currently proceeding through the hearings process and decisions have not yet been issued.

#### 5.3.1. Regional Plan: Water for Otago (Water Plan)

The Regional Plan: Water for Otago (Water Plan) includes new restrictions relating to sediment from earthworks for residential development. The proposed earthworks are considered to meet the definition of **residential development**<sup>1</sup>. The relevant rules are detailed and assessed in **Table 1** below.

It is noted that the Arrow Irrigation Channel is not defined as a "River" under the Water Plan.

**Table 1: Sediment from earthworks for residential development**

Rule	Activity	Activity Status / Consent required
<b>Part G – Sediment from earthworks for residential development</b>		
14.5.1	<b>Permitted activities: No resource consent required</b>	The proposed earthworks do not meet the permitted activity standard (b) as the works will occur within 10m of a water

	<p>The use of land, and the associated discharge of sediment into water or onto or into land where it may enter water, for earthworks for residential development is a permitted activity providing:</p> <ul style="list-style-type: none"> <li>a. The area of exposed earth is no more than 2,500 m<sup>2</sup> in any 12-month period per landholding; and</li> <li>b. Earthworks do not occur within 10 metres of a water body, a drain, a water race, or the coastal marine area; and</li> <li>c. Exposed earth is stabilised upon completion of the earthworks to minimise erosion and avoid slope failure; and</li> <li>d. Earthworks do not occur on contaminated or potentially contaminated land; and</li> <li>e. Soil or debris from earthworks is not placed where it can enter a water body, a drain, a race or the coastal marine area; and</li> <li>f. Earthworks do not result in flooding, erosion, land instability, subsidence or property damage at or beyond the boundary of the property where the earthworks occur; and</li> <li>g. The discharge of sediment does not result in any of the following effects in receiving waters, after reasonable mixing: <ul style="list-style-type: none"> <li>i. the production of conspicuous oil or grease films, scums or foams, or floatable or suspended materials; or</li> <li>ii. any conspicuous change in the colour or visual clarity; or</li> <li>iii. any emission of objectionable odour; or</li> <li>iv. the rendering of fresh water unsuitable for consumption by farm animals; or</li> <li>v. any significant adverse effects on aquatic life.</li> </ul> </li> </ul>	<p>race. The applicant will apply for the necessary consent to ORC separately to this application.</p> <p>All of the other permitted activity standards (in (b) – (g) of the rule) are or will be complied with, as discussed throughout this assessment.</p>
14.5.2	<p><b>Restricted discretionary activities: Resource consent required</b></p> <p>Except as provided by Rule 14.5.1.1, the use of land, and the associated discharge of sediment into water or onto or into land where it may enter water, for earthworks for residential development is a restricted discretionary activity...</p>	<p><b>Yes</b> – consent is required for works within 10m of a water race. The applicant will apply for the necessary consent to ORC separately to this application.</p>

#### 5.4. National Environmental Standard for Contaminated Soils

In accordance with the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health, all applications for resource consent need to be determined if they apply under this National Environmental Standard (**NES**).

The regulations apply if any of the following activities are undertaken:

- (a) *remove or replace an underground fuel storage system or any of its parts*
- (b) *sample the soil to determine contamination*
- (c) *disturb the soil (earthworks)*
- (d) *subdivide the land*
- (e) *change the use of the land.*

The site is identified on the ORC Contaminated Land Register as an Unverified HAIL being A10: *Persistent pesticide bulk storage or use including sport turfs, market gardens, orchards, glass houses or spray sheds*. Therefore, the NES applies.

A Preliminary Site Investigation (**PSI**) was undertaken in 2013 by Davis Consulting Group, and a copy is included in **Attachment I**. The report identified that the potential contaminants of concern were associated with the historic application of fertiliser. Soil sampling was undertaken and confirmed the organochlorine pesticide and heavy metal levels were either below laboratory detection limits, below the New Zealand Soil Contaminant Standards SGVs or below the Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater SGVs. Based on the results of the PSI, the investigation concluded it is highly unlikely that there is a risk to human health.

Further comment has been obtained from e3 Scientific and is included in **Attachment J**, which reviews newly accessible aerial photographs and again concludes that there is no evidence of HAIL activity on the site.

Based on the above, the proposal is considered to be a Permitted Activity under clause 8(4) of the NES.

## 5.5. National Policy Statement for Highly Productive Land

The National Policy Statement – Highly Productive Land (**NPS-HPL**) requires that regional councils map as “highly productive land” any land in its region that is in a general rural zone or rural production zone; is predominantly Land Use Capability (**LUC**) 1, 2, or 3 land; and forms a large and geographically cohesive area. The mapping is to be notified and when operative, territorial authorities must map the highly productive land in their districts. Until the regional council’s mapping is operative, each territorial authority and consent authority must apply the NPS-HPL as if references to highly productive land were references to land zoned general rural or rural production; and is LUC 1, 2, or 3 land; but is not identified for future urban development or 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 site is identified as LUC-3 on the Manaaki Whenua mapping. Although farming is a permitted activity in the WBRAZ (and also in the subzone the Wakatipu Basin Lifestyle Precinct (WBLP)) the purpose of the WBRAZ / WBLP zones is not for rural production. Rather, the purpose of the WBRAZ / WBLP zones is to maintain or enhance landscape and visual amenity values, while providing for rural living and other activities. The WBRAZ / WBLP therefore cannot be regarded as a “general rural zone” or a “rural production zone” for the purposes of the NPS-HPL.

Further assessment against the NPS-HPL is not considered necessary as the site is not within a general rural or rural production zone.

If the Council considers that further assessment under the NPS-HPL is required because the WBRAZ is a “general rural zone” or a “rural production zone” for the purposes of the NPS-HPL, the Manaaki Whenua mapping shows that the soils of the Site are LUC 3 and would therefore constitute “highly productive land” under the NPS-HPL’s definition and under Clause 3.5(7)(a)(ii). Relevant policies of the NPS-HPL are:

*Policy 8: Highly productive land is protected from inappropriate use and development.*



The Implementation clause 3.9 states:

**3.9 Protecting highly productive land from inappropriate use and development**

- (1) *Territorial authorities must avoid the inappropriate use or development of highly productive land that is not land-based primary production.*
- (2) *A use or development of highly productive land is inappropriate except where at least one of the following applies to the use or development, and the measures in subclause (3) are applied:*
  - (a) *it provides for supporting activities on the land:*
  - (b) *it addresses a high risk to public health and safety:*
  - (c) *it is, or is for a purpose associated with, a matter of national importance under section 6 of the Act:*
  - (d) *it is on specified Māori land:*
  - (e) *it is for the purpose of protecting, maintaining, restoring, or enhancing indigenous biodiversity:*
  - (f) *it provides for the retirement of land from land-based primary production for the purpose of improving water quality:*
  - (g) *it is a small-scale or temporary land-use activity that has no impact on the productive capacity of the land:*
  - (h) *it is for an activity by a requiring authority in relation to a designation or notice of requirement under the Act:*
  - (i) *it provides for public access:*
  - (j) *it is associated with one of the following, and there is a functional or operational need for the use or development to be on the highly productive land:*
    - (i) *the maintenance, operation, upgrade, or expansion of specified infrastructure:*
    - (ii) *the maintenance, operation, upgrade, or expansion of defence facilities operated by the New Zealand Defence Force to meet its obligations under the Defence Act 1990:*
    - (iii) *mineral extraction that provides significant national public benefit that could not otherwise be achieved using resources within New Zealand:*
    - (iv) *aggregate extraction that provides significant national or regional public benefit that could not otherwise be achieved using resources within New Zealand.*
- (3) *Territorial authorities must take measures to ensure that any use or development on highly productive land:*
  - (a) *minimises or mitigates any actual loss or potential cumulative loss of the availability and productive capacity of highly productive land in their district; and*



- (b) *avoids if possible, or otherwise mitigates, any actual or potential reverse sensitivity effects on land-based primary production activities from the use or development.*

In determining what is “inappropriate” under Clause 3.9(1), clause 3.9(2)(a) and 3.9(2)(g) are the only relevant clauses.

With regard to 3.9(2)(a), the proposal is for the construction of a shed and accessory structures to provide a covered shelter for horses that are currently grazing on the property, with the inclusion of a residential flat to provide on-site accommodation for the horse carer. “Supporting activities” are defined in Clause 1.3 of the NPS-HPL as:

*“those activities reasonably necessary to support land-based primary production on that land (such as on-site processing and packing, equipment storage, and animal housing)”.*

Further, the NPS implementation guideline<sup>2</sup> states (at page 28) that “Activities such as residential accommodation for the landowner and/or farm staff, seasonal worker accommodation, sheds for farm machinery...would all be anticipated under this clause where these support land-based primary production”. While there is no current land based primary production on the site, the intended purpose of the buildings provides for supporting rural activities on the land consistent with the definition of “supporting activities”. The buildings would be able to be readily used to support primary production if this was to be established on the site in future.

With regard to 3.9(2)(g), the proposed buildings are small-scale additions to an existing rural living property within an area that has a long-established rural living character and no active productive farming. As discussed at page 23 of the implementation guideline<sup>2</sup>, the assessment of the “overall productive capacity” of the land, and therefore the impact of the proposal on this, also is required to consider the existing established activities and constraints of the site and how these affect the potential for the land to be used productively in future. Due to the existing rural horse grazing activities and residential buildings, the property does not currently support land based primary production, and there is likely little prospect in the long term that will change, such that there is meaningful land-based primary production being undertaken on the site.

The buildings have been located in an area of the land which has established rural living and buildings, and have been clustered within this part of the site. The buildings will not compromise any potential of the land to be used for meaningful production, and as above, the buildings could act to positively support primary production if this was ever to be established in future.

For these reasons the proposal will have no impact on the productive capacity of the land, and is therefore not inappropriate, and achieves Policy 8.

Under Clause 3.9(3), given the established rural living character of this area and the lack of any primary production activities, there is no actual or cumulative loss of the availability and productive capacity of highly productive land, and no potential for reverse sensitivities.

## 6. NON-COMPLYING ACTIVITY – SECTION 104D ASSESSMENT

Pursuant to section 104D of the Resource Management Act, if a proposal is a Non-Complying activity then it must pass at least one of the tests of either section 104D(1)(a) or section 104D(1)(b) before an application can be assessed to make a decision under section 104B of the Act.

If the application fails both tests of section 104D then the application must be declined.

<sup>2</sup> National Policy Statement for Highly Productive Land – Guide to Implementation, March 2023.

## **6.1. Section 104D(1)(a) – Adverse effects on the environment will be minor**

Section 104D(1)(a) of the Act requires that the adverse effects of the activity on the environment will be minor.

Pursuant to section 104(2), when forming an opinion for the purposes of section 104D(1)(a), a council may disregard an adverse effect of the activity on the environment if the plan or a national environmental standard permits an activity with that effect. The permitted baseline is outlined at Section 4.2. In this case, farming activity (including farm buildings up to 50m<sup>2</sup> in area) and a single residential unit (including a residential flat) are permitted on the site, in addition to up to 400m<sup>3</sup> of earthworks per year. However, resource consent is required for all residential and non-residential buildings on the site.

The effects of the proposal are assessed in Section 4 of this document and concludes that the effects will be less than minor.

Therefore, the adverse effects on the environment will be no more than minor, and the test of s104D(1)(a) is satisfied.

## **6.2. Section 104D(1)(b) – Proposal will not be contrary to the objectives and policies of the District Plan**

Section 104D(1)(b) requires that the proposal will not be contrary to the objectives and policies of a plan, and any proposed plan.

The relevant objectives and policies for the proposal are assessed in Section 5 above. The assessment concludes that the proposal is not contrary to the objectives and policies of the PDP. Therefore, the test of Section 104D(1)(b) is satisfied.

Accordingly, the proposal passes both of the tests in section 104D of the Act, and consent can be granted.

# **7. PART 2 OF THE RESOURCE MANAGEMENT ACT 1991**

## **7.1. Section 5 – Purpose**

The purpose of the Act is “to promote the sustainable management of natural and physical resources”. Section 5(2) of the Act defines “sustainable management” as:

*... managing the use, development and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while –*

- (a) Sustaining the potential of natural and physical resources ... to meet the reasonably foreseeable needs of future generations; and*
- (b) Safeguarding the life-supporting capacity of air, water, soil and ecosystems; and*
- (c) Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

The proposal addresses the matters in section 5(2)(a)-(c) of the Act. The applicant has taken care to avoid or mitigate any potential adverse effects of the proposal on the environment through the siting and design of the proposal. The proposed building, providing shelter for horses and a residential flat will support the social and economic well-being of the applicant.

**7.2. Section 6 – Matters of national importance**

There are no matters of national importance relevant to the site.

**7.3. Section 7 – Other matters**

The relevant matters of Section 7 of the Act that should be considered are as follows:

- b. the efficient use and development of natural and physical resources:*
- c. the maintenance and enhancement of amenity values:*
- f. maintenance and enhancement of the quality of the environment:*

The proposal accords with the relevant matters as the development of the land for rural activities and to provide for on-site staff accommodation is an efficient use of resources, while maintaining the amenity values and quality of the environment. The landscape assessment concludes that the proposal will have very low effects on landscape character and amenity.

**8. WHERE THE ACTIVITY INCLUDES THE USE OF HAZARDOUS SUBSTANCES AND INSTALLATIONS, AN ASSESSMENT OF ANY RISKS TO THE ENVIRONMENT WHICH ARE LIKELY TO ARISE FROM SUCH USE:**

Not applicable.

**9. A DESCRIPTION OF THE MITIGATION MEASURES (SAFEGUARDS AND CONTINGENCY PLANS WHERE RELEVANT) TO BE UNDERTAKEN TO HELP PREVENT OR REDUCE THE ACTUAL AND POTENTIAL EFFECT:**

The adverse effects are considered to be less than minor. No mitigation measures are necessary. However, the proposal accommodates some additional landscape planting to improve the amenity of the site and provide filtered screening from external properties to the north-east. Additionally, recessive colours have been selected for the building to reduce visibility.

**10. SECTION 95A ASSESSMENT AND IDENTIFICATION OF AFFECTED PERSONS**

Section 95A of the RMA requires a decision on whether or not to publicly notify an application.

The steps set out below, in the order given, are used to determine whether to publicly notify an application for a resource consent.

**Step 1 – Mandatory public notification**

The applicant is not requesting public notification of the application (s95A(3)(a)).

Public notification is not mandatory as a result of a refusal by the applicant to provide further information or refusal of the commissioning of a report under section 92(2)(b) of the RMA (s95A(3)(b)).

The application does not involve the exchange of recreation reserve land under section 15AA of the Reserves Act 1977 (s95A(3)(c)).

Therefore, public notification is not required by Step 1.

**Step 2 – Public notification precluded**

Public notification is not precluded by any rule or national environmental standard (s95A(5)(a)).

The proposal is not:

- a controlled activity; or
- a boundary activity as defined by section 87AAB that is restricted discretionary, discretionary or non-complying.

Public notification is not precluded (s95A(5)(b)(i)-(iii)). Therefore, public notification is not precluded by Step 2.

***Step 3 – If not precluded by Step 2, public notification is required in certain circumstances***

Public notification is not specifically required under a rule or national environmental standard (s95A(8)(a)).

A consent authority must publicly notify an application if it decides, in accordance with s95D, that the proposed activity will have or is likely to have adverse effects on the environment that are more than minor (s95A(8)(b)). An assessment in this respect is therefore undertaken as follows:

Effects that must be disregarded (s95D(a)) include:

- effects on the owners or occupiers of land on which the activity will occur and on adjacent land;
- an adverse effect of the activity that does not relate to a matter for which a rule or national environmental standard restricts discretion;
- Trade competition and the effects of trade competition (s95D(d)); and
- Effects on persons who have provided their written approval.

Affected persons approvals are being sought and have been verbally confirmed from the owners of 121, 141 and 149 Slopehill Road and will be provided to Council when available. When these APA's are received, effects on these properties must therefore be disregarded.

Effects that may be disregarded include:

- An adverse effect of the activity if a rule or national environmental standard permits an activity with that effect (s95D(b));

The permitted baseline in this instance includes residential and farming activities, and farm buildings up to 50m<sup>2</sup> in area. This includes the presence of a residential flat and farm storage on the site.

An assessment of potential effects on the environment is provided in Section 4. On the basis of this assessment, the proposed activities will not have adverse effects on the environment that are more than minor. Therefore, public notification is not required under Step 3.

***Step 4 – public notification in special circumstances***

There are no special circumstances in relation to this application.

## **11. LIMITED NOTIFICATION (S95B)**

Section 95B requires a decision on whether there are any affected persons.

There are no affected groups or persons under section 95B(2) or 95B(3), and limited notification is not precluded as it is not subject to a rule or standards precluding notification and it is not a controlled activity (s95B(6)).

Therefore, the assessment of affected persons must be undertaken in accordance with section 95E.

Effects that must be disregarded (s95E(a)) include:

- an adverse effect of the activity on the person that does not relate to a matter for which a rule or national environmental standard restricts discretion;
- Persons that have given, and not withdrawn, approval for the proposed activity.

Effects that may be disregarded include:

- An adverse effect of the activity on a person if a rule or national environmental standard permits an activity with that effect (s95D(b));

The permitted baseline in this instance includes residential and farming activities, including farm buildings up to 50m<sup>2</sup> in area. This includes the presence of a residential flat and farm storage (activities only) on the site.

Affected persons approvals are being sought and have been verbally confirmed from the owners of 121, 141 and 149 Slopehill Road and will be provided to Council when available. When these APA's are received, effects on these properties must therefore be disregarded.

The proposed buildings have been located on a lower terrace, at the rear of the dwelling below an existing landscaped bund. The location has limited visibility from public and private locations. The structures will have a brief visual effect to users of the right of way easement, however views will be brief and transitory only. To the west of the right of way, within 113 Slopehill Road, there is extensive established tree planting which is required to be maintained by consent notice conditions registered on the title, and the structures will not be visible from this property. Effects to the north-east will be mitigated by the proposed landscaping.

Overall, any effects from the proposal are less than minor and limited notification is therefore not required.

## **12. WHERE THE SCALE OR SIGNIFICANCE OF THE ACTIVITY'S EFFECT ARE SUCH THAT MONITORING IS REQUIRED, A DESCRIPTION OF HOW, ONCE THE PROPOSAL IS APPROVED, EFFECTS WILL BE MONITORED AND BY WHOM.**

No monitoring is required apart from that normally undertaken by a Council in monitoring consent conditions.

# View Instrument Details



**Instrument No** 8243173.4  
**Status** Registered  
**Date & Time Lodged** 06 November 2009 11:32  
**Lodged By** Kennedy, Leilani Floris  
**Instrument Type** Consent Notice under s221(4)(a) Resource Management Act 1991



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Affected Computer Registers	Land District
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427400	Otago
427401	Otago
427402	Otago
427403	Otago

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**Annexure Schedule:** Contains 6 Pages.

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## Signature

Signed by Jayne Elizabeth Macdonald as Territorial Authority Representative on 05/11/2009 11:13 AM

\*\*\* End of Report \*\*\*

IN THE MATTER

of Section 221 of the Resource  
Management Act 1991

AND

**SLOPEHILL PROPERTIES  
LIMITED** ("the Owner")

IN THE MATTER

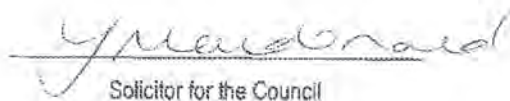
of an application for Subdivision  
Consent to subdivide that land  
described as Lot 10 Deposited  
Plan 325721 being all that land  
Contained and described in  
Certificate of Title 103859 (Otago  
Registry)

---

**CONSENT NOTICE**

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Correct for the Purposes of the Land Transfer Act 1952

  
Solicitor for the Council

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**MACALISTER TODD PHILLIPS**  
Barristers, Solicitors, Notaries  
Queenstown/Alexandra/Wanaka  
Ph: (03) 442 8110 - Fax: (03) 442 8116  
Email: maildesk@mactodd.co.nz  
P O Box 553

LFK-243253-03-3A/ZH/RE



QUEENSTOWN  
IN THE MATTER

of Section 221 of the Resource  
Management Act 1991

AND

**SLOPEHILL PROPERTIES  
LIMITED** ("the Owner")

IN THE MATTER

of an application for Subdivision  
Consent to subdivide that land  
described as Lot 10 Deposited  
Plan 325721 being all that land  
Contained and described in  
Certificate of Title 103859 (Otago  
Registry)

CONSENT NOTICE

RECITAL

- A. The Owner is the registered proprietor of all the land contained and described in Certificate of Title 103859 of the Otago Registry ("the Owner").
- B. The Owner has made an application to the Queenstown Lakes District Council ("the Council") for resource consent to subdivide the land referred to above to create four (4) allotments for rural purposes (RM031144).
- C. The Council has approved the application pursuant to Sections 104 and 105 of the Resource Management Act 1991 subject to certain conditions which are required to be complied with on a continuing basis by the Owner and subsequent Owners of the land or parts thereof being in those conditions specified in the Operative Part thereof.

OPERATIVE PART

- 1. This Consent Notice is to be registered under the Land Transfer Act 1952 over the land in the Certificate of Title in Schedule A hereto.

LFR-243253-23-3-V21RB

2. The Conditions the subject of this Consent Notice are:

- (a) At the time a building is proposed on Lot 3 Deposited Plan 407786, the right of way to the dwelling located on Lot 2 Deposited Plan 407786 shall be relocated to be within the right of way shown as A on the survey plan.
- (b) At the time that a dwelling is erected on any of the Lots then the owner for the time being is to ensure that all construction is contained within the boundaries of the Lot and that the only access to the Lot for all construction vehicles and delivery of goods to the Lot is to be from the vehicle crossing constructed at the time of subdivision. The owner for the time being is responsible for repairing and making good any damage to any road infrastructure for the frontage of the lot being developed or to the frontage of any other lot caused by development activities of the owners Lot.
- (c) At the time that a dwelling is proposed on any Lot, a suitably qualified engineer shall design an effluent disposal system in terms of AS/NZS 1547:2000 that will provide sufficient treatment/renovation to effluent from on-site disposal, prior to discharge to land. To maintain high effluent quality such a system would require the following:
  - (i) Specific design by a suitably qualified professional engineer.
  - (ii) A requirement that each Lot must include systems that achieve the levels of treatment determined by the specific design.
  - (iii) Regular maintenance in accordance with the recommendations of the system designer and a commitment by the owner of each system to undertake this maintenance.
  - (iv) Intermittent effluent quality checks to ensure compliance with the system designer's specification.

Disposal areas shall be located such that maximum separation (in all instances greater than 50 metres) is obtained from any watercourse or water supply bore.

LFX-243255-23-3-47-1.88

- (d) At the time a dwelling is erected on any Lot, domestic water and fire fighting storage is to be provided by a standard 23,000 litre tank. Of this total capacity, a minimum of 14,000 litres shall be maintained at all times as a static fire fighting reserve. A fire fighting connection in accordance with Appendix B SNZ PAS 4509:2003 is to be located within 90 metres of any proposed building on the site. In order to ensure that connections are compatible with Fire Service equipment the fittings are to comply with the following standard. Either:

- (i) 70 mm Instantaneous Couplings (Female) NZS 4505, or
- (ii) 100 mm and 140 mm Suction Coupling (Female) NZS 4505. (hose tail is to be the same diameter as the threaded coupling, e.g. 140 mm coupling has 140 mm hose tail)

The Fire Service coupling must be located so that it is not compromised in the event of a fire.

The connection shall have hardstand area adjacent to it to allow a fire service appliance to park on it. Access shall be maintained at all times to the hardstand area.

Fire fighting water supply may be provided by means other than the above if the written approval of the New Zealand Fire Service is obtained for the proposed method.

The fire fighting water supply tank shall be installed prior to the occupation of the dwelling.

- (e) An amended landscape plan shall be submitted to Principal: Landscape Architecture prior to the certification pursuant to Section 224(c) of the Resource Management Act 1991. The amended landscape plan shall be designed to include the following:

- (i) All existing and recently approved landscaping on Lots 2 and 3. This includes the landscaping structure plan approved in the original subdivision

LFK-243253-23-3-421.R8



consent (reference: RM980486) and landscaping for the pond (reference: RM031050). It is noted that the landscape structure plan shall be amended to incorporate the building platform movement.

- (ii) Removal of existing pine trees, between proposed Lot 3 and proposed Lot 4 Deposited Plan 407786 in a progressive manner. Pine tree location and proposed replacements shall be annotated on the landscape plan and no trees should be removed until replacement planting that will provide equal or better screening is established.
- (f) Prior to any changes to the existing ground level the Owner shall supply a Reduced Level value of the building platform on proposed Lot 3 Deposited Plan 407786. Should any future building occur within the building platform the ground level (for the purposes of determining the building height) shall be taken from this Reduced Level value.
- (g) At the time that either a building is proposed on Lot 3 Deposited Plan 407786 and/or Lot 3 Deposited Plan 407786 is held in different ownership to Lot 2 Deposited Plan 407786, the right of way through the middle of Lot 3 Deposited Plan 407786 to the proposed dwelling or building platform located on Lot 2 Deposited Plan 407786 shall be relinquished and the access shall be relocated to be within the right of way shown as A on the survey plan adjoining the eastern boundary of Lot 3 Deposited Plan 407786.

DATED this

17<sup>th</sup>

day of

October

2008

**SIGNED by**

**QUEENSTOWN LAKES DISTRICT COUNCIL**

By affixing its common seal

In the presence of



LFK-243263-23-3-V21R5

*Phil Geddes*  
Mayor

  
Chief Executive Officer

SCHEDULE A

A subdivision of that land described as Lot 10 Deposited Plan 325721 being all that land contained and described in Certificate of Title 103859 as follows:

1. Lot 2 Deposited Plan 407786
2. Lot 3 Deposited Plan 407786
3. Lot 4 Deposited Plan 407786
4. Lot 5 Deposited Plan 407786

LFK/243253-23-3-V21.HB

# View Instrument Details



**Instrument No** 9084160.1  
**Status** Registered  
**Date & Time Lodged** 18 June 2012 16:45  
**Lodged By** Wilton, Hamish Selwyn  
**Instrument Type** Easement Instrument



**Toitū Te Whenua**  
**Land Information**  
**New Zealand**

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## Affected Computer Registers    Land District

427401	Otago
427402	Otago

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**Annexure Schedule:** Contains 5 Pages.

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## Grantor Certifications

I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument	<input checked="" type="checkbox"/>
I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument	<input checked="" type="checkbox"/>
I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply	<input checked="" type="checkbox"/>
I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period	<input checked="" type="checkbox"/>

## Signature

Signed by Kerry Amanda O'Donnell as Grantor Representative on 14/06/2012 12:25 PM

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## Grantee Certifications

I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument	<input checked="" type="checkbox"/>
I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument	<input checked="" type="checkbox"/>
I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply	<input checked="" type="checkbox"/>
I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period	<input checked="" type="checkbox"/>

## Signature

Signed by Kerry Amanda O'Donnell as Grantee Representative on 14/06/2012 12:25 PM

\*\*\* End of Report \*\*\*

## Form B

**Easement instrument to grant easement or *profit à prendre*, or create land covenant**

(Sections 90A and 90F Land Transfer Act 1952)

## Grantor

Slopehill Properties Limited

## Grantee

Slopehill Properties Limited

### Grant of Easement or *Profit à prendre* or Creation of Covenant

**The Grantor** being the registered proprietor of the servient tenement(s) set out in Schedule A **grants to the Grantee** (and, if so stated, in gross) the easement(s) or *profit(s) à prendre* set out in Schedule A, **or creates** the covenant(s) **set out** in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s)

### Schedule A

Continue in additional Annexure Schedule, if required

Purpose (Nature and extent) of easement, profit or covenant	Shown (plan reference)	Servient Tenement (Computer Register)	Dominant Tenement (Computer Register) or in gross
Land covenant as set out in annexure schedule 2	Lot 3 DP 407786 (CT427401)	Lot 3 DP 407786 (CT427401)	Lot 4 DP 407786 (CT427402)

## Form B

**Easement instrument to grant easement or *profit à prendre*, or create land covenant****Easements or *profits à prendre* rights and powers (including terms, covenants and conditions)**

Delete phrases in [ ] and insert memorandum number as required; continue in additional Annexure Schedule, if required

Unless otherwise provided below, the rights and powers implied in specified classes of easement are those prescribed by the Land Transfer Regulations 2002 and/or Schedule Five of the Property Law Act 2007

The implied rights and powers are hereby ~~[varied]~~ ~~[negated]~~ ~~[added to]~~ or ~~[substituted]~~ by:

[Memorandum number \_\_\_\_\_, registered under section 155A of the Land Transfer Act 1952]

[the provisions set out in Annexure Schedule \_\_\_\_\_]

**Covenant provisions**

Delete phrases in [ ] and insert Memorandum number as required; continue in additional Annexure Schedule, if required

The provisions applying to the specified covenants are those set out in:

[Memorandum number \_\_\_\_\_, registered under section 155A of the Land Transfer Act 1952]

[Annexure Schedule 2 ]



Form B

**Easement instrument to grant easement or *profit à prendre*, or create land covenant**

**Annexure Schedule 2**

**CONTINUATION OF COVENANT PROVISIONS**

**Background**

- A. The Grantor is registered as proprietor of the Servient Tenement.
- B. The Grantee is registered as proprietor of the Dominant Tenement.
- C. The Grantor and the Grantee have agreed that the Servient Tenement shall be subject to the covenants set out in this Instrument.

**1. Definitions**

"Boundary Trees" means the pine trees situated on the Servient Tenement at the time of registration of this instrument which are marked on the landscape plan dated 9 September 2008 (attached) as "existing pine trees – to be replaced once native planting offers equal screening".

"Dominant Tenement" means that land described as the dominant tenement in Schedule A of this Instrument.

"Replacement Trees" means the native trees planted or to be planted to replace the Boundary Trees in accordance with the Resource Consent.

"Resource Consent" means the Resource Consent Decision RM031144.

"Servient Tenement" means that land described as the servient tenement in Schedule A of this Instrument.

"this Instrument" means all of this Instrument including all of its Annexure schedules.

**2. Covenant**

**2.1 The grantor covenants and agrees:**

- a. The Replacement Trees shall be planted (to the extent they have not already been planted) on the Servient Tenement within 10 metres from the boundary between the Servient Tenement and the Dominant Tenement and otherwise in accordance with the Resource Consent conditions;
- b. Neither the Replacement Trees nor any other vegetation planted on the Servient Tenement within 10 metres of the boundary between Servient Tenement and Dominant Tenement will exceed 6 metres in height at any time; and

HEB-765484-7-10-V2

Form B

**Easement instrument to grant easement or *profit à prendre*, or create land covenant**

- c. The Replacement Trees are to be maintained in perpetuity (including replacement and replanting where necessary) for the benefit of the registered proprietor of Dominant Tenement.

**3. General Covenants****3.1 The Grantor covenants and agrees:**

- a. To observe and perform all the Covenants contained in this instrument at all times; and
- b. That the Covenants contained in this instrument shall run with and bind the Servient Tenement for the benefit of the Dominant Tenement.

**4. Notice****4.1 Any notice required to be served on any party shall be in writing and in accordance with the Property Law Act 2007.****5. Liability****5.1 Without prejudice to the Grantee's other rights, this Instrument binds the Grantor's successors in title so that contemporaneously with the acquisition of any interest in the Servient Tenement all such successors in title become bound to comply with this Instrument.**

HEB-765484-7-10-V2







**RECORD OF TITLE  
UNDER LAND TRANSFER ACT 2017  
FREEHOLD  
Search Copy**



  
R. W. Muir  
Registrar-General  
of Land

**Identifier** 427402  
**Land Registration District** Otago  
**Date Issued** 06 November 2009

**Prior References**  
103859

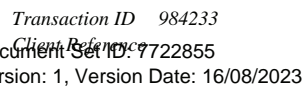
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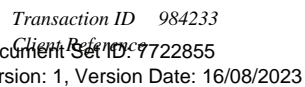
**Estate** Fee Simple  
**Area** 4.0000 hectares more or less  
**Legal Description** Lot 4 Deposited Plan 407786  
**Registered Owners**  
Sam Bolton Hazledine and Hazledine Independent Trustee Limited

---

**Interests**

Subject to a right (in gross) to convey water over part marked r-o on DP 407786 in favour of Arrowtown Irrigation Company Limited created by Transfer 843703 - 1.12.1993 at 9:23 am  
8243173.4 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 6.11.2009 at 11:32 am  
Appurtenant hereto is a right of way, right to convey water, electricity, telecommunication cables and computer media created by Easement Instrument 8243173.5 - 6.11.2009 at 11:32 am  
The easements created by Easement Instrument 8243173.5 are subject to Section 243 (a) Resource Management Act 1991  
Land Covenant in Easement Instrument 8783335.1 - 23.6.2011 at 9:22 am  
Land Covenant in Easement Instrument 9084160.1 - 18.6.2012 at 4:45 pm  
Fencing Agreement in Deed 10515476.1 - 29.7.2016 at 7:00 am  
10995500.4 Mortgage to Claire Elliott Hazledine - 9.3.2018 at 3:21 pm  
12541469.3 Variation of Mortgage 10995500.4 - 2.9.2022 at 11:44 am  
12541469.4 Mortgage to ASB Bank Limited - 2.9.2022 at 11:44 am





# Hazledine Barn and Residential Flat

## Description

Project: Proposed heritage barn and residential flat

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

## Dimension & Area

Barn overall 15.5m x 14m with eaves of 5.0m

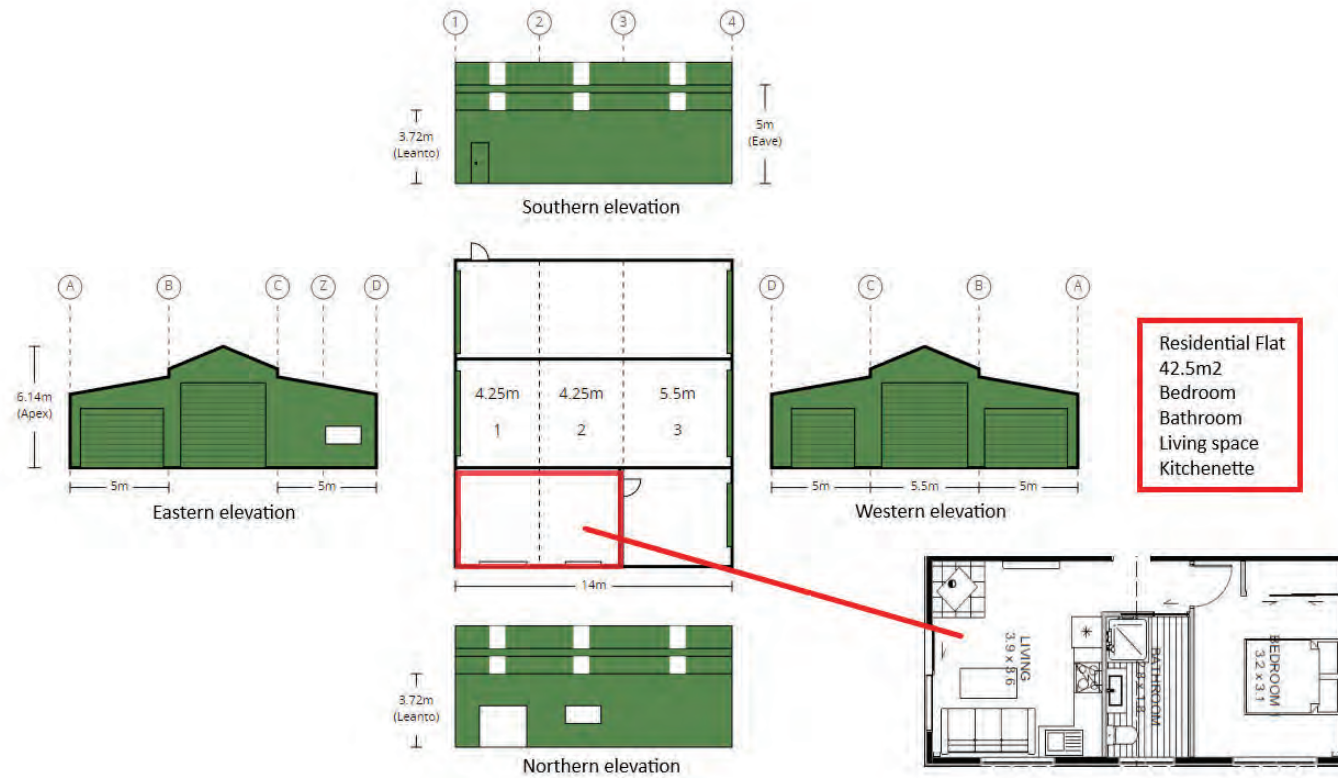
Barn area 147m<sup>2</sup>

Residential flat 42.5m<sup>2</sup>

Residential garage 27.5m<sup>2</sup>

Total area 217m<sup>2</sup>





### Exterior cladding

The building will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile.

This has a Light Reflective Rating of 7%

*An example of a Flaxpod clad building*

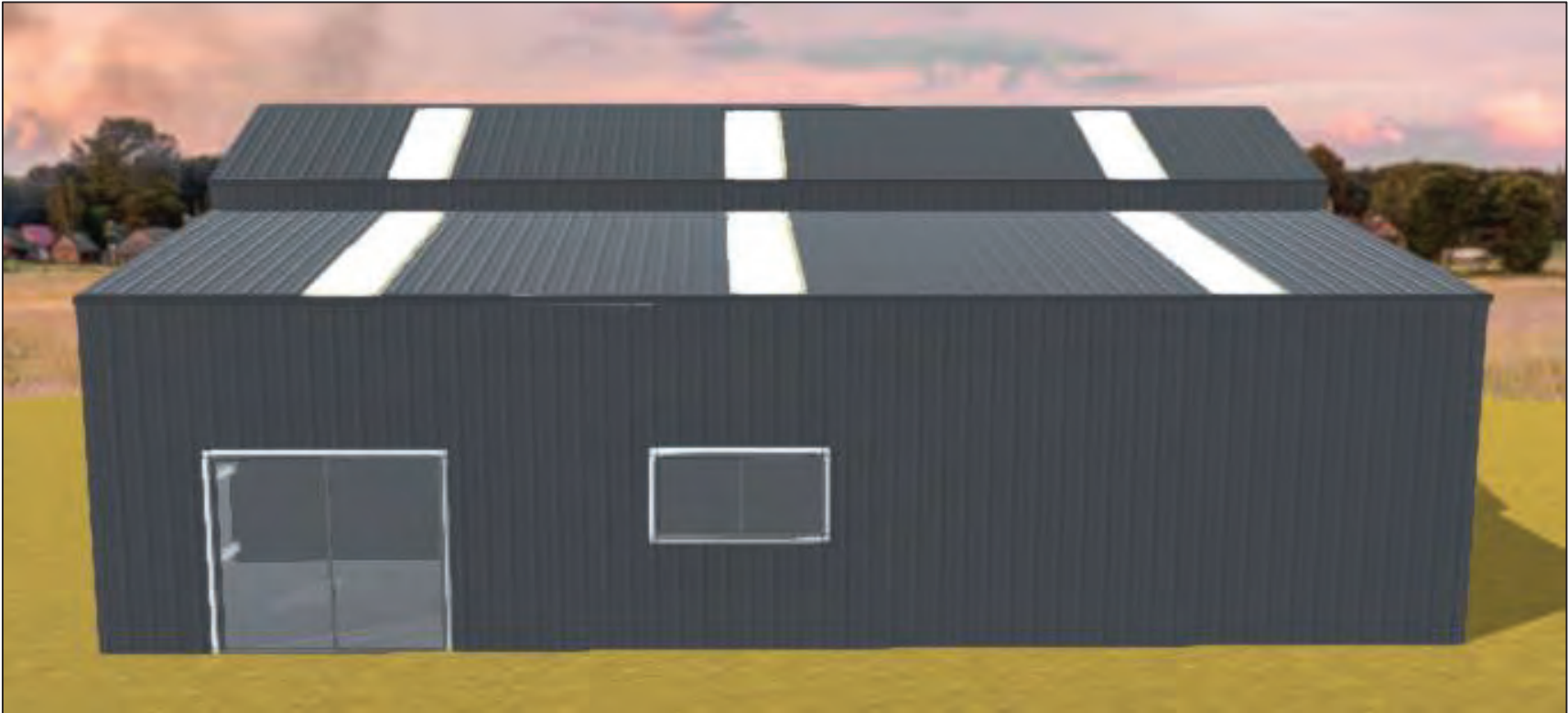


### 3 Dimensional views of the barn

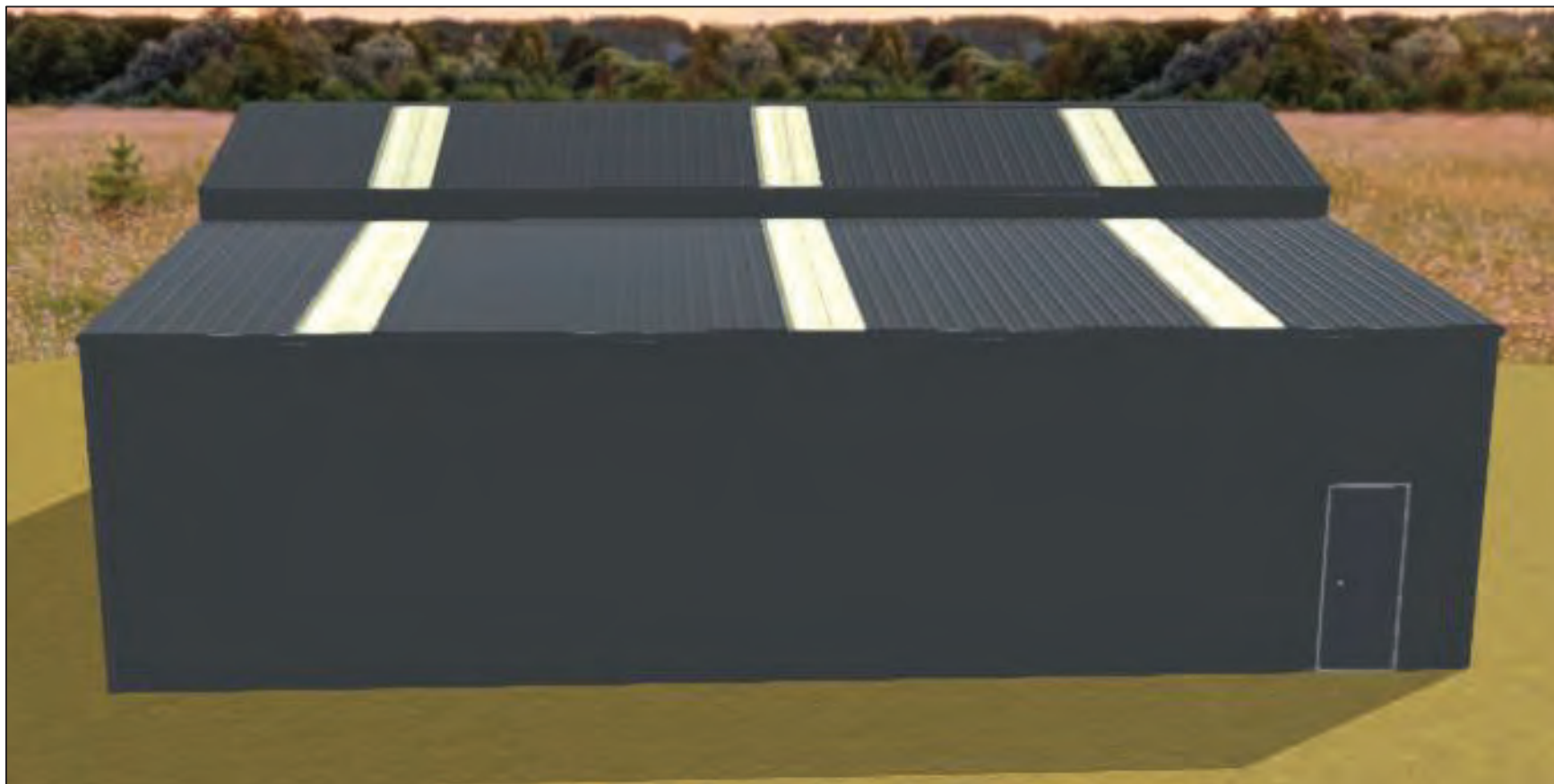
#### Western elevation



Northern elevation (Residential flat side)

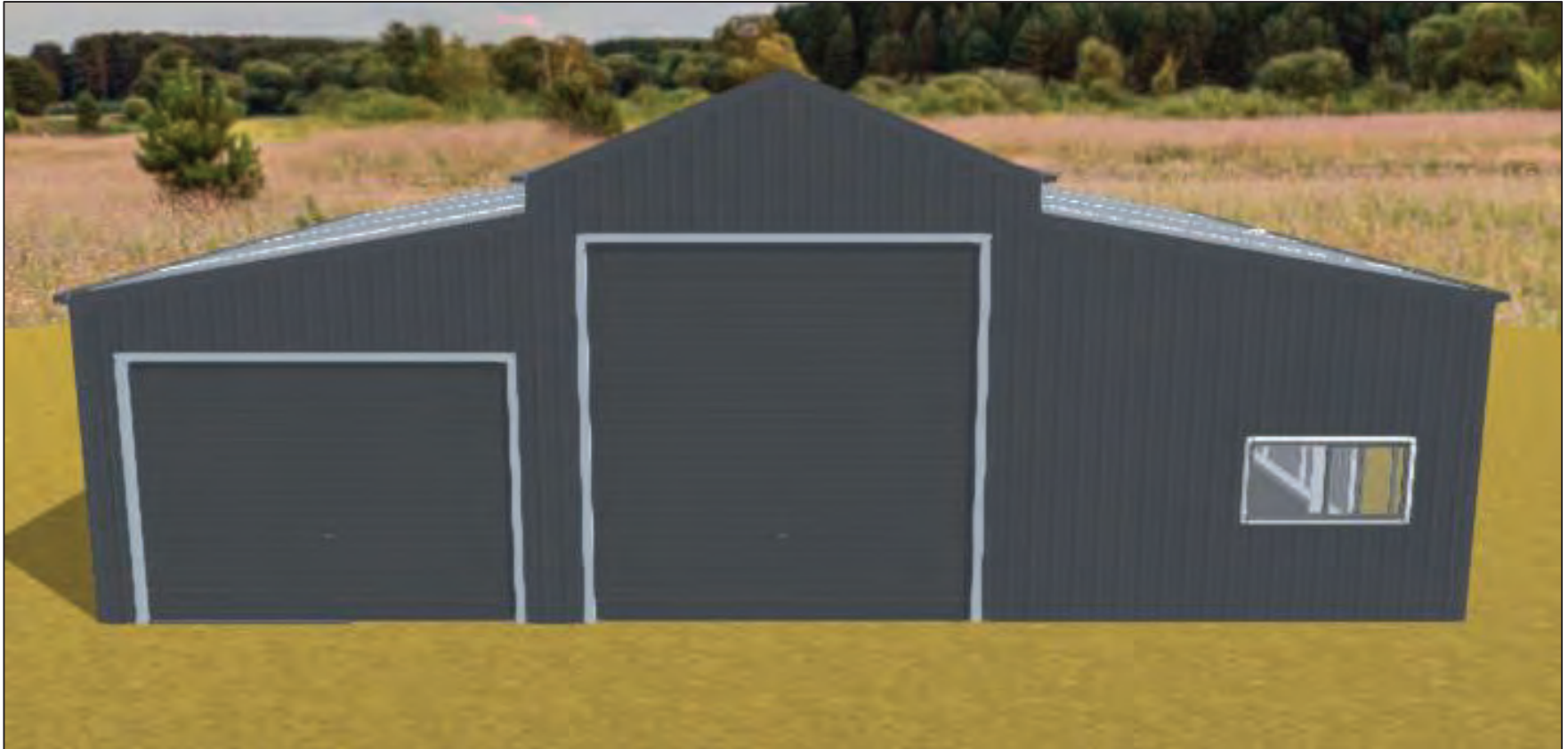


Southern elevation





Eastern elevation



# Hazledine Shed Extension



## Description

Project: Shed extension

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

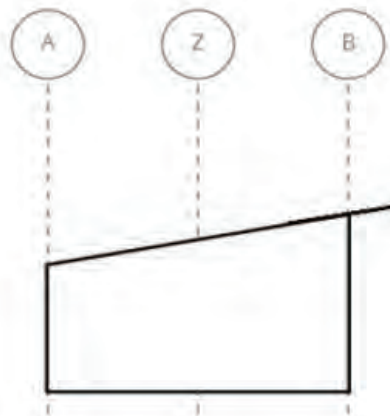
Legal description: LOT 4 DP 407786

## Dimension & Area

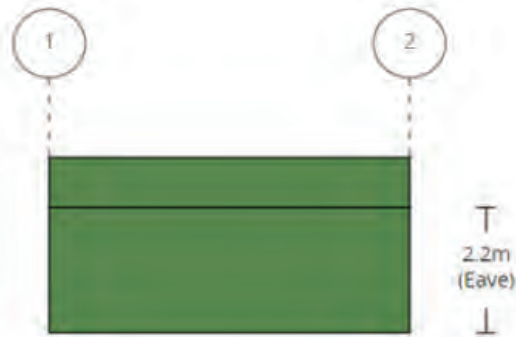
Shelter dimension overall 6m x 5m with eaves of 2.2m

Shelter area 30m<sup>2</sup>

Cladding Colorsteel and Timber (matching)



Southern elevation



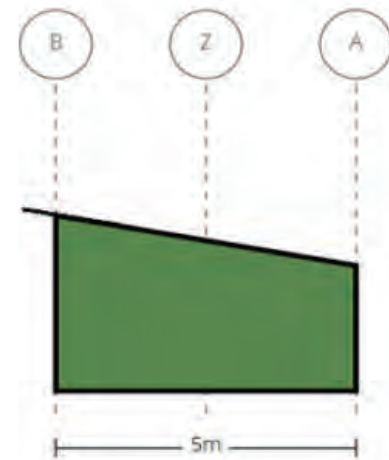
Western elevation



Eastern elevation



Northern elevation



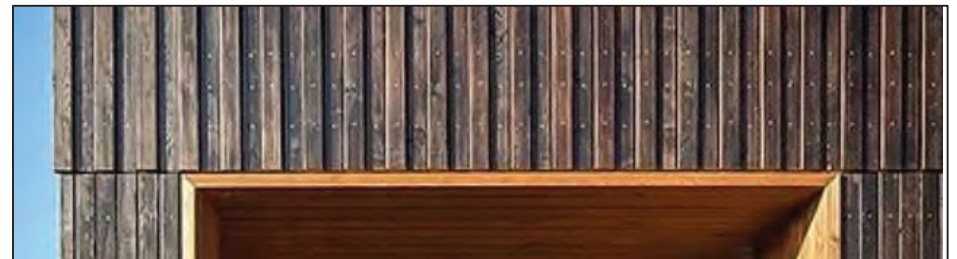
### Exterior cladding

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

*An example of a Flaxpod clad building*



With façade in Board and Batten or natural timber cladding to match current finish.





## Location

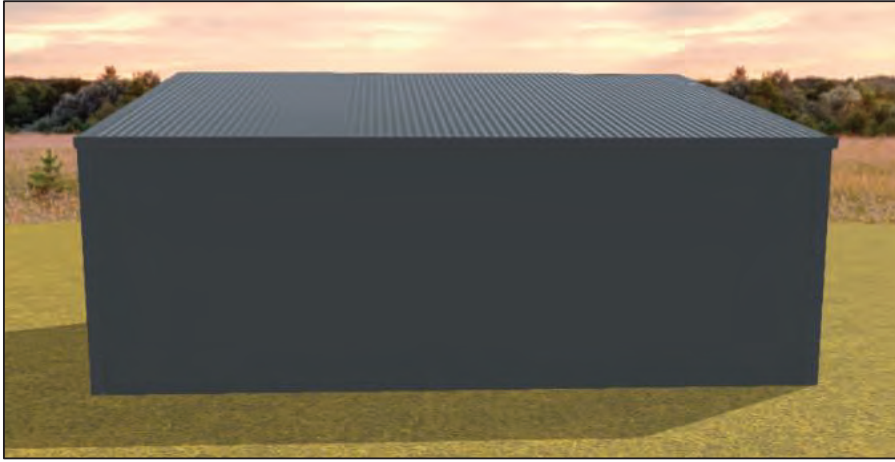
Location of Horse Stable extension at 123 Slopehill Road

## Design criteria for site

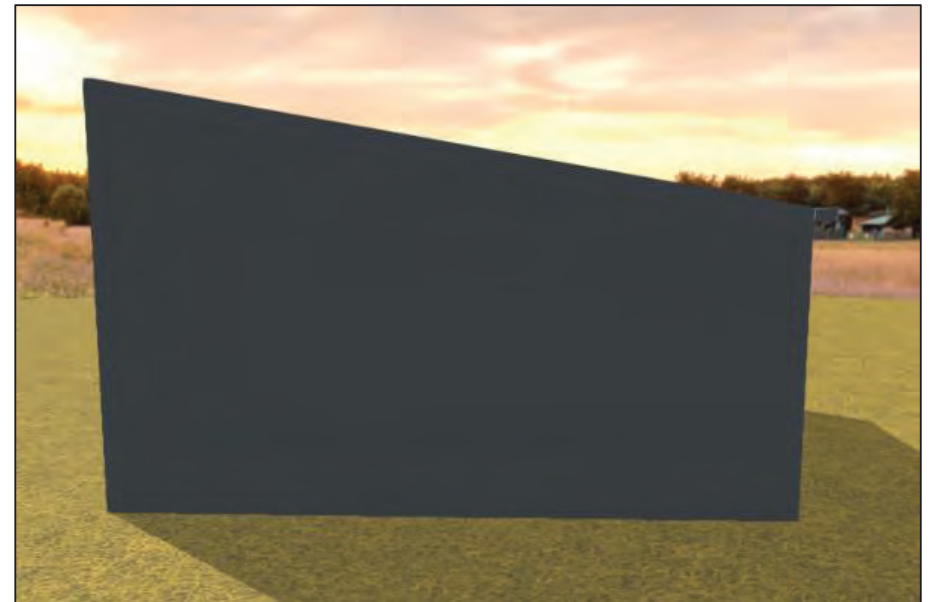
<b>Wind Region</b> <input type="text" value="A"/>	<b>Building Class</b> <input type="text" value="5"/>
<b>Importance Level</b> <input type="text" value="1"/>	<b>Earthquake</b> <input type="text" value="Yes"/>
<b>Terrain Category</b> <input type="text" value="2.5"/>	<b>Ground Snow Load</b> <input type="text" value="1.34"/>
<b>Shielding</b> <input type="text" value="1.0"/>	<b>Snow Load Region</b> <input type="text" value="N5"/>
<b>Topographic</b> <input type="text" value="1"/>	<b>Elevation</b> <input type="text" value="436.85"/>
<b>Design Wind Speed</b> <input type="text" value="35.7"/>	<b>Durability Alert</b> <input type="text" value="Yes"/>
<b>Wind Code</b> <input type="text" value="2011"/>	

### 3 Dimensional views of the extension

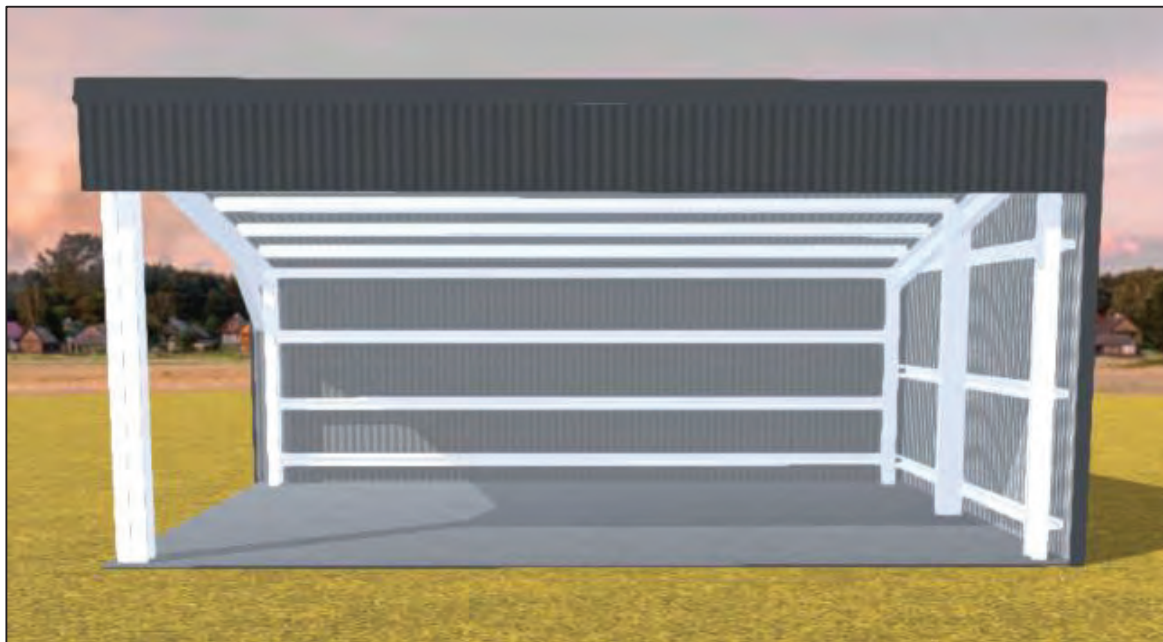
#### Elevations



**Western View**



**Northern View**



**Eastern View**

# Hazledine Horse Shelter



## Description

Project: Shelter for livestock

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

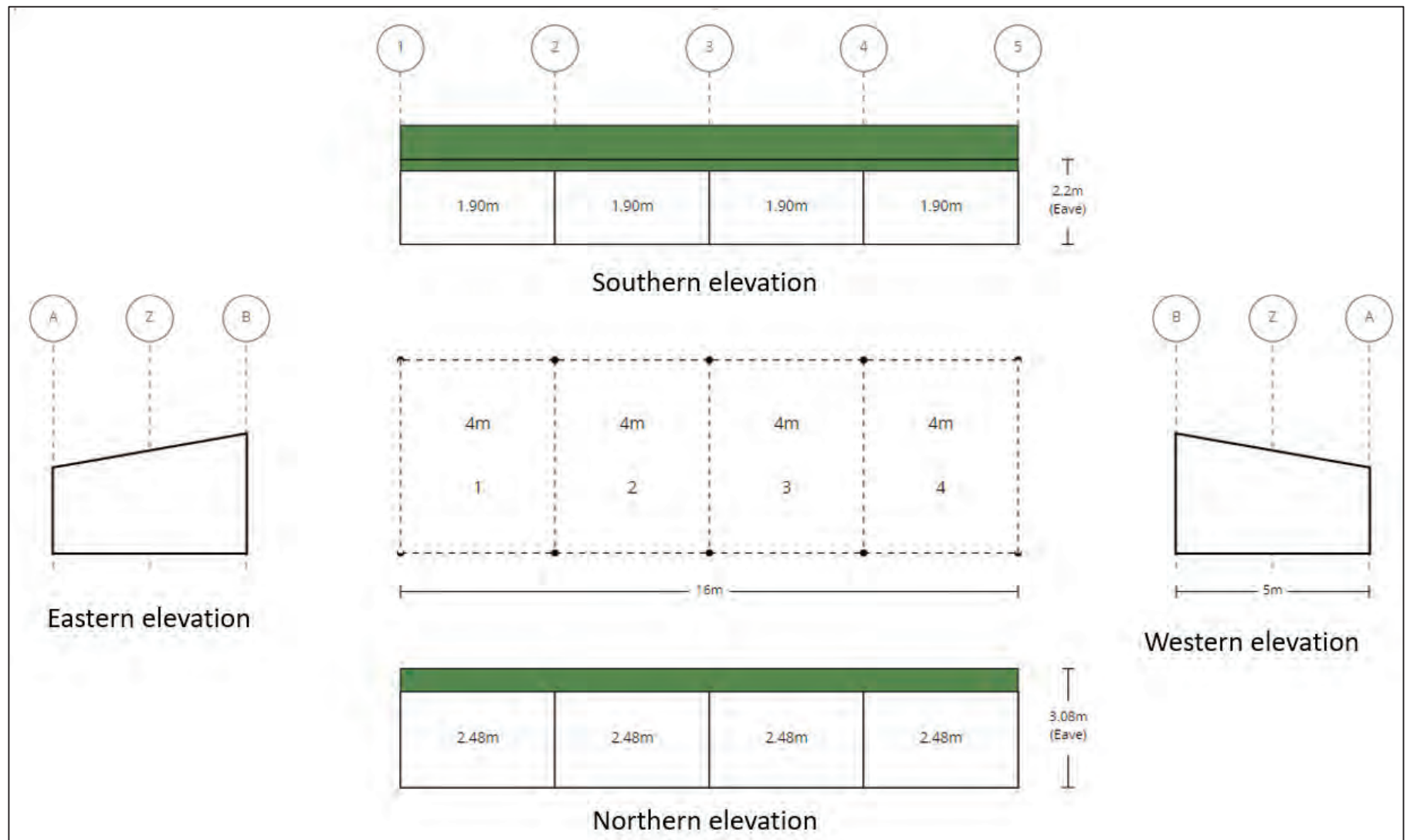
Legal description: LOT 4 DP 407786

## Dimension & Area

Shelter dimension overall 16m x 5m with eaves of 2.2m

Shelter area 80m<sup>2</sup>

Cladding Colorsteel



### Exterior cladding

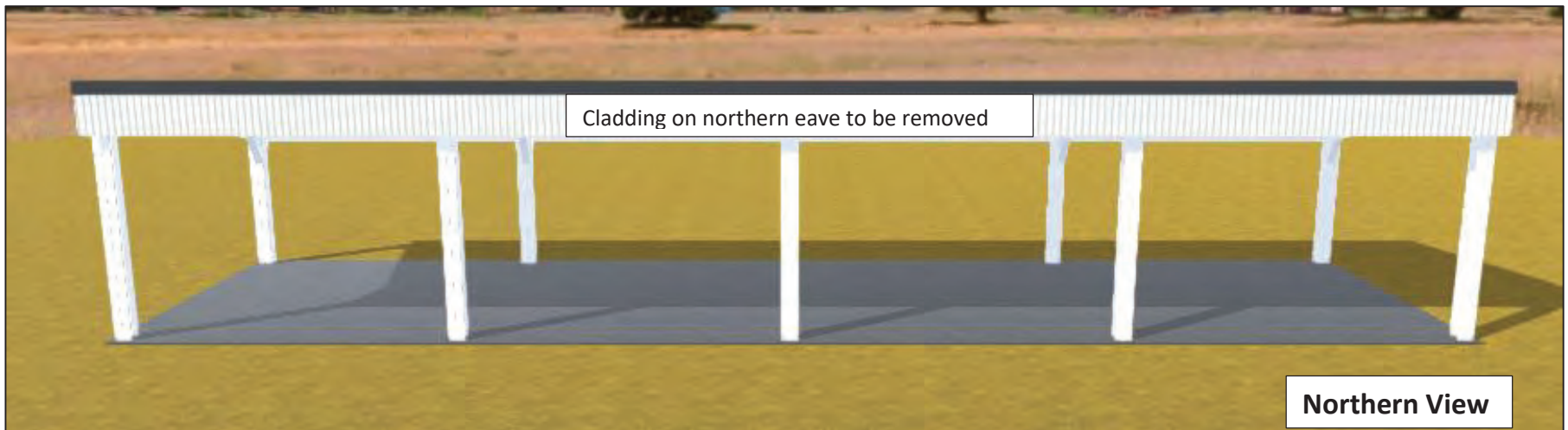
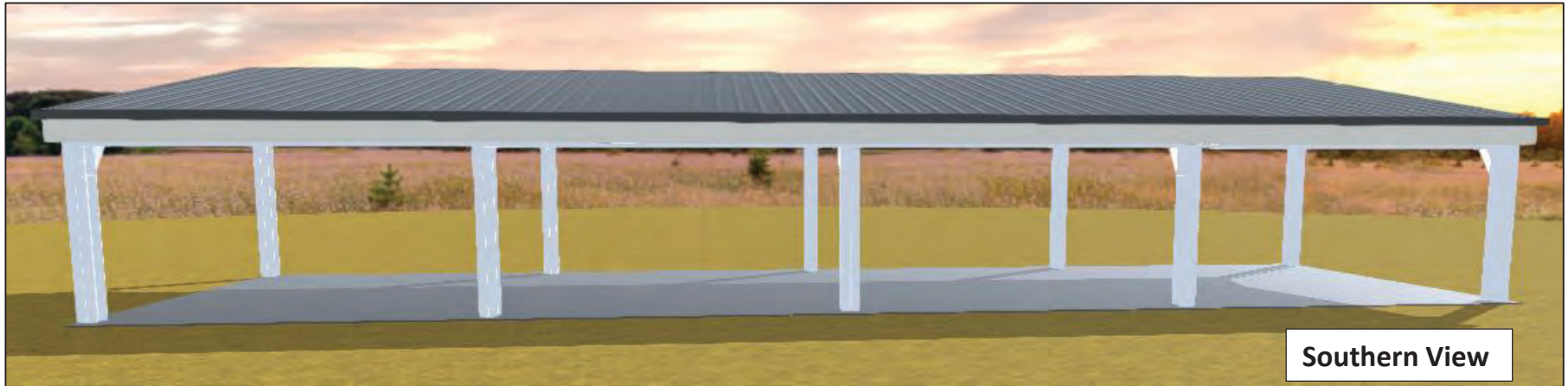
The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

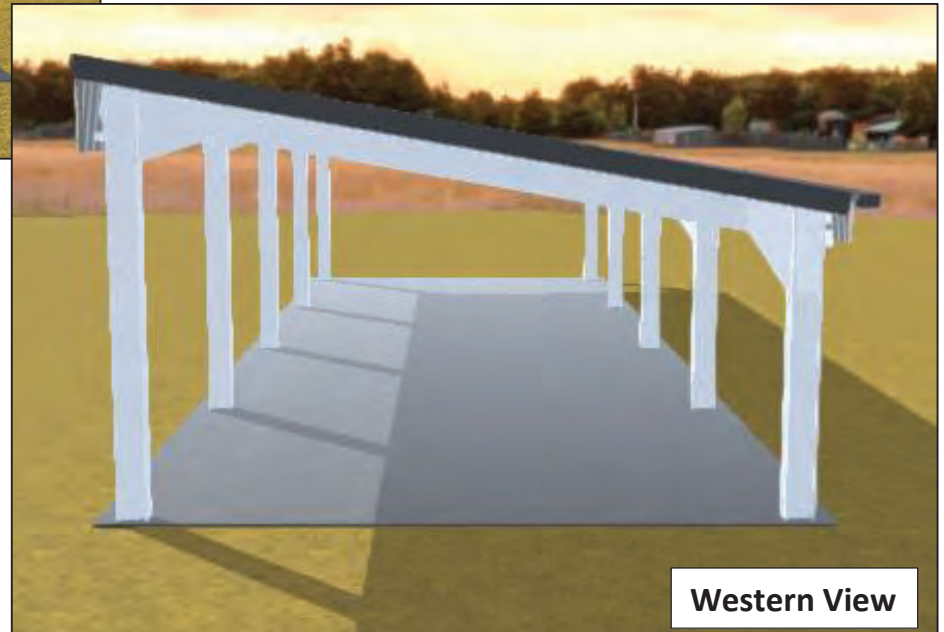
*An example of a Flaxpod clad building*



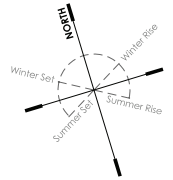
### 3 Dimensional views of the Shelter

#### Elevations





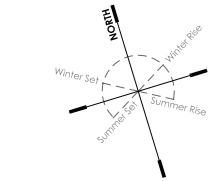




#### KEY:

- Subject Site
- WBRAZ setbacks
- Water race easement
- Building Platforms
- Existing dwelling
- Approved building extensions (RM210095)
- Proposed farm shed
- Proposed Horse Shelter
- Proposed extension to ex. shed
- F Ex. horse arenas
- G Existing hedge on adjacent property subject to consent notice 8243173\_4 (e) (ii): "Removal of existing pine trees, between proposed lot 3 and proposed lot 4 DP407786 in a progressive manner..... no trees should be removed until replacement planting that will provide equal or better screening is established"





**KEY:**

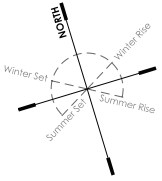
- Existing contours
- Proposed contours
- Existing contours removed

- (A) Ex. Shed
- (B) Proposed Farm Shed
- (BI) Proposed Horse Shelter
- (C) Proposed Residential Flat within Farm Shed
- (D) Gravel area off existing driveway
- (E) Ex. water race piped
- (F) 6m extension to ex. shed
- (G) Outdoor area for Residential Flat
- (H) 2 x 25,000L buried firefighting water tanks
- (I) 2.5m wide gravel track for all terrain vehicle access
- (J) Existing hedge on adjacent property subject to consent notice 8243173\_4 (e) (ii): "Removal of existing pine trees, between proposed lot 3 and proposed lot 4 DP407786 in a progressive manner.... no trees should be removed until replacement planting that will provide equal or better screening is established"

- PLANTING:**
- (1) Ex. tussock / hebe / kowhai planting to mound
  - (2) Approved planting (RM210095)  
Proposed deciduous tree planting with protection from grazing animals:
  - (3) Chinese elm, Crataegus 'Pauls Scarlet' @ 4m crs
  - (3A) Pyrus calleryana @ 5m crs
  - (4) Proposed native planting (to slopes steeper than 15 degrees / or 1:3.75):  
Red tussock  
Hebe odora  
Hebe salicifolia  
Sophora microphylla  
Plagianthus regius  
Coprosma propinqua

All plantings at 1.2m crs, mulched, protected from rabbits, irrigated for first 3 years during establishment





#### KEY:

- Existing contours (1m)
- Proposed contours (1m)
- Cut  
Vol. 75m<sup>3</sup>, Area 380m<sup>2</sup>
- Fill  
Vol. 650m<sup>3</sup>, Area 1260m<sup>2</sup>

- Ex. water race to be filled:  
Fill  
Vol. 200m<sup>3</sup>, Area 131m<sup>2</sup>
- Proposed water race piped:  
Cut  
Vol. 58m<sup>3</sup>, Area 58m<sup>2</sup>  
Fill  
Vol. 48m<sup>3</sup>, Area 58m<sup>2</sup>
- Total earthworks volume = 1,031m<sup>3</sup>  
Total earthworks area = 1,887m<sup>2</sup>
- Max. depth cut = 0.4m  
Max. depth fill = 1.5m
- Water race to be piped ahead of undertaking site earthworks
- Volumes are approximate only for purposes of resource consent
- All areas of exposed earthworks to be regressed with browntop / fescue grass in the next available growing season
- Earthworks to be in accordance with QLDC 'Guide to Earthworks'

**SITE LANDSCAPE  
ARCHITECTS ^**

**123  
SLOPEHILL ROAD**

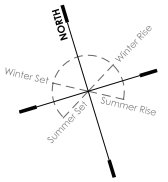
**NEW FARM SHED:  
EARTHWORKS PLAN**

1:500 @ A3

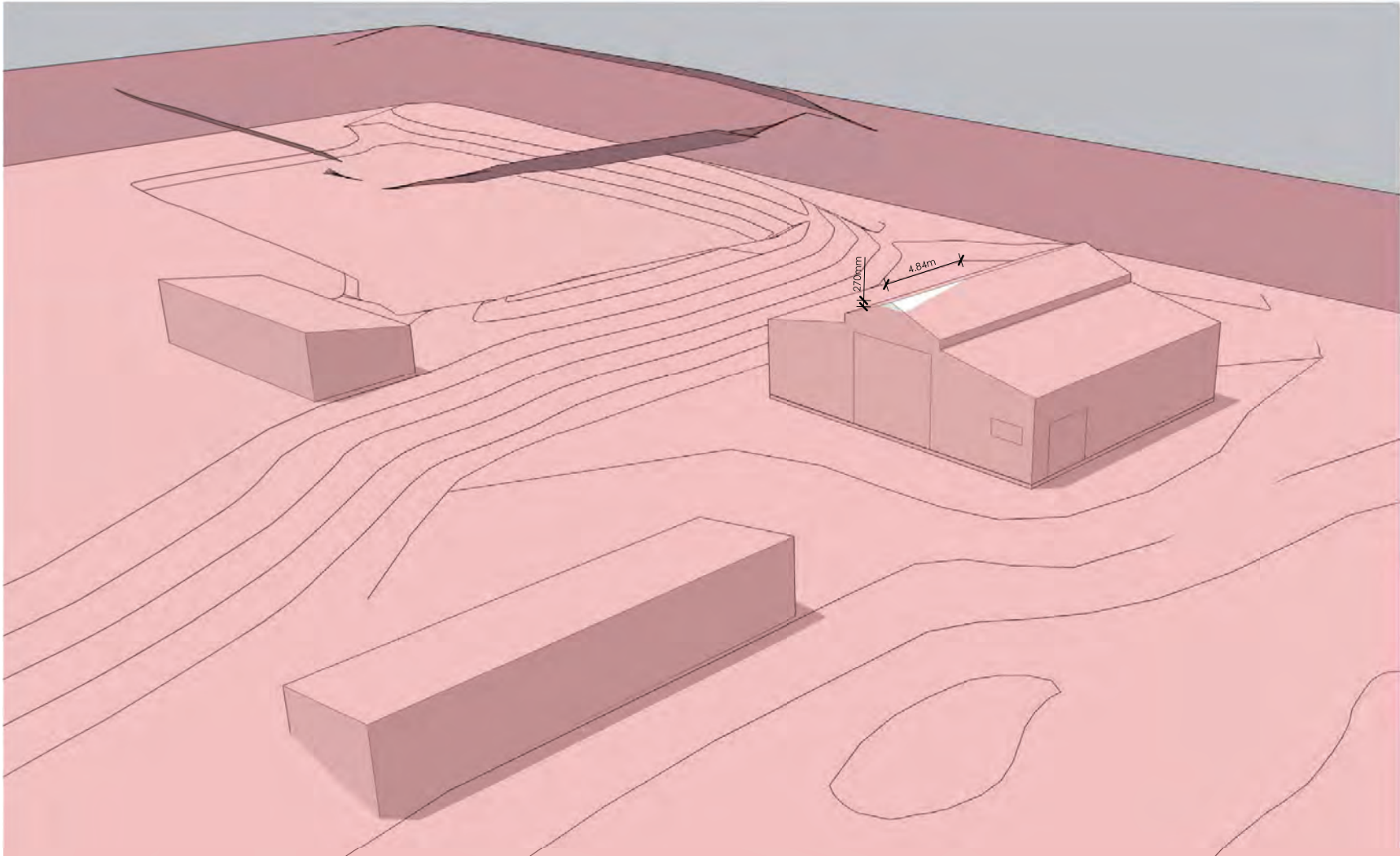
278\_SK-102  
11.10.23 . rev D

**FIG 03**  
www.sitela.co.nz









**KEY:**

6.5m Existing topography rolling height plane shown in red  
Proposed topography & sheds shown in white



# AFFECTED PERSON'S APPROVAL

FORM 8A



Resource Management Act 1991 Section 95



## RESOURCE CONSENT APPLICANT'S NAME AND/OR RM #

Hazledine Independent Trustee Limited, Sam Bolton Hazledine



## AFFECTED PERSON'S DETAILS

I/We Lewis John Gdanitz

Are the owners/occupiers of  
141 Slopehill Road, Lake Hayes, Lot 5 DP 22239



## DETAILS OF PROPOSAL

I/We hereby give written approval for the proposal to:

Piping of the Arrow Irrigation Channel and undertake earthworks in the location of the race, as shown on the initialed plans.

Construct a shed containing horse bays and a residential flat on the site, as shown on the initialed plans.

Construct an open covered shelter for horses, as shown on the initialed plans.

Construct a 6m x 6m extension to an existing shed, as shown on the initialed plans.

at the following subject site(s):

123 Slopehill Road, Queenstown



PLEASE TICK

I/We understand that by signing this form Council, when considering this application, will not consider any effects of the proposal upon me/us.



PLEASE TICK

I/We understand that if the consent authority determines the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.



## WHAT INFORMATION/PLANS HAVE YOU SIGHTED



PLEASE TICK

I/We have sighted and initialled ALL plans dated and approve them.





## APPROVAL OF AFFECTED PERSON(S)

The written consent of all owners / occupiers who are affected. If the site that is affected is jointly owned, the written consent of all co-owners (names detailed on the title for the site) are required.

A	Name (PRINT) <i>LEWIS John Grantz</i>	
	Contact Phone / Email address <i>027 2087396</i>	
	Signature <i>[Signature]</i>	Date <i>21 Aug 2023</i>
B	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date
C	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date
D	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date

### Note to person signing written approval

Conditional written approvals cannot be accepted.

There is no obligation to sign this form, and no reasons need to be given.

If this form is not signed, the application may be notified with an opportunity for submissions.

If signing on behalf of a trust or company, please provide additional written evidence that you have signing authority.



Queenstown Lakes District Council  
Private Bag 50072, Queenstown 9348  
Gorge Road, Queenstown 9300

P: 03 441 0499  
E: resourceconsent@qldc.govt.nz  
www.qldc.govt.nz



# Hazledine Barn and Residential Flat

#### Description

Project: Proposed heritage barn and residential flat

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

#### Dimension & Area

Barn overall 15.5m x 14m with eaves of 5.0m

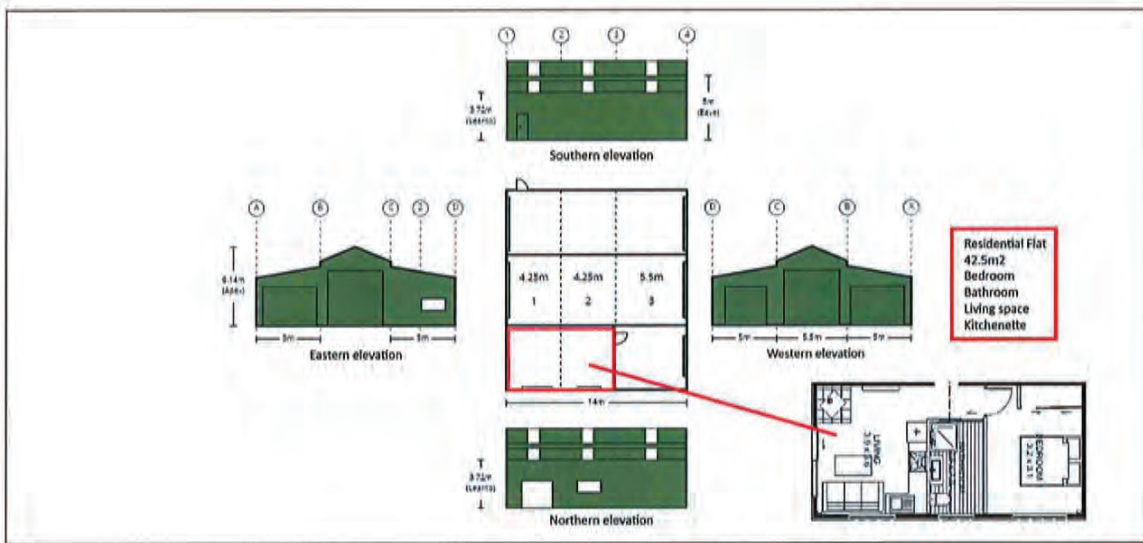
Barn area 147m<sup>2</sup>

Residential flat 42.5m<sup>2</sup>

Residential garage 27.5m<sup>2</sup>

Total area 217m<sup>2</sup>

A handwritten signature in black ink, consisting of a stylized 'S' followed by a large loop and a final flourish.



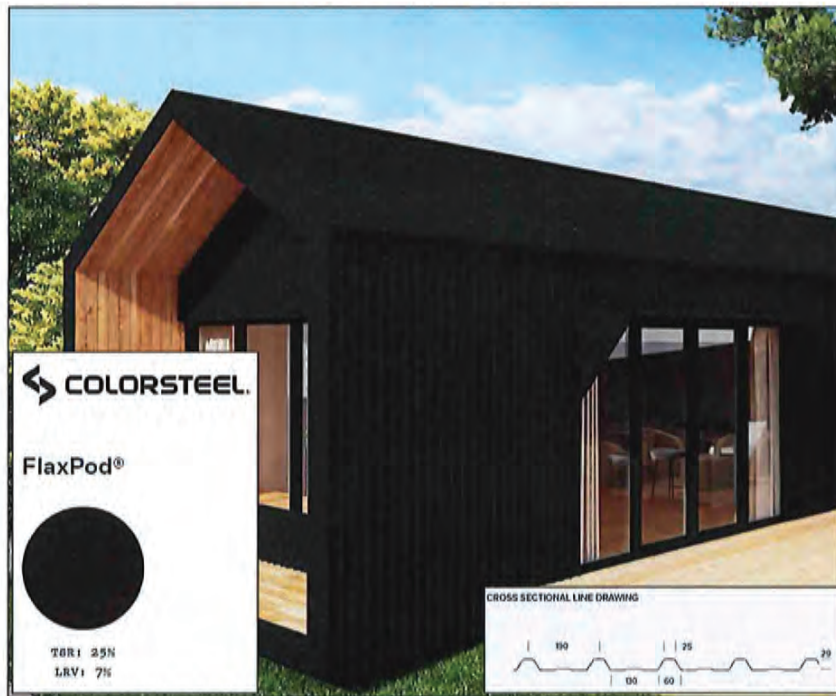
*[Handwritten signature]*

#### Exterior cladding

The building will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile.

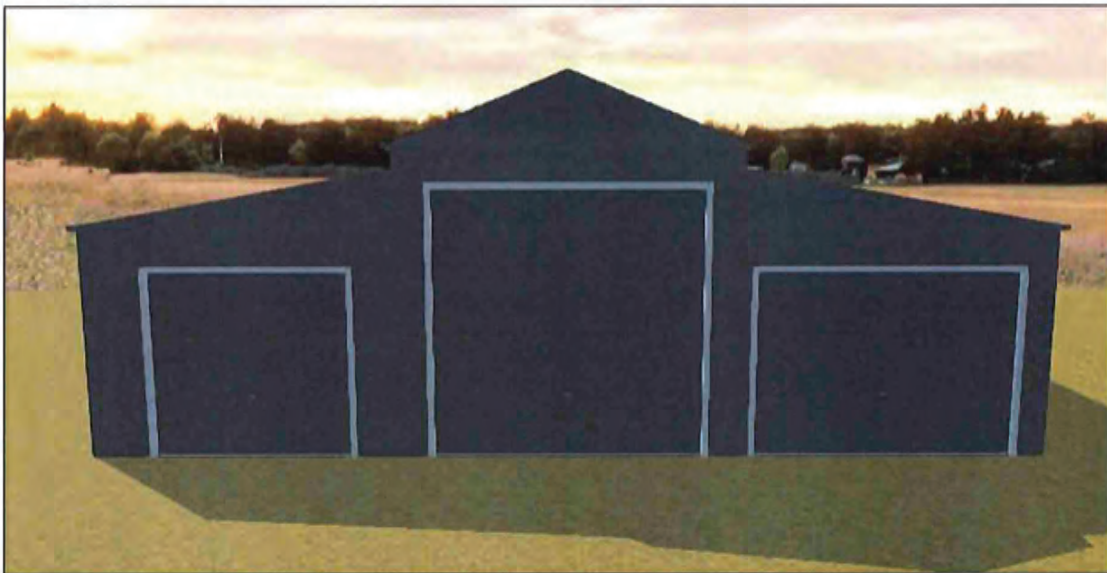
This has a Light Reflective Rating of 7%

*An example of a Flaxpod clad building*



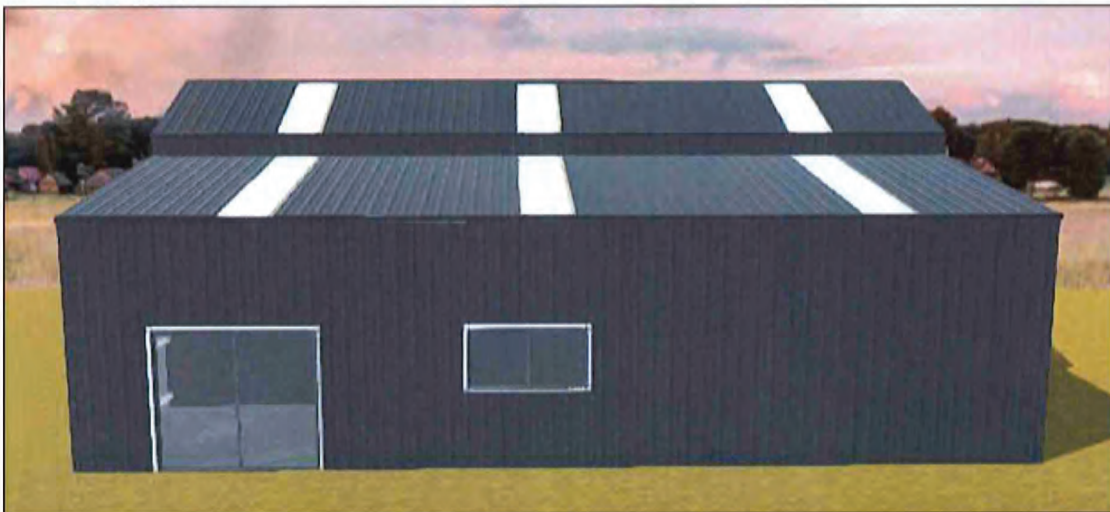
3 Dimensional views of the barn

Western elevation



A handwritten signature in black ink, consisting of stylized, overlapping loops and curves.

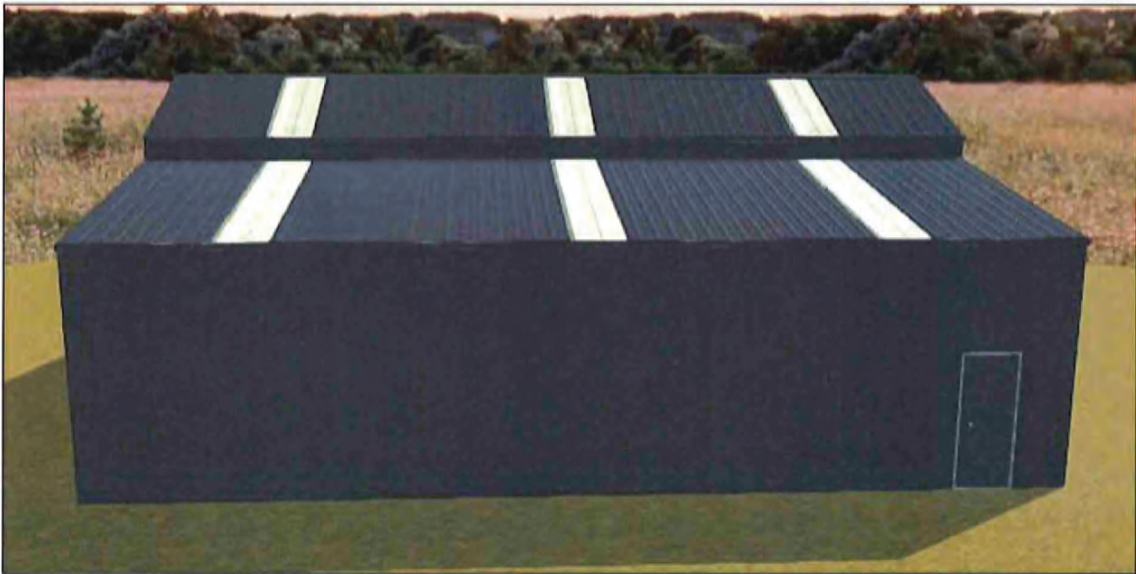
Northern elevation (Residential flat side)



A handwritten signature in black ink, consisting of stylized, overlapping loops and curves.

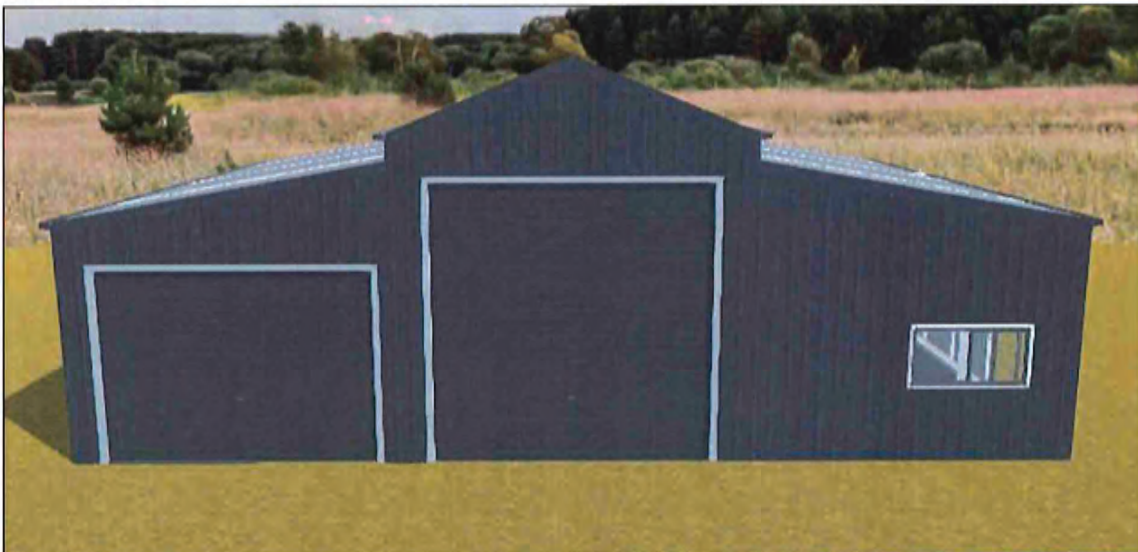


Southern elevation



A handwritten signature in black ink, consisting of stylized, flowing letters.

Eastern elevation



A handwritten signature in black ink, consisting of stylized, overlapping loops and curves.

# Hazledine Shed Extension

#### Description

Project: Shed extension

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

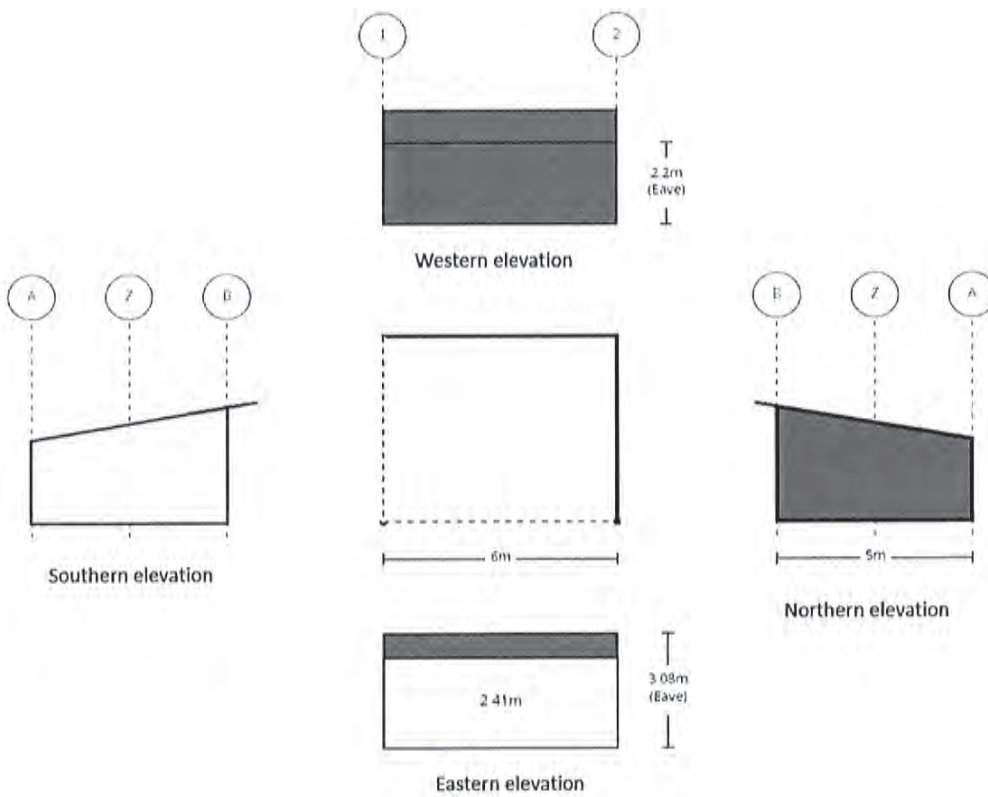
#### Dimension & Area

Shelter dimension overall 6m x 5m with eaves of 2.2m

Shelter area 30m<sup>2</sup>

Cladding Colorsteel and Timber (matching)





Exterior cladding

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

*An example of a Flaxpod clad building*



With façade in Board and Batten or natural timber cladding to match current finish.



A handwritten signature.





#### Location

Location of Horse Stable extension at 123 Slopehill Road

#### Design criteria for site

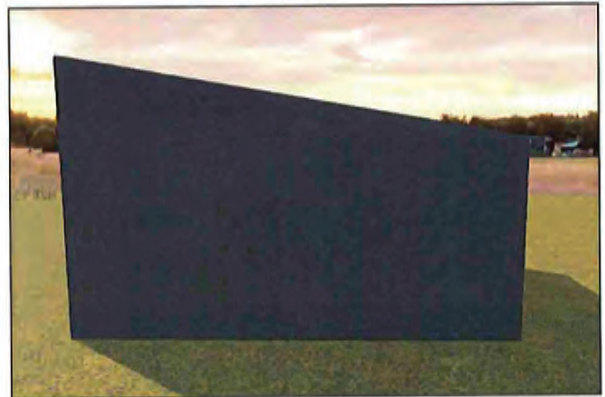
Wind Region	Building Class
A	5
Importance Level	Earthquake
1	Yes
Terrain Category	Ground Snow Load
2.5	1.34
Shielding	Snow Load Region
1.0	N5
Topographic	Elevation
1	436.85
Design Wind Speed	Durability Alert
35.7	Yes
Wind Code	
2011	

3 Dimensional views of the extension

Elevations

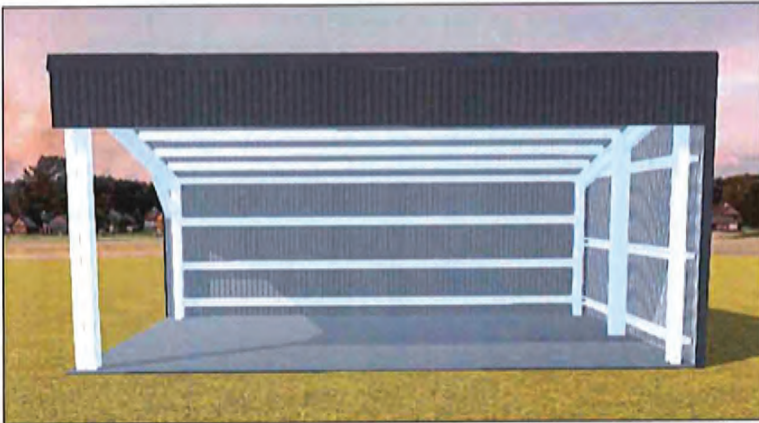


Western View



Northern View

A handwritten signature in black ink, consisting of stylized, flowing letters.



Eastern View

A handwritten signature in black ink, consisting of stylized, overlapping loops and curves.

# Hazledine Horse Shelter

#### Description

Project: Shelter for livestock

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

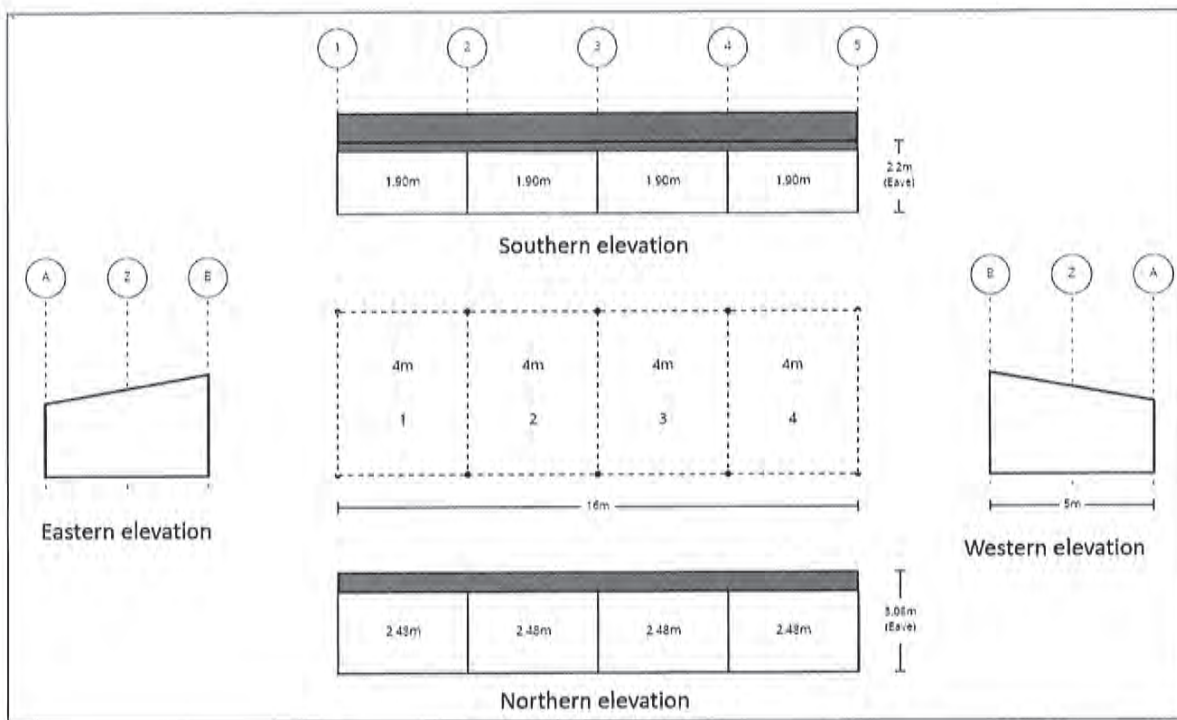
#### Dimension & Area

Shelter dimension overall 16m x 5m with eaves of 2.2m

Shelter area 80m<sup>2</sup>

Cladding Colorsteel

A handwritten signature in black ink, consisting of a stylized 'S' followed by a loop and a horizontal stroke.



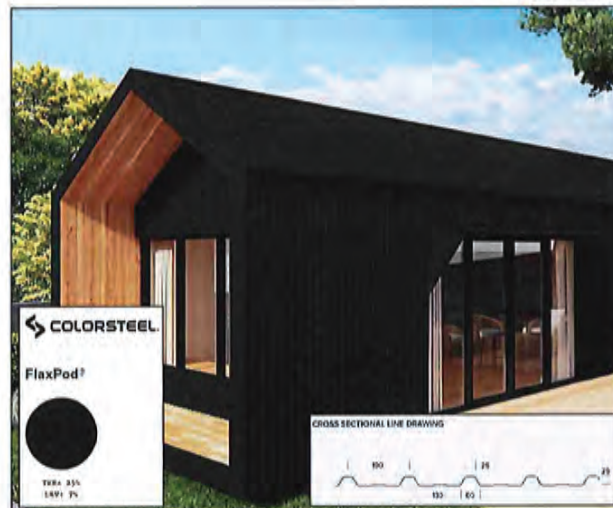
*[Handwritten signature]*



**Exterior cladding**

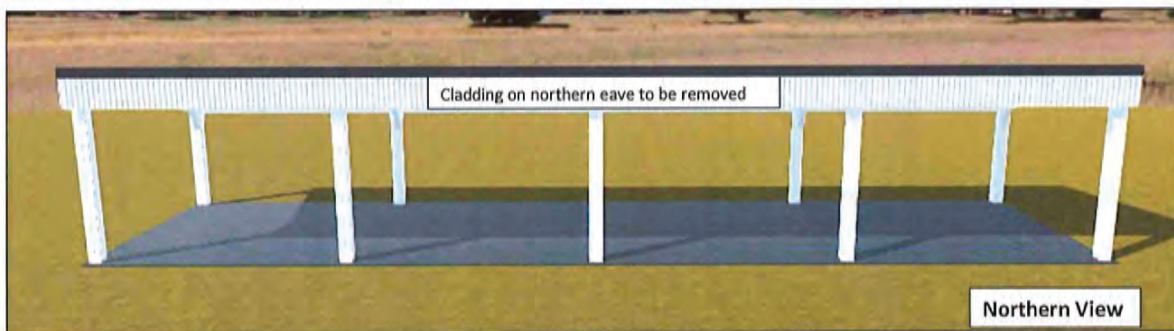
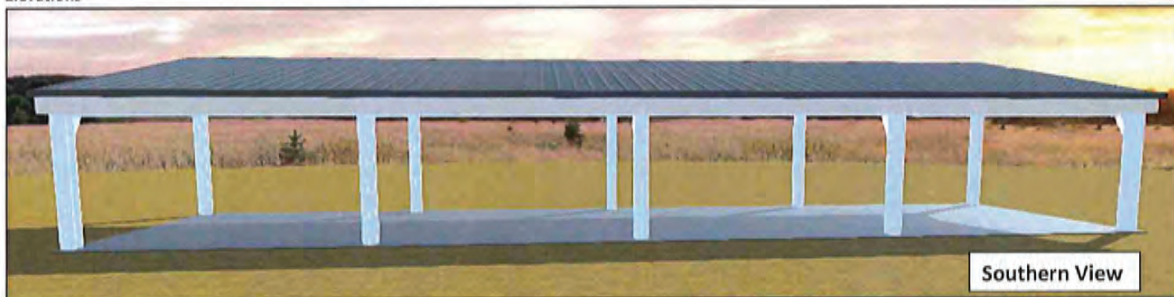
The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

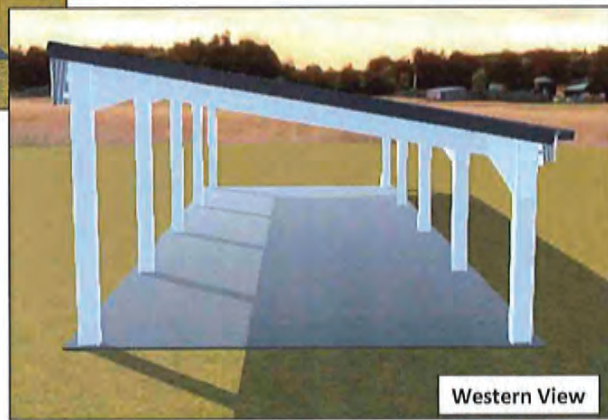
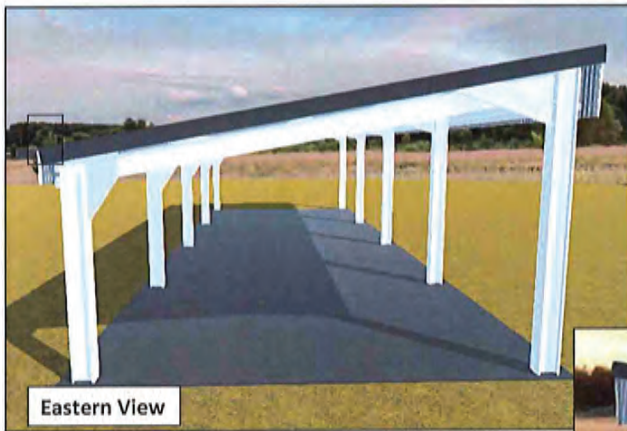
*An example of a Flaxpod clad building*



### 3 Dimensional views of the Shelter

#### Elevations





A handwritten signature in black ink, consisting of stylized, overlapping loops and lines.



- KEY:**
- Subject Site
  - WRAZ setbacks
  - Water race easement
  - Building Platforms
  - Existing dwelling
  - Approved building extensions (DA/2/009)
  - Proposed farm shed
  - Proposed Horse Shelter
  - Proposed extension to ex. shed
  - Ex. horse arenas
  - Existing hedge on adjacent property subject to consent notice 8843153, 4 (n) (1)
  - "Removal of existing trees between proposed lot 3 and proposed lot 4 DP 407784 in a progressive manner... no trees should be removed until replacement planting that will provide input or buffer screening is established"

SITE LANDSCAPE  
ARCHITECTS ^

123  
SLOPEHILL ROAD

NEW FARM SHED:  
CONTEXT PLAN AND VIEW LOCATIONS

13,000 @ A3 278,561,000  
04.08.23 - rev A  
**FIG 01**  
www.shlo.co.nz





SITE LANDSCAPE  
ARCHITECTS ^

123  
SLOPEHILL ROAD

NEW FARM SHED;  
LANDSCAPE PLAN



KEY:  
— Existing contours  
— Proposed contours  
--- Existing contours removed

- (A) Ex. Shed
- (B) Proposed Farm Shed
- (C) Proposed Horse Shelter
- (D) Proposed Residential Flat within Farm Shed
- (E) Gravel area off existing driveway
- (F) Ex. water race piped
- (G) 4m extension to ex. shed
- (H) Outdoor area for Residential Flat
- (I) 3 x 25,000, buried freighting water tanks
- (J) 2.5m wide gravel track for all terrain vehicle access
- (K) Existing hedge on adjacent property subject to consent notice #243173, A (b) (i); Removal of existing pine trees between proposed lot 3 and proposed lot 4 D442766 is a progressive removal - the trees should be removed until replacement planting that will provide equal or better screening is established

#### PLANTING:

- (1) Ex. Kauri / Totara / Kowhai planting to remain
  - (2) Approved planting [201310095]
  - Proposed deciduous tree planting with protection from grazing animals:
  - (3) Chinese elm, *Ulmus parviflorus* Pauli Scottell @ 4m on
  - (4) *Pinus caroliniana* @ 5m on
  - Proposed native planting on slopes steeper than 15 degrees / or 13.7%:
  - Red Kauri
  - Hill Country
  - Native Kauri
  - Sapota microphylla*
  - Phoradendron*
  - Casuarina pauciflora*
- All planting of 1.5m or, mulched, protected from rabbits, irrigated for first 3 years during establishment

1/2008 AJ 3/2/2010  
04/03/2010, rev C  
**FIG 02**  
www.afs.co.nz





KEY:

Existing contours (1m)  
Proposed contours (1m)

Cul  
Vol. 72m³, Area 350m²  
Fill  
Vol. 630m³, Area 1240m²

Total earthworks volume = 722m³  
Total earthworks area = 1,440m²  
Max. depth cut = 0.6m  
Max. depth fill = 1.6m

Volumes are approximate only for purposes of resource consent

All areas of exposed earthworks to be revegetated with low-growing / native grass in the next available growing season

Earthworks to be in accordance with GISC 'Guide to Earthworks'

1:500 @ A3

3/18/10  
04/08/23, rev D

**FIG 03**  
www.slek.co.nz

SITE LANDSCAPE  
ARCHITECTS ^

123  
SLOPEHILL ROAD

NEW FARM SHED:  
EARTHWORKS PLAN



SITE LANDSCAPE  
ARCHITECTS A

123  
SLOPEHILL ROAD

NEW FARM SHED:  
POLE PLAN

1:500 @ A3 278.5G.103  
04.08.23 - rev G  
**FIG 04**  
www.slls.co.nz

*[Handwritten signature]*





↑ Shed Poles in red, approximate footprint shown on ground

↑ Horse shelter pegs, actual prepared location is 2m to the east

↑ Shed extension poles in red

**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: Panorama  
Date Photo Taken: 04.08.23

*Photo appears smaller than real life view*

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
PANORAMA FROM SITE VIEWING NORTH**

378.16.000  
04.08.23 : 10:14  
**V-01**  
www.slsa.co.nz



↑ Shed Poles in red, approximate centre of  
rooftline shown transparent red

Shed Extension pole in red ↑

**Photo Note:**

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04/08/23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING NORTH-EAST**

018 511 800  
0408.23 - revA  
**V-02**  
www.sheds.nz

*[Handwritten signature]*





↑ Move Shaffer pigs, actual proposed location is 2m to the east

↑ Shed extension poles in red

↑ Shed Poles in red, approximate footprint / centre roofline shown transparent red

**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS** ▲

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING SOUTH-EAST**

378.5x-500  
04.08.23 - rev A  
**V-03**  
www.slsarch.co.nz





↑ shed pole just visible, roofline will be  
visible over mounding in the foreground

**Photo Notes:**

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

278.11.000  
04.08.23 - rev A  
**V-04**  
www.photocritique.co.uk



↑ shed pole just visible, roofline will be  
visible over mounding in the foreground

**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS** ▲

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

378.5x500  
04.08.23 - revA  
**V-05**  
www.slsa.co.nz







**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Printed A3 sheet 30cm from eye to replicate real view

↑ Shed poles and shed extension poles  
intermittently visible through poplars  
located on neighbouring property

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

378,316-001  
04.08.23 - revA  
**V-06**  
www.shdarch.co.nz



# AFFECTED PERSON'S APPROVAL

## FORM 8A



Resource Management Act 1991 Section 95

#

### RESOURCE CONSENT APPLICANT'S NAME AND/OR RM #

Hazledine Independent Trustee Limited, Sam Bolton Hazledine



### AFFECTED PERSON'S DETAILS

I/We Jeffrey Mark Hylton

Are the owners/occupiers of

149 Slopehill Road, Lake Hayes



### DETAILS OF PROPOSAL

I/We hereby give written approval for the proposal to:

Piping of the Arrow Irrigation Channel and undertake earthworks in the location of the race, as shown on the initialed plans.

Construct a shed containing horse bays and a residential flat on the site, as shown on the initialed plans.

Construct an open covered shelter for horses, as shown on the initialed plans.

Construct a 6m x 6m extension to an existing shed, as shown on the initialed plans.

at the following subject site(s):

123 Slopehill Road, Queenstown



PLEASE TICK

I/We understand that by signing this form Council, when considering this application, will not consider any effects of the proposal upon me/us.



PLEASE TICK

I/We understand that if the consent authority determines the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.



### WHAT INFORMATION/PLANS HAVE YOU SIGHTED



PLEASE TICK

I/We have sighted and initialed ALL plans dated and approve them.





## APPROVAL OF AFFECTED PERSON(S)

The written consent of all owners / occupiers who are affected. If the site that is affected is jointly owned, the written consent of all co-owners (names detailed on the title for the site) are required.

A	Name (PRINT) <i>Jeff Hilton</i>	
	Contact Phone / Email address <i>truegrit 25.06@xtra.co.nz</i>	
	Signature <i>[Signature]</i>	Date <i>15/8/2023</i>
B	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date
C	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date
D	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date

### Note to person signing written approval

Conditional written approvals cannot be accepted.

There is no obligation to sign this form, and no reasons need to be given.

If this form is not signed, the application may be notified with an opportunity for submissions.

If signing on behalf of a trust or company, please provide additional written evidence that you have signing authority.



Queenstown Lakes District Council  
Private Bag 50072, Queenstown 9348  
Gorge Road, Queenstown 9300

P: 03 441 0499  
E: resourceconsent@qldc.govt.nz  
www.qldc.govt.nz



# Hazledine Barn and Residential Flat

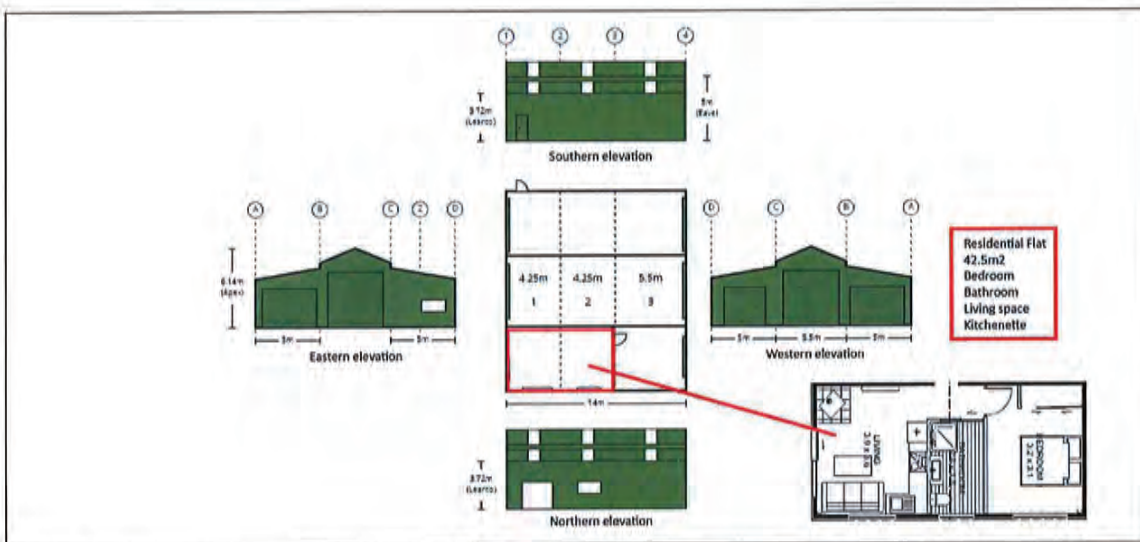
#### Description

Project: Proposed heritage barn and residential flat  
Client: Sam Hazledine  
Location: 123 Slopehill Road Lake Hayes Otago  
Legal description: LOT 4 DP 407786

#### Dimension & Area

Barn overall 15.5m x 14m with eaves of 5.0m  
Barn area 147m<sup>2</sup>  
Residential flat 42.5m<sup>2</sup>  
Residential garage 27.5m<sup>2</sup>  
Total area 217m<sup>2</sup>

gm



*Handwritten signature*

Exterior cladding

The building will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile.

This has a Light Reflective Rating of 7%

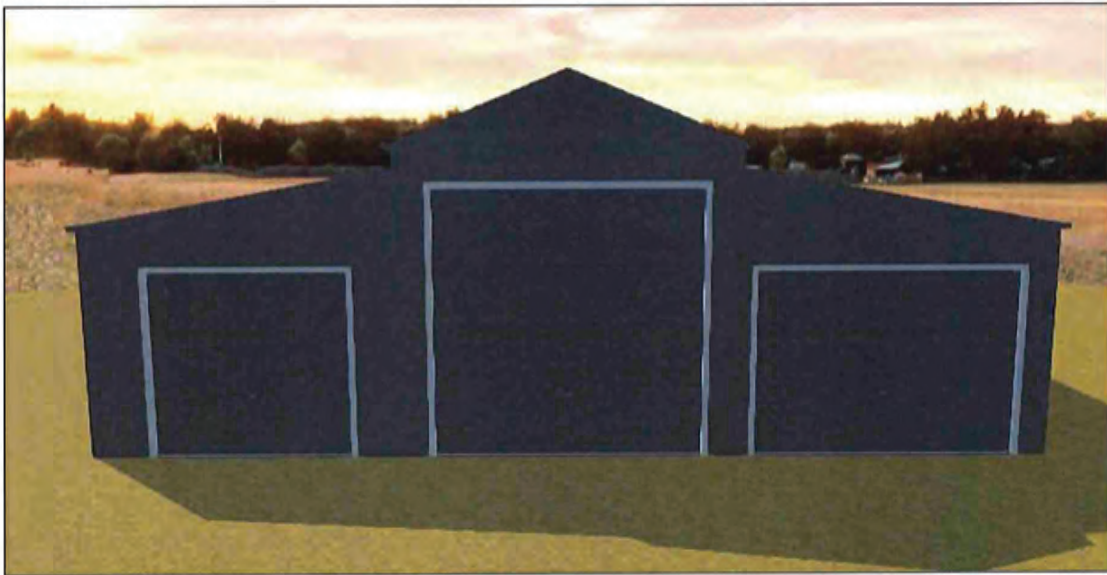
*An example of a Flaxpod clad building*



DN

3 Dimensional views of the barn

Western elevation



*DM*

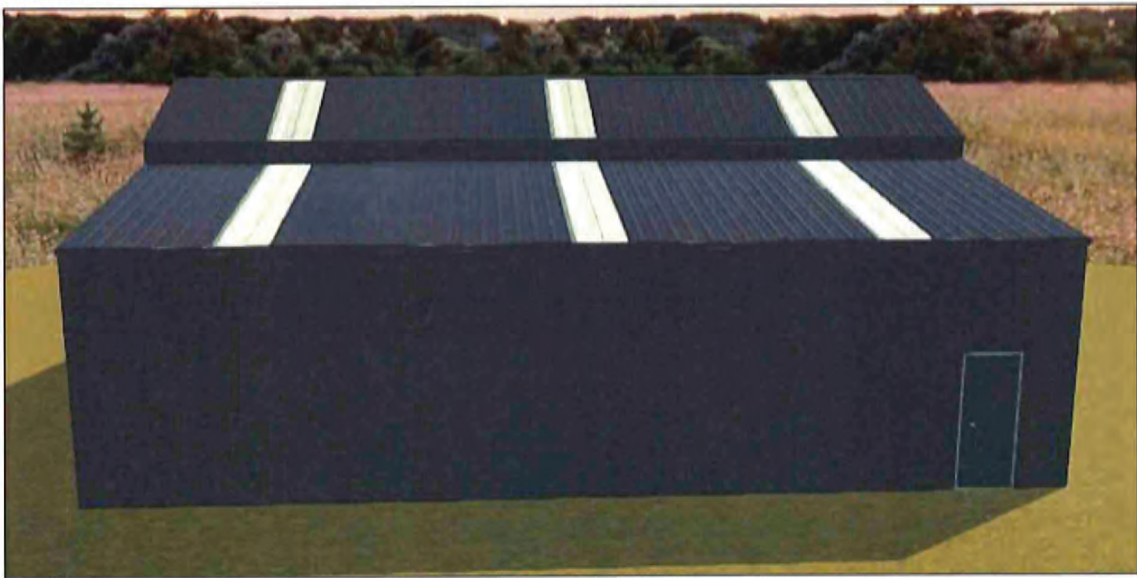


Northern elevation (Residential flat side)



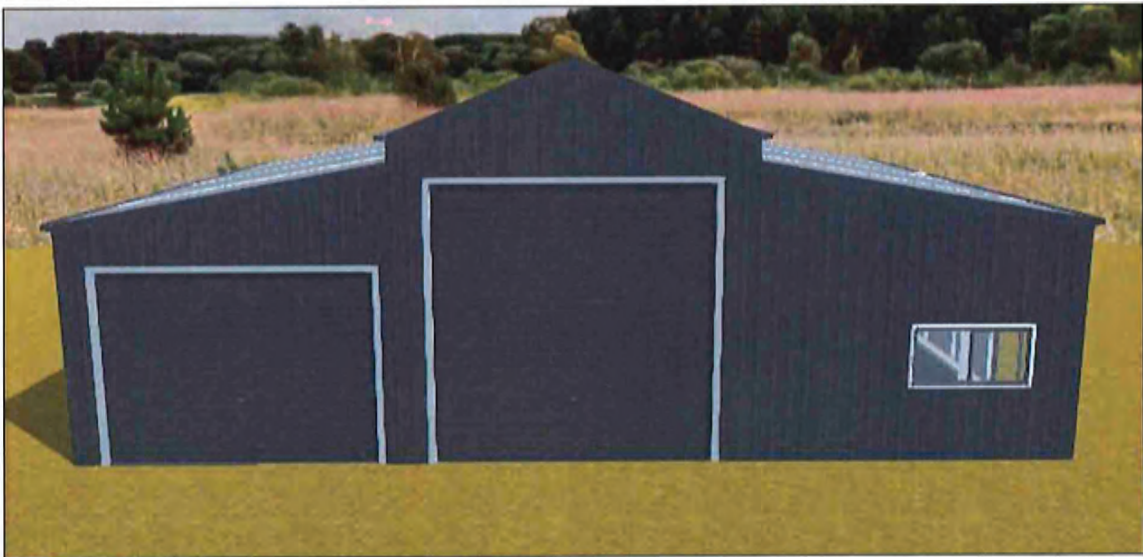
gnt

Southern elevation



gml

Eastern elevation



# Hazledine Shed Extension

. Jm

#### Description

Project: Shed extension

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

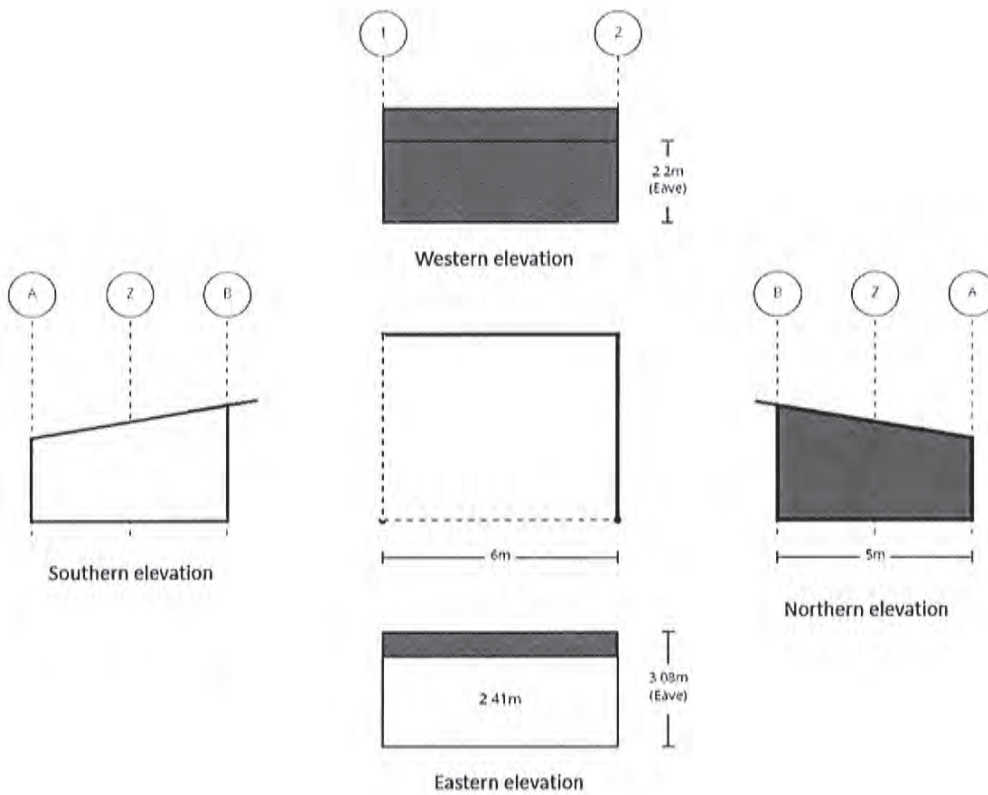
#### Dimension & Area

Shelter dimension overall 6m x 5m with eaves of 2.2m

Shelter area 30m<sup>2</sup>

Cladding Colorsteel and Timber (matching)



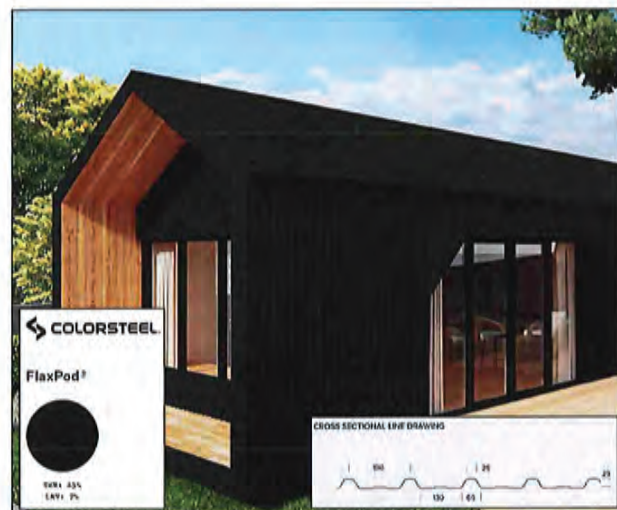


gms

#### Exterior cladding

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

*An example of a Flaxpod clad building*



With façade in Board and Batten or natural timber cladding to match current finish.



gnt



#### Location

Location of Horse Stable extension at 123 Slopehill Road

#### Design criteria for site

Wind Region	Building Class
A	S
Importance Level	Earthquake
1	Yes
Terrain Category	Ground Snow Load
2.5	1.34
Shielding	Snow Load Region
1.0	NS
Topographic	Elevation
1	436.85
Design Wind Speed	Durability Alert
35.7	Yes
Wind Code	
2011	

*gmu*

3 Dimensional views of the extension

Elevations

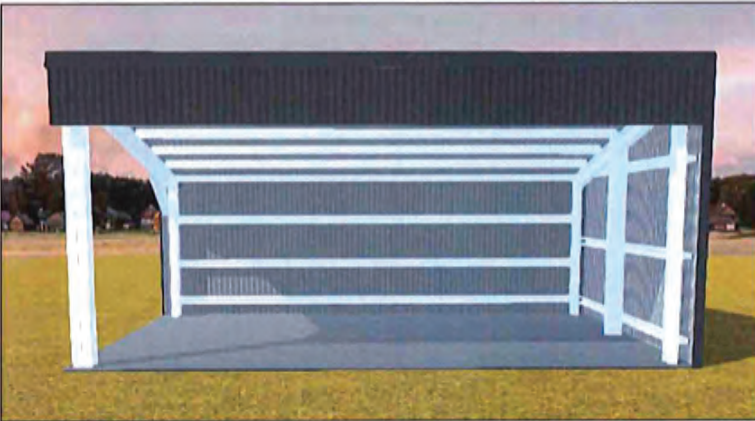


Western View



Northern View

*DM*



Eastern View

SM



# Hazledine Horse Shelter

Jim

#### Description

Project: Shelter for livestock

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

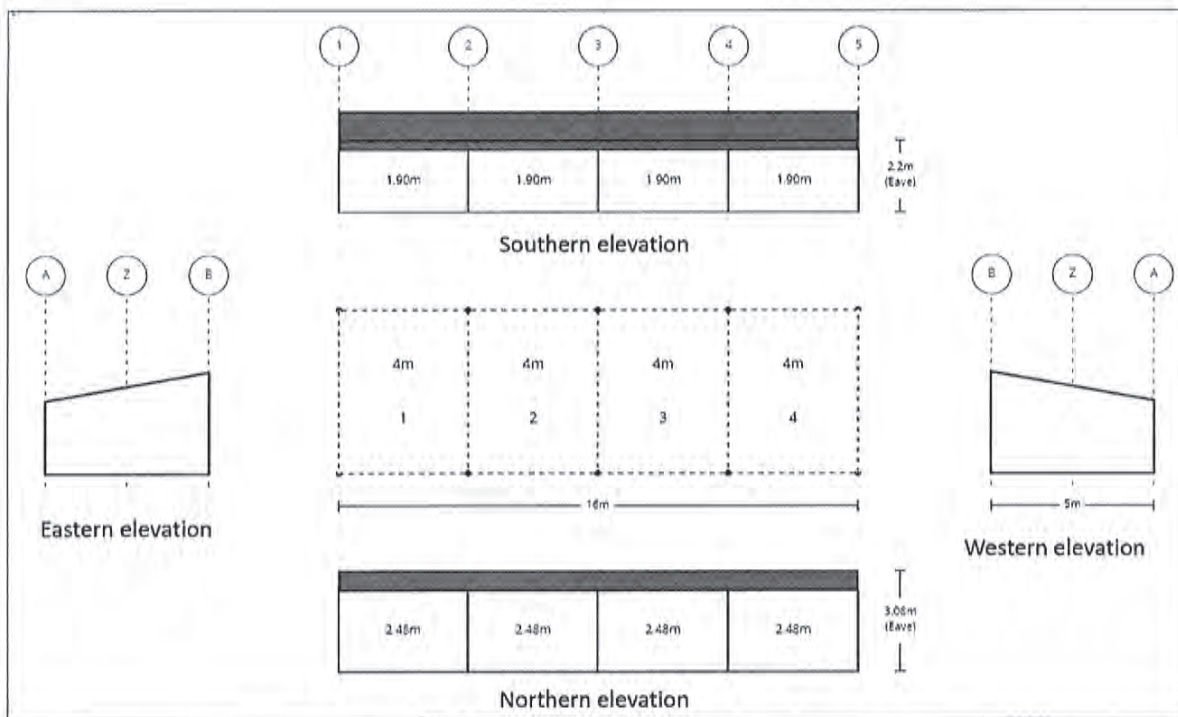
#### Dimension & Area

Shelter dimension overall 16m x 5m with eaves of 2.2m

Shelter area 80m<sup>2</sup>

Cladding Colorsteel

21/11

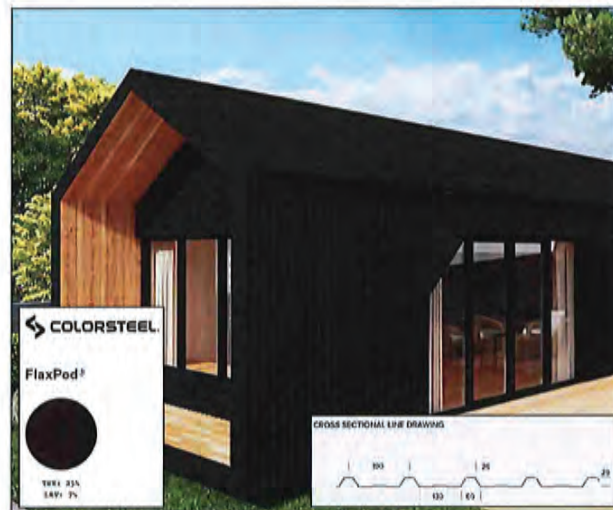


*md*

Exterior cladding

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

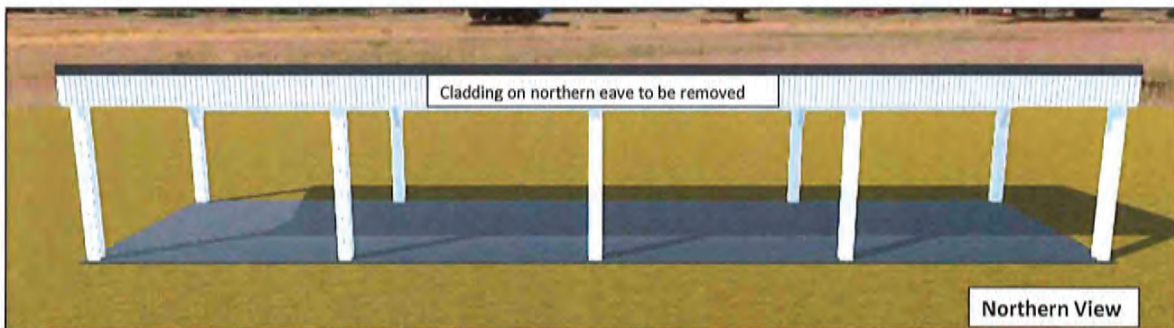
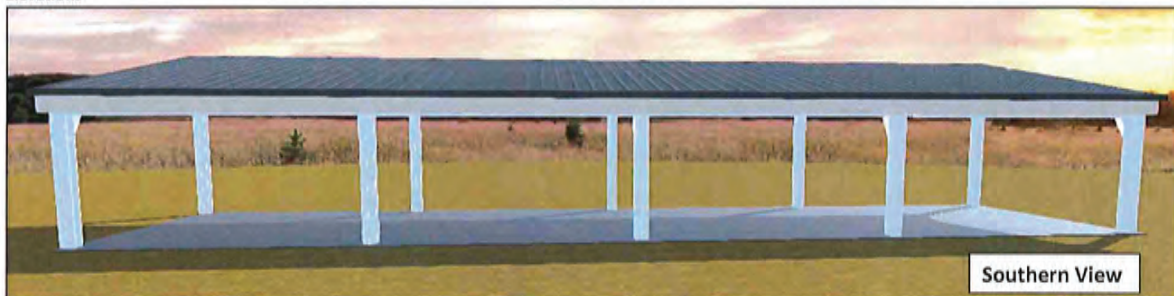
*An example of a Flaxpod clad building*



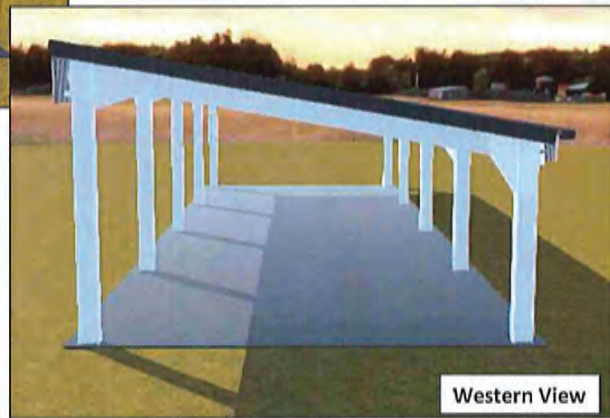
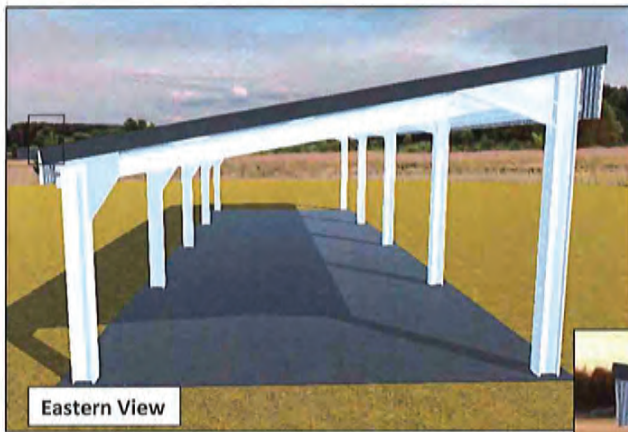
DM

### 3 Dimensional views of the Shelter

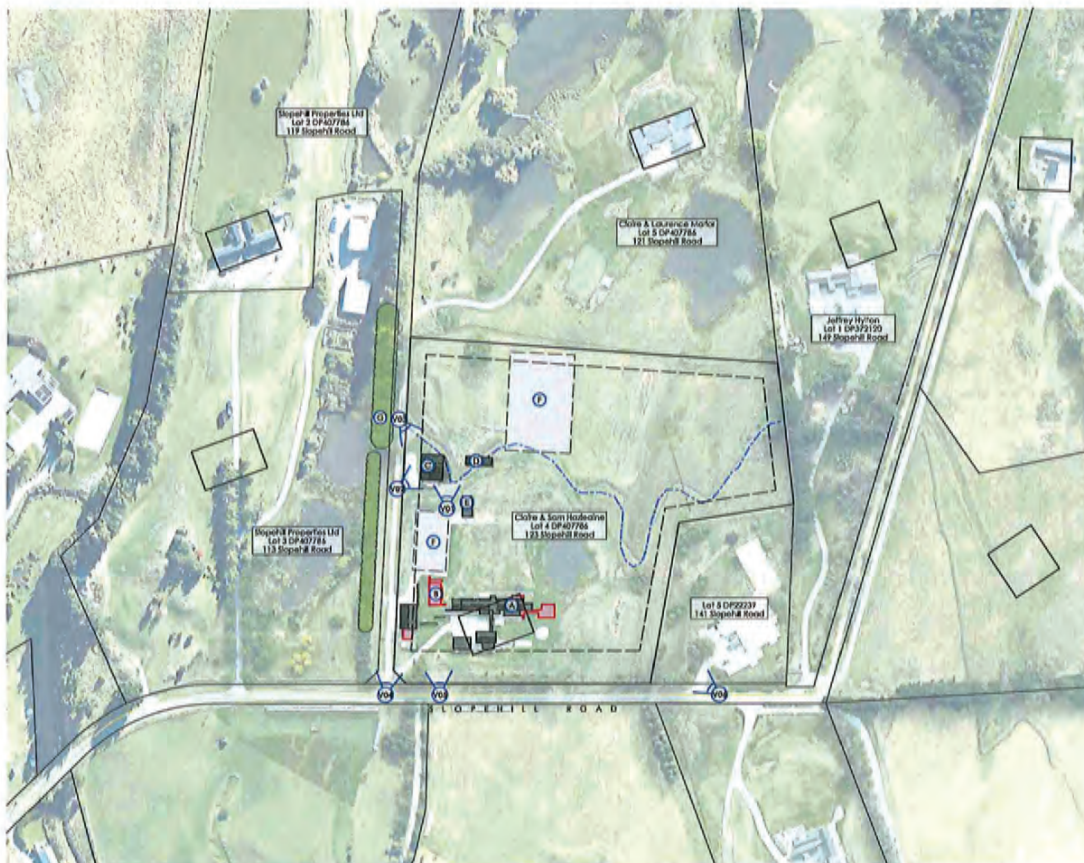
#### Elevations







*gm*



SITE LANDSCAPE  
ARCHITECTS ^

123  
SLOPEHILL ROAD

NEW FARM SHED:  
CONTEXT PLAN AND VIEW LOCATIONS

1:2,000 @ A3 278,55:100  
04.08.23 - rev A  
**FIG 01**  
www.shls.co.nz

*Sh*



SITE LANDSCAPE  
ARCHITECTS A

123  
SLOPEHILL ROAD

NEW FARM SHED:  
LANDSCAPE PLAN

- KEY:
- Existing contours
  - - - Proposed contours
  - ... Existing contours removed
- (A) Ex. Shed
- (B) Proposed Farm Shed
- (C) Proposed Horse Shelter
- (D) Proposed Residential Plot within Farm Shed
- (E) Gravel area off existing driveway
- (F) Ex. water race piped
- (G) 6m extension to ex. shed
- (H) Outdoor area for Residential Plot
- (I) 2 x 55,000L buried freighting water tanks
- (J) 2.5m wide gravel track for all farm vehicle access
- (K) Existing hedge on adjacent property subject to consent notice B243173, 4 (a) (b)
- (L) Removal of existing pine trees between proposed lot 3 and proposed lot 4 (B243173) in a progressive manner... no trees should be removed until replacement planting that will provide wind or better screening is established
- PLANTING:
- (1) Ex. Eucalypt / hebe / korah planting to mound
- (2) Approved planting (B2431009)
- Proposed deciduous tree planting with protection from grazing animals:
- (3) Chinese elm, Crataegus Pauli Scale 1/2 @ 4m cns
- (4) Pines cacteyana @ 5m cns
- (5) Proposed native planting (to slopes steeper than 1:5 degrees / or 13.7%):
- Red bloodwood  
Helleborus  
Hebe xanthophylla  
Scaevola taccada  
Platanus regalis  
Corymbia speciosa
- All plantings of 1.5m cns, mulched, protected from rabbits, irrigated for first 3 years during establishment

1:500 @ A3

27/10/10  
04/08/11 - rev C

FIG 02  
www.shku.co.nz

*Handwritten signature*





# KEY:

- Existing contours (1m)
- Proposed contours (1m)
- Cut  
Vol. 75m<sup>3</sup>, Area 380m<sup>2</sup>
- Fill  
Vol. 450m<sup>3</sup>, Area 1240m<sup>2</sup>

Total earthworks volume = 725m<sup>3</sup>  
Total earthworks area = 1,640m<sup>2</sup>  
Max. depth cut = 0.4m  
Max. depth fill = 1.8m

Volumes are approximate only for purposes of resource consent

All areas of exposed earthworks to be regraded with low-lying / tussock grass in the next available growing season

Earthworks to be in accordance with GISC Guide to Earthworks

1:200 R A3

279.56/10  
04.08.23 - rev C

**FIG 03**  
www.jfela.co.nz

*Handwritten signature*



SITE LANDSCAPE  
ARCHITECTS A

123  
SLOPEHILL ROAD

NEW FARM SHED:  
POLE PLAN

1:500 @ A3 378.56/100  
04/08/23 - n/c  
**FIG 04**  
www.ahls.co.nz

SM





↑ Shed Poles in red, approximate footprint shown on ground

↑ Horse shelter pegs, actual proposed location is 2m to the east

↑ Shed extension poles in red

#### Photo Notes:

Camera: Iphone 13 Pro  
Lens: Panorama  
Date Photo Taken: 04/08/23

Photo appears smaller than real life view.

**SITE LANDSCAPE  
ARCHITECTS** ▲

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
PANORAMA FROM SITE VIEWING NORTH**

319\_25-003  
04/08/23 : rev A  
**V-01**  
www.shitcare

*DM*



↑ Shed Poles in red, approximate centre of  
roofline shown transparent red

Shed Extension pole in red ↑

#### Photo Notes

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 93cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS** 

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING NORTH-EAST**

378,15,805  
04.08.23 - 123A  
**V-02**  
www.sla.co.nz

*SLA*





↑ Horse Shelter page, actual proposed location is 2m to the east

↑ Shed extension poles in red

↑ Shed Poles in red, approximate footprint / centre roofline shown transparent red

**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.06.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING SOUTH-EAST**

075 316 000  
04.06.23 - H.A.A.  
**V-03**  
www.shilland.co.nz

QW



↑ Shed pole just visible, roofline will be visible over mounding in the foreground

**Photo Notes**

Camera: iPhone 13 Pro  
Lens: 28mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 90cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS** 

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

278,56-800  
04.08.23 - 10:4  
**V-04**  
www.shkl.co.nz

01





↑ shed pole just visible, roofline will be visible over mounding in the foreground

**Photo Notes:**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

379.316.500  
04.08.23 : 10:14  
**V-05**  
www.shasenz.com

SP





**Photo Note:**

Camera: iPhone 13 Pro  
 Lens: 26mm  
 Date Photo Taken: 04.06.23

Hold printed A3 sheet 30cm from eye to replicate real view

↑ shed poles and shed extension poles  
 intermittently visible through poplars  
 located on neighbouring property

**SITE LANDSCAPE  
 ARCHITECTS A**

**123  
 SLOPEHILL ROAD**

**NEW FARM SHED  
 FROM SLOPEHILL ROAD VIEWING NORTH**

278, 11, 800  
 04.06.23 . rev A  
**V-06**  
 www.shhs.co.nz

*Handwritten signature/initials*



# AFFECTED PERSON'S APPROVAL

FORM 8A



Resource Management Act 1991 Section 95

#

RESOURCE CONSENT APPLICANT'S NAME AND/OR RM #

Sam Hazledine



AFFECTED PERSON'S DETAILS

I/We Arrow Irrigation Company

Are the owners/occupiers of

Irrigation race & easement.



DETAILS OF PROPOSAL

I/We hereby give written approval for the proposal to:

Piping of the Arrow Irrigation Channel and undertake earthworks in the location of the race, as shown on the initialed plans.

Construct a shed containing horse bays and a residential flat on the site, as shown on the initialed plans.

Construct an open covered shelter for horses, as shown on the initialed plans.

Construct a 6m x 6m extension to an existing shed, as shown on the initialed plans.

at the following subject site(s):

123 Slopehill Road, Queenstown



I/We understand that by signing this form Council, when considering this application, will not consider any effects of the proposal upon me/us.



I/We understand that if the consent authority determines the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.



WHAT INFORMATION/PLANS HAVE YOU SIGHTED



I/We have sighted and initialed ALL plans dated and approve them.

Arrow Irrigation



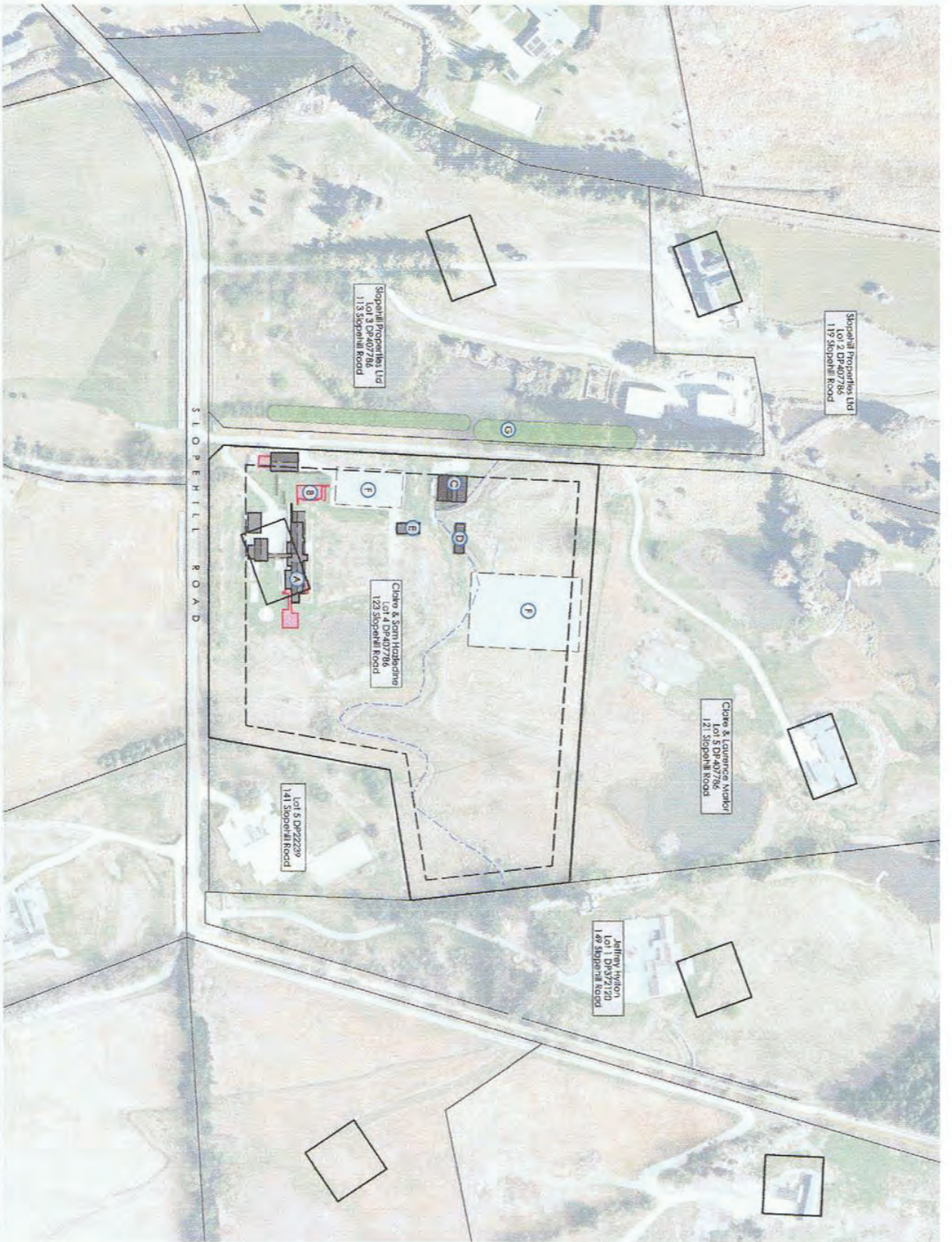


Figure 1: Context Plan

- KEY:**
- Subject Site
  - WPAZ lotlocks
  - Water race settlement
  - Building footprints
  - Existing dwelling
  - Approved building extensions (RM2 (C20))
  - Proposed barn shed
  - Proposed Hopsa shelter
  - Proposed extension to ex. shed
  - Ex. horse arenas
  - Existing hedge on adjacent property (RM2 (C20))
  - Removal of existing pine trees between proposed for 3 and proposed lot 4 DP407786 in a should be removed until replacement planting that will provide a good or better screening is established

*OP.*  
*area irrigation*

123 Slopehill Road: New Farm Shed

PC - Rev A 06/07/23 1:2,000 @ A3

SITE LANDSCAPE ARCHITECTS A www.sitescape.co.nz 278, 3A-100, Central Plan



Figure 2: Landscape Plan

*area irrigation*

123 Slopehill Road: New Farm Shed  
RC - Rev C 04.07.23 1:500 @ A3

2



KEY:

- Existing contours
- Proposed contours
- Building contours removed

- A Ex. Shed
- B Proposed Farm Shed
- C Proposed Horse Shelter
- D Proposed Residential Flat within Farm Shed
- E Gravel area off existing driveway
- F Ex. water race piped
- G 6m extension to ex. shed
- H Outdoor area for Residential Flat
- I 3.4.25.001, buried freighting water tanks
- J 2.5m wide gravel track for all terrain vehicle access
- K Existing hedge on adjacent property subject to consent notice 8243173, 4 (a) (b) (c) (d) (e) (f) (g) (h) (i) (j) (k) (l) (m) (n) (o) (p) (q) (r) (s) (t) (u) (v) (w) (x) (y) (z) (aa) (ab) (ac) (ad) (ae) (af) (ag) (ah) (ai) (aj) (ak) (al) (am) (an) (ao) (ap) (aq) (ar) (as) (at) (au) (av) (aw) (ax) (ay) (az) (ba) (bb) (bc) (bd) (be) (bf) (bg) (bh) (bi) (bj) (bk) (bl) (bm) (bn) (bo) (bp) (bq) (br) (bs) (bt) (bu) (bv) (bw) (bx) (by) (bz) (ca) (cb) (cc) (cd) (ce) (cf) (cg) (ch) (ci) (cj) (ck) (cl) (cm) (cn) (co) (cp) (cq) (cr) (cs) (ct) (cu) (cv) (cw) (cx) (cy) (cz) (da) (db) (dc) (dd) (de) (df) (dg) (dh) (di) (dj) (dk) (dl) (dm) (dn) (do) (dp) (dq) (dr) (ds) (dt) (du) (dv) (dw) (dx) (dy) (dz) (ea) (eb) (ec) (ed) (ee) (ef) (eg) (eh) (ei) (ej) (ek) (el) (em) (en) (eo) (ep) (eq) (er) (es) (et) (eu) (ev) (ew) (ex) (ey) (ez) (fa) (fb) (fc) (fd) (fe) (ff) (fg) (fh) (fi) (fj) (fk) (fl) (fm) (fn) (fo) (fp) (fq) (fr) (fs) (ft) (fu) (fv) (fw) (fx) (fy) (fz) (ga) (gb) (gc) (gd) (ge) (gf) (gg) (gh) (gi) (gj) (gk) (gl) (gm) (gn) (go) (gp) (gq) (gr) (gs) (gt) (gu) (gv) (gw) (gx) (gy) (gz) (ha) (hb) (hc) (hd) (he) (hf) (hg) (hh) (hi) (hj) (hk) (hl) (hm) (hn) (ho) (hp) (hq) (hr) (hs) (ht) (hu) (hv) (hw) (hx) (hy) (hz) (ia) (ib) (ic) (id) (ie) (if) (ig) (ih) (ii) (ij) (ik) (il) (im) (in) (io) (ip) (iq) (ir) (is) (it) (iu) (iv) (iw) (ix) (iy) (iz) (ja) (jb) (jc) (jd) (je) (jf) (jg) (jh) (ji) (jj) (jk) (jl) (jm) (jn) (jo) (jp) (jq) (jr) (js) (jt) (ju) (jv) (jw) (jx) (jy) (jz) (ka) (kb) (kc) (kd) (ke) (kf) (kg) (kh) (ki) (kj) (kk) (kl) (km) (kn) (ko) (kp) (kq) (kr) (ks) (kt) (ku) (kv) (kw) (kx) (ky) (kz) (la) (lb) (lc) (ld) (le) (lf) (lg) (lh) (li) (lj) (lk) (ll) (lm) (ln) (lo) (lp) (lq) (lr) (ls) (lt) (lu) (lv) (lw) (lx) (ly) (lz) (ma) (mb) (mc) (md) (me) (mf) (mg) (mh) (mi) (mj) (mk) (ml) (mm) (mn) (mo) (mp) (mq) (mr) (ms) (mt) (mu) (mv) (mw) (mx) (my) (mz) (na) (nb) (nc) (nd) (ne) (nf) (ng) (nh) (ni) (nj) (nk) (nl) (nm) (nn) (no) (np) (nq) (nr) (ns) (nt) (nu) (nv) (nw) (nx) (ny) (nz) (oa) (ob) (oc) (od) (oe) (of) (og) (oh) (oi) (oj) (ok) (ol) (om) (on) (oo) (op) (oq) (or) (os) (ot) (ou) (ov) (ow) (ox) (oy) (oz) (pa) (pb) (pc) (pd) (pe) (pf) (pg) (ph) (pi) (pj) (pk) (pl) (pm) (pn) (po) (pp) (pq) (pr) (ps) (pt) (pu) (pv) (pw) (px) (py) (pz) (qa) (qb) (qc) (qd) (qe) (qf) (qg) (qh) (qi) (qj) (qk) (ql) (qm) (qn) (qo) (qp) (qq) (qr) (qs) (qt) (qu) (qv) (qw) (qx) (qy) (qz) (ra) (rb) (rc) (rd) (re) (rf) (rg) (rh) (ri) (rj) (rk) (rl) (rm) (rn) (ro) (rp) (rq) (rr) (rs) (rt) (ru) (rv) (rw) (rx) (ry) (rz) (sa) (sb) (sc) (sd) (se) (sf) (sg) (sh) (si) (sj) (sk) (sl) (sm) (sn) (so) (sp) (sq) (sr) (ss) (st) (su) (sv) (sw) (sx) (sy) (sz) (ta) (tb) (tc) (td) (te) (tf) (tg) (th) (ti) (tj) (tk) (tl) (tm) (tn) (to) (tp) (tq) (tr) (ts) (tt) (tu) (tv) (tw) (tx) (ty) (tz) (ua) (ub) (uc) (ud) (ue) (uf) (ug) (uh) (ui) (uj) (uk) (ul) (um) (un) (uo) (up) (uq) (ur) (us) (ut) (uu) (uv) (uw) (ux) (uy) (uz) (va) (vb) (vc) (vd) (ve) (vf) (vg) (vh) (vi) (vj) (vk) (vl) (vm) (vn) (vo) (vp) (vq) (vr) (vs) (vt) (vu) (vv) (vw) (vx) (vy) (vz) (wa) (wb) (wc) (wd) (we) (wf) (wg) (wh) (wi) (wj) (wk) (wl) (wm) (wn) (wo) (wp) (wq) (wr) (ws) (wt) (wu) (wv) (ww) (wx) (wy) (wz) (xa) (xb) (xc) (xd) (xe) (xf) (xg) (xh) (xi) (xj) (xk) (xl) (xm) (xn) (xo) (xp) (xq) (xr) (xs) (xt) (xu) (xv) (xw) (xx) (xy) (xz) (ya) (yb) (yc) (yd) (ye) (yf) (yg) (yh) (yi) (yj) (yk) (yl) (ym) (yn) (yo) (yp) (yq) (yr) (ys) (yt) (yu) (yv) (yw) (yx) (yy) (yz) (za) (zb) (zc) (zd) (ze) (zf) (zg) (zh) (zi) (zj) (zk) (zl) (zm) (zn) (zo) (zp) (zq) (zr) (zs) (zt) (zu) (zv) (zw) (zx) (zy) (zz)

PLANTING:

- 1 Ex. livestock / hedge / low wall planting to mound
- 2 Approved planting (RM10095)
- 3 Proposed deciduous tree planting with protection from planting around.
- 4 Chinese elm, Crataegus, Ficus, Scaevola @ 4m c/s
- 5A Pines calleryana @ 5m c/s
- 6 Proposed native planting (to slopes steeper than 1:5 deepset / or 1:3:5).
- 7 Red barack
- 8 Hedra odora
- 9 Hedra rotifolia
- 10 Sophora microphylla
- 11 Lonicera japonica
- 12 Coprosma propinqua
- 13 All plantings of 1.2m c/s, mulched, protected from rabbits, irrigated, and 1:3:5 deepset.





Figure 3: Earthworks Plan

123 Slopehill Road: New Farm Shed

RC 06.07.23 1:500 @ A3

SITE LANDSCAPE ARCHITECTS, www.sla.co.nz 278361-71 Landscape Plan

KEY:

Existing contours (1m)

Proposed contours (1m)

Vol. 75m<sup>3</sup>, Area 36m<sup>2</sup>

Vol. 450m<sup>3</sup>, Area 1260m<sup>2</sup>

Total earthworks volume = 725m<sup>3</sup>

Total earthworks area = 1,440m<sup>2</sup>

Max. depth cut = 0.4m

Max. depth fill = 1.5m

Volumes are approximate only for

purposes of resource consent

All areas of exposed earthworks to

be revegetated with low-lying

tackler grasses to the next available

growing season

Earthworks to be in accordance

with Q100 - Guide to Earthworks





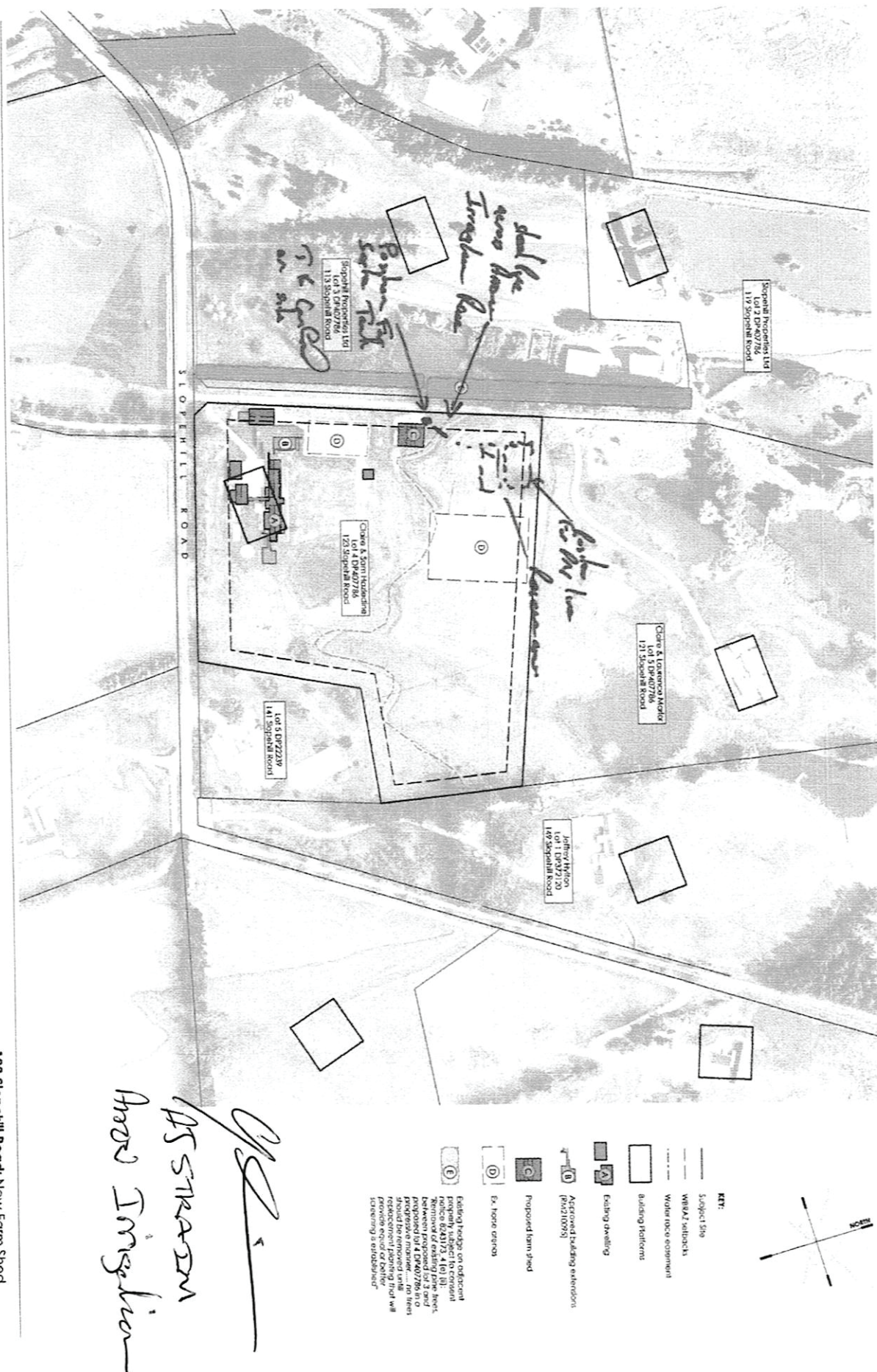
Figure 4: Pole Plan

*James Wiggins*

123 Slopehill Road: New Farm Shed  
RC - Rev C 20.06.23 1:500 @ A3  
Site Landscape Architects - www.slaa.co.nz 228.35.01 landscape plan





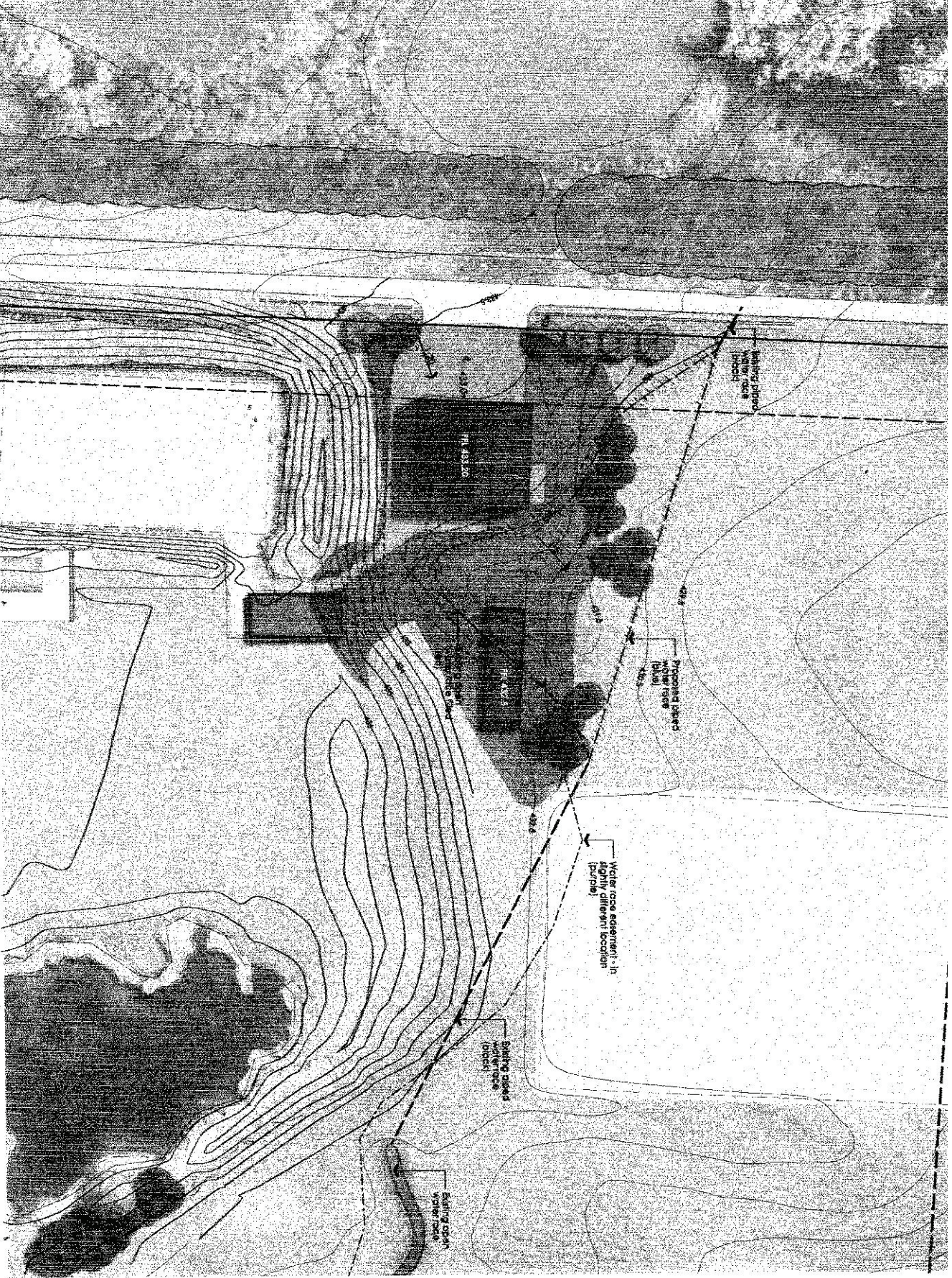




*Anna Ingelstén*

123  
SLOPEHILL ROAD

NEW FARM SHED:  
EARTHWORKS PLAN



**KEY:**

Existing contours (1m)  
Proposed contours (1m)

Cut 78m<sup>3</sup>, Area 360m<sup>2</sup>

Fill 180m<sup>3</sup>, Area 1240m<sup>2</sup>

By water race to be filled:  
Fill 200m<sup>3</sup>, Area 131m<sup>2</sup>

Proposed water race piped:  
Cut 58m<sup>3</sup>, Area 58m<sup>2</sup>

Fill 48m<sup>3</sup>, Area 58m<sup>2</sup>

Total earthworks volume = 1,021m<sup>3</sup>  
Total earthworks area = 1,887m<sup>2</sup>  
Max. depth cut = 0.4m  
Max. depth fill = 1.5m

Water race to be piped ahead of  
underpinning the existing  
Volume one appropriate civil for  
purpose of resource consent  
All areas of exposed earthworks to  
be registered with appropriate  
regulator and the local authority  
governing region  
Earthworks to be in accordance  
with QLIC Guide to Earthworks

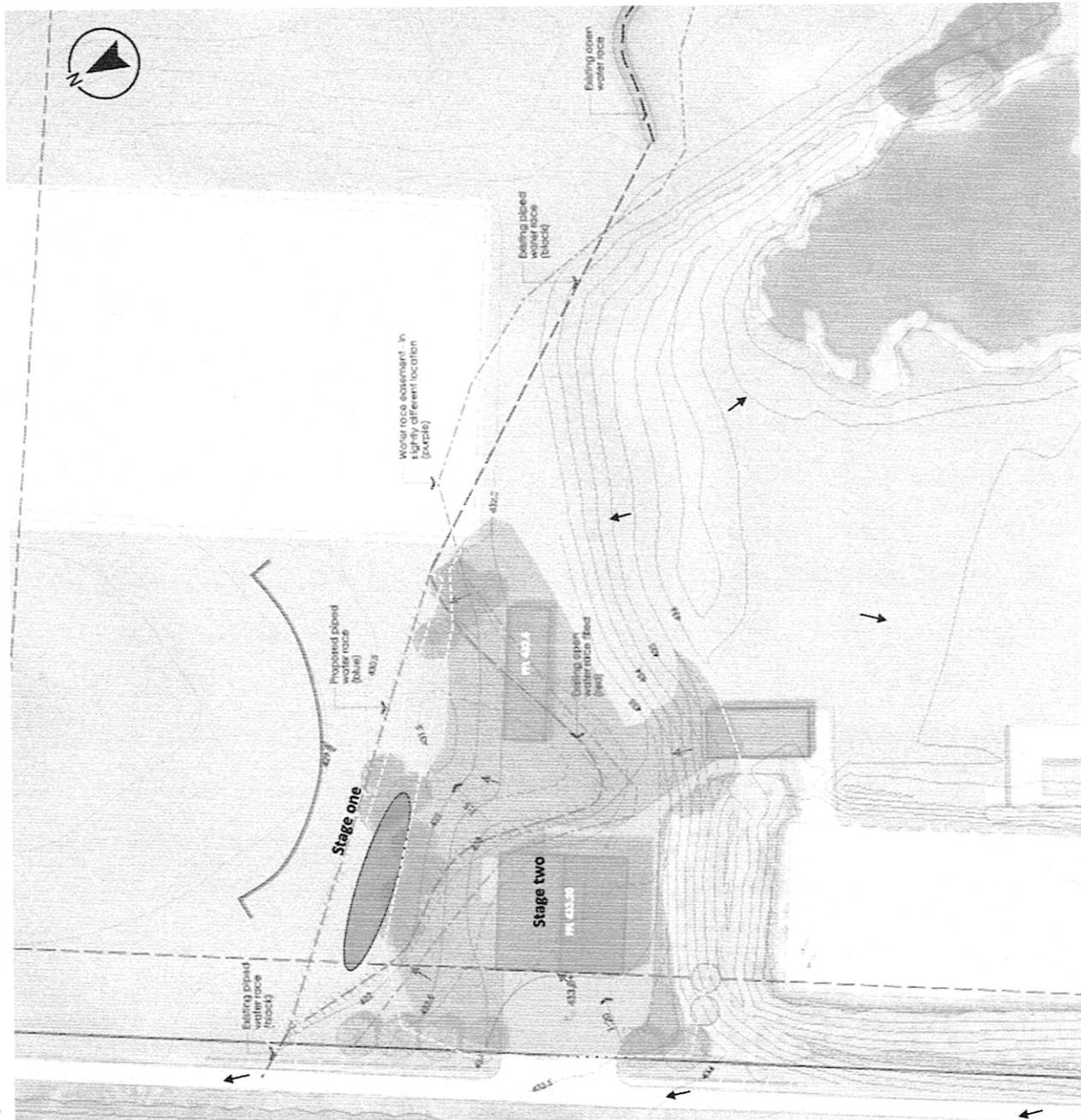
1:200 @ A3

27th Jan 2023

**FIG03**

www.sla.co.uk





Legend	
	Clean water overland flow
	Dirty water overland flow
	Existing open irrigation race
	Existing piped water race
	Proposed piped water race
	Topsoil stockpile
	Super silt fence
	Staging

#### Notes

1. This plan is to be read in conjunction with the Environmental Management Plan document prepared by Enviroscope.
2. All locations of erosion and sediment control (ESC) devices are indicative and exact placement to be confirmed onsite.
3. ESC devices to be installed and maintained in accordance with Auckland Council's 'Erosion and Sediment Control Guide for Land Disturbing Activities' in the Auckland Region (GD05) and manufacturer's instructions where relevant.
4. All devices are to be inspected daily and pre and post-rain event to ensure they are fully functional.
5. Stage one: Excavate trench for irrigation pipe and install existing channel, refer to section 2.1 of EMP for methodology.
6. Stage two - Cut and fill earthworks for building platforms and general landscaping.

Project: 123 Slopehill Road

Description: Erosion and Sediment Control Plan Drawing

Drawn

Date

Drawing No.

Revision

*Amos T...*





# AFFECTED PERSON'S APPROVAL

FORM 8A



Resource Management Act 1991 Section 95

#

RESOURCE CONSENT APPLICANT'S NAME AND/OR RM #

Hazledine Independent Trustee Limited, Sam Bolton Hazledine



AFFECTED PERSON'S DETAILS

I/We Claire Elizabeth Marlor, Laurence Roy Marlor

Are the owners/occupiers of

121 Slopehill Road, Lake Hayes, Lot 5 DP 407786



DETAILS OF PROPOSAL

I/We hereby give written approval for the proposal to:

Piping of the Arrow Irrigation Channel and undertake earthworks in the location of the race, as shown on the initialed plans.

Construct a shed containing horse bays and a residential flat on the site, as shown on the initialed plans.

Construct an open covered shelter for horses, as shown on the initialed plans.

Construct a 6m x 6m extension to an existing shed, as shown on the initialed plans.

at the following subject site(s):

123 Slopehill Road, Queenstown



I/We understand that by signing this form Council, when considering this application, will not consider any effects of the proposal upon me/us.



I/We understand that if the consent authority determines the activity is a deemed permitted boundary activity under section 87BA of the Act, written approval cannot be withdrawn if this process is followed instead.



WHAT INFORMATION/PLANS HAVE YOU SIGHTED



I/We have sighted and initialed ALL plans dated and approve them.

15/8/23





## APPROVAL OF AFFECTED PERSON(S)

The written consent of all owners / occupiers who are affected. If the site that is affected is jointly owned, the written consent of all co-owners (names detailed on the title for the site) are required.

A	Name (PRINT) LAURENCE MARLOR	
	Contact Phone / Email address 021 2771687 LORMARLOR@GMAIL.COM	
	Signature 	Date 15/8/23

B	Name (PRINT) CLAIRE MARLOR	
	Contact Phone / Email address 021 866 124 clairemarlor@gmail.com	
	Signature 	Date 15/8/23

C	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date

D	Name (PRINT)	
	Contact Phone / Email address	
	Signature	Date

### Note to person signing written approval

Conditional written approvals cannot be accepted.

There is no obligation to sign this form, and no reasons need to be given.

If this form is not signed, the application may be notified with an opportunity for submissions.

If signing on behalf of a trust or company, please provide additional written evidence that you have signing authority.



Queenstown Lakes District Council  
Private Bag 50072, Queenstown 9348  
Gorge Road, Queenstown 9300

P: 03 441 0499  
E: resourceconsent@qldc.govt.nz  
www.qldc.govt.nz

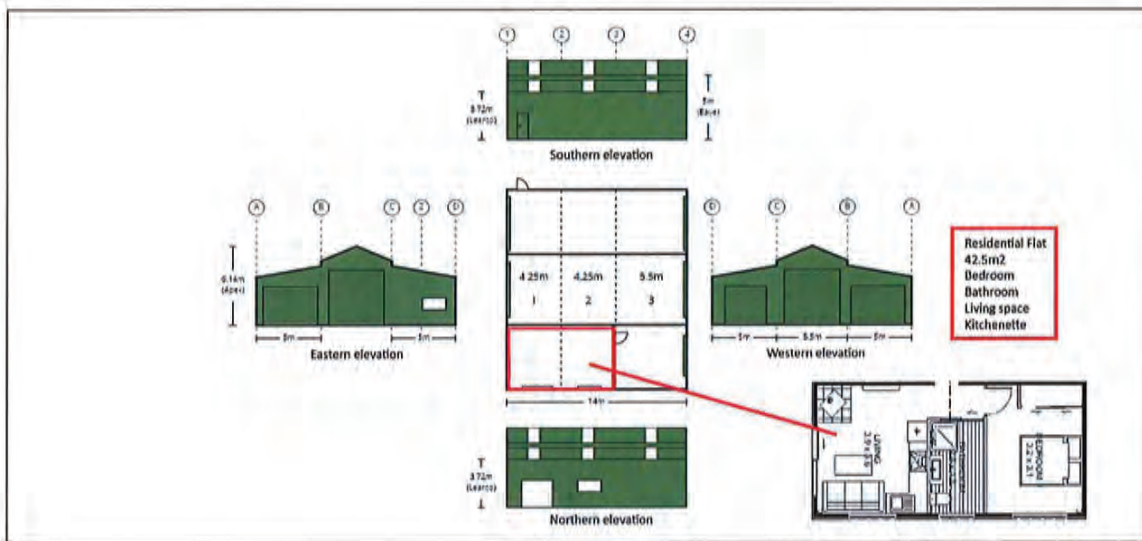
# Hazledine Barn and Residential Flat

#### Description

Project: Proposed heritage barn and residential flat  
Client: Sam Hazledine  
Location: 123 Slopehill Road Lake Hayes Otago  
Legal description: LOT 4 DP 407786

#### Dimension & Area

Barn overall 15.5m x 14m with eaves of 5.0m  
Barn area 147m<sup>2</sup>  
Residential flat 42.5m<sup>2</sup>  
Residential garage 27.5m<sup>2</sup>  
Total area 217m<sup>2</sup>





**Exterior cladding**

The building will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile.

This has a Light Reflective Rating of 7%

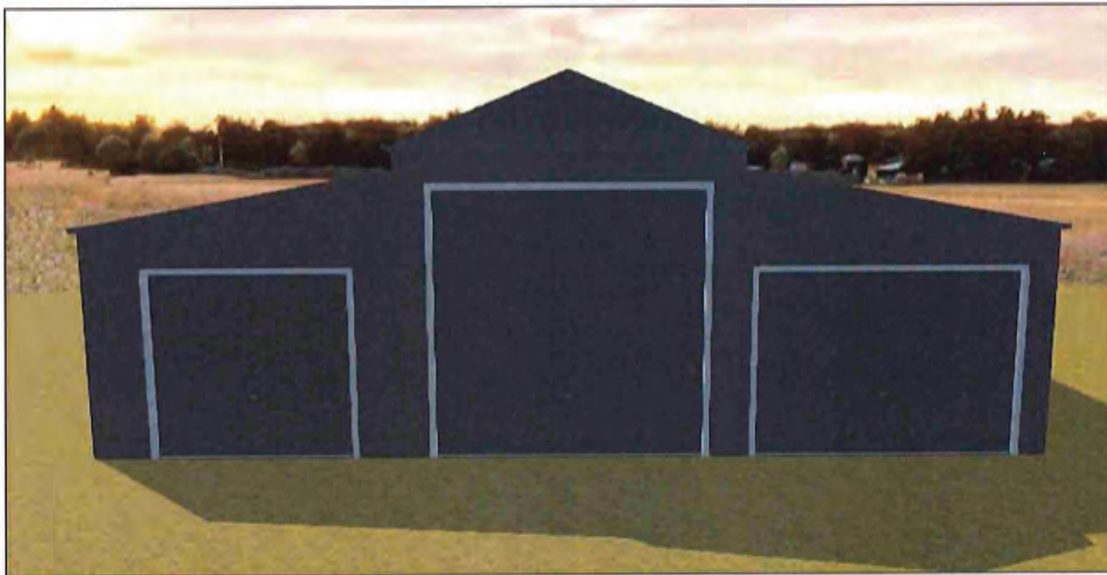
*An example of a Flaxpod clad building*



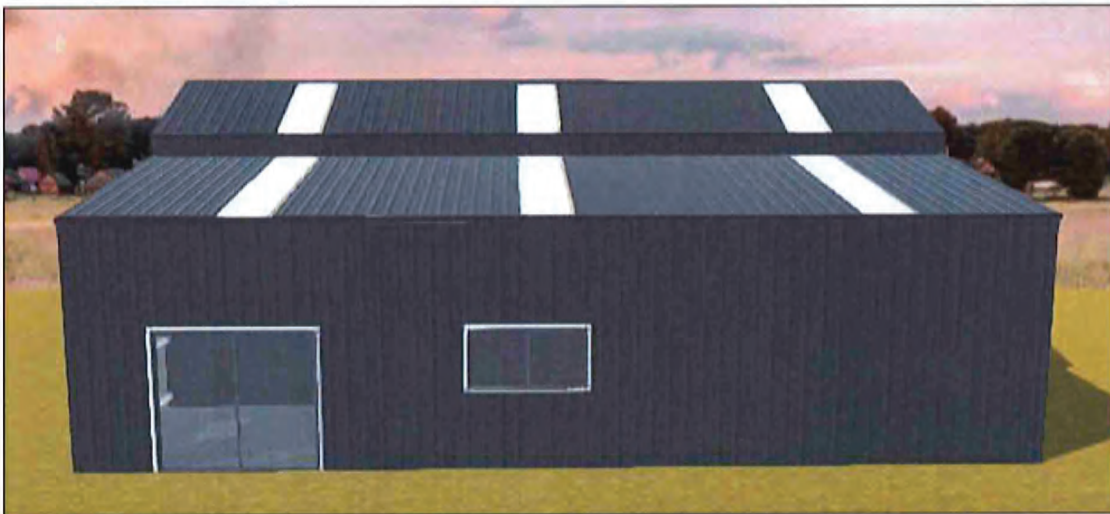
15/8  
my cem

3 Dimensional views of the barn

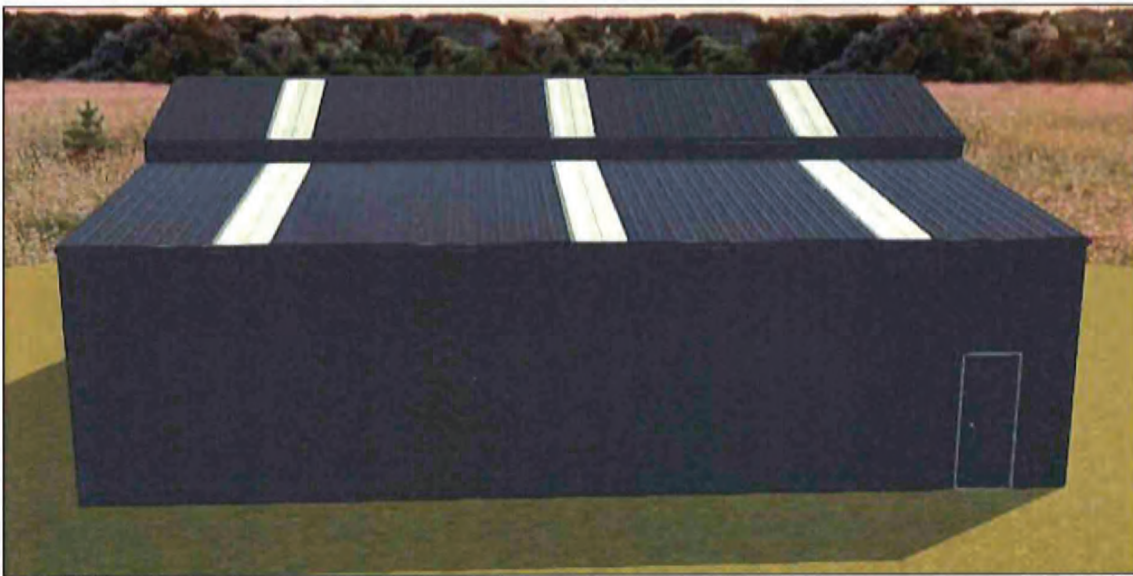
Western elevation



Northern elevation (Residential flat side)

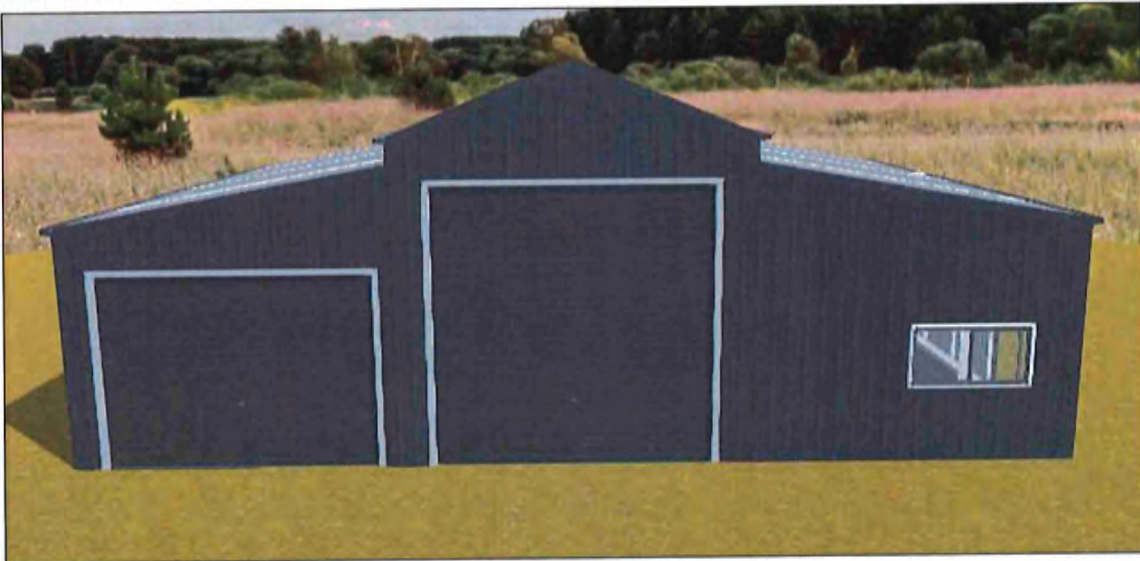


Southern elevation





Eastern elevation



## Hazledine Shed Extension

13/8  
Wm CEN

#### Description

Project: Shed extension

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

#### Dimension & Area

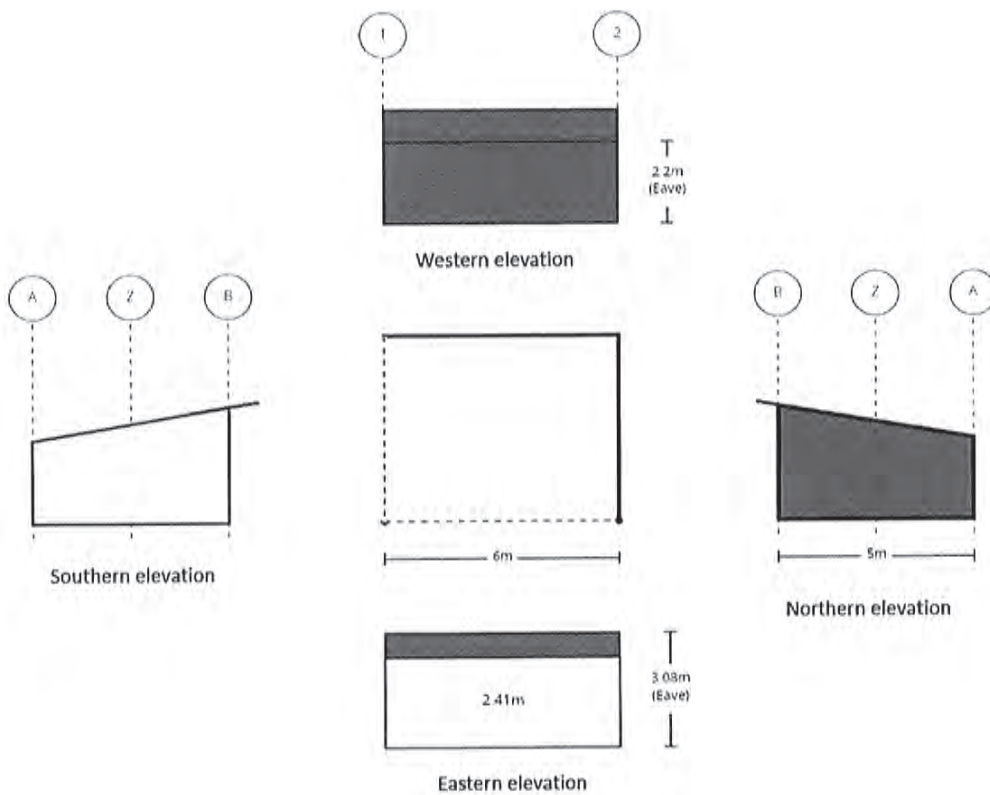
Shelter dimension overall 6m x 5m with eaves of 2.2m

Shelter area 30m<sup>2</sup>

Cladding Colorsteel and Timber (matching)

13/8

my CEM



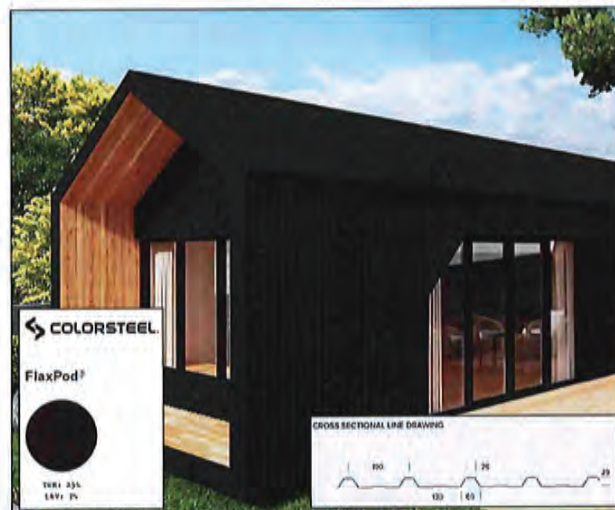
15/8  
14 com



Exterior cladding

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

*An example of a Flaxpod clad building*



With façade in Board and Batten or natural timber cladding to match current finish.



15/8  
m cem



#### Location

Location of Horse Stable extension at 123 Slopehill Road

#### Design criteria for site

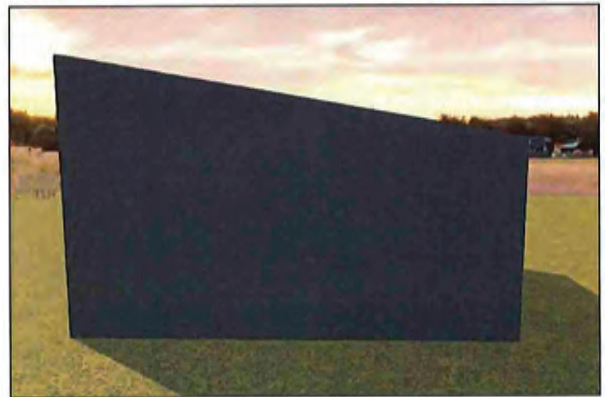
Wind Region	Building Class
A	5
Importance Level	Earthquake
1	Yes
Terrain Category	Ground Snow Load
2.5	1.34
Shielding	Snow Load Region
1.0	N5
Topographic	Elevation
1	436.65
Design Wind Speed	Durability Alert
35.7	Yes
Wind Code	
2011	

3 Dimensional views of the extension

Elevations

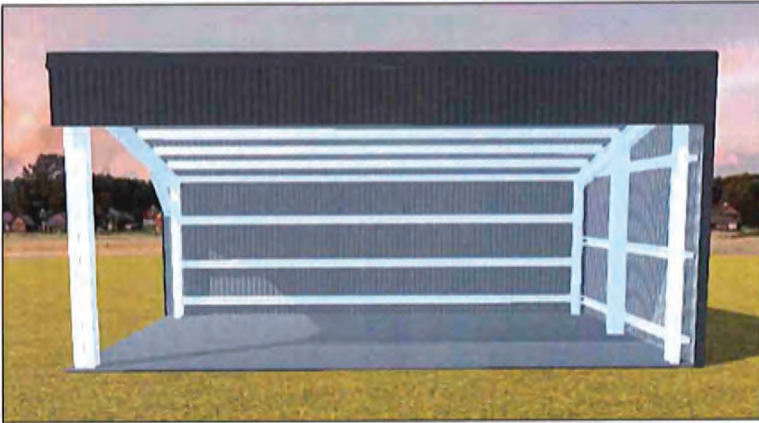


Western View



Northern View

15/8  
w/ cem



Eastern View



# Hazledine Horse Shelter

#### Description

Project: Shelter for livestock

Client: Sam Hazledine

Location: 123 Slopehill Road Lake Hayes Otago

Legal description: LOT 4 DP 407786

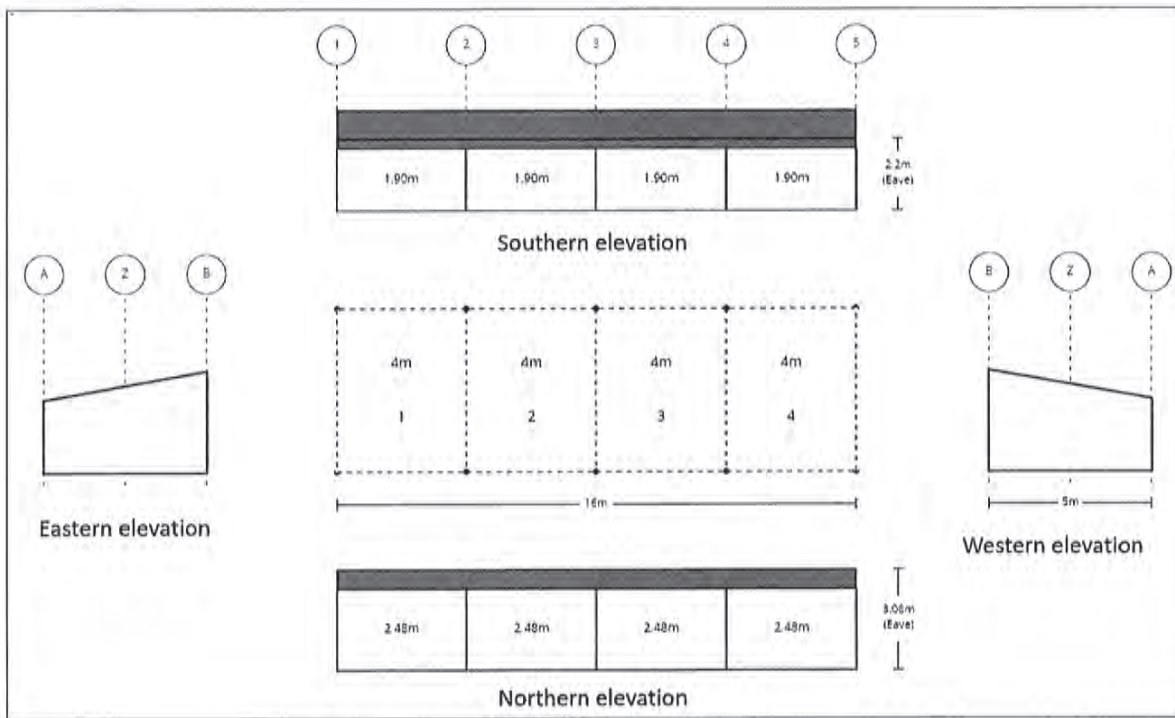
#### Dimension & Area

Shelter dimension overall 16m x 5m with eaves of 2.2m

Shelter area 80m<sup>2</sup>

Cladding Colorsteel

15/8  
m cem



13/8  
M  
Cem

**Exterior cladding**

The building roof will be completed in Colorsteel cladding in colour Flaxpod with a T Rib profile. This has a Light Reflective Rating of 7%.

*An example of a Flaxpod clad building*

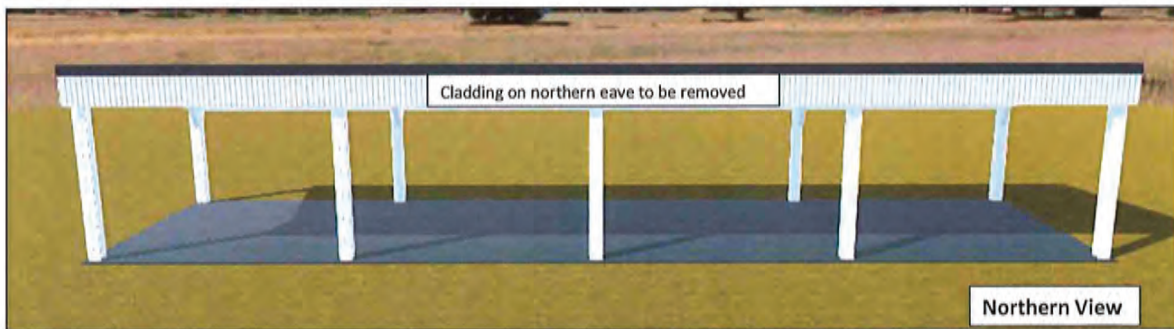
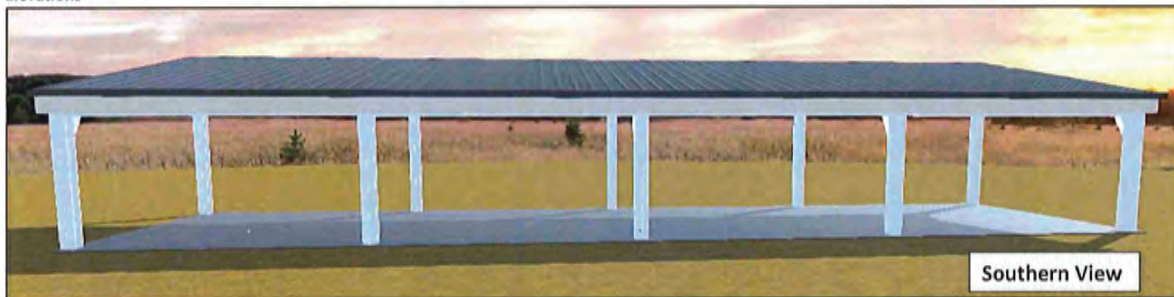


13/8  
by  
Cena

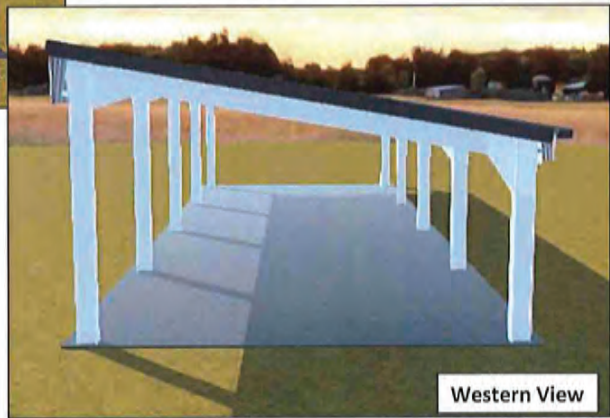
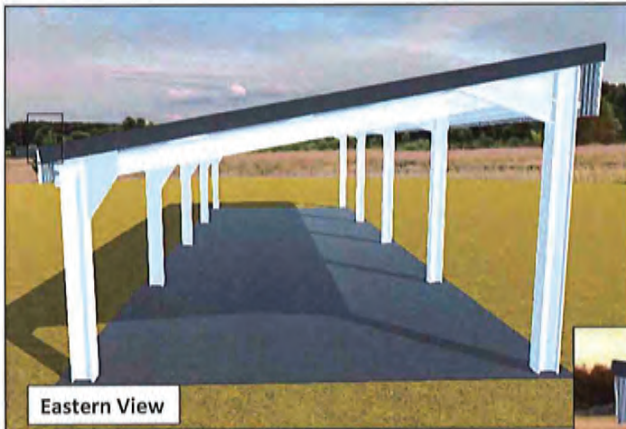


### 3 Dimensional views of the Shelter

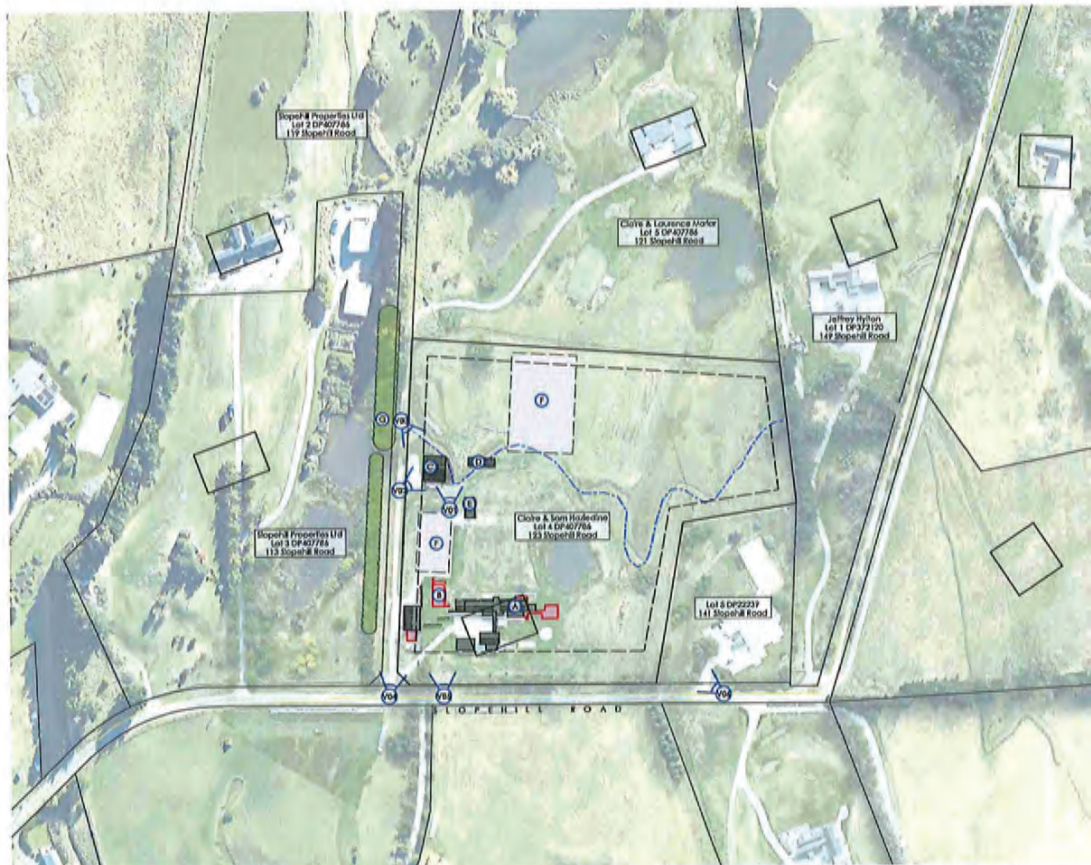
#### Elevations



15/8  
M  
com



15/6  
W. C. M.



SITE LANDSCAPE  
ARCHITECTS A

123  
SLOPEHILL ROAD

NEW FARM SHED:  
CONTEXT PLAN AND VIEW LOCATIONS

1:2000 @ A3 378\_56-100  
04.08.23 - Rev A  
**FIG 01**  
www.sls.co.nz

13/8  
w/ cam





- KEY:**
- Existing contours
  - Proposed contours
  - Existing contours removed
- LEGEND:**
- (A) Ex. Shed
  - (B) Proposed Form Shed
  - (C) Proposed Horse Shelter
  - (D) Proposed Residential flat within Form Shed
  - (E) Gravel area off existing driveway
  - (F) Ex. water race piped
  - (G) 6m extension to ex. shed
  - (H) Outdoor area for residential flat
  - (I) 2 x 55,000L buried firefighting water tanks
  - (J) 2.5m wide gravel track for off-farm vehicle access
  - (K) Bridging hedge on adjacent property subject to consent notice 6243173, 4 (a) (b)
- PLANTING:**
- (1) Ex. hawthorn / hawthorn / hawthorn planting to mound
  - (2) Approved planting (6421009)
  - (3) Proposed deciduous tree planting with protection from grazing animals
  - (4) Chinese elm, Crataegus Pinnatifida, 4m cns
  - (5) Pines, Calleryana 8m cns
  - (6) Proposed native planting (to slopes steeper than 1:5 degrees / or 13.7%):  
 Red hawthorn  
 Hakea serotina  
 Hakea salicifolia  
 Sophora microcarpa  
 Pterocarpus reticulatus  
 Coprosma propinqua
- All plantings at 1.2m cns, mulched, protected from rabbits, irrigated for first 3 years during establishment

SITE LANDSCAPE ARCHITECTS

123 SLOPEHILL ROAD

NEW FARM SHED: LANDSCAPE PLAN

1:500 @ A3 278.56/01 04/03/23, rev C  
**FIG 02**  
 www.afelo.co.nz

13/4  
 4/7 cm





KEY:

- Existing contours (1m)
- Proposed contours (1m)
- Cut  
Vol. 72m<sup>3</sup>, Area 380m<sup>2</sup>
- Fill  
Vol. 450m<sup>3</sup>, Area 1340m<sup>2</sup>

Total earthworks volume = 722m<sup>3</sup>  
 Total earthworks area = 1,440m<sup>2</sup>  
 Max. depth cut = 0.6m  
 Max. depth fill = 1.5m

\*Volumes are approximate only for purposes of resource consent

All areas of exposed earthworks to be revegetated with brown top / native grass in the next available growing season

\*Earthworks to be in accordance with GNSC Guide to Earthworks

1:500 @ A3

016.56.102  
 04.08.23 - nvc

**FIG 03**  
[www.afeka.co.nz](http://www.afeka.co.nz)

SITE LANDSCAPE  
 ARCHITECTS A

123  
 SLOPEHILL ROAD

NEW FARM SHED:  
 EARTHWORKS PLAN

15/8  
 W7 cam



SITE LANDSCAPE  
ARCHITECTS ^

123  
SLOPEHILL ROAD

NEW FARM SHED:  
POLE PLAN

1:500 @ A3

278.16.103

04/08/23 - rev 0

**FIG 04**

www.slo.co.nz

13/8  
LM cem





↑ Shed Pole 1 in red, approximate footprint shown on ground

↑ Horse shelter pegs, actual proposed location is 2m to the east

↑ Shed extension poles in red

#### Photo Notes:

Camera: Iphone 13 Pro  
Lens: Panorama  
Date Photo Taken: 04.08.23

Photo appears smaller than real life view

**SITE LANDSCAPE  
ARCHITECTS** 

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
PANORAMA FROM SITE VIEWING NORTH**

378, 10, 500  
04.08.23 - rev A  
**V-01**  
www.shl.ac.nz

15/8 WJ JEN



↑ Shed Poles in red, approximate centre of  
roofline shown transparent red

Shed Extension pole in red ↑

**Photo Notes**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 33cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING NORTH-EAST**

015 15 800  
04 08 23 - 121A  
**V-02**  
www.slsa.co.nz

13/8  
W1 com





↑ Horse Shelter page, actual proposed location is 2m to the east

↑ Shed extension poles in red

↑ Shed Poles in red, approximate footprint / centre roofline shown transparent red

**Photo Notes**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS** 

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM ACCESSWAY VIEWING SOUTH-EAST**

375, 1x, 300  
04.08.23 - 10:1A  
**V-03**  
www.slsa.co.nz

15/8  
4/1 cm



↑ shed pole just visible, roofline will be visible over mounding in the foreground

**Photo Notes:**

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

278,15-000  
04.08.23 - 121A  
**V-04**  
www.sls.co.nz

15/8  
WY CEM





↑ shed pole just visible, roofline will be  
visible over mounding in the foreground

**Photo Notes**

Camera: iPhone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

016.51-000  
04.04.23 - 10/A  
**V-05**  
www.shks.co.nz

15/8  
4.77 cm



**Photo Notes**

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

↑ shed poles and shed extension poles  
intermittently visible through poplars  
located on neighbouring property

**SITE LANDSCAPE  
ARCHITECTS A**

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**

378.35-385  
04.08.23 - 10:14  
**V-06**  
www.abbsen.co.uk

13/8  
LW com



SAM HAZELDINE  
c/o BROWN & COMPANY  
PLANNING GROUP

LOT 4, DP 407786  
123 SLOPEHILL ROAD,  
QUEENSTOWN



GROUND CONDITION AND BEARING CAPACITY  
ASSESSMENT INCLUDING A STORMWATER DISPOSAL DESIGN FOR A PROPOSED BARN

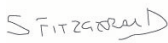

REF: R6697-3B  
DATE: 21 MARCH 2023

# REPORT QUALITY CONTROL

REPORT PREPARED BY: **GROUND CONSULTING LIMITED (GCL)**



QUEENSTOWN OFFICE  
157 GLENDA DRIVE, FRANKTON  
POST: PO BOX 2963, QUEENSTOWN 9349  
EMAIL: queenstown@gcltech.co.nz  
TEL: 03 442 5700

DOCUMENT CONTROL				
REPORT TITLE		GROUND CONDITION AND BEARING CAPACITY ASSESSMENT INCLUDING A STORMWATER DISPOSAL DESIGN FOR A PROPOSED BARN		
REPORT REFERENCE		R6697-3B	PROJECT NUMBER	6697
CLIENT		SAM HAZELDINE		
REV	DATE	REVISION STATUS	AUTHOR	REVIEWER
A	13 FEBRUARY 2023	DRAFT	SHANNON FITZGERALD	SHANNON FITZGERALD
B	21 MARCH 2023	ISSUED TO CLIENT	SHANNON FITZGERALD	SHANNON FITZGERALD
APPROVAL				
AUTHOR SIGNATURE			REVIEWER SIGNATURE	
NAME		SHANNON FITZGERALD  BSC, PGDIPSCI, (GEOL), MAIG, MENG NZ	NAME	SHANNON FITZGERALD  BSC, PGDIPSCI, (GEOL), MAIG, MENG NZ
TITLE		SENIOR ENGINEERING GEOLOGIST	TITLE	SENIOR ENGINEERING GEOLOGIST

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# 1 INTRODUCTION

## 1.1 PROJECT BRIEF

GCL has completed a ground condition and bearing capacity assessment, including a stormwater disposal design for a proposed barn at 123 Slopehill Road, Queenstown, at the request of Brown & Company Planning Group on behalf of the client Sam Hazeldine.

The site is legally described as Lot 4 - DP 407786. The site location is presented in Drawing 001.

This geotechnical report has been prepared to obtain building consent from the Queenstown Lakes District Council (QLDC).

This report includes a summary of the investigations undertaken and provides an assessment of:

- Ground & Groundwater Conditions
- Building Platform Stability
- Building Platform Development
- Bearing Capacity & Foundation Recommendations
- Site Specific Stormwater Disposal Design
- Other Pertinent Constraints and Issues Identified With The Site

## 1.2 PROPOSED SITE DEVELOPMENT

The proposed development comprises the following features and components:

- The site comprises several existing buildings, appurtenant structures, and prepared areas, including the main residence, detached garages, utility sheds, horse arena, swimming pool (pending) and landscape pond.
- The proposed development comprises constructing a three-bay barn measuring 15m in length x 12m in width. Part of the barn will be converted to include a self-contained one-bedroom unit.
- The 'American Style' barn is understood to be constructed from lightweight building materials comprising timber poles and/or steel structural elements clad and roofed with a colour steel option. The proposed foundation comprises a reinforced concrete slab and/or timber pile solution.
- Access to the main residence is gained via Slopehill Road. However, the proposed barn will be accessed via a private right-of-way off Slopehill Road, which the surrounding neighbours share.
- An onsite wastewater disposal solution is being completed by a third party.
- A site specific stormwater disposal system comprising a detention tank has been designed for the proposed development.

Refer to Drawing No. 2, the proposed building platform location relative to the subsurface investigations and topographic features.

## 2 DESKTOP STUDY

### 2.1 PREVIOUS INVESTIGATIONS

GCL has completed two previous site investigations for this site, listed as follows:

- Ground condition and bearing capacity assessment report for proposed additions to the main residence, reference: L6697-1A, dated 18 November 2020.
- Stormwater and drainage infrastructure report for proposed additions to the main residence, reference: L6697-2A, dated 18 November 2020.

The listed above should be read in conjunction with this report.

### 2.2 PUBLISHED GEOLOGY

The Geological Map of New Zealand, Sheet 18 (Wakatipu), at a scale of 1:250,000, maps the site as underlain by the following geological formations.

- The site's southwestern half is mapped as being underlain by the Aspiring lithologic association TZIV pelitic Schist (Rakaia terrane).
- The site's north-eastern half is mapped as being underlain by OIS4 (Late Pleistocene) glacier deposits

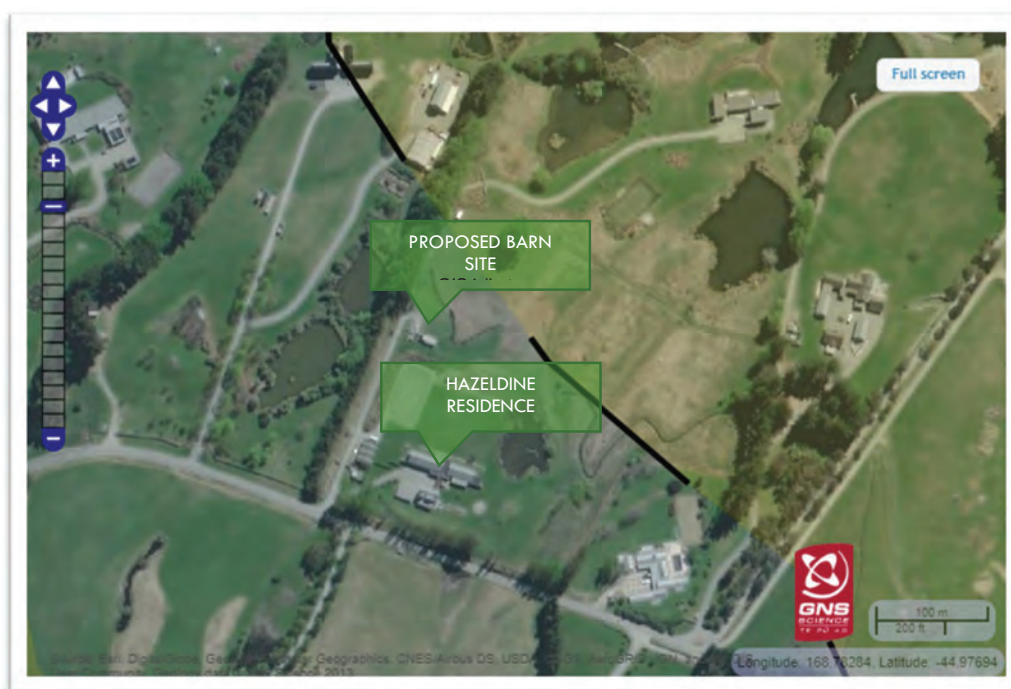


Figure 1: illustrates geological formations relevant to the Hazeldine residence. The 'yellow' shading towards the site's northeast is Late Pleistocene Glacier Deposits (Till). The 'blue shading' is Schist bedrock. The black line infers the geological boundary between the two described formations.

### 2.3 SITE SERVICES

Based on the QLDC GIS viewer, the property is serviced by the following reticulated public infrastructure.

- The property is provided with a potable mains water supply.
- An uncommissioned 'private culvert' comprising a 200mm diameter PVC pipe is located on either side of the private ROW extending from Slopehill Road north towards the proposed barn site.
- The site is provided with electricity and telecommunications infrastructure.
- An onsite stormwater and treated wastewater disposal solution is required for this development.

## 3 SITE CONDITIONS

### 3.1 SITE DETAILS

The site comprises Lot 4, DP 407786, 123 Slopehill Road, Lower Shotover, Queenstown.

The site is located on an elevated northern-facing portion of Slopehill, approximately 5km from the Frankton township, via Lower Shotover Road. The site is currently surrounded by farmland and rural lifestyle development.

A site location map is presented in Drawing 001.

### 3.2 SITE TOPOGRAPHY

The site, which holistically includes the main residence and the proposed barn, is located on an elevated portion of Slopehill with north facing aspect. The proposed barn site is elevated at 436mRL.

The site topography is best described as follows:

- A slightly elevated horse arena and landscape bund are located towards the barns south.
- The proposed development site is mostly level, falling gently towards the northeast at slope gradients <3°.
- A vegetated water race measuring approximately 1m width x 1m depth, flowing from west to east, passes immediately north of the proposed development site.
- In addition, several landscape ponds, both insitu and manufactured for aesthetic appeal, are located within and surrounding the subject site.
- Subtle topographic lows or lineation's may hold or convey water during a significant rainstorm. The site surface is otherwise relatively featureless, presenting as grassed.

### 3.3 EXISTING SITE DEVELOPMENT FEATURES

The site comprises several existing buildings, appurtenant structures, and prepared areas, including the main residence, detached garages, utility sheds, horse arena, swimming pool (pending) and landscape pond.

### 3.4 SITE SURFACE WATER FEATURES

The site contains the following surface water features in the vicinity of the proposed development. This does not preclude such features, given this report does not provide a specific assessment of surface water features. This is in agreement with QLDC as shown on the GIS viewer.



- A vegetated water race, measuring approximately 1m width x 1m length, flowing from west to east, passes immediately north of the proposed development site. This structure is believed to form part of the Arrowtown water supply used for irrigation only.
- Several natural and manufactured landscape ponds are located onsite and surround the area.
- Surface water from the site is considered via sheet flow from southwest to northeast, which the water race or other water body features may intercept.

### 3.5 SLOPE INSTABILITY FEATURES

The site contains no slope instability features.

## 4 SUBSURFACE CONDITIONS

### 4.1 FIELD INVESTIGATIONS

The investigations were constructed to assess the sub-surface conditions around the inferred foundation line, undertaken by a suitably qualified engineering geologist from GCL.

The investigation locations were determined with construction and topographic plans provided by the client, a handheld GPS and the Queenstown Lakes District Council GIS viewer.

The sub-surface investigation consists of the following assessments:

- Six mechanically excavated test pits (TP101 - TP106) were completed to a maximum depth of 1.6m below existing ground level; excavation ceased schist rockhead was encountered. The test pits were twinned with Scala penetrometer tests and taken to the point of refusal.
- Test pits were sited around the proposed building foundation line with a 2m offset (load-bearing zone of influence) adopted.

The approximate locations of the sub-surface investigations are shown in Drawing 002.

Refer to Appendix A for a comprehensive account of soil properties and Appendix B for photos of test pit excavations and arisings.

### 4.2 INVESTIGATION LOGGING

Soils recovered from the investigations have been logged and presented in Appendix A. Logging of the soil encountered has been undertaken according to NZ Geotechnical Society Guidelines for the Field Classification and Description of Soil and Rock for Engineering Purposes.

The Scala penetrometer results have been plotted on logs as presented in Appendix A. Determination of the soil density as tested by the Scalas has been undertaken utilising "NZ Geotechnical Society Guideline for the Field Classification and Description of Soil and Rock for Engineering Purposes", Table 2.8.

### 4.3 GROUND CONDITIONS

#### 4.4 GENERAL

A summary of the sub-surface conditions identified in the investigations undertaken is presented below in order of depth from the ground surface. The sub-surface conditions have been extrapolated between the investigations undertaken. Whilst care has been taken to provide sufficient sub-surface information, following best practice for the purposes of building consent, no guarantee can be given on the validity of the inference made. As such, it should be appreciated that ground conditions may vary between the investigations undertaken.

##### 4.4.1 Topsoil

Topsoil mantles the site to a depth between 0.2 - 0.4m below ground level. Topsoil comprises a sub-element of silt and grass rootlets that extend the soil profile. Topsoil was dry and loose on the day of the investigation.

##### 4.4.2 Alluvium

Alluvium generally underlies the topsoil horizon to a maximum depth of 0.5m below ground level. The alluvium is best described as light brown silty SAND. Alluvium integrates into the upper soil profile by diffusion, whereas the lower (basal) contact is best described as irregular and wavy. Alluvium was dry and loose to medium dense on the day of investigation.

##### 4.4.3 Glacial Deposits (Till)

Glacial Till underlies the western portion (TP102 & TP106) of the proposed building footprint to a maximum depth of 1.2m below ground level before thinning to lesser amounts towards the east. Glacial Till is best described as light grey silty Sand, with lesser (minor) gravel and cobbles. Gravel is fine to coarse in size and surrounded to subangular in shape. Sand is medium to coarse-grained. Cobbles are subrounded to subangular schist pieces up to 150mm in diameter.

Glacial Till was dry, tending moist and medium dense to dense on the day of investigation.

##### 4.4.1 Schist (weathered)

Schist is the predominant underlying geological formation. Schist within the upper 200 - 300mm is moderately weathered and easily excavated by 5T excavator.

##### 4.4.1 Schist

Competent Schist was encountered in all Test Pits except TP101, which was terminated during the unearthing of buried services. Schist bedrock is anticipated around 0.4m depth below ground level towards the site's west and 1.2m depth below ground level towards the site's east. Schist is considered 'strong', with 5T excavator 'refusal' achieved in all relevant subsoil assessments.

##### 4.4.2 Groundwater

Groundwater was not encountered within any investigations undertaken to a depth of at least 1.6m BGL, however it is possible groundwater might track along the interface between the overlying Glacial Till and underlying Schist following significant rain or during the wetter months of the year.

Groundwater is susceptible to seasonal variation, and it should be noted that the investigations were undertaken in Late January (Summer) 2023, following an extended dry spell.

Given the nature and topography of the site, it is unlikely that a coherent groundwater table would rise significantly to the extent that it would interfere with shallow foundations.

## 5 BUILDING PLATFORM DEVELOPMENT

### 5.1 GENERAL

The proposed development requires forming a suitable building platform on which the development can be sited in a safe and stable manner. Plans provided to GCL indicate that the building platform will likely consist of a timber pile foundation solution requiring nominal earthworks to establish a level construction surface.

The following sections in this report provide recommendations on forming the building platform concerning site stability, foundation conditions, site earthworks, and stormwater management. The client and contractors should appreciate these recommendations before building platform development work commences.

- The location of buried services surrounding the site should be defined, relocated, removed (if necessary), and disturbed ground rehabilitated to an engineering standard.
- Of note, 'Good Ground' as defined by NZS3604:2011 was identified at two locations.
  - The interface between the Alluvium and Glacial Till Formation is between 0.4 - 0.7m depth BGL. Glacial Till is considered 'competent' ground. A minimum 450mm foundation embedment should be adopted.
  - The Schist bedrock interface is located beneath a thin blanket of Glacial Till between 0.4 and 1.2m.
- Of note, a formal stormwater drainage solution should be installed along the site access road, which extends from Slopehill Road. Stormwater accumulations should be concentrated and directed away from the proposed building platform. Regrading of the site access road an improved roadside drainage channel and culvert is a pragmatic solution.
- Of note, every precaution should be taken to protect the building platform when under construction. Upper soils associated with Glacial Till are susceptible to soil softening when exposed to moisture. GCL recommends extending cut-off drains around the building platform to direct and concentrate stormwater accumulations away from the working area and also covering the prepared subgrade surface with polythene sheeting to protect from rainfall events.
- Of note, should areas of unsuitable soils be identified during the subgrade strip or foundation excavation, an appropriate level of rehabilitation should be taken, which generally entails undercutting and backfilling with suitable compacted engineered fill such as GAP 65. GCL or a suitably qualified person should be engaged to see the remedial work undertaken.

## 6 BUILDING PLATFORM STABILITY

### 6.1 GENERAL

The proposed development is located on relatively flat topography underlain by competent ground conditions and remote from steeper slopes and slopes prone to slope instability features.

The low overall slope angles and underlying competent ground conditions in the vicinity of the proposed development should provide a safe and stable building platform concerning slope stability conditions.

A safe and stable building platform is defined as having a low to negligible risk of failure over the lifetime of the development. It is assessed as a factor of safety where a quantitative slope stability assessment is undertaken. Given the low slope angles in the vicinity of the site, we consider that a qualitative assessment of slope stability (as provided above) is acceptable for defining risk for this site, and a more rigorous quantitative analysis is not required.

If site earthworks are required to provide a suitable level building platform within the existing slopes. We consider that appropriate site development constraints are required to maintain safe and stable conditions.

## 7 BEARING CAPACITY

### 7.1 GENERAL

Bearing capacity is discussed in this report in terms of ultimate limit state design methods outlined in AS/NZS 1170. As such, per AS/NZS 1170, we have provided "ultimate" bearing capacity values and an appropriate "dependable" bearing capacity for foundation design. The dependable bearing capacity has been determined from a strength reduction factor of 0.5 (i.e., a factor of safety of 2), which is in general accordance with the requirements of AS/NZS 1170.

Our interpretation of the engineering description of the soil conditions and relative density and strength measurements based on the site-specific testing undertaken has determined the bearing capacity. The values presented consider natural variability of ground strength likely between investigations undertaken and potential strength reduction associated with saturated soil conditions.

It is also assumed that engineering fill will be placed to specification to provide an ultimate bearing capacity of 300kPa.

### 7.2 SHALLOW PILE FOUNDATION (IN ROCK)

The table below outlines design bearing capacities for a shallow pile foundation solution for lightweight timber and appurtenant structures. The design capacities are based on foundations bearing directly on schist rock collared with reduced bearing capacity soils.

Table 1: Shallow Pile Foundation Design Parameters

End Bearing Case			
Load Case	Ultimate Bearing Capacity	Strength Reduction Factor	End Dependable Bearing Capacity



Ultimate limit state design	900kPa	0.5	450kPa
Augured Pile Skin Friction (for non-expansive soil)			
Load Case	-	Strength Reduction Factor	Dependable Skin Friction
Ultimate limit state design	-	n/a	n/a

### 7.3 SHALLOW PAD/STRIP FOOTING AND SLAB FOUNDATION SOLUTION (IN SOIL)

The table below outlines design bearing capacities for a shallow pad/strip footing solution. The design capacities are based on a minimum foundation embedment depth of 450mm into competent ground.

Table 2: Shallow Pad/Strip Footing Design Parameters

Load Case	Ultimate Bearing Capacity	Strength Reduction Factor	Dependable Bearing Capacity
Ultimate limit state design	300kPa	0.5	150kPa

The embedment depth of 450mm into competent ground provides sufficient bearing capacity, as outlined in the table above. The 450mm embedment depth may not adequately address soil expansivity issues (if any), and the Soil Expansivity section of this report should be referred to with providing an appropriate embedment depth to mitigate expansive soil.

### 7.4 FOUNDATION SERVICE BRIDGING

We recommend that where a service line and associated backfilled trench are located within a 45° loading line taken from a load-bearing structure base, foundation bridging is required.

Service line trenching and backfilling should be per recommendations provided in the Earthworks Constraints section of the report.

The design bearing capacities for a bridging pile foundation solution can be taken from the above tables to the maximum depth of the investigations undertaken. Should deeper piles be required, specific investigations may be required as determined by a suitably qualified person. Skin friction should be ignored for the section of piles within the 45-degree zone of influence of the service line (projected from the pipe's invert to the ground surface).

The piles' clearance requirements and depths should be designed according to the council's construction clearance provisions.

### 7.5 RETAINING WALLS

Engineered retaining walls will be required onsite under the following circumstances:

- where the retention height is greater than 1.5m;

- where retaining wall supports any surcharged loads such as sloping ground and structure/traffic loads; and
- where retaining wall failure will affect the stability and integrity of adjacent structures and neighbouring properties.

The table below provides geotechnical parameters for the engineered retaining wall design as required:

Table 3: Retaining Wall Design Parameters

Cohesion (c')	Friction Angle ( $\phi'$ )	Design $c_u$ (Cohesive Soil)	Ultimate Bearing Capacity	Unit Weight ( $\gamma$ )
0kPa	32°	50kPa	300kPa	18kN/m <sup>3</sup>

All retaining walls should be constructed with appropriate toe drainage and backfilled to their full height with lightly compacted free-draining granular material or other appropriate drainage solution. Toe drainage should be discharged at a point that will not impact or influence the construction works onsite or be connected to the reticulated stormwater system.

As usual, any building foundations laterally located within a 45-degree envelope of influence arising from the base of a batter or retaining wall should be subject to a specific design that does not induce unacceptable stresses in such batters or retaining walls. Clause 3.1.2 (b) of NZS3604:2011 also places restrictions on the proximity of building foundations from unretained batters. Where foundations will lie on the lower side of such walls, care should be taken to ensure that the active wedge behind any associated excavation does not remove support to the passive wedge supporting those walls. As such, foundations should be no closer than 'the height of the adjacent retaining wall plus the depth of foundation below ground level.

## 8 GROUND SETTLEMENT

### 8.1 GENERAL

Competent ground conditions underlie the proposed building platform. The competent ground conditions are considered at least normally consolidated. They should accommodate low to moderate loads without inducing significant ground consolidation and associated differential ground settlement within Building Code limits (a maximum differential settlement ratio of 1 in 240).

As a prudent measure, however, ground loading constraints are recommended as follows:

- A maximum building uniform distributed load (UDL) of 12kPa, including live + dead loads (limits overall building loads).
- A maximum footing width/diameter of 1.0m (limits the extent of high point, pad and line loads).
- A maximum fill depth of 1.5m (limits the load provided by fill soil).

Should the proposed development exceed these constraints, we recommend that a specific settlement analysis be undertaken for the development and may require more extensive investigations than that undertaken to date.

## 9 SOIL EXPANSIVITY

### 9.1 GENERAL

The site soil is not considered susceptible to soil shrink/swell development associated with changes in soil moisture content. This is based on the logging of recovered soil samples. Our experience with the type of soils encountered onsite is considered to provide a suitable qualitative assessment of soil expansivity.

There is no specific engineered foundation design required to resist shrink/swell associated with non-expansive soil.

## 10 SEISMIC CONSIDERATIONS

### 10.1 SEISMIC SOIL CLASS

Site investigations in the vicinity of the building platform have identified rockhead at shallow depth. As such, we consider the site subsoil Class B is appropriate according to NZS1170.5.

### 10.2 EARTHQUAKES

It is important to note that the Queenstown region and surrounding area are at significant seismic risk from potentially strong ground shaking, likely associated with a rupture of the Alpine Fault, located along the West Coast of the South Island. Recent studies undertaken by GNS have indicated a 75% likelihood that an earthquake with an expected magnitude of over eight will occur along the Alpine Fault within the next 50 years.

As such, an appropriate allowance for seismic loading should be made during the detailed design of the proposed building, foundations, retaining structures, and earthworks.

### 10.3 LIQUEFACTION

The building platform is not considered to be at any risk from liquefaction due to encountering schist rockhead at shallow depth.

## 11 SITE DEVELOPMENT CONSTRAINTS

### 11.1 GENERAL EARTHWORKS DISCUSSION

The proposed site development will likely require minimal earthworks to establish the building platform and associated access roading. It is unlikely that the development will require temporary batters; however, the following commentary is provided should requirements present.

There is the risk of collapse of soil batters during construction, especially if left unsupported for an extended period and or left exposed during a prolonged period of rainfall. Therefore, we recommend the following precautions:

- Cut faces should not be left unsupported for an extended period and may require additional protection with polythene sheeting during inclement weather.

- Where excavations are immediately adjacent to or situated on a property boundary, further precautions may be required to ensure stability through temporary buttressing. These works should be assessed and approved by a suitably qualified person.
- The contractor is expected to employ the appropriate plant and machinery to undertake the excavation and retaining wall construction.
- The contractor is responsible for ensuring that all necessary precautions are undertaken to protect exposed temporary batters.
- Appropriate silt and stormwater control measures should be employed.

The Topsoil mantle and Alluvium horizon is considered unsuitable for reuse as engineered fill.

## 11.2 SITE PREPARATION

During the earthwork's operations, all Topsoil and organic matter, and other unsuitable materials should be removed from the construction areas per the recommendations of NZS 4431:1989. The subgrade should be inspected before fill being placed and or foundations being constructed to establish it has a suitable bearing capacity and is clear of unsuitable materials.

Appropriate shallow graded sediment control measures should be installed during construction where rainwater and drainage run-off overexposed soils are likely. If slope gradients over 5% are proposed in soils, then the construction and lining of drainage channels are recommended, e.g., geotextile and suitably graded granular material, or similarly effective armouring.

Exposure to the elements should be limited for all soils and covering the soils with polythene sheeting will reduce degradation due to wind, rain, and surface run-off. Under no circumstances should water be allowed to pond or collect near or under a foundation or slab. This can be avoided with the shaping of the subgrade to prevent water ingress or ponding.

If fill is utilised as bearing for foundations, it should be placed and compacted per the recommendations of NZS 4431:1989 and certification provided to that effect.

The upper soils present at the site are prone to erosion, both by wind and water, and should be protected by hardfill capping or re-topsoiled/mulched and re-vegetated as soon as the finished batter or subgrade levels are achieved.

Where the building platform has been rutted by heavy machinery or softened due to ponded rainwater, the platform should be trimmed back to competent ground and reinstated with compacted hardfill to design subgrade level before the commencement of building construction.

## 11.3 EXCAVATIONS

Recommendations for temporary and permanent slope batters are provided in the table below. Slopes required to be steeper than those described below should be structurally retained or subject to specific geotechnical design.

All slopes should be periodically monitored during construction for signs of instability and excessive erosion, and where necessary, corrective measures should be implemented to the satisfaction of a Geotechnical Engineer or Engineering Geologist. Should construction and earthworks be undertaken during the winter period, the frequency of the inspections should increase, with site inspections being made after any significant weather event.

Seepages are common in excavations completed in hillside areas, and drainage measures, such as horizontal drains may be required if excessive groundwater seepages are encountered during excavation. The final design and location of all sub-soil drainage works



should be confirmed during construction by a suitably qualified and experienced Geotechnical Engineer or Engineering Geologist.

Recommended temporary and permanent batter angles for cut slopes up to a maximum of 3.0m in wet and dry conditions are presented below. The batters provided should be adhered to where more than one soil type is present within the slope or defaulted to the shallower angle where appropriate.

Table 4: Batter Angles for Soil Slopes

Material Type	Recommended Maximum Batter Angles for Temporary Cut Slopes Formed in Soils		Recommended Maximum batter Angles for Permanent Cut Slopes Formed in Dry (Drained) Slopes
	Wet Ground	Dry Ground	
Engineered Fill <sup>1</sup>	2H:1V	1H:1V	2H:1V (unretained, drained)
Glacial Deposits	2H:1V	0.5H:1V	2H:1V or by assessment

<sup>1</sup> If constructed

During construction, soil cut inspections will be required to confirm the above recommendations. Based on the site observations, a reduction in batter angles from those provided above may be required. Conversely, if materials perform, they may be steepened if site conditions, and construction sequencing/programme are favourable.

#### 11.4 ENGINEERED FILL SLOPES

As recommended in the table above, unretained engineered fill slopes should be formed at 2H:1V (or flatter), providing they are well-drained and compacted to the appropriate specification based on NZS 4431:1989. If steeper grades are required, the fill will require geogrid reinforcement to form slopes up to 45° but subject to specific engineering design from a chartered professional engineer.

#### 11.5 FOUNDATION PROVISIONS (NZS3604:2011)

Regarding NZS 3604, Section 3.1.2 (b), any foundation for a building erected at the top of a bank shall be 600mm behind the ground line, as shown in the figure below. The horizontal distance (H) from top to bottom shall not exceed 3m. The slope beyond the bank shall not exceed 10° degrees for a distance of 10m.

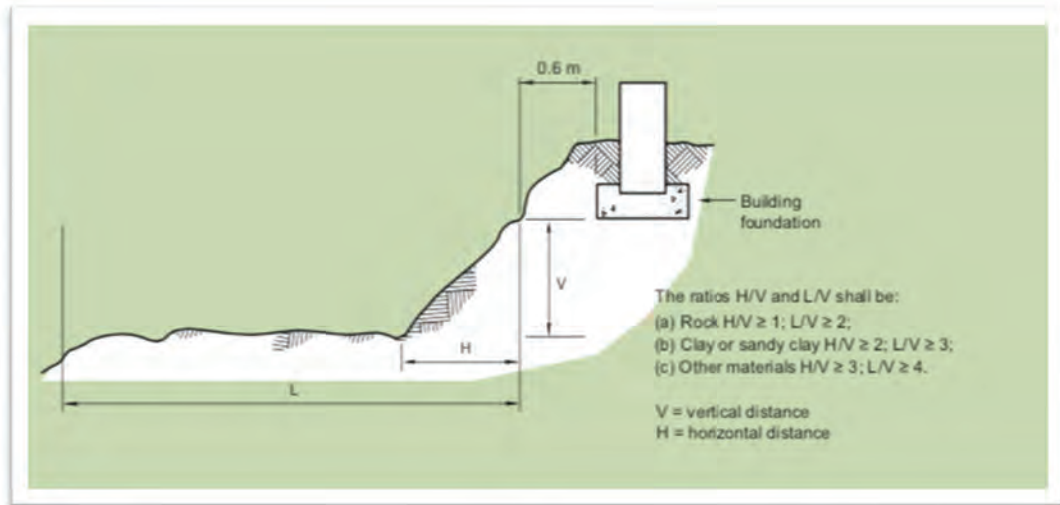


Figure 2, Regarding NZS 3604, Section 3.1.2 (c) fill, including hard fill, placed over undisturbed ground or certified fill, shall not exceed 600mm in depth above natural ground level, if within 3m of a foundation. Where this condition cannot be met, the fill shall be tested and certified to be of appropriate density/strength.

## 11.6 CONSTRUCTION MONITORING AND CERTIFICATION

Given the extent of the earthworks and the volume of cut and fill required for the site, including the building platform, the earthworks, and placement of fill should be undertaken in general accordance with the council's Land Development Code of Practice (incorporating NZS 4404 and NZS 4431).

Of particular importance are the inspection and certification of the following:

- Subgrade inspection.
- Suitability of site won material for reuse and engineered fill.
- Performance of temporary cut batters.
- Foundation inspections.
- Hardfill >300mm depth or built as a slope >2H:1V.

## 11.7 SERVICES

We recommend that all underground services are backfilled with adequately compacted backfill to minimise significant trench consolidation and settlement risk.

Trench excavations should be shored or battered appropriately per the OSH/DOL Approved Code of Practice for Safety in Excavations and Shafts for Foundations (April 2000).

The contractor is expected to employ the appropriate plant and machinery to undertake the excavation and retaining wall construction.

## 11.8 UNSUITABLE MATERIAL

Recommendations for foundation design provided in the Bearing Capacity section of this report are based on foundations embedded within "good ground" according to NZS 3604:2011. To achieve "good ground", we recommend the following:

- A suitably qualified person should inspect all foundation excavations.
- Care should be taken to ensure that all unsuitable materials such as the topsoil layer, weak ground, non-engineered fill areas, and/or hard spots are removed from the building platform before building construction.
- The undercut for the building footprint should extend for a horizontal distance equivalent to the undercut depth beyond the footprint. The undercut should be backfilled with engineered fill up to the required formation level unless specified otherwise by a suitably qualified person.

## 12 STORMWATER MANAGEMENT

### 12.1 GENERAL

Stormwater disposal should comply with the operative District & Regional Plans, the Building Code, and recognised New Zealand standards and guidelines. In summary, this requires the following:

- Hydrogeological neutrality should be provided within receiving environments (such as overland flow paths, streams, and reticulated stormwater systems) with the addition of impervious surfaces. In addition, the disposal of stormwater should not provide a nuisance to neighbouring properties and public infrastructure.
- Stormwater should be managed in such a way as to avoid slope erosion, earthworks batters, retaining walls, building structures, and effluent disposal areas.
- Stormwater should be managed to have no significant effect on overall slope stability conditions.
- Stormwater should be directed to a public reticulated stormwater system where possible.
- Site development should be mindful of existing surface water features, including overland flow paths, and appropriate remedial measures should be provided where required.

### 12.2 SPECIFIC DESIGN

We consider that the above objectives for the proposed development can be achieved with a site-specific stormwater management system. In summary, the stormwater management system is required to effectively manage stormwater derived from the following surfaces, as shown in the table below:

Table 5: Stormwater Management Development Areas

Surface	Managed by Stormwater Attenuation System	Natural Attenuation <sup>2</sup>		Calculated Land Balance (m <sup>2</sup> )
	Proposed Barn (15m x 12m) Roof Area (m <sup>2</sup> )	Impervious Driveway and Vehicle courtyard (m <sup>2</sup> )	Surrounding Pervious Curtilage Area (m <sup>2</sup> )	
Area	180	n/a	n/a	n/a

Run-off Coefficient <sup>1</sup>	n/a	0.90	n/a	n/a	0.90
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<sup>1</sup> Run-off coefficients derived from Building Code E1/VM1.

<sup>2</sup> Area includes grass/pastureland/gardens between development and closest stormwater receptor.

The management of stormwater derived from these surfaces should attenuate flows to provide a stormwater discharge of no greater than the greenfield rate for the 5% AEP. In addition, stormwater derived from surfaces that may generate contaminants (such as suspended solids) should be adequately treated.

We consider that this can be achieved in summary with the following devices:

- Roof water derived from the proposed barn will be collected by guttering and piped to a water storage device (detention tank). The detention tank is controlled by a low flow office to control/throttle the water outlet.
- The rural driveway comprising a gravel surface will shed water evenly to the driveway sides and onto a grass verge. The grass verge will provide sufficient attention to suspended silts and natural ground soakage.

The stormwater management system layout is shown in Drawing 002.

#### 12.2.1 Soil Infiltration Potential

A qualitative assessment of soil infiltration potential was made from the ground conditions observed within test pits completed. Given the presence of schist rockhead at shallow depth mantled with tightly packed silt and sand, GCL recommends a retention/detention style stormwater disposal system, as opposed to a traditional to-ground soakage pit.

#### 12.2.2 Stormwater Disposal Modelling

The following stormwater modelling parameters have been adopted for stormwater disposal design.

- Rainfall duration and intensity data sourced from NIWA High-Intensity Rainfall Design Systems (HIRDS) Version No. 4,
- RCP 8.5 data for 2081 – 2100 scenario was applied,
- A 10-minute duration and 5% AEP rainfall event was applied,

Stormwater disposal design calculations are provided in Appendix C

#### 12.2.1 Detention Tank Design

We recommend using a detention tank to catch all roof water and provide attenuation of stormwater flows to achieve the greenfield rate for the given rainstorm event.

- The existing site provides a greenfield peak discharge rate of 0.81L/s. This utilizes the design storm, the rational method of storm runoff, and time to peak concentration & storm duration of 10 minutes.
- The proposed developed site provides a peak discharge rate of 2.42L/s, which is greater than the greenfield rate and requires attenuation.
- A detention tank volume of 1,156L has been calculated. However, GCL recommends increasing the detention tank to 5,000L to allow for future development and retention



given the rural amenity of the property. Redundant volume can be used for irrigation purposes.

- A 5,000L detention tank controlled by a 10mm ID orifice at the base achieves the greenfield rate. Alternatively, the detention tank can be incorporated into the water tank (if required), whereby the orifice controls the detention portion of the tank.
- The detention tank should be placed on a safe and stable surface and not load onto or undermine building structures.
- The detention tank should be placed to provide adequate fall from roof to tank to dispersal structure. Siphoning of water between the roof and tank is permissible.

Appendix B provides detention tank calculations and design details. The design detail includes dual-use with a potable water tank if required.

### 12.2.2 Dispersion Structure

The outlet pipe should be directed towards the water race which cross cuts the lower portion of the greater property. A concrete headwall should be installed to mitigate the outlet pipe from damage. The control orifice releases stormwater accumulation equal to or less than the greenfield rate to prevent surcharging of the disposal feature.

### 12.2.3 Stormwater System Maintenance

The maintenance of the stormwater management system is the responsibility of the landowner. Maintenance guidelines should be followed specific to the elected stormwater attenuation solution. Refer to Appendix B for general guidelines.

## 13 LIMITATIONS

### 13.1 GENERAL

Ground Consulting Ltd has undertaken this assessment according to the brief provided, based on the site and location as shown in Drawing 002. This report has been provided for the benefit of our client and for the authoritative council to rely on to process the consent for the specific project described herein. No liability is accepted by this firm or any of its directors, servants or agents, in respect of its use by any other person, and any other person who relies upon the information contained herein does so entirely at their own risk.

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The sub-surface conditions have been extrapolated between the investigations undertaken. Whilst care has been taken to provide sufficient sub-surface information following best practice, no guarantee can be given on the validity of the inference made. It must be appreciated that actual conditions could vary from the assumed model.

### 13.2 FURTHER INVESTIGATIONS REQUIRED

This assessment has been undertaken for the proposed site development to date. Any structural changes, alterations and additions made to the proposed development should be checked by a suitably qualified person and may require further investigations and analysis.

Inspections will be required during the construction of the building platform and installation of the stormwater management system to ensure ground conditions are in accordance with

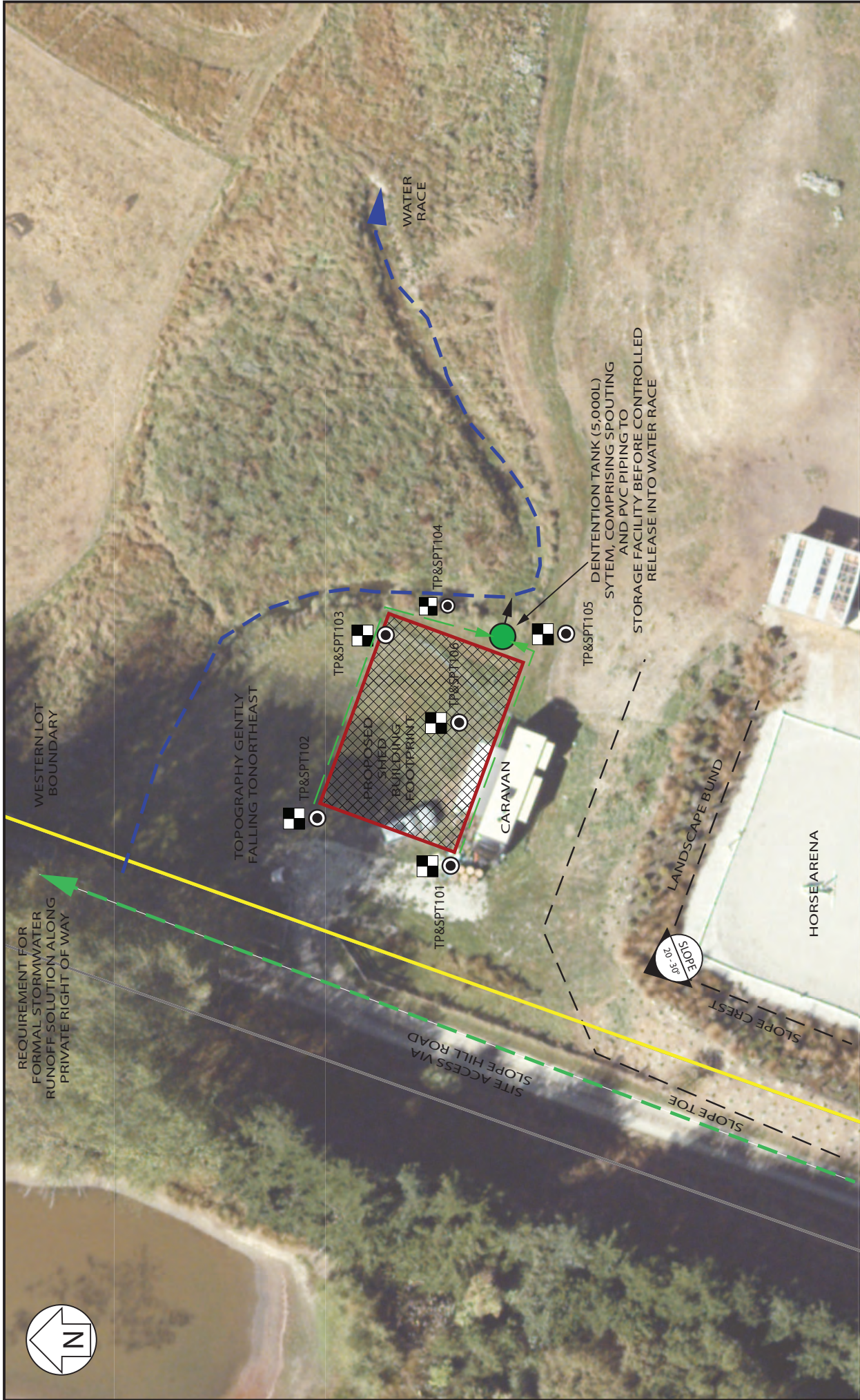
the findings of this assessment. If ground conditions differ from those presented in this report, a suitably qualified person should seek advice on design and construction modifications.

# DRAWINGS












**HAZELDINE C/O BROWN & COMPANY PLANNING GROUP**  
 123 SLOPEHILL ROAD, LOWER SHOTOVER, QUEENSTOWN

**SITE INVESTIGATION PLAN**

Rev	Date	Status	Drafted	Reviewer	File Ref.
A	15/02/2022	Issued	S.F	GCL	65004697/R6697-1A/R6697-3-DRW002.ai

Scale (A4)	NTS
0	0

Project No. 6697	Drawing No. 002
Report Ref. R6697-3A	

## APPENDIX A: TEST PIT LOGS



# INVESTIGATION LOG

TP&SPT101

Report Ref

R6697-3A

Client  
Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method ( $\pm 2m$ )

Location  
123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength	Values (kPa)	Scala Penetrometer	Groundwater
					Vane No: Vane Size: 0mm		(Blows / 100mm)	
UNCONTROLLED FILL	Uncontrolled fill comprising sand and gravel. Ground feed loop encountered at 0.6m deep. Test pit excavation terminated				50 100 150 200		2 4 6 8 10 12 14 16 18	
	End of Investigation: 0.6m Refusal							

Log ref: R6697-3A TP&SPT104

## Investigation Information

Depth 0.6m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- ▼ Standing Water Level  
← Out flow  
→ In flow





# INVESTIGATION LOG

TP&SPT102

Report Ref

R6697-3A

Client

Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method (±2m)

Location

123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm Values (kPa)	Scala Penetrometer (Blows / 100mm) Values (kPa)	Groundwater
TOPSOIL	Silty TOPSOIL; light brown. Dry; silt content increases with depth, contains rootlets.						
ALLUVIUM	Silty SAND; light brown. Medium dense; dry to moist; sand, fine to medium.						
GLACIAL TILL	Sandy GRAVEL, with minor cobbles; light brownish grey. Medium dense to dense; dry; gravel, fine to coarse, subround to subangular; sand, fine to coarse; cobbles, subround to subangular, up to 150mm.						
	Silty SAND, with trace gravel; light grey. Dense; moist; sand, fine to coarse; gravel, fine.		1				
SCHIST	Moderately weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; moderately strong.						
	Slightly weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; strong.						
	End of Investigation: 2.9m Refusal						

Log ref: R6697-3A TP&SPT102

## Investigation Information

Depth 2.9m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- Standing Water Level  
 Out flow  
 In flow



Report Ref

R6697-3A

<b>Client</b>	Sam Hazeldine
---------------	---------------

Coordinates (NZTM2000)

<b>Elevation</b>	
------------------	--

Location Method ( $\pm 2\text{m}$ )

<b>Location</b>
123 Slopehill Road, Queenstown

Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)										Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater




### Investigation Information

<b>Depth</b>	2.9m	<b>Logged By</b>	SF	<b>Start Date</b>	19/01/23
<b>Termination</b>	Refusal	<b>Checked By</b>		<b>End Date</b>	19/01/23
<b>Machine Used</b>		<b>Test Pit Dimensions</b>		<b>Logged Date</b>	19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)
- ☒ Test Pit
- ☐ Scala Penetrometer

### Water Legend

-  Standing Water Level
-  Out flow
-  In flow



# INVESTIGATION LOG

TP&SPT103

Report Ref

R6697-3A

Client  
Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method (±2m)

Location  
123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
TOPSOIL	Silty TOPSOIL; light brown. Dry; silt content increases with depth, contains rootlets.							
SCHIST	Moderately weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; moderately strong.							
	Slightly weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; strong.							
	End of Investigation: 0.5m Refusal							

Log ref: R6697-3A TP&SPT103

## Investigation Information

Depth 0.5m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- Standing Water Level  
 Out flow  
 In flow



# INVESTIGATION LOG

TP&SPT104

Report Ref

R6697-3A

Client  
Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method (±2m)

Location  
123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
TOPSOIL	Silty TOPSOIL; light brown. Dry; silt content increases with depth, contains rootlets.			TS			10	
ALLUVIUM	Silty SAND; light brown. Medium dense; dry to moist; sand, fine to medium.						8	
GLACIAL TILL	Gravelly SAND; light brown. Loose to medium dense; dry; sand, fine to medium; gravel, fine, subround to subangular.						13	
SCHIST	Moderately weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; moderately strong.							
	Slightly weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; strong.							
	End of Investigation: 0.7m Refusal							

Log ref: R6697-3A TP&SPT104

## Investigation Information

Depth 0.7m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- ▼ Standing Water Level  
← Out flow  
→ In flow



# INVESTIGATION LOG

TP&SPT105

Report Ref

R6697-3A

Client  
Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method (±2m)

Location  
123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
TOPSOIL	Silty TOPSOIL; light brown. Dry; silt content increases with depth, contains rootlets.			TS			5	
ALLUVIUM	Silty SAND; light brown. Medium dense; dry to moist; sand, fine to medium.						4	
							4	
							7	
							12	
SCHIST	Moderately weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; moderately strong.						10	
	Slightly weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; strong.							
	End of Investigation: 0.7m Refusal							

Log ref: R6697-3A TP&SPT105

## Investigation Information

Depth 0.7m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- ▼ Standing Water Level  
← Out flow  
→ In flow





# INVESTIGATION LOG

TP&SPT106

Report Ref

R6697-3A

Client  
Sam Hazeldine

Coordinates (NZTM2000)

Elevation

Location Method (±2m)

Location  
123  
Slopehill Road, Queenstown

Geology	Geological Interpretation (refer to separate Geotechnical and Geological Information sheet for further information)	Samples	Depth (m)	Legend	Vane Shear Strength Vane No: Vane Size: 0mm 50 100 150 200	Values (kPa)	Scala Penetrometer (Blows / 100mm) 2 4 6 8 10 12 14 16 18	Groundwater
TOPSOIL	Silty TOPSOIL; light brown. Dry; silt content increases with depth, contains rootlets.			TS			6	
ALLUVIUM	Silty SAND; light brown. Medium dense; dry to moist; sand, fine to medium.			TS			7	
GLACIAL TILL	Silty SAND, with some gravel; light brown grey. Medium dense to dense; dry to moist; sand, fine to coarse; gravel, fine to medium, subround to subangular.		1	TS			4	
				TS			4	
				TS			4	
				TS			4	
				TS			11	
				TS			14	
				TS			12	
				TS			15	
				TS			15	
				TS			12	
SCHIST	Moderately weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; moderately strong.			TS			10	
	Slightly weathered; grey; coarse fabric, foliation, gently inclined, laminated; SCHIST; strong.			TS				
	End of Investigation: 1.4m Refusal							

## Investigation Information

Depth 1.4m Logged By SF Start Date 19/01/23  
Termination Refusal Checked By End Date 19/01/23  
Machine Used Test Pit Dimensions Logged Date 19/01/23

## Investigation Type

- ☐ Hand Auger (50mm)  
☒ Test Pit  
☐ Scala Penetrometer

## Water Legend

- ▼ Standing Water Level  
← Out flow  
→ In flow

Log ref: R6697-3A TP&SPT106

## APPENDIX B: INVESTIGATION PHOTOS

TP101

PIT EXCAVATION



ARISINGS

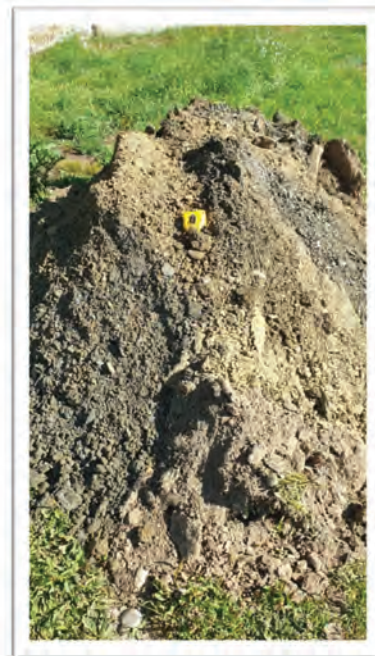


TP102

PIT EXCAVATION



ARISINGS





TP103

PIT EXCAVATION



ARISINGS



TP104

PIT EXCAVATION



ARISINGS





TP105

PIT EXCAVATION



ARISINGS



TP106

PIT EXCAVATION



ARISINGS





## APPENDIX C: STORMWATER DISPOSAL DESIGN CALCULATIONS

# DETENTION TANK DESIGN CALCULATIONS



## PROJECT DETAILS

**Project:** R6697-3A (Proposed Barn)  
**Property:** 123 Slopehill Road, Lower Shotover, Queenstown  
**Date:** 21-Mar-23  
**Calc's by:** S.F.

## LEGEND

iterative inputted parameter  
 inputted parameter  
 calculated parameter

## CATCHMENT DETAILS

Area <sub>roof</sub> =	180 m <sup>2</sup>	Notes
C <sub>roof</sub> =	90	Based on barn dimensions (15m length x 12m depth)
Area <sub>paved</sub> =	0 m <sup>2</sup>	Based on E1/VM1
C <sub>paved</sub> =	50	N/A
Area <sub>pervious</sub> =	0 m <sup>2</sup>	Based on E1/VM1
C <sub>pervious</sub> =	30	N/A
Concentration time T <sub>c</sub> =	10 mins	Based on E1/VM1
Rainstorm duration =	10 mins	Calculated from E1/V1 (min. = 10 mins)
Design rainfall event =	1% AEP	Calculated from T <sub>c</sub>
Rainfall intensity I =	53.8 mm/hr	From HIRDS with RCP 8.5, 2081-2100

## COMPUTE PEAK DISCHARGE RATES

where: Q = CIA

Rational method suitable for small catchments (assumes same T<sub>c</sub> for all cases)

Peak greenfield rate =	0.81 L/s	Maximum permissible flow from site
Peak roof rate =	2.42 L/s	Maximum flow requiring throttling with detention tank
Peak rest of site rate =	0.00 L/s	Maximum flow not controlled by detention tank
Peak development rate =	2.42 L/s	

## DETENTION TANK DETAILS

Tank volume =	5,000 L	Assuming part use of standard 5,000l water tank
Tank diameter =	2.20 m	As per typical 5,000l tank specs
Tank basal area =	3.80 m <sup>2</sup>	
Tank height =	1.75 m	As per typical 5,000l tank specs
Orifice dia =	10 mm	Minimum orifice dia. = 10mm
Orifice discharge coeff =	0.65	

## DETENTION TANK CHECKS

Pre development	0.81 L/s	
Post development	0.12 L/s	CHECK 1: Pre dev. > Post dev.
Max. tank height	1.75 m	
Calc. max. tank height	0.31 m	CHECK 2: Tank height > calc. tank height
Tank size	5000 L	
Calc. max. volume (min. = 2,500L)	1156 L	CHECK 3: Tank size > calc. det. volume

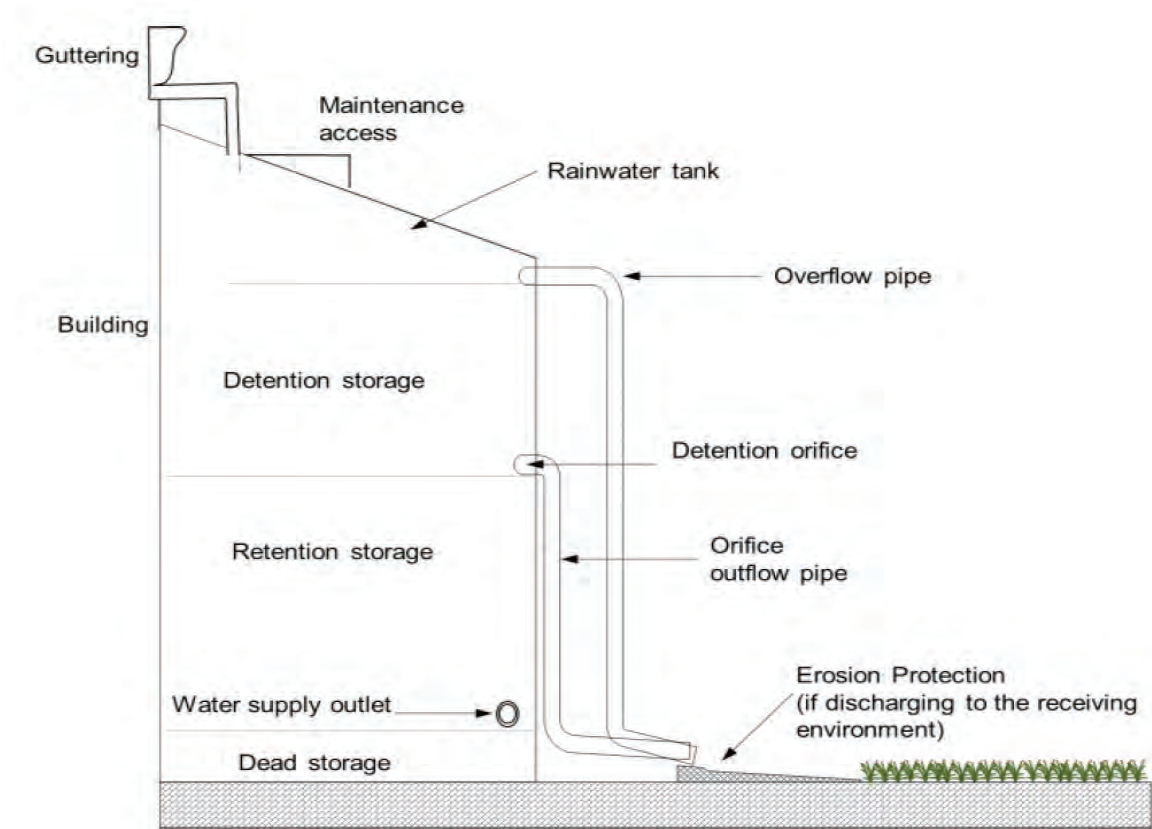
Time/T <sub>p</sub>	Time	Q/Q <sub>p</sub>	Q <sub>roof</sub>	Volume	Storage	Water level	Av. water level	Q <sub>orifice</sub>	Device storage	Q <sub>rest of site</sub>	Q <sub>total site</sub>
	mins		L/s	m <sup>3</sup>	m <sup>3</sup>	m	m	L/s	m <sup>3</sup>	L/s	L/s
0.0	0.0	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0
0.1	0.7	0.030	0.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.2	1.3	0.100	0.24	0.01	0.01	0.00	0.00	0.01	0.01	0.00	0.01
0.3	2.0	0.190	0.46	0.01	0.02	0.01	0.00	0.01	0.02	0.00	0.01
0.4	2.7	0.310	0.75	0.02	0.05	0.01	0.01	0.02	0.04	0.00	0.02
0.5	3.3	0.470	1.14	0.04	0.08	0.02	0.02	0.03	0.08	0.00	0.03
0.6	4.0	0.660	1.60	0.05	0.14	0.04	0.03	0.04	0.13	0.00	0.04
0.7	4.7	0.820	1.99	0.07	0.21	0.05	0.04	0.05	0.20	0.00	0.05
0.8	5.3	0.930	2.25	0.08	0.29	0.08	0.06	0.06	0.29	0.00	0.06
0.9	6.0	0.990	2.40	0.09	0.38	0.10	0.09	0.07	0.38	0.00	0.07
1.0	6.7	1.000	2.42	0.10	0.47	0.12	0.11	0.08	0.47	0.00	0.08
1.1	7.3	0.990	2.40	0.10	0.57	0.15	0.14	0.08	0.56	0.00	0.08
1.2	8.0	0.930	2.25	0.09	0.66	0.17	0.16	0.09	0.65	0.00	0.09
1.3	8.7	0.860	2.08	0.09	0.74	0.19	0.18	0.10	0.73	0.00	0.10
1.4	9.3	0.780	1.89	0.08	0.81	0.21	0.20	0.10	0.81	0.00	0.10
1.5	10.0	0.680	1.65	0.07	0.88	0.23	0.22	0.11	0.88	0.00	0.11
1.6	10.7	0.560	1.36	0.06	0.94	0.25	0.24	0.11	0.93	0.00	0.11
1.7	11.3	0.460	1.11	0.05	0.98	0.26	0.25	0.11	0.98	0.00	0.11
1.8	12.0	0.390	0.94	0.04	1.02	0.27	0.26	0.12	1.01	0.00	0.12
1.9	12.7	0.330	0.80	0.03	1.05	0.28	0.27	0.12	1.04	0.00	0.12
2.0	13.3	0.280	0.68	0.03	1.07	0.28	0.28	0.12	1.07	0.00	0.12
2.2	14.7	0.207	0.50	0.05	1.12	0.29	0.29	0.12	1.11	0.00	0.12
2.4	16.0	0.147	0.36	0.03	1.14	0.30	0.30	0.12	1.13	0.00	0.12
2.6	17.3	0.107	0.26	0.02	1.16	0.30	0.30	0.12	1.15	0.00	0.12
2.8	18.7	0.077	0.19	0.02	1.16	0.31	0.30	0.12	1.15	0.00	0.12
3.0	20.0	0.055	0.13	0.01	1.17	0.31	0.31	0.12	1.16	0.00	0.12
3.2	21.3	0.040	0.10	0.01	1.17	0.31	0.31	0.12	1.16	0.00	0.12
3.4	22.7	0.029	0.07	0.01	1.16	0.31	0.31	0.12	1.15	0.00	0.12
3.6	24.0	0.021	0.05	0.00	1.16	0.30	0.30	0.12	1.15	0.00	0.12
3.8	25.3	0.015	0.04	0.00	1.15	0.30	0.30	0.12	1.14	0.00	0.12
4.0	26.7	0.011	0.03	0.00	1.14	0.30	0.30	0.12	1.13	0.00	0.12
4.5	30.0	0.005	0.01	0.00	1.14	0.30	0.30	0.12	1.11	0.00	0.12
5.0	33.3	0.000	0.00	0.00	1.11	0.29	0.30	0.12	1.09	0.00	0.12



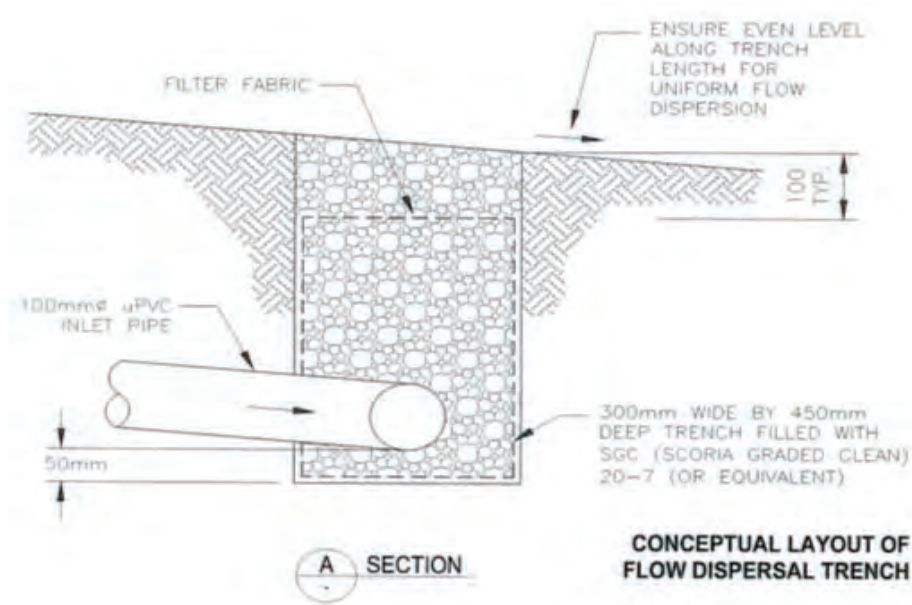
DETAILS



DETENTION TANK DETAIL



DISPERAL TRENCH DETAIL



## REFERENCE MATERIAL



### RUN-OFF CURVE NUMBERS (BUILDING CODE E1/VM1)

**Table 1: Run-off Coefficients**  
Paragraphs 2.0.1, 2.1.1, 2.1.3

Description of surface	C
<b>Natural surface types</b>	
Bare impermeable clay with no interception channels or run-off control	0.70
Bare uncultivated soil of medium soakage	0.60
Heavy clay soil types:	
— pasture and grass cover	0.40
— bush and scrub cover	0.35
— cultivated	0.30
Medium soakage soil types:	
— pasture and grass cover	0.30
— bush and scrub cover	0.25
— cultivated	0.20
High soakage gravel, sandy and volcanic soil types:	
— pasture and grass cover	0.20
— bush and scrub cover	0.15
— cultivated	0.10
Parks, playgrounds and reserves:	
— mainly grassed	0.30
— predominantly bush	0.25
Gardens, lawns, etc.	0.25
<b>Developed surface types</b>	
Fully roofed and/or sealed developments	0.90
Steel and non-absorbent roof surfaces	0.90
Asphalt and concrete paved surfaces	0.85
Near flat and slightly absorbent roof surfaces	0.80
Stone, brick and precast concrete paving panels	
— with sealed joints	0.80
— with open joints	0.60
Unsealed roads	0.50
Railway and unsealed yards and similar surfaces	0.35
<b>Land use types</b>	
Industrial, commercial, shopping areas and town house developments	0.65
Residential areas in which the impervious area is less than 36% of gross area	0.45
Residential areas in which impervious area is 36% to 50% of gross area	0.55

**Note:**  
Where the impervious area exceeds 50% of gross area, use method of Paragraph 2.1.2.

### STANDARD PIPE SIZES

15mm ID		50mm ID
20mm ID		65mm ID
25mm ID		80mm ID
32mm ID		100 mm ID

### DETENTION TANK MAINTENANCE

Frequency				Action
After storm	Quarterly	Annually	2-Yearly	
✓	✓	✓	✓	<b>Spouting &amp; downpipes:</b> check for problems such as debris /blockages and leaks and rectify
✓	✓	✓	✓	<b>First-flush diverter device:</b> check for blockages; empty debris/sediment
	✓	✓	✓	<b>Tank water quality:</b> check for clarity and odour
	✓	✓	✓	<b>Tank inlet/outlet pipework, orifice, float valve &amp; backflow preventer:</b> perform visual check for problems e.g. debris/blockages/leaks and rectify
		✓	✓	<b>Tank structure:</b> check for leaks and rectify
		✓	✓	<b>Pump &amp; electrical system:</b> check and carry out any necessary maintenance
			✓	<b>Float valve, backflow preventer and first-flush device:</b> test for correct functioning; repair/replace where faulty or badly worn
			✓	<b>Tank water quality:</b> collect water sample (before emptying tank, as below), submit for testing & results to check compliance with DWSNZ, 2000; if exceedances are found, review maintenance practices to identify the cause of the problem(s) and rectify
			✓	<b>Tank cleaning:</b> empty the tank and clean out any sediment accumulations and growths
			✓	<b>Plumbing:</b> examine plumbing from the tank to the dwelling and rectify any faults

HIRDS V4 Intensity-Duration-Frequency Results

Sitename: Custom Location

Coordinate system: WGS84

Longitude: 168.7817

Latitude: -44.9759

DDF Mode	Parameter	c	d	e	f	g	h	i
Values:	-0.01648	0.597646	-0.02286	-0.00165	0.292222	-0.00781	2.14657	
Example:	Duration (lARI (yrs)	x	y	Rainfall Rate (mm/hr)				
	24	100	3.178054	4.600149	4.581628			

Rainfall intensities (mm/hr) :: RCP8.5 for the period 2081-2100

ARI	AEP	10m	20m	30m	1h	2h	6h	12h	24h	48h	72h	96h	120h
1.58	0.633	21.6	17	14.6	11.2	8.24	4.76	3.21	2.12	1.34	1	0.811	0.687
2	0.5	24.4	19.1	16.4	12.5	9.22	5.28	3.56	2.32	1.46	1.1	0.886	0.748
5	0.2	35	27	23.1	17.3	12.6	7.09	4.72	3.03	1.89	1.41	1.13	0.949
10	0.1	43.8	33.6	28.5	21.2	15.3	8.5	5.61	3.57	2.21	1.64	1.31	1.1
20	0.05	53.8	40.9	34.6	25.6	18.3	10	6.56	4.13	2.54	1.87	1.49	1.25
30	0.033	60.3	45.6	38.5	28.3	20.2	11	7.15	4.48	2.74	2.01	1.6	1.34
40	0.025	65.2	49.2	41.4	30.3	21.5	11.7	7.58	4.74	2.88	2.12	1.68	1.4
50	0.02	69.3	52.1	43.8	32	22.7	12.2	7.92	4.94	3	2.2	1.75	1.45
60	0.017	72.7	54.6	45.8	33.4	23.6	12.7	8.22	5.11	3.09	2.27	1.8	1.49
80	0.013	78.5	58.7	49.2	35.8	25.2	13.5	8.67	5.38	3.25	2.37	1.88	1.56
100	0.01	83	62	51.8	37.6	26.4	14.1	9.05	5.6	3.36	2.45	1.94	1.61
250	0.004	104	76.6	63.7	45.7	31.8	16.7	10.6	6.49	3.86	2.8	2.21	1.82

**PUKEKOHE OFFICE**

UNIT 2, 4 MANUKAU ROAD, PUKEKOHE  
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EMAIL: [pukekohe@gcltech.co.nz](mailto:pukekohe@gcltech.co.nz)  
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**QUEENSTOWN OFFICE**

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**GCL**

Ground Consulting Ltd





GRANT RAILTON

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# WASTEWATER DESIGN PROPOSAL



PREPARED FOR: Sam Hazledine

LOCATION: 123 Slopehill Road  
Lower Shotover  
Queenstown

## **Contents**

- 1. Design Statement**
- 2. On-site Waste Water Disposal application**
- 3. Site Plans**
- 4. Dripper Irrigation Layout**
- 5. Photos of Site and Test Pits**

# DESIGN STATEMENT



RAILTON CONTRACTING AND DRAINAGE LTD

03 4421288 . 0274549028 .

[info@railtoncontracting.co.nz](mailto:info@railtoncontracting.co.nz)

[www.railtoncontracting.co.nz](http://www.railtoncontracting.co.nz)

Building Code Clause(s)

G13/VM4 & G14VM1

ISSUED BY: RAILTON CONTRACTING & DRAINAGE LTD

FOR: Sam Hazledine

SUPPLIED TO: Queenstown Lakes District Council

IN RESPECT OF: New Onsite Waste Water Disposal System

at

123 Slopehill Rd  
Lower Shotover  
Queenstown Lakes District Council

LOT: 4

DP: 407786

SO:

We have been engaged by the owner/developer referred to above to provide an

onsite waste water disposal system design

Services in respect of the requirements of Clauses NZBC G13/VM4, G14/VM1, AS/NZS 1547:2012 of the Building Code. Part only (as specified in the attachment), of the proposed building work.

The design carried out by us has been prepared in accordance with Compliance Documents issued by Department of Building and Housing G13/VM4

The proposed building work covered by this statement is described in the onsite waste water disposal application form together with the specifications, and other documents set out in the schedule.

On behalf of the Design Firm and subject to:

(i) Site verification of the following design assumption soil category 3 Loams

(ii) All proprietary products meeting their performance specification requirements;

I believe on reasonable grounds the building, if constructed in accordance with the drawings, specification, and other documents provide or listed in the attached schedule, will comply with the relevant provisions of the building code.

I, Grant Railton am a Certifying Drainlayer # 18880

The Design Firm issuing this statement holds a current policy of Professional Indemnity Insurance no less than \$200,000\*

The Design Firm is a member of PDGB

Signed By Grant Railton on and behalf of Railton Contracting and Drainage Ltd

Signature

Date 26/04/2023



# AF OSW Onsite Wastewater Disposal Application Form



## INTRODUCTION

The objective of this form is to collate the required information that will support QLDC with evaluating the risk of the proposed Onsite Wastewater Disposal system in terms of Building Code compliance (G13), RMA Act and Environmental and Public Health requirements.

## REFERENCES

The design standard for waste water treatment and effluent disposal systems is **AS/NZS 1547:2012**. All references within this form relate to this standard.

## RISK BASED APPROACH

QLDC has adopted a risk based approach which involves evaluating key factors relating to the system design and site and soil features to ensure that any risk to environment or public health is fully mitigated. The key potential risks that QLDC will consider include, but are not limited to, the following:

### High risks

- Pathogen risks

### Moderate risk

- Odours
- Loss of amenity service due to technology failure, power outage
- High capital and/or operating costs

### Minor risks

- Slope instability on the steeper sites
- Noise
- Risk to cultural values
- Nutrients (nitrogen and phosphorus) and emerging contaminants

## HIGH RISK APPLICATIONS

Throughout this application form there are a number of information fields that are highlighted in red. These relate to key risk factors that the system designer must consider during their design process. If these risks are present then an explanation of what design mitigations have been taken is required.

For systems that breach the requirements of Section 3, you will be required to raise an application with the Otago Regional Council for a Resource Consent. Once the ORC Resource Consent has been granted it can be referenced as part of the QLDC Building Consent Application.

QLDC reserves the right to engage expert peer review of applications that are either very high risk, or system designs which appear to have inadequate design mitigations in place. The cost of this will be on-charged to the applicant as part of their building consent fees.



# AF OSW Onsite Wastewater Disposal Application Form



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## 1 SITE DESCRIPTION

Property Owner:	Sam Hazledine
Location Address:	123 Slopehill Road, Lower Shotover, Queenstown RD
Legal Description (e.g. Lot3 DP1234) :	Lot 4 , DP 407786
List any existing consents related to waste disposal on the site:	Existing waste water system on site for main dwelling
General description of development and describe all sources of wastewater:	New barn and one bedroom flat

## AF OSW Onsite Wastewater Disposal Application Form



### 2 SITE ASSESSOR, DESIGNER AND INSTALLER DETAILS

#### 2.1 SITE ASSESSOR

Company	Railton Contracting & Drainage LTD		
Contact Name	Grant Railton	Phone	027 454 9028
Qualifications/Technical Experience	Certifying Drainlayer no 18880		

#### 2.2 SYSTEM DESIGNER

Company	Railton Contracting & Drainage LTD		
Contact Name	Grant Railton	Phone	027 454 9028
Qualifications/Technical Experience	Certifying Drainlayer no 18880		

#### 2.3 SYSTEM INSTALLER

Company	Railton Contracting & Drainage LTD		
Contact Name	Railton Contracting & Drainage LTD	Phone	027 454 9028
Qualifications/Technical Experience	Certifying Drainlayer no 18880		

#### 2.4 SERVICING TECHNICIAN/COMPANY

Company	Railton contracting	Phone	0274549028
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## AF OSW Onsite Wastewater Disposal Application Form



### 3 ORC RESOURCE CONSENT REQUIREMENTS:

Please complete below checklist to confirm whether an Otago Regional Council (ORC) resource consent will be required to discharge domestic waste water in the Queenstown Lakes District:

Yes	No	System Requirement
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Daily discharge volume exceeds 2,000 litres per day
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Discharge will occur in a groundwater protection zone or in the Lake Hayes catchment
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Discharge will occur within 50 metres of a surface water body
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Discharge will occur within 50 metres of an existing bore/well used to supply water for domestic needs or drinking water for livestock
<input type="checkbox"/>	<input checked="" type="checkbox"/>	There will be a direct discharge into a drain, water race or groundwater
<input type="checkbox"/>	<input checked="" type="checkbox"/>	Discharge may runoff onto another persons' property

If any of these apply then you will need to make an ORC resource consent application for domestic wastewater discharges to land with a maximum volume of 14,000 litres. The application form for this is [Form 6A](#).

Once the ORC consent has been granted please enter the reference number below and provide a copy of the approved ORC consent.

<b>ORC Resource Consent Number:</b>	
-------------------------------------	--

### 4 SITE ASSESSMENT DETAILS

For the areas where the treatment plant and land application system and reserve area are to be located, please provide the following information:

Land use description:	Rural section
Topography:	Undulating ground , mainly flat where disposal bed is to be placed
Slope angle:	Various up to 12 degrees
Vegetation cover:	Mainly grass
Are there areas of potential ponding?	none
Are there risks associated with drainage patterns and overland flow paths?	none

# AF OSW Onsite Wastewater Disposal Application Form



Does site have Flood potential? (show with return period on site plan)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please provide information below on what design considerations have been adopted to mitigate this risk (e.g. elevated tanks, sealed lids etc.)	
Is the system within 100m distance to nearest open water bodies, ephemeral streams and wetland?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please provide information below on what design considerations have been adopted to mitigate this risk. Secondary treatment and dripline disposal to be used	
Is the system within 50m distance to stormwater drains and stormwater soakage areas?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please provide information below on what design considerations have been adopted to mitigate this risk. <a href="#">Click here to enter design mitigations.</a>	
Are Water bores within 50m? (reference ORC Maps)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes then an ORC resource consent is required	
Are there are other key site features that may affect the system design?	none	
Slope stability assessment- For land slopes greater than 15° (25%) summarize any areas unsuitable for waste water irrigation.	n/a	
What is the depth to the highest potential ground water level:	Summer:	2m
	Winter:	2m
	Information Source:	Local knowledge of this site
Is there potential for waste water to short circuit through permeable soils to surface and / or ground water?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If Yes, please provide information below on what design considerations have been adopted to mitigate this risk.	



# AF OSW Onsite Wastewater Disposal Application Form



## 5 SOIL INVESTIGATION

For the areas where the land application system and reserve area are to be located, provide the following information

Has a Site Specific Field investigation been completed? Is Report attached?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No  Note: Report shall include a plan showing test pit or bore location, and a detailed soils report in accordance with Table B2 and Figure B1 or and equivalent format and detail.  Photos of the profiles and soils shall be included including photos of soil ribbon tests (Section E4.1)
Field investigation date:	20/4/23
Number of test pits or bores:	2
If fill material was encountered during the soil investigation, describe the fill material and explain how this will impact on the waste water land application system design and performance?	No fill was encountered
Has the soil permeability beneath the proposed land application field been tested?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No  If Yes please provide details of test method and results (e.g. Percolation test method (refer to B6 for applicability):  Visual assessment done , soil cat 3 topsoil down to till , shist at about 600mm

# AF OSW Onsite Wastewater Disposal Application Form



## 6 SOIL CATEGORY

Based on the site investigation report please confirm the soil category that is present for the land application system.

Select One	Soil Category (Table 5.1)	Soil Texture (Appendix E)	Drainage Characteristic	Risk limits for Groundwater Setback
<input type="checkbox"/>	1	Gravel and sands	Rapid	5m
<input type="checkbox"/>	2	Sandy loams	Free	5m
<input checked="" type="checkbox"/>	3	Loams	Good	1.5m
<input type="checkbox"/>	4	Clay loams	Moderate	1.5m
<input type="checkbox"/>	5	Light clays	Moderate to slow	0.6m
<input type="checkbox"/>	6	Medium to heavy clays	Slow	0.6m

Is the groundwater level (refer section 4) within the above risk limits for the site?

☐ Yes ☒ No

If Yes, please provide information below on what system design considerations have been adopted to mitigate the risk to groundwater. For example:

- Secondary treatment
- Tertiary UV treatment
- Modified trench or bed details for category 1 soils to ensure even distribution

Note: The soil category and groundwater level will determine the required loading rate for the land application system. This needs to be specified in section 7.2 and should be referenced from L1, M1 or N1 tables.

## 7 SYSTEM DESIGN

### 7.1 SYSTEM INPUT INFORMATION

Property Water Supply	<input checked="" type="checkbox"/> Council reticulation <input type="checkbox"/> Water bore <input type="checkbox"/> Rainwater collection <input type="checkbox"/> Other- please provide details:
Total number of bedrooms that will be serviced by the system	1
Maximum design occupancy	2 at 200 liters and 3 people at 50 liters a day

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## AF OSW Onsite Wastewater Disposal Application Form



Flow allowance litres / day per person: Refer to Appendix H, Table H3 and H4. Justify variations.	200 and 50 .Barn with a 1 bedroom flat and up to 3 people working on site
List any water conservation devices or water recycling details and volume estimates (Table H3):	none
Specify flow allowance for any other activity on the site such as spa baths, luxury showers etc:	none
List any allowance for seasonal variations and loads:	none
Total design flow allowance (litres per day):	550  Note: If above 2,000 litres per day an ORC resource consent is required

### 7.2 SYSTEM SELECTION & CAPACITY

Select One	Proposed Treatment System	Manufacturers Details	No. of Chambers and Capacity (litres)	Emergency Storage (litres)
<input type="checkbox"/>	Primary System (e.g. Septic tank)			
<input checked="" type="checkbox"/>	Secondary Treatment system <sup>1</sup>	Oasis clearwater s2000	4/ 9400	1050
<input type="checkbox"/>	Tertiary Treatment System			
<input type="checkbox"/>	Other:			
Rated treatment capacity of the system (litres/day):		2000		
Details of effluent filter:		Zable		

<sup>1</sup> For on-site wastewater management systems requiring secondary or better treatment, QLDC strongly recommends that applicants select treatment plants certified by the On-site Effluent Treatment National Testing Programme (OSET NTP), or an equivalent or better independent certifying organisation. These have been verified as meeting the secondary effluent treatment requirements of AS/NZS 1547.

## AF OSW Onsite Wastewater Disposal Application Form



Select One	Proposed Land Application System	Design Description. Please attach site plans/drawings	Design Loading Rate mm/day (DLR or DIR)
<input type="checkbox"/>	Surface dripper irrigation	NOT PERMITTED IN QLDC DUE TO FREEZING	N/A
<input checked="" type="checkbox"/>	Sub-surface dripper irrigation	NOTE: MUST BE MINIMUM OF 300mm TO PREVENT FREEZING 160 m dripline to be installed	3.5mm
<input type="checkbox"/>	Conventional Bed		
<input type="checkbox"/>	Conventional trench		
<input type="checkbox"/>	Deep trench		
<input type="checkbox"/>	Discharge control bed or trench		
<input type="checkbox"/>	Mound system		
<input type="checkbox"/>	Other (specify):		

Note: The land application system site plans/drawings are to include dimensions, location, layout and component labels, cross-section details (with dimensions) and where appropriate; filter cloth, material type, structural details, flushing points, venting, valving, special fittings, intercepting drains and other detail specific to the design.

Select One	Proposed Loading Method	Details
<input type="checkbox"/>	Trickle load, gravity	
<input type="checkbox"/>	Gravity dosing: Flout, siphon or other	
<input checked="" type="checkbox"/>	Pump	Davy D42 or similar
<input type="checkbox"/>	Other	

### 7.3 ADDITIONAL SYSTEM REQUIREMENTS

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# AF OSW Onsite Wastewater Disposal Application Form



Select One	Additional design considerations	Details
<input checked="" type="checkbox"/>	Specify details or alarm system(s)	Installed on septic tank
<input checked="" type="checkbox"/>	Specify available reserve area (5.5.3.4)	As marked on site plan
<input type="checkbox"/>	Specify fencing, warning signs and vegetation and planting requirements	
<input type="checkbox"/>	Storm / surface water management:	
<input checked="" type="checkbox"/>	Depths pipes to be buried:	300mm
<input type="checkbox"/>	Flood protection:	
<input type="checkbox"/>	Cut off / diversion drains (show on site plan):	
<input type="checkbox"/>	Other:	

## 8 ATTACHMENTS CHECKLIST

Select One	Required Documents
<input type="checkbox"/>	Copy of any existing QLDC or ORC consents
<input type="checkbox"/>	Copy of QLDC Site & Soils Assessment (if previously completed)
<input type="checkbox"/>	Copy of slope stability geotechnical report (if required)
<input type="checkbox"/>	Copy of flood hazard assessment (if required)
<input checked="" type="checkbox"/>	Site Specific Field Investigation Report. <i>Ensure it covers information requirements covered in sections 5 &amp; 6</i>
<input checked="" type="checkbox"/>	Detailed plans of system layout showing treatment unit, drains/pipes and land application field including cross-section detail <i>Ensure it covers information requirements covered in sections 7</i>
<input checked="" type="checkbox"/>	For secondary treatment units provide evidence of OSET NTP (or equivalent) certification
<input type="checkbox"/>	Independent certification of in-ground tanks in terms of AS/NZS 1546.1 2008, or an equivalent standard. Provide details of performance criteria to which certification applies.
<input checked="" type="checkbox"/>	Design Producer Statement of the on-site wastewater management service
<input type="checkbox"/>	Loading certificate in accordance with Section 7.4.2 (d)
<input checked="" type="checkbox"/>	Operation & Maintenance guidelines for the treatment plant and land application system

# AF OSW Onsite Wastewater Disposal Application Form



<input checked="" type="checkbox"/>	Homeowner's operation manual for the treatment plant and land application system
<input checked="" type="checkbox"/>	<p>To scale site plan. The following must be included on the plan:</p> <ul style="list-style-type: none"> <li>• Buildings Boundaries</li> <li>• Treatment system components Reserve disposal area Retaining Walls</li> <li>• Embankments</li> <li>• Cutoff drains / diversion bunds Water bodies</li> <li>• Stormwater drains, discharge points or soakage facilities</li> <li>• Flood risk areas</li> <li>• Other wastewater treatment units and discharge systems</li> <li>• Water bores</li> <li>• Direction of ground water flow</li> <li>• Existing and proposed trees and shrubs</li> <li>• North arrow</li> </ul>

## 9 APPLICANT STATEMENT:

I believe to the best of my knowledge that the information provided in this application is true and complete. I have the necessary experience and qualifications to design the above proposed waste water treatment system in accordance with the requirements of AS/NZS 1547:2012:

Company: Railton Contracting & Drainage LTD

Email: info@railtoncontracting.co.nz

Phone number: 027 454 9028

Name: Grant Railton

Signature:

Date: 26 April 2023

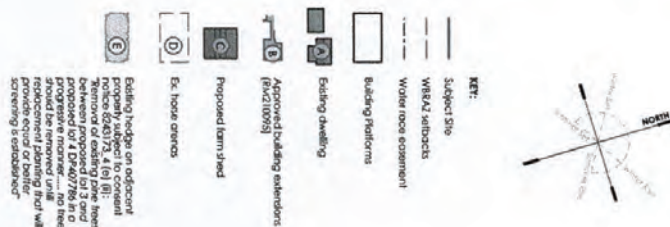
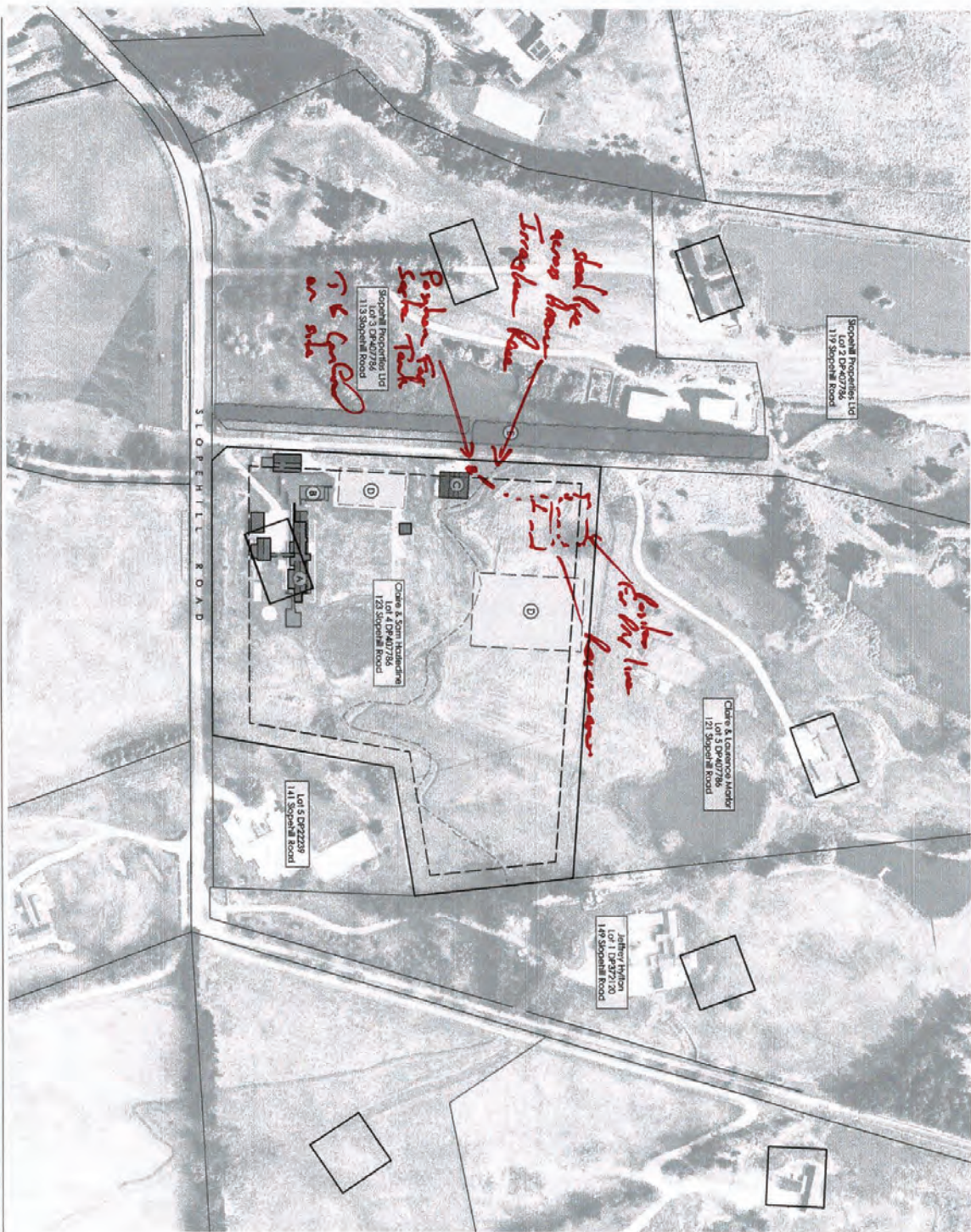
Please scan this completed document to PDF and upload along with supporting Building Consent application information to the QLDC Sharefile portal:

<http://www.qldc.govt.nz/planning/building-consents/apply-online/>

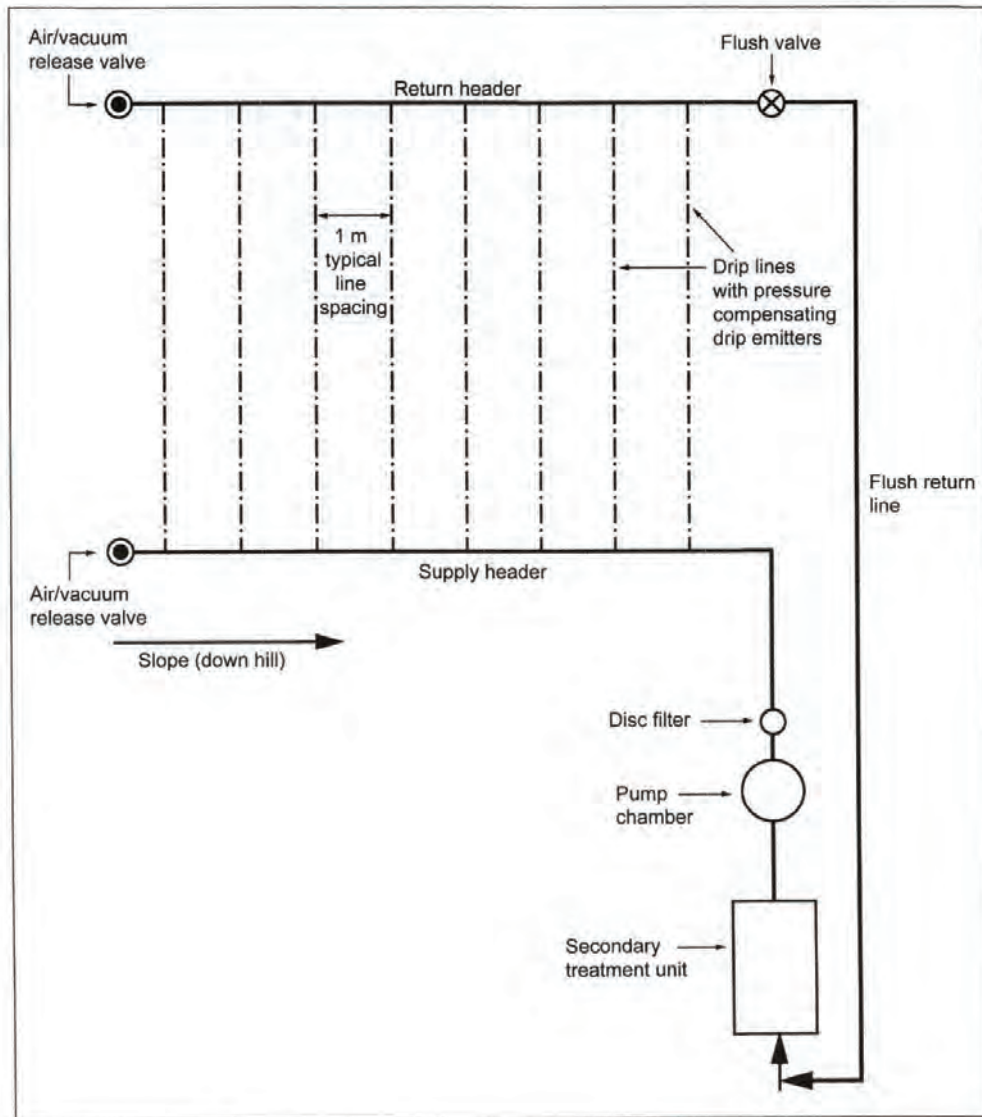


Figure 1: Context Plan

123 Slopehill Road: New Farm Shed  
AC 16.02.23 1:2000 @ A3  
SITE LANDSCAPE ARCHITECTS A  
www.slaa.co.nz 278, 34, 110, Cornhill, Hoon



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**FIGURE M1 DRIP IRRIGATION SYSTEM – EXAMPLE LAYOUT OF COMPONENTS**



**TABLE H4**  
**TYPICAL DOMESTIC WASTEWATER DESIGN FLOW ALLOWANCES**  
**- DOMESTIC WASTEWATER FROM COMMERCIAL PREMISES - NEW ZEALAND**

Source	Typical wastewater design flows (L/person/day)	
	On-site roof water tank supply	Reticulated community or a bore-water supply
Motels/hotels		
– guests, resident staff	220	
– non-resident staff	30	
– reception rooms	20 – 30	
– bar trade (per customer)	20	
– restaurant (per diner)	25 – 30	
Tearooms/lunch bars (per customer)		
– without restroom facilities	10	15
– with restroom facilities	15	25
Community halls		
– banqueting	20	30
– meetings	10	15
School (pupils plus staff)	15 – 30	
Rural factories, shopping centres	30	50
Camping grounds		
– fully serviced	100	130
– recreation areas	50	65
NOTE: These flows should be used for design purposes unless past experience demonstrates lower actual flows. Design flows should be based on the maximum figure in the range unless justification for lower values can be provided by way of actual water use data. Although guidance is provided for flow allowances for non-household activities, this Standard does not provide specific requirements for commercial loads, for example in commercial kitchens and laundries (see 1.9 definition of domestic wastewater).		

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**TABLE M1**  
**RECOMMENDED DESIGN IRRIGATION RATE (DIR) FOR IRRIGATION SYSTEMS**

Soil Category (see Note 1)	Soil texture	Structure	Indicative permeability ( $K_{sat}$ ) (m/d)	Design irrigation rate (DIR) (mm/day)		
				Drip irrigation	Spray irrigation	LPED irrigation
1	Gravels and sands	Structureless (massive)	> 3.0	5 (see Note 2)	5	(see Note 3)
2	Sandy loams	Weakly structured or massive	> 3.0 1.4 – 3.0			4
3	Loams	High/ moderate structured	1.5 – 3.0	4 (see Note 1)	4	3.5
		Weakly structured or massive	0.5 – 1.5			
4	Clay loams	High/ moderate structured	0.5 – 1.5	3.5 (see Note 1)	3.5	3
		Weakly structured	0.12 – 0.5			
		Massive	0.06 – 0.12			
5	Light clays	Strongly structured	0.12 – 0.5	3 (see Note 1)	3	2.5 (see Note 4)
		Moderately structured	0.06 – 0.12			
		Weakly structured or massive	< 0.06			
6	Medium to heavy clays	Strongly structured	0.06 – 0.5	2 (see Note 2)	2	(see Note 3)
		Moderately structured	< 0.06			
		Weakly structured or massive	< 0.06			

NOTES:

1 For Category 3 to 5 soils (loams to light clays), the drip irrigation system needs to be installed in an adequate depth of topsoil (in the order of 150 – 250 mm of *in situ* or imported good quality topsoil) to slow the soakage and assist with nutrient reduction.

2 For Category 1, 2, and 6 soils, the drip irrigation system has a depth of 100 – 150 mm in good quality topsoil (see CM1 and M3.1).

3 LPED irrigation is not advised for Category 1 or Category 6 soils – drip irrigation of secondary effluent is the preferred irrigation method.

4 LPED irrigation for Category 5 soils needs a minimum depth of 250 mm of good quality topsoil (see M5 and CM7.1).

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# 123 SLOPEHILL ROAD, LAKE HAYES

## Landscape Assessment – Construction of a Farm Shed and Residential Unit Outside of Approved Building Platform

Richard Tyler Landscape Architect - NZILA Registered  
SITE Landscape Architects

Prepared 04<sup>th</sup> August 2023

### 1.0 Introduction

Purpose of Report: Construction of Farm Shed and Residential Unit Outside Approved Platform

Site: 123 Slopehill Road, Lake Hayes - Lot 4 DP407786;

Zoning: Proposed District Plan (PDP): **Wakatipu Basin Rural Amenity (WBRA)**  
**Character Unit 11: Slope Hill Foothill.**

Appended Material: Figure 1: Context Plan and View Locations  
Figure 2: Landscape Plan  
Figure 3: Earthworks Plan  
Figure 4: Pole Plan  
Views 1-6: Viewpoint Photography

### 2.0 Methodology

This assessment includes a description of the proposal and site, the existing landscape character and values, assessment of potential effects on visual amenity and landscape character, and landscape assessment against the relevant parts of the District Plan.

The assessment approach is derived from 'Te Tangi a te Manu: Aotearoa New Zealand Landscape Assessment Guidelines', Tuia Pito Ora New Zealand Institute of Landscape Architects and includes 7 point scale of effects which is applied. This is outlined below and includes a comparison to a technical planning scale<sup>1</sup>.

---

<sup>1</sup> NZILA: [https://www.nzila.co.nz/media/uploads/2022\\_09/Te\\_Tangi\\_a\\_te\\_Manu\\_Version\\_01\\_2022\\_.pdf](https://www.nzila.co.nz/media/uploads/2022_09/Te_Tangi_a_te_Manu_Version_01_2022_.pdf)

#### Assessment scale:

							Significant
Planning	less than minor		minor	more than minor			
Landscape	very low	low	low-mod	moderate	mod-high	high	very high

### 3.0 Proposal

The proposal is to construct the following buildings / sheds:

- A 3 bay farm storage shed of an overall size of 217m<sup>2</sup> with a 42.5m<sup>2</sup> residential unit located in the north-eastern corner of the building for a resident horse carer;
- A 5 x 16m (80m<sup>2</sup>) Horse shelter, with gently sloping roof at max. 3.08m high;
- A 6 x 6m extension to an existing shed (36m<sup>2</sup>).

The farm storage shed design consists of a single gable pavilion with high sided lean-tos on each side. The overall height is 6.14m with the lower side lean-tos at 3.72m high. Materials will consist of Coloursteel high profile roofing in colour 'FlaxPod' 'matte' (LRV 6%).

The shed will be located on the western boundary of the site against the 10m WBRAZ setback from the property boundary. Approximately 725m<sup>3</sup> of earthworks will be required to form a flat pad for the main shed, to push out a small section of slope for the shed extension, and for a small flat space for the horse shelter.

A grouping of 11 trees will be planted on the north-eastern side of the shed including Chinese elm and Ornamental non-spreading Hawthorne, and 6 Pyrus trees will be planted along the western boundary of site. The slope behind the shed (steeper than 15 degrees) will be planted with native plants.

The existing water race will be piped north of the proposal to allow grassed usable land around the sheds.

External lighting will include downlights located no more than 2.5m high from finished ground level and be directed downward only, with no direct light visible outside of the site.

### 4.0 Site Description

The site is located on the upper extent of Slopehill Road on gently sloping north facing topography.

The southern part of the site adjacent to the road is occupied by the existing dwelling, sheds and consented extensions. A mature poplar hedgerow and earth bund run along the southern boundary to the road.

To the north of the existing dwelling is an existing horse arena, with pond to the eastern of the dwelling.

The proposed shed is located on a northern lower terrace which makes up the northern half of the property, located just north of an existing planted bund / terrace slope and south of the water race. A second existing horse arena is located to the north-east of the proposed shed site in the open paddock.

The shed location is currently predominantly grazed pasture and a gravel stand down for the horse carer caravan. View 01 appended shows the location of the proposal viewing north.

## 5.0 Landscape Character

The site falls with landscape character Unit 11: “Slope Hill Foothill” of Schedule 24.8 of Chapter 24 in the PDP.

I summarize the relevant characteristics from this unit as:

<b>Landscape Character Unit</b>	<b>11: Slope Hill Foothill</b>
<i>Landform patterns</i>	<i>Elevated and complex patterning of hills ranging from moderate to steeply sloping in places. Elevated hummock pattern throughout central portion with remnant kettle lakes.</i>
<i>Vegetation patterns</i>	<i>Exotic shelterbelts, woodlots, remnant gully vegetation, and exotic amenity plantings around older rural residential dwellings. Predominantly grazed grass although smaller lots tends to be mown.</i>
<i>Hydrology</i>	<i>Numerous streams, ponds and localised wet areas.</i>
<i>Proximity to ONL/ONF</i>	<i>Adjoins Slope Hill/Lake Hayes ONF.</i>
<i>Settlement patterns</i>	<i>Dwellings generally located to enjoy long-range basin and mountain views. Older rural residential development tends to be well integrated by planting and/or localised landform patterns. Newer rural residential is considerably more exposed, with buildings sited to exploit landform screening (where possible). Clustered development evident in places. Numerous consented but unbuilt platforms (43). Typical lot sizes: evenly distributed mix. One property 100-500ha range, another 50-100ha. Balance typically shared lots or 4-10ha range.</i>
<i>Proximity to key route</i>	<i>Located away from key vehicular route</i>
<i>Visibility/prominence</i>	<i>Visibility varies across the landscape unit. The elevated nature of the unit and its location adjacent a flat plain on its western side means that this part of the area is visually prominent. The steep hillslopes and escarpment faces edging Speargrass Flat to the north and Lake Hayes to the east, together with Slope Hill itself, serve to limit visibility of the balance of the unit from the wider basin landscape.</i>
<i>Enclosure/openness</i>	<i>A variable sense of openness and enclosure. The older and more established rural residential development throughout the elevated slopes on the western side of the unit are reasonably enclosed, despite their elevation. Throughout the central and eastern areas, landform provides containment at a macro scale.</i>
<i>Naturalness</i>	<i>A variable sense of naturalness, largely dependent on how well buildings are integrated into the landscape. The large number of consented but unbuilt platforms suggest that a perception of naturalness could reduce appreciably in time.</i>
<i>Sense of Place</i>	<i>Generally, the area reads as a mixed rural and rural residential landscape. The elevated portions of the area read as a rural residential landscape ‘at, or very near, its limit’. The lower-lying stream valley area to the east remains largely undeveloped, and functions as somewhat of a ‘foil’ for the more intensive rural residential landscape associated with the surrounding elevated slopes.</i>
<i>Environmental characteristics and visual amenity values to be maintained and enhanced</i>	<i>Landform pattern. Careful integration of buildings with landform and planting. Set back of buildings from ridgeline crests to north and east of unit. Retention of existing open views to Slope Hill.</i>
<i>Capability to absorb additional development</i>	<i>Low</i>

#### Landscape Character Summary in Relation to the Subject Site:

- The site location character is low lying, rolling elevated topography small to medium lot farmland with amenity / farm lot plantings, relatively sparsely populated buildings well screened and nestled into leafy surrounding vegetation and topography.
- The immediate vicinity has limited visibility from wider viewpoints with surrounding vegetation / topography providing visual containment for the site.

## 6.0 Visual Amenity & Landscape Character Assessment

The proposed shed and residential flat is 217m<sup>2</sup> in floor area, a maximum height of 6.14m with dark recessive materials. It is located at the base of a slope towards the southern end of the lower northern part of the subject site. The proposed open Horse shelter has a gently sloping roof of maximum 3.08m high, located on the base of the slope east of the shed. The shed extension is located at the top of the slope and will require a small amount of earthworks to push out a flat area for the extension. The visual scale of the existing structure will increase slightly.

#### Effects on 121, 149, 141 and 113 Slopehill Road:

**View 01** appended shows the view from the site location viewing north – the only dwellings with views of the proposal will be 121 (to the north) and 149 Slopehill Road to the north-east, and 141 Slopehill Road to the south-east. All these properties have provided APA for the proposal.

To the west no. 113 Slopehill Road has a mature pine / poplar hedgerow along the eastern boundary of their property restricting views to the proposal. A consent notice 8243173\_4, (e) (ii) on their property states the hedgerow is to be replaced by native plants of a similar screening scale if removed, providing on-going screening between the properties. Therefore, views of the proposal will not be possible from this property with Negligible landscape effect.

#### Effects on number 119 Slopehill Road:

The accessway running along the west boundary (noted on plan as driveway easement to subject site) is owned by no. 119 Slopehill Road with an access easement for the subject site. The owners of 119 Slopehill Road are currently accessing their property through no. 113 Slopehill Road, with the driveway easement being utilised only by no. 121 Slopehill Road (to the north) and the subject site.

As it currently stands, with the owners utilising no. 113 Slopehill Road for access there will be no effect as the new sheds will not be visible when accessing their property via no. 113 or from their building platform.

At some point in future if they choose to utilise the driveway easement on their land they will have brief views of the sheds when driving past (**Views 02 & 03**). At this point in time the sheds will already exist and form part of the rural surrounds. The proposed main large shed will be a reasonably sized structure located 10m away from the accessway. It will have a **low to moderate** visual effect for a very brief moment when moving along the accessway directly adjacent to the building where the shed will block a small part of the surrounding view. However overall will have a **very low** effect on landscape character and values as it will be associated with rural use of the property. The view will be oblique, and only experienced when travelling to and from their property where the value of experiencing views is less important than would be experienced from the internal parts of their property, which is located some 170m from the shed location and behind a significant amount of existing vegetation.

#### Effects on More Distant Private Properties:

Further to the north some very small views may be possible from properties accessed from Elysium Way at a distance of more than 800m, filtered through trees and topography. From here the proposal will recede into the landscape and form part of the wider scene including trees, sporadic buildings and farm sheds. At a distance of 800m with screening trees the building will at most have a **very low** effect from here.



#### **Effects on Users of Slopehill Road:**

The proposed main shed and residential flat will be located on a lower terrace, 125m north of the road and behind and existing planted mound. When travelling along Slopehill Road the building will be visible for two very short stretches of road (25m long) outside the property entrance and slightly east of the property. In both cases the view will be very short, fleeting and oblique to the main view. Most users of the road would not turn to look this way for a very short portion of their drive or cycle.

The horse shelter and shed extension will only be visible from the view east of site (View 06).

From the site entrance on Slopehill Road (**View 04 & 05**) the crest of the roof will just be visible over the existing planted mound at 130m distance and will blend into the foreground context of the existing dwelling and garage.

From east of site on Slopehill Road a brief glimpse of the main shed, shed extension and horse shelter will be possible through poplar trees located on the neighbouring property (**View 06**) during winter months. These views will not be visible in summer when the poplars are in leaf. From here several buildings are immediately visible and the proposed buildings will simply form part of the rural lifestyle character with a very low visual effect on views for the brief stretch of road.

From Slopehill Road this building will have a **very low** effect, with a small amount of visibility, set well back from the road for very short and oblique views.

#### **Effects on Landscape Character:**

The proposed shed and residential flat will be located on a low terrace, sitting to the base of a planted mound amongst a leafy and rolling hills rural area. The site and surrounding landscape is well screened from private / public places and capable of absorbing additional farm type buildings with little change to the existing rural character.

The proposed building design will be appropriate for rural use and contain a small component of residential activity. The residential use will blend with the existing rural activities / use of the building and be relatively low key in comparison to the overall rural activities around the building. A residential flat is enabled on the site under the PDP, and residential use is existing in this area with a motor home currently located in this area providing temporary accommodation for the horse carer.

The proposal at most will lead to a **very low** change to the existing rolling hills leafy rural character, contained in an area of site with low visibility from surrounding places and with a rural appearance where visible to surrounding residents.

#### **Effects Summary Table:**

Location	Landscape Effect	Explanation
121, 149 & 141 Slopehill Road	None	APA provided
113 Slopehill Road	None	Consent notice 8243173_4, (e) (ii) states the hedgerow is to be replaced by native plants of a similar screening scale if removed.
119 Slopehill Road	Very Low effect on Landscape character and values, low to moderate visual effect for a brief moment when travelling along accessway adjacent to building.	Currently access their property via no. 113 Slopehill Road. If they choose to utilise the accessway as a regular accessway the buildings will be visible for a brief stretch, some

		degree of effect where close to main shed for a very short stretch of time.
More distant Private Properties:	Very Low	Viewing distance, trees and topography limiting views.
Slopehill Road	Very Low	Small fleeting views, long viewing distance, blending with other buildings and consistent with surrounding rural lifestyle character which includes farm type structures and buildings.

## 7.0 QLDC District Plan Assessment

### 7.1 Proposed District Plan – Wakatipu Basin Rural Amenity (WBRA)

Assessment Matters of rules 24.7.3 and 24.7.5 are similar and I revert to 24.7.5 for non-compliance of buildings outside of a Building Platform:

Rule	Assessment Matters- Restricted Discretionary Activities	DESCRIPTIVE ASSESSMENT
24.7.5	<p><i>New buildings (and alterations to existing buildings) including farm buildings and residential flats, and infringements of the standards for building coverage, building size, building material and colours, and building height:</i></p> <p><i>Landscape character</i></p> <p><i>a. The extent to which the building, ancillary elements and landscaping responds to the identified values set out in Schedule 24.8 – Landscape Character Units for the relevant landscape unit, and the following assessment matters.</i></p> <ul style="list-style-type: none"> <li><i>i. building height;</i></li> <li><i>ii. building colours and materials;</i></li> <li><i>iii. building coverage;</i></li> <li><i>iv. design, size and location of accessory buildings;</i></li> <li><i>v. the design and location of landform modification, retaining, fencing, gates,</i></li> </ul>	<p><u>Building Height:</u></p> <p>As described in Section 3 the proposal includes a 3 bay farm storage shed with a maximum height of 6.14m, a 2.91m high horse shelter and a small shed extension.</p> <p>The main larger shed building and horse shelter is sited at the base of rising topography providing visual nestling of built form, consistent with many larger buildings in the wider character unit.</p> <p>The shed extension will slightly broaden the visual scale of an existing low roofed structure.</p> <p><u>Building colours and materials:</u></p> <p>Materials will consist of Coloursteel high profile roofing in colour FlaxPod' 'matte'.</p> <p>This material is appropriate for rural farm buildings with dark recessive tones to reduce visibility.</p> <p><u>Building coverage:</u></p> <p>The site has approximately 1,200m<sup>2</sup> GFA existing buildings (dwelling, garage and sheds), with 270m<sup>2</sup> consented un-built extensions. The proposed farm sheds will be an additional 217 + 80 + 36.5m<sup>2</sup> (333.5m<sup>2</sup>) GFA</p> <p>Overall this will lead to 1,803.5m<sup>2</sup> of GFA on the 4Ha rural property, 4.5% of the site will be built on.</p>

<p><i>vehicle access (including paving materials), external lighting, domestic infrastructure (including water tanks);</i></p> <p><i>vi. the retention of existing vegetation and landform patterns, and proposed new planting;</i></p> <p><i>vii. earth mounding and framework planting to integrate buildings and vehicle access;</i></p> <p><i>viii. planting of appropriate species that are suited to the general area including riparian restoration planting;</i></p> <p><i>ix. the retirement of steep slopes over 15° and restoration planting to promote slope stabilisation and indigenous vegetation enhancement; and</i></p> <p><i>x. the integration of existing and provision for new public walkways and cycleways/bridlepaths.</i></p>	<p>The proposed shed and horse shelter will be in a less elevated part of site with low visibility from the public road. In the wider landscape the building will also not be visible with the site and surrounds providing a large degree of visual containment through trees and topography.</p> <p>Although the site coverage will be higher than anticipated for the zone it is located in an area which can absorb additional built form and will be consistent with the identified values set down in Schedule 24.8. Some of these include:</p> <p>Except for a very view from the adjacent private accessway long range basin and mountain views will be unaffected, and it will have limited visibility from the wider landscape. The shed will be in a part of site with a high degree of visual containment including trees and topography within site and the surrounding properties;</p> <p>The buildings will be well integrated with proposed planting, localised landform pattern rising behind the sheds, consistent with values of the character unit;</p> <p>Private views of the proposal may only be possible some time in the future if the neighbours utilise the adjacent accessway. If this occurs their view will be brief when driving to and from their property.</p> <p>A large majority of the site will remain as open space for continued rural use.</p> <p><u>Landform Modification, Hardscaping, Lighting and Infrastructure:</u></p> <p>A small amount (approximately 725m<sup>3</sup>) of earthworks will be required for the buildings. The ground will be shaped consistently with surrounding landform with a minor (1:5) grass slope formed down from the main shed.</p> <p>The main shed and horse shelter will be accessed directly off the existing right of way running along the western boundary of site. A gravel turning area will be formed between the building and existing driveway for manoeuvring vehicles. This area will only be visible from the existing driveway along the western boundary and will read as an extension of the existing accessway.</p> <p>External lighting will include downlights located no more than 2.5m high from finished ground level and be directed downward only, with no direct light visible outside of the site to protect the rural character.</p> <p>Two buried water tanks will be located on the slope behind the building and surrounded with native plants.</p>
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		<p><u>Retention of Existing Vegetation and Landform Patterns and Proposed New Planting:</u></p> <p>Landform will be largely unchanged by the proposal -with the gently sloping ground made into a flat pad.</p> <p>The site is currently open grass with no vegetation removal.</p> <p>Proposed additional landscaping will introduce a treed context for the building, blending with the existing rural character deciduous amenity plantings surrounding site.</p> <p>The native plants to the sloping bank at rear of building will be consistent with existing planting on the mound. The species may attract bird life and visually will be consistent with native planting in the wider character unit.</p> <p><u>Earth mounding / Framework planting to Integrate Buildings and Vehicle Access:</u></p> <p>The main shed will sit next to a rising slope to nestle built form with the landscape, therefore no additional landform is proposed.</p> <p>The proposed trees will provide a framework to surround the building from the northeast, and screening for wider views from surrounding private properties.</p> <p><u>Planting of Appropriate Species and Riparian Planting:</u></p> <p>Species include Chinese elm, Crataegus 'Paul's Scarlett @ 4m centres and Pyrus calleryana @ 5m crs which are all widely found in the rural Wakatipu Basin landscape. (Paul's Scarlett is a non-spreading garden variety of Hawthorne suitable for rural properties).</p> <p><u>Retirement of Slopes / Restoration Planting:</u></p> <p>The slope behind the building is over 15 degrees (15 degrees = 1:3.75 slope, existing slope is 1:2) and will be planted with native plants.</p> <p>The species proposed will be consistent with existing planting and attract native bird life.</p>
	<i>b. The extent to which existing covenants or consent notice conditions need to be retained or are otherwise integrated into the conditions governing the proposed development.</i>	<i>To be assessed by planner</i>
	<i>c. The extent to which the development maintains visual amenity in the landscape, particularly from public places.</i>	The buildings will have limited visibility from Slopehill Road. A portion of the roofline will be visible for a very short stretch of road (approximately 20m) at the entrance to site at a distance of 130m. Beyond here existing mounds / planting at the front of site and to the rear of the shed will continue screening views.



		Buildings associated with farm activities and livestock are generally expected in the rural zone. In combination with viewing the existing dwelling buildings in the foreground, the building will maintain the existing visual amenity from the road.
	<i>d. In the case of multiple buildings or residential units not otherwise addressed as part of a previous subdivision, the extent to which a sense of spaciousness is maintained, and whether the buildings are integrated with existing landform, vegetation or settlement patterns.</i>	The building will sit next to rising topography, nestling built form. The site will remain open to the east of the building used for grazing.
	<i>e. Where a residential flat is not located adjacent to the residential unit, the extent to which this could give rise to sprawl of buildings and cumulative effects.</i>	The shed is well separated from the main dwelling with topography and planting and will have a predominantly rural use. The residential unit will be small (42.5m <sup>2</sup> ) and contained to the north-eastern corner of the building.
	<i>f. Where the site adjoins an ONF or ONL, the extent to which the development affects the values of that ONF or ONL.</i>	The site is not adjacent to an ONF or ONL.
	<i>g. Whether mitigation elements such as a landscape management plan or proposed plantings should be subject to bonds or covenants.</i>	It is appropriate that proposed plantings are shown and carried out as per the approved landscape plan.
	<i>h. The merit of the removal of wilding exotic trees at the time of development.</i>	There are no wilding exotic trees on site.
	<i>i. Whether the proposed development provides an opportunity to maintain landscape character and visual amenity through the registration of covenants requiring open space to be maintained.</i>	The remaining open space within the site has low visibility from public / private surrounding places. I do not see it necessary to register a covenant to preserve landscape character / visual amenity.

Rule	Assessment Matters- Restricted Discretionary Activities	DESCRIPTIVE ASSESSMENT
24.7.8	<p><b>Setback from boundaries</b></p> <p><i>Whether the proposal achieves:</i></p> <p><i>a. The maintenance of the identified landscape character and visual amenity values with reference to the identified elements set out in Schedule 24.8 -</i></p>	The main shed sits adjacent to the 10m boundary setback. The proposed water tanks are just within, but will be buried within the existing mound and surrounding with native plants and will not be visible for users of the adjacent accessway.

	<i>Landscape Character Units for the relevant landscape unit.</i>  <i>b. Adequate privacy, outlook and amenity for adjoining properties.</i>	
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## 8.0 Conclusion

The proposal includes the construction of a functional farm shed, horse shelter and small shed extension with minor earthworks, native planting and amenity tree planting, including a small residential unit for a resident horse carer within the main shed.

The site location is on a lower terrace on the northern part of the subject site, set back 130m from Slopehill Road, surrounded by rolling topography and amenity tree plantings / hedgerows visually containing the site. The surrounding landscape character is mixed rural / rural residential.

Visibility from outside the site, including public and private places, is minimal, with APAs provided from surrounding neighbours to the north and east. To the west of the site is a hedgerow that is required to be retained or replaced as per the existing consent notice on the title for that site. If the accessway to no. 119 Slopehill Road is utilised in the future visual effects will be very brief when passing the shed and the building will be visually associated with rural use of the land with a very low effect on landscape character values.

As described in this assessment the proposal will have a **very low** effect on visual amenity and will maintain the existing rural character values of the surrounding landscape.



Photo Notes:

Camera: Iphone 13 Pro  
Lens: Panorama  
Date Photo Taken: 04.08.23

Photo appears smaller than real life view

↑ Shed Poles in red, approximate footprint shown on ground

↑ Horse Shelter pegs, actual proposed location is 2m to the east

↑ Shed extension poles in red

SITE LANDSCAPE  
ARCHITECTS A

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

123  
SLOPEHILL ROAD

NEW FARM SHED  
PANORAMA FROM SITE VIEWING NORTH





Photo Notes:

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

↑ Shed Poles in red, approximate centre of  
roofline shown transparent red

↑ Shed Extension pole in red

SITE LANDSCAPE  
ARCHITECTS A

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

123  
SLOPEHILL ROAD

NEW FARM SHED  
FROM ACCESSWAY VIEWING NORTH-EAST

278\_3K-500  
04.08.23 - revA  
**V-02**  
www.slab.co.nz





↑ Shed Poles in red, approximate footprint /  
centre roolline shown transparent red

↑ Shed extension poles in red

↑ Horse Shelter pegs, actual proposed  
location is 2m to the east

Photo Notes:

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

SITE LANDSCAPE  
ARCHITECTS A

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

123  
SLOPEHILL ROAD

NEW FARM SHED  
FROM ACCESSWAY VIEWING SOUTH-EAST





Photo Notes:

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

↑ Shed pole just visible, roofline will be visible over mounding in the foreground

SITE LANDSCAPE  
ARCHITECTS A

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

123  
SLOPEHILL ROAD

NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH





Photo Notes:

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

↑ Shed pole just visible, roofline will be visible over mounding in the foreground

**SITE LANDSCAPE  
ARCHITECTS A**

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**





↑ Shed poles and shed extension poles  
intermittently visible through poplars  
located on neighbouring property

**Photo Notes:**

Camera: Iphone 13 Pro  
Lens: 26mm  
Date Photo Taken: 04.08.23

Hold printed A3 sheet 30cm from eye to replicate real view

**SITE LANDSCAPE  
ARCHITECTS A**

Document Set ID: 7743166  
Version: 1, Version Date: 31/08/2023

**123  
SLOPEHILL ROAD**

**NEW FARM SHED  
FROM SLOPEHILL ROAD VIEWING NORTH**









# Hazledine Family Property, Slopehill Road, Preliminary Site Investigation

*For*

## S and C Hazledine

*January 2013*



*Davis Consulting Group Limited  
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**Hazeldine Family Property, Slopehill Road,  
Preliminary Site Investigation**

**Document Status**

Version	Purpose of Document	Prepared By	Reviewer	Review Date
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O	FINAL	RL	GD	28 January 2013

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## EXECUTIVE SUMMARY

S and C Hazledine are currently undertaking resource planning work to change the landuse of Lot 4 Deposited Plan 407786, located on Slopehill Road in the Wakatipu Basin (the site). The site has been owned by the Hazledine family since mid-2012. Since the time of purchase the site has been an unsealed grassed area with an artificial pond and storage sheds in the southwest corner. Historically the property was part of a larger farm operation which may have stored chemicals and fuel and also contain a sheep dip. Furthermore there is the possibility that persistent pesticides were applied to the property when managed as a farm. These activities are all included on the Hazardous Activities and Industries List (HAIL). Given the site may have been exposed to hazardous activities the site is subject to the provisions of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES), should landuse change or subdivision of the site be proposed. Given the farming history of the site the NES requires an assessment of risks to human health that may be associated with the change in landuse activities.

In order to meet the requirements of the NES the S and C Hazledine commissioned Davis Consulting Group Limited (DCG) to undertake a Preliminary Site Investigation (PSI) to review the landuse history of the site, identify any potential contaminant risks and consider the risk to human health from the proposed landuse change.

The following scope of work was undertaken in order to address the objectives of the PSI:

- Review the site history;
- Completion of interview with the site owner;
- Completion of a site inspection to examine the condition of the property and potential risks to the environment;
- Consideration of the risk to human health based on the proposed landuse change of the site;
- Collection of a total of four surface soil samples from four sampling locations (one per location) and the submission of all samples to Hill Laboratories (IANZ accredited laboratory) for the analysis of heavy metals and organochlorine pesticides.
- Preparation of a PSI report that is in accordance with MfE Contaminated Land Management Guideline (CLMG) No. 1 (MfE, 2003a) and suitable for submission to Lakes Environmental to support the landuse change application.





Based on the outcomes of the PSI, the following conclusions are made:

- S and C Hazledine are currently undertaking resource planning work to build a residential house on Slope Hill Road. Building a house on the site amounts to a change in land use of the property and potentially site triggers the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health;
- Liaison with the owner of the site confirmed the site's current use as a vacant grassed area with an artificial pond and storage sheds in the southwest corner; the site also has a history of farming activity;
- A site walkover of the property concurs with the results of the interview and no obvious areas of surface soil staining were recorded;
- Historical aerial photographs were not obtained as preliminary soil sample tests and a site visit showed no evidence of agrichemical, fertiliser, fuel storage or sheep dip facilities in the vicinity of the site;
- DCG identified the potential contaminants of concern associated with the site from the potential for the historic application of persistent pesticides and trace metals associated with the application of fertiliser;
- The organochlorine pesticide and heavy metal levels were reported either below laboratory detection limits, below the adopted SGVs;

In summary the PSI has identified historical activities that may have impacted the soil quality of the site. Based on the results of the Preliminary Site Investigation, DCG concludes it is highly unlikely that there is a risk to human health from the Hazledine family's proposed land use change.



## **1.0 INTRODUCTION**

### **1.1 Purpose**

The Hazledine family is currently undertaking resource planning work to change the landuse of Lot 4 Deposited Plan 407786, located on Slopehill Road in the Wakatipu Basin (the site). Historically the property was part of a larger farm operation which may have stored chemicals and fuel and also contain a sheep dip. Furthermore there is the possibility that persistent pesticides were applied to the property when managed as a farm. These activities are all included on the Hazardous Activities and Industries List (HAIL). Given the site may have been exposed to hazardous activities the site is subject to the provisions of the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health (NES), should landuse change of the site be proposed. Given the history of the site the NES requires an assessment of risks to human health that may be associated with the change in landuse activities.

In order to meet the requirements of the NES the Hazledine family commissioned Davis Consulting Group Limited (DCG) to undertake a Preliminary Site Investigation (PSI) to review the landuse history of the site, identify any potential contaminant risks and consider the risk to human health from the proposed landuse change.

### **1.2 Scope of Work**

The scope of work completed during the PSI included the following:

- Review the site history;
- Completion of interview with site owner;
- Completion of a site inspection to examine the condition of the property and potential risks to the environment;
- Consideration of the risk to human health based on the proposed landuse change of the site;
- Collection of a total of four surface soil samples from four sampling locations (one per location) and the submission of all samples to Hill Laboratories (IANZ accredited laboratory) for the analysis of heavy metals and organochlorine pesticides.
- Preparation of a PSI report in accordance with MfE Contaminated Land Management Guideline No. 1 (MfE, 2003a) and suitable for submission to Lakes Environmental to support the landuse change application.



### **1.3 Limitations**

The findings of this report are based on the Scope of Work outlined above. DCG performed the services in a manner consistent with the normal level of care and expertise exercised by members of the environmental science profession. No warranties, express or implied, are made. Subject to the Scope of Work, DCG's assessment is limited strictly to identifying the risk to human health based on the historical activities on the site. The confidence in the findings is limited by the Scope of Work.

The results of this assessment are based upon site inspections conducted by DCG personnel, information from interviews with people who have knowledge of site conditions and information provided in previous reports. All conclusions and recommendations regarding the properties are the professional opinions of DCG personnel involved with the project, subject to the qualifications made above. While normal assessments of data reliability have been made, DCG assumes no responsibility or liability for errors in any data obtained from regulatory agencies, statements from sources outside DCG, or developments resulting from situations outside the scope of this project.



## 2.0 SITE LOCATION AND DESCRIPTION

### 2.1 Site Location

The site is located on Slopehill Road, in the Wakatipu Basin and legally described as Lot 4 Deposited Plan 407786 (see Figure 1). The area of the site is approximately 4 hectares.

Coordinates for the site are E 2177485, N 5572753.



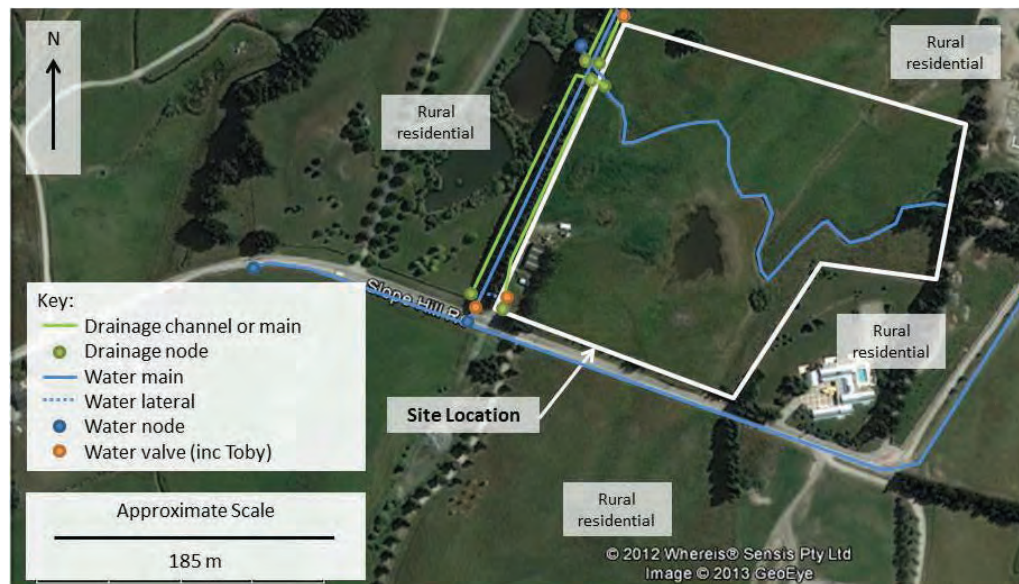
**Figure 1:** Site Location Plan.



## 2.2 Site Description and Surrounding Environment

Figure 2 presents a site plan showing the current layout of the site for the proposed landuse change and the most recent landuse of the neighbouring properties. The site is currently an unsealed grassed area with an artificial pond and storage sheds in the southwest corner.

The landuse adjacent to the site is rural residential. The site is zoned in the Rural General Zone (RGN) in the Queenstown Lakes District Plan.



**Figure 2:** Site Layout Plan.

## 2.3 Site History

### 2.3.1 Chronological List of Site Ownership and Uses

Previously the land was owned by Slopehill Properties Ltd and then the Hazledine family since mid-2012. As far as DCG has been able to determine, historically the land was most likely farmed as part of a larger farming operation and subsequently subdivided and managed as a vegetated vacant lot. The historical certificate of title is located in Appendix A.

In the 1930s-40s the site was most likely part of Turners Farm (McDonald 2010).

### 2.3.2 Historical Aerial Photo Review

Historical aerial photographs were not obtained as indicative soil sample tests and a site visit showed no evidence of agrichemical, fertiliser, fuel storage or sheep dip facilities in the vicinity of the site.

## 2.4 **Contaminants Commonly Associated with the Landuse**

Based on the Contaminated Land Management Guidelines Schedule B the hazardous substances that may be associated with the former use of the site for farming activities include a range of organochlorine pesticides and trace metals associated with the application of fertilisers.

## 2.5 **Geology and Hydrogeology**

The subject site is situated between Lake Hayes and the Shotover River within the Wakatipu Basin, on a geology of till (Turnbull, 2000), which is unsorted glacial sediment. The surface soils were described during the collection of soil samples for the PSI; see Appendix B for the soil profile logs. The surface soil is described as a brown/grey clay loam with angular (sub-rounded) schist gravels.

### *Hydrogeology*

The site investigation did not include a groundwater assessment. The site is located within the Wakatipu Basin Aquifer (ORC, 2012) and understood to be within an undescribed Groundwater Zone. Groundwater level at site is unknown but is understood to be above 361 metres above mean sea level (Rekker J.H., in press).

### *Hydrology*

There is an artificial pond on site and other artificial ponds on surrounding properties. However, the nearest natural surface water body is Lake Hayes, approximately 1.5 km from the site. The location of groundwater bores within a two kilometre radius of the site (held by the Otago Regional Council) is provided in Appendix C. A total of 34 bores have been drilled within 2 km of the site, just under three quarters of the bores are used for domestic purposes, with the remaining used for either scheme, irrigation, stockwater, monitoring or geological investigations.

## 2.6 **Additional Reporting Requirements**

The CLMG No 1 requires information associated with fuel storage facilities, spill loss history, recorded discharges and onsite and offsite disposal locations. There are no fuel storage facilities



on site. DCG requested a search of the Otago Regional Council (ORC) records for Landuse and Site Contamination Status, Resource Consents, and Resource Management Act (RMA) incidents, for the site. The ORC held no information for the site under any of the three categories above.

## **2.7 Integrity Assessment**

The information supplied herein is based on a site visit and interviews with the site owner. It is likely that the people interviewed may have forgotten some of the activities, procedures and hazardous substances that potentially occurred on or adjacent to the site. Notwithstanding this point, the information provided in the interviews is consistent with the current activities and it is most likely that the facts provided in the interviews are correct.

## **2.8 Site Condition and Surrounding Environment**

### **2.8.1 Site Condition**

The site is an unsealed grassed area vegetated with short exotic pasture grass species with an artificial pond and storage sheds in the southwest corner.

The following provides a summary of information that the CLMG No. 1 (MfE, 2003a) indicates should be included in a PSI report:

- Presence of Drums – No drums recorded during the site visit.
- Wastes – no wastes were noted.
- Fill Materials – imported fill material, see Plate 1 below.
- Odours – No odours of noted.
- Flood Risk – due to the height of the land above the level of the Shotover River the flood risk is very low.
- Surface Water Quality – unknown....surface water of the artificial pond was not tested or necessary for the purposes of the PSI.
- Site boundary condition – The site boundaries appear to be in typical rural condition with hedgerows present. The neighbouring landuses are all either rural or rural residential.
- Visible Signs of Contamination – no visible signs of contamination.
- Local Sensitive Environments – the nearest sensitive environments to the site are Lakes Hayes approximately 1.5 km from the site, and the Shotover River, approximately 2.5 km from the site.



The storage sheds located in the southwest corner are shown in Plate 2. The proposed house site is presented in Plate 3.



**Plate 1:** the area of imported fill on site.



**Plate 2:** Storage sheds in the southwest corner of the site.





**Plate 3:** Proposed house site (neighbouring house in background).

### **3.0 SITE CHARACTERISATION**

#### **3.1 Contaminants Present and Likely Extent**

Hazardous substances that may be associated with former use of the site for farming activities include a range of organochlorine pesticides and trace metals associated with the application of fertilisers.

#### **3.2 Exposure Routes and Receptors**

The receptors associated with the site include any people present on the site.

People may be exposed to potential contaminants through the following:

- Direct exposure to the soil via dermal contact or ingestion;
- Inhalation of dust that may contain contaminants and/or soil vapour; and
- Ingestion through eating of vegetables grown on the site

Given the proposed use of the site is rural residential, there is a risk of exposure to contaminants that may be held within the surface soils.

Given the proposed purpose of the site is rural residential DCG concluded that to support the PSI some surface soil samples should be collected to provide an indication of contaminants concentrations that may be present in the sites soils.



## 4.0 SAMPLING AND ANALYSIS PLAN

### 4.1 Sampling and Analysis Plan

In order to support the site investigation DCG considered some analysis of the soil quality was necessary. The data quality objectives (DQOs) of the sampling and analysis exercise were to determine if the sites soils were suitable for rural residential landuse.

Figure 3 presents the location of the soil samples collected during the site investigation. From each sampling location one sample was taken at a depth of 0 to 0.2 m (surface sample). The sampling depth was considered appropriate due to the nature of the potential contaminants present such as organochlorine pesticides and heavy metals, which generally bind strongly to soils and are unlikely to leach to significant depths. Furthermore, the nature of rural residential activities will most likely be associated with activities on the soils surface rather than at any depth.



**Figure 3:** Soil Sampling Location Plan.

### 4.2 Soil Sampling Methodology

Soil sampling was undertaken with the use of a spade. The following procedures were applied during the soil sampling process to gain representative samples:

- Field personnel wore a fresh pair of nitrile gloves between sampling events.



- Soil samples were transferred to 250 mL glass jars with Teflon lids as supplied by Hill Laboratories.
- All soil samples were unambiguously marked in a clear and durable manner to permit clear identification of all samples in the laboratory.
- All samples were immediately placed in a cooled chilly bin to reduce the potential for volatilisation of should volatile contaminants be present.

Upon completion of sampling, each sampling location was backfilled.

### **4.3 Analytical Parameters**

The laboratory analytical suite determined for the site investigation is in recognition of our understanding of the current and historical use of the subject site. DCG understands the site was historically farmed, thus the following hazardous substances were analysed for their presence on site:

- Heavy metals and organochlorine pesticides (including 4,4-DDE, 2,4-DDT and Dieldrin).

The laboratory methods utilised for the analysis are provided in the laboratory report (see Appendix D).

### **4.4 Soil Guideline Values**

Soil guideline values (SGVs) selected for application on this project are provided in Table 1. The selection of these guidelines is consistent with the principles of the Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values (MfE, 2003b).

The heavy metal and organochlorine pesticide soil guideline values adopted for the site assessment were based on either the “New Zealand Soil Contaminant Standards” (set out in the NES) or the National Environmental Protection (Assessment of Site Contamination) Measure (1999). The NES provides SGVs for a range of landuses with rural residential/lifestyle landuse selected for the purposes of this investigation. Where the National Environmental Protection Measures (1999) were adopted the most conservative values were selected for the purposes of this assessment.





**Table 1: Soil Guidelines**

Analyse	Guideline
Heavy Metals and multiresidue pesticides	<ol style="list-style-type: none"><li>1. Appendix B Soil Contaminant Standards <i>in</i> New Zealand 'Users' Guide: NES for Assessing &amp; Managing Contaminants in Soil to Protect Human Health 2012.</li><li>2. Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater <i>in</i> National Environment Protection (Assessment of Site Contamination) Measure 1999'.</li></ol>

#### **4.5 Soil Sample Field and Laboratory QA/QC**

The field QA/QC procedures performed during the soil sampling are listed as follows:

- Use of standardised field sampling forms and methods;
- Samples were transferred under chain of custody procedures;
- All samples were labelled to show point of collection, project number, and date;
- Headspace in sample jars was avoided;
- The threads on the sampling jars were cleaned to avoid VOC loss;
- All samples were stored in a cooled chilly bin containing ice while in the field.

All soil samples were couriered to Hills Laboratories within a day of collection. Hills have IANZ accreditation for the analysis of heavy metals and pesticides. Hills conduct internal QA/QC in accordance with IANZ requirements.

#### **4.6 Soil Analytical Result Review**

Following the receipt of laboratory data, a detailed review of the data was performed to determine its accuracy and validity. All laboratory data was checked for analytical and typographical errors.

Once the data quality was established the soil data was checked against the Sampling Program DQOs.



## 5.0 INVESTIGATION RESULTS

### 5.1 Analytical Results

The soil sample locations are provided in Figure 3 and summarised in Table 2 below.

**Table 2:** Soil Sample Summary Table

Sample Identification	Sample Depth (m)	Analysis	Notes
SS1 (0.1)	0 – 0.1	Heavy metals & organochlorine pesticides	Surface sample
SS2 (0.1)	0 – 0.1	Heavy metals & organochlorine pesticides	Surface sample
SS3 (0.1)	0 – 0.1	Heavy metals & organochlorine pesticides	Surface sample
SS4 (0.1)	0 – 0.1	Heavy metals & organochlorine pesticides	Surface sample

#### 5.1.1 Heavy Metal Results

All heavy metal results were either reported below laboratory detection limits, below the New Zealand Soil Contaminant Standards SGVs or below the Schedule B (1) Guideline on the Investigation Levels for Soil and Groundwater SGVs. The results have not been presented within the document but can be viewed in the laboratory report in Appendix D.

#### 5.1.2 Organochlorine Pesticide Results

The organochlorine pesticide results are provided in the laboratory report provided in Appendix D. In summary the results show the following:

- Total DDT concentrations in all surface soil samples range between < 0.010 and 0.094 mg/kg and are significantly below the soil guideline values of 45 mg/kg;
- 4,4'-DDE concentrations ranged between <0.010 mg/kg and 0.24 mg/kg and are below the human health guidelines of 200 mg/kg; and



- All other organochlorine pesticide concentrations were reported either below laboratory detection limits or below the SGVs (see Table 1).

The results have not been presented within the document but can be viewed in the laboratory report in Appendix D.

## **5.2 QA/QC Results**

### **5.2.1 Field Duplicates**

No field duplicates were collected.

### **5.2.2 Laboratory Procedures**

Hills Laboratories did not complete specific in-house QA/QC analysis such as spike recoveries or laboratory duplicates during the processing of the soil samples. The Chain of Custody form and the Hills Laboratory results are provided in Appendix D.



## 6.0 SUMMARY AND CONCLUSIONS

Based on the Preliminary Site Investigation described in the previous sections of this report, DCG makes the following findings:

- S and C Hazledine are currently undertaking resource planning work to build a residential house on Slope Hill Road. Building a house on the site amounts to a change in landuse of the property and potentially site triggers the National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health;
- Liaison with the owner of the site confirmed the site's current use as a vacant grassed area with an artificial pond and storage sheds in the southwest corner; the site also has a history of farming activity;
- A site walkover of the property concurs with the results of the interview and no obvious areas of surface soil staining were recorded;
- Historical aerial photographs were not obtained as preliminary soil sample tests and a site visit showed no evidence of agrichemical, fertiliser, fuel storage or sheep dip facilities in the vicinity of the site;
- DCG identified the potential contaminants of concern associated with the site from the potential for the historic application of persistent pesticides and trace metals associated with the application of fertiliser;
- The organochlorine pesticide and heavy metal levels were reported either below laboratory detection limits, below the adopted SGVs;

In summary the PSI has identified historical activities that may have impacted the soil quality of the site. Based on the results of the Preliminary Site Investigation, DCG concludes it is highly unlikely that there is a risk to human health from the Hazledine family's proposed landuse change.





## 7.0 REFERENCES

McDonald, B. (2010). *Queenstown's Farms and Sheep Stations – Families That Farmed the Land*. Self-published.

Ministry for the Environment (2003a). *Contaminated Land Management Guidelines No. 1: Reporting on Contaminated Sites in New Zealand*.

Ministry for the Environment (2003b) *Contaminated Land Management Guidelines No. 2: Hierarchy and Application in New Zealand of Environmental Guideline Values*.

Ministry for the Environment (2012). *Users' Guide: National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health*. Wellington: Ministry for the Environment.

National Environment Protection Council (NEPC) (1999) *National Environment Protection (Assessment of Site Contamination) Measure - Schedule B(1) Guideline on Investigation Levels for Soil and Groundwater*. National Environment Protection Council.

Otago Regional Council (2012). *Regional Plan: Water for Otago*. Updated to 1 March 2012. Otago Regional Council.

Otago Regional Council (no date of publication). *Technical report advising Proposed Plan Change 6A Officer's Report of Decisions Requested - Assessment of Nitrogen Sensitive Zone loading limits: Modelling of Kakanui – Kauru, Ettrick, and Lower Taieri nitrogen accumulation sensitivity*. Otago Regional Council.

Rekker, J.H. (in press) Wakatipu Basin Groundwater Allocation Review. Otago Regional Council - unpublished.

Turnbull, I.M. (compiler) (2000). *Geology of the Wakatipu area*. Institute of Geological & Nuclear Sciences 1:250 000 geological map 18. 1 sheet + 72 p. Lower Hutt, New Zealand. Institute of Geological & Nuclear Sciences Ltd.



## Appendices

Appendix A  
Historical Certificate of Title



# COMPUTER FREEHOLD REGISTER UNDER LAND TRANSFER ACT 1952



  
R. W. Muir  
Registrar-General  
of Land

## Historical Search Copy

**Identifier** 427402  
**Land Registration District** Otago  
**Date Issued** 06 November 2009

### Prior References

103859

---

<b>Estate</b>	Fee Simple
<b>Area</b>	4.0000 hectares more or less
<b>Legal Description</b>	Lot 4 Deposited Plan 407786

### Original Proprietors

Slopehill Properties Limited

### Interests

Subject to a right (in gross) to convey water over part marked r-o on DP 407786 in favour of Arrowtown Irrigation Company Limited created by Transfer 843703 - 1.12.1993 at 9:23 am  
5799639.5 Mortgage to (now) Westpac New Zealand Limited - 14.11.2003 at 9:00 am  
7025698.1 Variation of Mortgage 5799639.5 - 12.9.2006 at 9:00 am  
7701264.1 Variation of Mortgage 5799639.5 - 4.2.2008 at 9:00 am  
8243173.4 Consent Notice pursuant to Section 221 Resource Management Act 1991 - 6.11.2009 at 11:32 am  
Appurtenant hereto is a right of way, right to convey water, electricity, telecommunication cables and computer media created by Easement Instrument 8243173.5 - 6.11.2009 at 11:32 am  
The easements created by Easement Instrument 8243173.5 are subject to Section 243 (a) Resource Management Act 1991  
Land Covenant in Easement Instrument 8783335.1 - 23.6.2011 at 9:22 am  
8827893.1 Discharge of Mortgage 5799639.5 - 29.7.2011 at 10:44 am  
Land Covenant in Easement Instrument 9084160.1 - 18.6.2012 at 4:45 pm  
9084160.2 Transfer to Sam Bolton Hazledine and Claire Elliott Hazledine - 18.6.2012 at 4:45 pm  
9084160.3 Mortgage to Westpac New Zealand Limited - 18.6.2012 at 4:45 pm



Appendix B  
Soil Profile Logs

# SOIL PROFILE LOG



PROJECT NUMBER:	12042	WEATHER:	Fine
SITE NAME:	Hazledine	METHOD:	Spade
SAMPLING AREA:	House site	TOTAL DEPTH (mbgl):	0.1
SAMPLING LOCATION ID:	SS1	REFUSAL (Y/N):	N
SCIENTIST(S):	GD	FILL PRESENT (Y/N)	Y
DATE:	6/12/2012	DEPTH TO WATER (mbgl)	-
TIME:	-		
QA/QC SAMPLE IDs:			

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION (Colour, Texture, SOIL TYPE)	SAMPLE ID	INTERVAL (m)
0 - 0.1	Brown/grey clay loam with angular (sub-rounded) schist gravels.	SS1 (0.1)	

FURTHER COMMENTS:

# SOIL PROFILE LOG



PROJECT NUMBER:	12042	WEATHER:	Fine
SITE NAME:	Hazledine	METHOD:	Spade
SAMPLING AREA:	House site	TOTAL DEPTH (mbgl):	0.1
SAMPLING LOCATION ID:	SS2	REFUSAL (Y/N):	N
SCIENTIST(S):	GD	FILL PRESENT (Y/N)	Y
DATE:	6/12/2012	DEPTH TO WATER (mbgl)	-
TIME:	-		
QA/QC SAMPLE IDs:			

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION (Colour, Texture, SOIL TYPE)	SAMPLE ID	INTERVAL (m)
0 - 0.1	Brown/grey clay loam with angular (sub-rounded) schist gravels.	SS2 (0.1)	

FURTHER COMMENTS:

# SOIL PROFILE LOG



PROJECT NUMBER:	12042	WEATHER:	Fine
SITE NAME:	Hazledine	METHOD:	Spade
SAMPLING AREA:	Imported fill area	TOTAL DEPTH (mbgl):	0.1
SAMPLING LOCATION ID:	SS3	REFUSAL (Y/N):	N
SCIENTIST(S):	GD	FILL PRESENT (Y/N)	Y
DATE:	6/12/2012	DEPTH TO WATER (mbgl)	-
TIME:	-		
QA/QC SAMPLE IDs:			

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION (Colour, Texture, SOIL TYPE)	SAMPLE ID	INTERVAL (m)
0 - 0.1	Brown/grey clay loam with angular (sub-rounded) schist gravels.	SS3 (0.1)	

FURTHER COMMENTS:



# SOIL PROFILE LOG

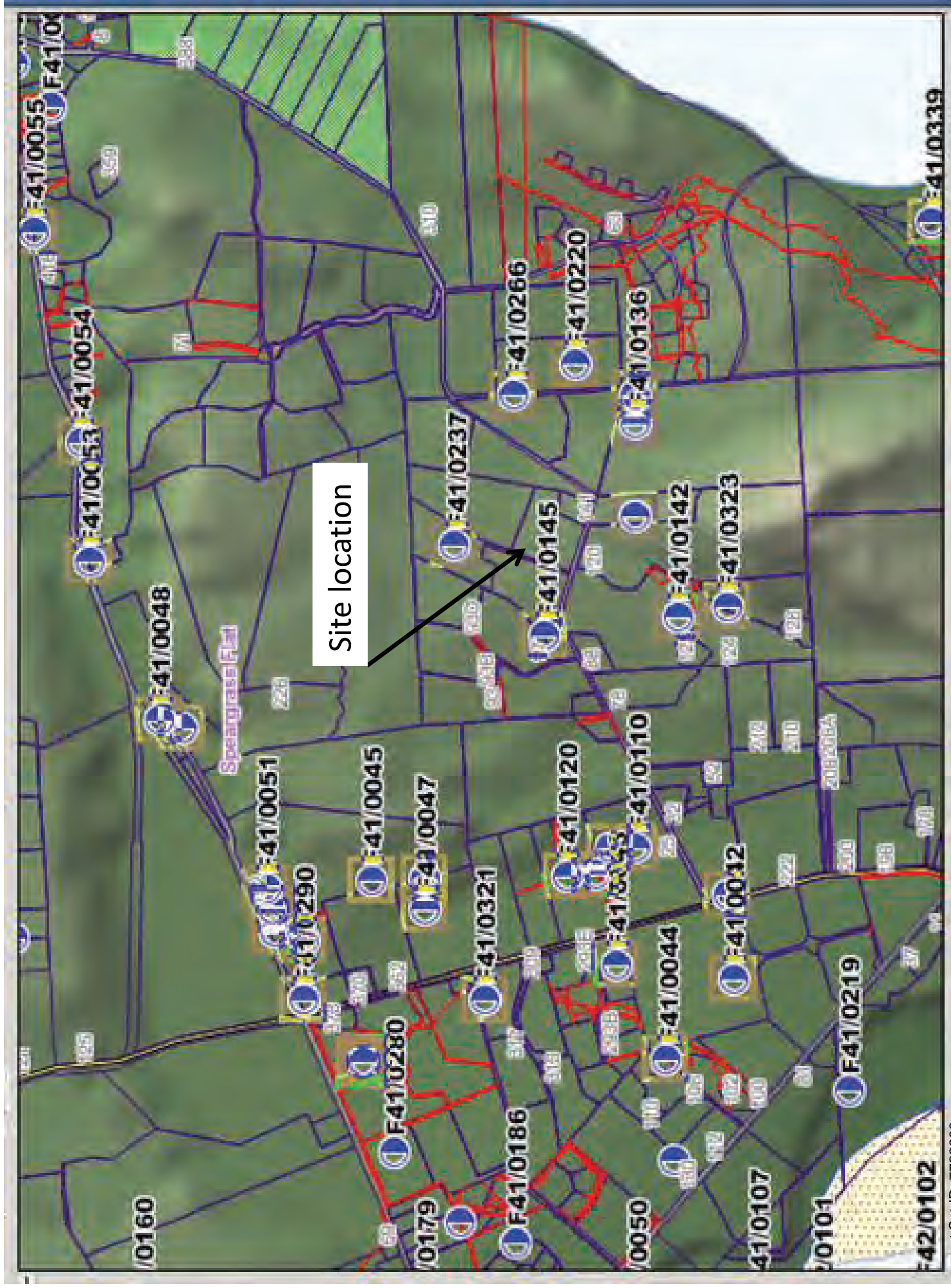


PROJECT NUMBER:	12042	WEATHER:	Fine
SITE NAME:	Hazledine	METHOD:	Spade
SAMPLING AREA:	Shed	TOTAL DEPTH (mbgl):	0.1
SAMPLING LOCATION ID:	SS4	REFUSAL (Y/N):	N
SCIENTIST(S):	GD	FILL PRESENT (Y/N)	Y
DATE:	6/12/2012	DEPTH TO WATER (mbgl)	-
TIME:	-		
QA/QC SAMPLE IDs:			

SOIL PROFILE		SAMPLE DATA	
DEPTH (m)	SOIL DESCRIPTION (Colour, Texture, SOIL TYPE)	SAMPLE ID	INTERVAL (m)
0 - 0.1	Brown/grey clay loam with angular (sub-rounded) schist gravels.	SS4 (0.1)	

FURTHER COMMENTS:

Appendix C  
Bore Search Information



## Appendix D

Laboratory analytical certificate and results, and chain of custody documentation



Document Set ID: 7722600  
Version: 1, Version Date: 16/08/2023



## Job Information Summary

Page 1 of 1

<b>Client:</b>	Davis Consulting Group Limited	<b>Lab No:</b>	1078883
<b>Contact:</b>	G Davis	<b>Date Registered:</b>	08-Dec-2012 6:21:43 am
	C/- Davis Consulting Group Limited	<b>Priority:</b>	Normal
	PO Box 2450	<b>Quote No:</b>	
	Wakatipu	<b>Order No:</b>	
	QUEENSTOWN 9349	<b>Client Reference:</b>	Slopehill Road, Wakatipu
		<b>Add. Client Ref:</b>	
		<b>Submitted By:</b>	Rebecca Lawrence
		<b>Charge To:</b>	Davis Consulting Group

### Samples

No	Sample Name	Sample Type	Containers	Tests Requested
1	SS1 (0.1) 06-Dec-2012	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn; Organochlorine Pesticides Screening in Soil
2	SS2 (0.1) 06-Dec-2012	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn; Organochlorine Pesticides Screening in Soil
3	SS3 (0.1) 06-Dec-2012	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn; Organochlorine Pesticides Screening in Soil
4	SS4 (0.1) 06-Dec-2012	Soil	GSoil300	Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn; Organochlorine Pesticides Screening in Soil

## SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Samples
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-4
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	-	1-4
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	-	1-4
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-4

# ANALYSIS REPORT

Page 1 of 2

<b>Client:</b>	Davis Consulting Group Limited	<b>Lab No:</b>	1078883	SPv1
<b>Contact:</b>	G Davis	<b>Date Registered:</b>	08-Dec-2012	
	C/- Davis Consulting Group Limited	<b>Date Reported:</b>	14-Dec-2012	
	PO Box 2450	<b>Quote No:</b>		
	Wakatipu	<b>Order No:</b>		
	QUEENSTOWN 9349	<b>Client Reference:</b>	Slopehill Road, Wakatipu Ba:	
		<b>Submitted By:</b>	Rebecca Lawrence	

Sample Type: Soil						
Sample Name:		SS1 (0.1)	SS2 (0.1)	SS3 (0.1)	SS4 (0.1)	
Lab Number:		06-Dec-2012	06-Dec-2012	06-Dec-2012	06-Dec-2012	
		1078883.1	1078883.2	1078883.3	1078883.4	
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn						
Total Recoverable Arsenic	mg/kg dry wt	9	9	11	10	-
Total Recoverable Cadmium	mg/kg dry wt	0.13	< 0.10	< 0.10	< 0.10	-
Total Recoverable Chromium	mg/kg dry wt	11	10	9	12	-
Total Recoverable Copper	mg/kg dry wt	9	12	19	13	-
Total Recoverable Lead	mg/kg dry wt	14.6	14.5	19.2	17.1	-
Total Recoverable Nickel	mg/kg dry wt	8	9	12	12	-
Total Recoverable Zinc	mg/kg dry wt	49	51	50	68	-
Organochlorine Pesticides Screening in Soil						
Aldrin	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
alpha-BHC	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
beta-BHC	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
delta-BHC	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
gamma-BHC (Lindane)	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
cis-Chlordane	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
trans-Chlordane	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Total Chlordane [(cis+trans)* 100/42]	mg/kg dry wt	< 0.04	< 0.04	< 0.04	< 0.04	-
2,4'-DDD	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
4,4'-DDD	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
2,4'-DDE	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
4,4'-DDE	mg/kg dry wt	0.24	0.096	< 0.010	< 0.010	-
2,4'-DDT	mg/kg dry wt	0.024	< 0.010	< 0.010	< 0.010	-
4,4'-DDT	mg/kg dry wt	0.094	0.012	< 0.010	< 0.010	-
Dieldrin	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endosulfan I	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endosulfan II	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endosulfan sulphate	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endrin	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endrin Aldehyde	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Endrin ketone	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Heptachlor	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Heptachlor epoxide	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Hexachlorobenzene	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-
Methoxychlor	mg/kg dry wt	< 0.011	< 0.010	< 0.010	< 0.010	-

# SUMMARY OF METHODS

The following table(s) gives a brief description of the methods used to conduct the analyses for this job. The detection limits given below are those attainable in a relatively clean matrix. Detection limits may be higher for individual samples should insufficient sample be available, or if the matrix requires that dilutions be performed during analysis.

Sample Type: Soil			
Test	Method Description	Default Detection Limit	Samples
Environmental Solids Sample Preparation	Air dried at 35°C and sieved, <2mm fraction. Used for sample preparation. May contain a residual moisture content of 2-5%.	-	1-4
Heavy metal screen level As,Cd,Cr,Cu,Ni,Pb,Zn	Dried sample, <2mm fraction. Nitric/Hydrochloric acid digestion, ICP-MS, screen level.	-	1-4
Organochlorine Pesticides Screening in Soil	Sonication extraction, SPE cleanup, dual column GC-ECD analysis (modified US EPA 8082).. Tested on dried sample	-	1-4
Total Recoverable digestion	Nitric / hydrochloric acid digestion. US EPA 200.2.	-	1-4

These samples were collected by yourselves (or your agent) and analysed as received at the laboratory.

Samples are held at the laboratory after reporting for a length of time depending on the preservation used and the stability of the analytes being tested. Once the storage period is completed the samples are discarded unless otherwise advised by the client.

This report must not be reproduced, except in full, without the written consent of the signatory.



Carole Rodgers-Carroll BA, NZCS  
Client Services Manager - Environmental Division





Ref: 22056

9 June 2023

Kim Banks

c/o Brown and Company

Dear Kim,

### **RE: 123 Slopehill Road Consent Application Preliminary Site Investigation – Request for Information**

e3scientific Limited have reviewed the Preliminary Site Investigation completed in 2013 for 123 Slopehill Road. The only activity identified during the investigation with the potential to impact soil quality was the broadacre application of organochlorine pesticides and fertilisers associated with historic pastoral activity. In 2013 data was not available to understand the impact of this activity on soil quality. We therefore routinely collected soil samples to support investigations, especially on sites that were proposed for rural residential activity.

e3Scientific has assessed Organochlorine Pesticides (such as DDT) and cadmium (a contaminant associated with superphosphate) concentrations in soils throughout Otago and Southland. In all investigations, contaminants have only been encountered at elevated concentrations approaching NESCS soil contaminant standards in the vicinity of sheep dips, sheep footbaths, dusting yards and areas of historic agrichemical storage. It is highly unlikely the broadacre application of agrichemicals over the farm have occurred at a rate and intensity that would result in an accumulation of contaminants in concentrations that could present a risk to human health or the environment. As such, this activity is not considered a HAIL activity.

We note that the PSI completed in 2013 did not access aerial photographs to support an assessment of the historical landuse. Historic aerial photographs are

now readily accessible through Retrolens and we have sourced an image from 1956 (See Figure 1). Analysis of this image indicates 123 Slopehill Road was under pastoral landuse management and there was no evidence of farming infrastructure. The aerial photograph provides additional support to the findings of the 2013 PSI.



Figure 1: 1956 Aerial Image (red line shows the boundary of 123 Slopehill Road).

Image source <http://retrolens.nz> and licensed by LINZ CC-BY 3.0 Retrolens

In summary, e3scientific considers the findings of the 2013 PSI are applicable to the whole property and we conclude that there is no evidence of HAIL activity on 123 Slopehill Road.

If you have any questions regarding the information provided herein, please contact Glenn Davis at [glenn.davis@e3scientific.co.nz](mailto:glenn.davis@e3scientific.co.nz) or 027 3766588.

Yours sincerely,



Glenn Davis  
Managing Director

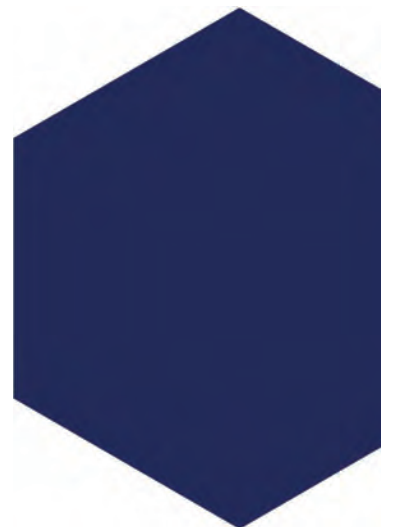
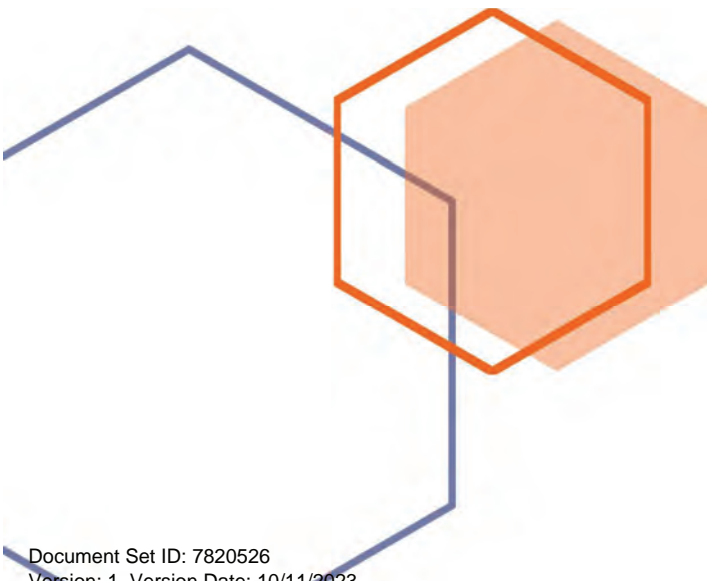


# Environmental Management Plan (Rev A)

123 Slopehill Road

November 2023

enviro**scope**



Document Control	
Title	Environmental Management Plan
Address	123 Slopehill Road, Lake Hayes, Queenstown
Consent Number	TBC
Client	Claire and Sam Hazeldine
Our Reference	23090
Prepared by	  <p><b>Tom Grandiek</b> (BAppSc, CEnvP) Senior Environmental Consultant</p>

Document Control			
Revision	Revision Date	Revision Details	Prepared by
A	3/11/2023	Prepare EMP and ESCP	TG



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Appendix 8	Environmental Non-Conformance Register
Appendix 9	Water Quality Monitoring Results Form
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#### Disclaimer

Enviroscope has exercised due skill, care, and attention in preparing this EMP on the basis of their understanding of the subject site through their own site visits as well as information provided by the client and its consultants. Enviroscope has no control over the physical actions, detailed design, equipment, services, and methodologies undertaken by the client or other third parties tasked with implementing Enviroscope's instructions or recommendations. Enviroscope does not accept any responsibility for any environmental incidents or other defects of control measures if there is any departure or variance from the measures detailed in this EMP and any supporting documentation.

## Emergency Contacts

Contact made with any of the following shall be undertaken with due consultation of the Environmental Representative or Project Manager.

Element	Emergency Contact	Details
Pollution incident	Otago Regional Council (ORC) Spill Hotline	0800 800 033 compliance@orc.govt.nz
Environmental complaint	Environmental Representative	TBC
Discovery of contaminated land	Environmental Representative	
Unexpected heritage finds	Environmental Representative	
Human remains	New Zealand Police	111
Fire including bushfire	Fire and Emergency New Zealand (FENZ)	111
Public utilities	Queenstown Lakes District Council (QLDC)	(03) 441 0499 rcmonitoring@qldc.govt.nz
Internal contacts	Project Manager	TBC
Internal contacts	Environmental Consultant	Tom Grandiek Enviroscope 0272633113

## 1.0 INTRODUCTION

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### 1.1 Purpose and Scope

On behalf of Claire and Sam Hazeldine, Enviroscope has prepared this Environmental Management Plan (EMP) for the development of a three-bay shed containing a residential flat, accessory building and the associated earthworks including the hard piping of a section of the Arrow Irrigation Race. This EMP aims to reduce the effects of the project's construction activities on the environment and sensitive receptors.

This EMP is prepared according to the Queenstown Lakes District Council (QLDC) *QLDC Guidelines for Environmental Management Plans, June 2019* (EMP Guidelines). It is considered to have a 'Medium' environmental risk level as per the risk categories outlined in the EMP Guidelines.

The purpose of this EMP is to be an effective and practical reference manual for construction personnel that applies to all project activities during the construction phase and includes the following:

- Strategies to manage environmental aspects and risks, based on associated best practice.
- Provides for contingency planning.
- Provides a framework for monitoring, reporting, review, and continual improvement.
- Defines roles and responsibilities.
- Procedures to investigate and resolve environmental non-conformances and initiate corrective and preventative actions.

An overview of the project and sequencing can be found in the construction methodology at Section 2.0.

### 1.2 Site Overview

The site is located at 123 Slopehill Road, Lake Hayes, Queenstown. The site covers a total area of four hectares, with existing consented buildings and infrastructure. An irrigation race, which is a secondary race ('Strains Race') of the Arrow Irrigation Race, intersects the property moving from east-west, as open channel and as piped sections.

The site consists of predominantly flat topography, falling gently towards the northeast with some natural hummocky depressions. The vegetation of the site is predominantly pasture utilised for grazing stock and general landscaping surrounding the buildings. The site is accessed via a shared driveway to the southwest corner of the site. The surrounding land use is rural residential with residential dwellings situated to the northwest, north, northeast and east ranging from distances between 30 and 130m from the site boundary.

This is shown in **Figure 1** below.





Figure 1: Location of the site (Source: QLDC GIS).

### 1.2.1 Soils and Geotechnical Summary

A geotechnical report has been prepared by Ground Consulting Limited (GCL) dated March 2023 which details site investigations and reports on the geotechnical conditions including drainage potential. *“The report notes that the general subsurface conditions consist of topsoil overlaying Alluvium, overlying Glacial Deposits (Till), overlying weathered Schist and Competent Schist. The Alluvium is described to be light brown silty SAND and Glacial Till as light grey silty Sand with minor gravel and cobbles. Groundwater was not encountered in any of the six mechanically excavated test pit investigations up to a depth of 1.6m. However, the report concluded that groundwater may be encountered in the interface between overlying Glacial Till and underlying Schist following a significant rain event or during the wetter months of the year”.*

### 1.2.2 Summary of Earthworks

There are two phases of earthworks. The first requires the formation of a new trench alignment to pipe a 60 m section of the currently open channel water race. The proposed piped water race requires 58 m<sup>3</sup> of cut to 48 m<sup>3</sup> of back fill over a 58 m<sup>2</sup> area. The existing open channel portion of the water race will then be backfilled with 200 m<sup>3</sup> of fill over 131 m<sup>2</sup>. **Section 2.1** of the EMP details the construction methodology required for these works.

Earthworks cut to fill is required to form level building platforms and consistent landscape shaping for the new buildings. A total of approximately 75 m<sup>3</sup> of cut and 650 m<sup>3</sup> of fill required. The maximum area exposed at any one time is expected to be 1887 m<sup>2</sup>. A total of 1031 m<sup>3</sup> of material will be excavated across both phases of earthworks. The extent of earthworks is depicted on the Erosion and Sediment Control (ESCP) drawing in **Appendix 1**.

### 1.3 Associated Resource Consents

This EMP has been prepared to ensure that all relevant conditions of associated resource consents are addressed. Provided the project undertakes its operations in accordance with this EMP, it will comply with the relevant conditions. The resource consents associated with this project are given in **Table 1**.

**Table 1:** Associated resource consents

Resource Consent Number	Related Council	Activity Description	Date of Decision Issue
RM230311	QLDC	To construct a three-bay shed and residential unit with works including diversion of an existing irrigation path.	TBC

### 1.5 Suitably Qualified and Experienced Professional

This EMP has been prepared by Tom Grandiek of Enviroscope Limited. Tom is a certified Environmental Professional (CEnvP) and holds a Bachelor of Applied Sciences degree, majoring in Environmental Management. He spent five years working in RMA compliance with local government. Tom has extensive experience in the preparation and monitoring of EMPs and ESCPs.

Tom meets the criteria of a Suitably Qualified and Experienced Professional (SQEP) for the purposes of preparing this EMP and overseeing the environmental aspects of this project.

## 2.0 CONSTRUCTION METHODOLOGY

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### 2.1 Sequencing of Works

The following sequencing will ensure the earthworks are undertaken efficiently while ensuring good environmental outcomes. This is a preliminary staging methodology and may be subject to change based onsite conditions encountered during construction. This methodology shall be read in conjunction with the Erosion and Sediment Control Plan (ESCP) attached as **Appendix 1**.

#### Preliminary works and site establishment

- Ensure the current EMP is available onsite.
- Complete site induction with Environmental Representative.
- Establish site laydown and stockpile areas.
- Install super silt fencing as per ESCP-001.

#### Stage One - Hard Piping of Water Race

A 60-metre section of the irrigation race which intersects through the property, is proposed to be piped to align with the existing section of the piped water race on the property. This phase of construction (Stage 1) is to be completed initially, prior to bulk earthworks occurring on (Stage 2). The existing open channel section of water race will be maintained while the new section of pipe is trench and embedded into place. Only once the new section of pipe has been laid and connected, will the existing section of channel be backfilled and decommissioned.

The construction methodology set out below has been prepared in accordance with GD05 realignment works best practice methodology's section G4.2.3. A thorough methodology and construction monitoring and contingency programme has been set out to mitigate potential environmental risk for this phase of construction.

- Advise Regulatory Authorities prior to undertaking works of intended commencement dates.
- Review weather forecasting to ensure a dry and clear weather window exists.
- Excavate trench for the new piped section of the water race. Ensure both ends of the new trench alignment maintain and earth plug, so that water from the irrigation race cannot enter the trench.
- Lay engineer designed pipe within the new irrigation race trench. Check culvert is clean and clear of any possible contaminants of pest weed species before placing.
- If possible, have the irrigation race cease or reduce flow rates to allow connection of the two ends of the newly laid pipe, to the existing ends of the pipe.
- Minimise disturbance of in channel sediments as much as practicably possible when removing the plugs, remove sediment from the arrow irrigation race and place away from the channel.
- Use any excess excavated material to fill existing channel when decommissioned. When shaped and levelled, apply topsoil and seed to stabilise finalised surface.

### **Stage Two - Earthworks**

- Scrape topsoil off building platform and stockpile in designated stockpile area.
- Complete cut and fill activity to create building platform.
- Topsoil and revegetate batters immediately on completion.

### **Landscaping and revegetation**

- Undertake final landscaping and revegetation of any remaining exposed areas.

### **Decommissioning**

- Remove erosion and sediment control devices once stabilisation has occurred across the entire site. This is generally defined as 80% vegetative cover.

## **2.2 Hours of Operation**

Construction activities and the associated hours of operation shall comply with *NZS 6803:1999 Acoustics - Construction Noise Guidelines*. Site works may be undertaken between 0730 and 1800 hours, Monday to Saturday. No works are to be undertaken on Sundays or Public Holidays. However, this does not preclude any emergency works or works required for incident investigation or response. Additional detail relating to noise-producing activities are to be undertaken in accordance with Section 7.0 of this EMP.



## **3.0 EMP IMPLEMENTATION**

---

### **3.1 Environmental Roles and Responsibilities**

#### **3.1.1 Project Manager**

The Project Manager is responsible for the effective implementation of the EMP and has overall responsibility for the environmental performance of the project. Duties include:

- Ensuring adequate resources are in place to implement the EMP.
- Ensuring all staff and sub-contractors operate within the guidelines of the EMP.
- Ensuring that an EMP is prepared and that environmental standards, processes and procedures meet relevant resource consent conditions.
- Overseeing the successful implementation, monitoring and review of the EMP.
- Ensuring that inspections are carried out in accordance with the relevant EMP.
- Restricting or stopping any activity that has the potential to or has caused adverse environmental effects.
- Providing notification and reporting of Environmental Incidents to Council and other environmental reports as required by The Guidelines.
- Delegating authority of the above responsibilities.

#### **3.1.2 Environmental Representative**

The Environmental Representative supports the Project Manager in the day-to-day implementation of the EMP. Duties include:

- Ensuring the installation of environmental controls as per the EMP.
- Undertaking environmental site inspections.
- Undertake water quality monitoring during rainfall events.
- Overseeing the maintenance and improvement of defective environmental controls.
- Providing environmental inductions to all staff and sub-contractors.
- Assisting the project leadership in attending to Environmental Incidents and Complaints.

The Environmental Representative shall be familiar with environmental risks associated with the project, the EMP and best practice erosion and sediment control principles and practices.

#### **3.1.3 Environmental Consultant**

The Environmental Consultant (SQEP) will provide technical environmental management advice as required.

#### **3.1.4 All Staff and Sub-Contractors**

All staff and sub-contractors have a responsibility to undertake all activities in accordance with the requirements of this EMP. This includes reporting any activity that has the potential to or has resulted in an Environmental Incident to the Project Manager or Environmental Representative.

### 3.2 Site Environmental Induction

All staff and subcontractors shall attend an Environmental Induction to ensure they are aware of the project's environmental risks as well as their responsibilities to help manage these risks. Prior to ground-disturbing activities, the Environmental Representative will deliver the induction to core staff. During the project, the Environmental Representative will induct subcontractors and new staff.

The site induction handout is attached as **Appendix 3** and all persons inducted will be recorded on the Induction Register attached as **Appendix 4**.

### 3.3 Environmental Inspections

**Table 2** outlines the regular environmental inspections to be undertaken.

**Table 2:** Environmental inspections

Environmental Inspection	Timing	Purpose
Weekly Inspection	Every seven days	<p>A comprehensive environmental inspection will:</p> <ul style="list-style-type: none"> <li>• Confirm that all environmental controls are present, functional, and adequate.</li> <li>• Identify any activities that may cause an environmental incident or actual or potential environmental effects.</li> <li>• Identify maintenance requirements for implemented management measures.</li> </ul> <p>All weekly inspections shall be recorded on the Weekly Site Inspection form attached as <b>Appendix 5</b>.</p>
Pre-Event Inspection	Prior to a significant rain event <sup>1</sup>	<p>To ensure that erosion and sediment controls are present, functional, and adequate for forecast rain event.</p> <p>This inspection will inform any preventative work required and may result in the Rapid Response Procedure being implemented (see Section 4.5).</p>

---

<sup>1</sup> A significant rain event is defined as any forecast/actual rain event of 15 mm within a 24-hour period or a rain event that can generate overland flow, noting that this varies seasonally.

Environmental Inspection	Timing	Purpose
Rain Event Monitoring	During a significant rain event	<p>To ensure that:</p> <ul style="list-style-type: none"> <li>• Erosion and sediment control devices continue to function correctly and inform any necessary emergency responses.</li> <li>• Super silt fences are functioning effectively and have capacity available.</li> <li>• No dirty<sup>2</sup> water is crossing the boundary of the site.</li> </ul> <p>Observations and remediation measures taken will be recorded in a daily job diary.</p>
Post-Event Inspection	Immediately following a significant rain event	Any observations and corrective actions should be recorded in a daily job diary.

### 3.4 Environmental Incident Management

Environmental incidents shall be responded to as soon as the project team becomes aware of them occurring. The response will generally involve oversight by the Environmental Consultant and will involve:

- Immediate cessation of the activity that caused the incident.
- Investigation into the cause of the incident.
- Initial response to bring the incident under control.
- Implement any remediation works.

The Project Manager shall notify QLDC of the details of any Environmental Incident within 12 hours of becoming aware of the incident. Notification will be through a phone call to Council monitoring staff (see Emergency Contacts on page four). The Project Team shall provide an Environmental Incident Report within ten working days of the incident occurring. The Incident Report form is attached as [Appendix 6](#).

### 3.5 Complaints Procedure

Any complaint received will be recorded and an investigation will be carried out. The complainant will be provided with a response acknowledging receipt of the complaint and outlining corrective actions to be implemented. After the investigation, any necessary corrective actions will be carried out and a follow-up of the original complaint is to be conducted to ensure the actions implemented have been effective. All complaints will be recorded on the Complaints Register attached as [Appendix 7](#).

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<sup>2</sup> 'Dirty water' is defined as water that exceeds the maximum allowable water quality value outlined in the Discharge Criteria at Section 5.2.

### 3.6 EMP Non-Conformance and Corrective Actions

EMP non-conformances found during site inspections, monitoring or as a result of environmental incidents or complaints shall be recorded in the EMP Non-Conformance Register. The non-conformance register attached as **Appendix 8** will detail when corrective actions are due, how they are to be carried out and the close out date.

The non-conformance register ensures that issues do not escalate or are missed, as well as, providing a clear record of evidence that can be used to defend any potential complaint or formal enforcement action.

### 3.7 Records and Registers

The records listed below will be collated onsite. If a request is made by a QLDC official, the records shall be made available to the official within 24 hours of the request being made.

- Environmental Induction Register - **Appendix 4**.
- Weekly Environmental Inspection Form - **Appendix 5**.
- Environmental Incident Reports - **Appendix 6**.
- Complaints Register - **Appendix 7**.
- EMP Non-Conformance Register - **Appendix 8**.
- Water Quality Monitoring Results - **Appendix 9**.

### 3.8 EMP Updates

The EMP will be regularly reviewed throughout the project to ensure the document remains fit for purpose and to drive continual improvement. This may be initiated by:

- Significant changes to the construction methodology.
- Improvements identified as a result of an Environmental Incident or Corrective Action.
- Where directed by QLDC's Monitoring and Enforcement team/Compliance team.

All EMP updates will be managed through the document control table on page one and shall be submitted to QLDC for acceptance.



## 4.0 EROSION AND SEDIMENT CONTROL MEASURES

### 4.1 Performance Criteria

Design, install and maintain erosion and sediment controls in accordance with industry best practices. Generally, *Erosion and Sediment Control Guidelines for Land Disturbing Activities in the Auckland Region 2016* (Auckland Council Guideline Document GD2016/005).

### 4.2 Erosion and Sediment Control Principles

Erosion and sediment control ('ESC') devices shall be installed, maintained and decommissioned in accordance with the following principles:

- Erosion and sediment controls are integrated with construction planning.
- Construction is staged to minimise the duration and area of exposed soil open at any one time.
- Separation of 'clean' and 'dirty' water with clean water to be diverted around the site to minimise the volume of dirty water needing management onsite.
- The extent and duration of soil exposure is minimised.
- Controls are always maintained in proper working order.
- Progressively stabilise and revegetate disturbed or completed areas.
- The site is monitored, and erosion and sediment control practices are adjusted to maintain the required performance standard.
- Soil erosion is minimised as far as reasonable and practical.
- Avoidance of sediment discharge off-site and protection of receiving environments.

### 4.3 Guidance on Erosion and Sediment Control Devices

The effective control of surface water shall be achieved through the utilisation of carefully selected erosion and sediment control devices to achieve a specific purpose. These guidelines for the devices employed on this project shall be read in conjunction with the ESCP attached as **Appendix 1** of this document.

#### 4.3.1 Site Definition

At the commencement of the project, the following components onsite will be clearly defined as detailed in **Table 3**.

**Table 3:** Site definition specifications

Site component	Method of Demarcation
Designated site access	Existing gravelled site access. (May need to install stabilised access if there is heavy vehicle or machinery accessing the property and tracking sediment off site).

#### **4.3.2 Stabilised Entranceway**

The existing property access at the southwest of the site will act as the stabilised access as indicated on ESCP-001 attached as **Appendix 1**. If additional stabilisation is required on the shared driveway access the stabilised entranceway will be constructed in accordance with the schematic diagram in ESCP-002, **Appendix 1** (complete guidelines on pages 60-65 of GD05).

#### **4.3.3 Super Silt Fence**

A super silt fence will be used to capture potential sheet flows from the extent of earthworks in both Stage 1 and 2. This solution has been selected due to the small catchment area exposed at any one time which allows for super silt fence as an appropriate method. The gradual sloping topography of the site with an average slope of  $< 3^\circ$  suggests surface runoff velocities will be minimal thus reducing erosive potential. Super silt fence will be installed in accordance with the schematic diagram in ESCP-003, **Appendix 1** (complete guidelines on pages 120-125 of GD05).

#### **4.3.4 Temporary Stockpiles**

Topsoil stockpiles may be formed as part of earthworks and will be respread upon formation of final levels of subgrade. Stockpiles shall be constructed in accordance with the schematic diagram in ESCP-004, **Appendix 1**.

#### **4.3.5 Progressive Rehabilitation**

Progressive stabilisation of earthworks is to occur promptly as areas are finished to minimise the area of exposed soil and thus the generation of sediment-laden water. Prior to final landscaping, this can comprise temporary grassing, turfing or clean aggregate.

### **4.4 Maintenance of Erosion and Sediment Control Devices**

Ongoing maintenance of the site shall be undertaken as follows:

- Clean out sediment of erosion and sediment control as soon as 20% capacity has been reached.
- Any mucked-out sediment shall be stockpiled, dried and reused as planting media for revegetation.

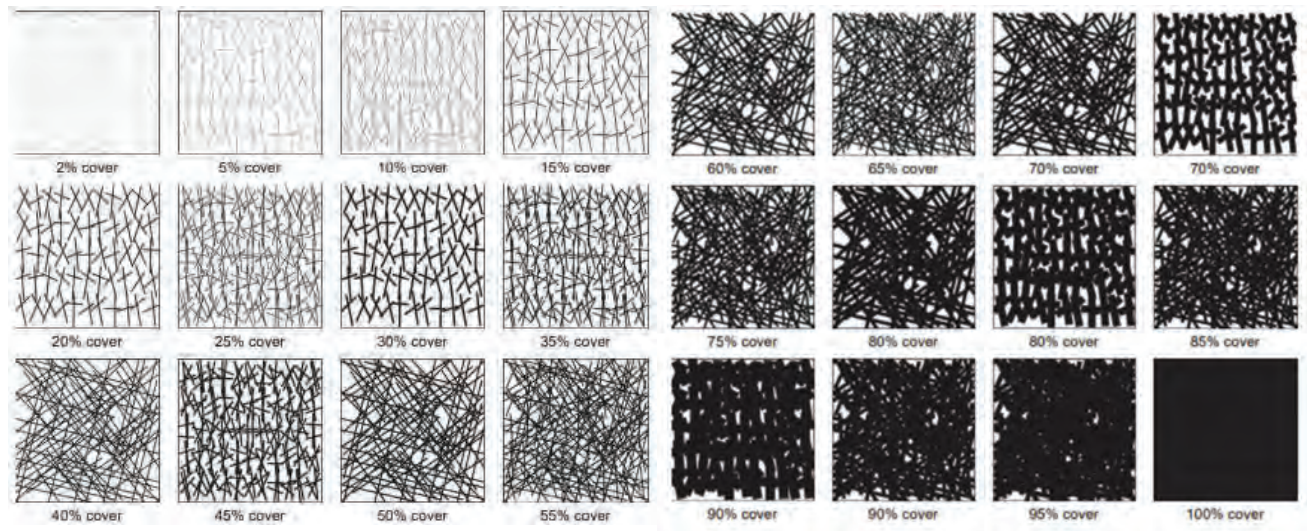
### **4.5 Rapid Response Procedure for Significant Rain Events**

The Environmental Representative will stay vigilant of weather forecasts. If a significant rain event is imminent, all works will cease in sufficient time for staff to inspect and maintain erosion and sediment control devices and undertake any stabilisation required. Observations will continue through the rain event to ensure the functioning of erosion and sediment control devices.

### **4.6 Decommissioning and Removal**

Erosion and sediment control devices will remain in place until 'stabilisation' of the site has been achieved. This is generally defined as 80% vegetative cover as depicted in **Figure 2**.

It is noted that the removal of controls may result in minor soil exposure. Any soils exposed during decommissioning will be stabilised with either grass, mulch or other appropriate erosion control.



**Figure 2:** Visual cover estimation (Source: Catchments and Creeks Pty Ltd)

#### 4.7 Inspections and Monitoring

Details of inspections and monitoring are stated in Section 3.3.

#### 4.8 Contingency Measures

The following contingency measures in **Table 4** shall be deployed as required.

**Table 4:** Erosion and sediment control contingency measures

Issue	Contingency Measure
Sediment-laden stormwater flowing across the site boundary	Undertake measures to stop the flow immediately. Ensure controls are installed according to the ESCP. Contact the Environmental Consultant (SQEP) who will initiate the incident response.
Controls do not appear to be working as intended	Contact Environmental Consultant (SQEP) to inspect, advise and revise ESCP as required.
The site is inappropriately exposed prior to imminent rain event	Cease works and shift effort to checking erosion and sediment controls and stabilisation via the Rapid Response Procedure outlined in Section 4.5.

Issue	Contingency Measure
Sediment retention devices are near capacity and more rain is forecast	Contact the Environmental Consultant (SQEP) immediately for advice.

#### 4.9 Erosion and Sediment Control Incident

An erosion or sediment control incident is considered to have occurred where performance criteria outlined in Section 4.1 is not met. The incident procedures outlined in Section 3.4 shall commence.



## 5.0 WATER QUALITY MANAGEMENT

Surface water bodies (rivers, streams, lakes and wetlands) provide important habitats for many species of plants, fish, birds and animals, some of which are endemic and/or threatened. To protect these values, water quality must be safeguarded, and the natural flow of the watercourse maintained to the greatest possible extent. Where flow must be reduced or diverted, mitigation is required to ensure the values of the watercourse are not degraded.

### 5.1 Receiving Waterbodies

There is one manmade artificial pond located on this property and surrounding manmade ponds on adjacent neighbouring properties. The existing water race that is situated running east-west through the middle of the site is a secondary race ('Strains Race') of the Arrow Irrigation Race. The water race that meanders through the site is predominantly open channel, but one section is piped.

Due to the topography of this site consisting of gentle slopes, well established vegetation and small extent of earthworks, the risk of these waterbodies being adversely affected during construction is considered to be minimal.



Figure 3: Waterways within and in proximity to the site

## 5.2 Performance Criteria

Any waters flowing across the site boundaries will meet the criteria in **Table 5**.

**Table 5:** Water quality discharge criteria

Parameter	Discharge Criteria
Turbidity	$\leq 150 \text{ NTU}^3$
<i>Or...</i>	
Comparative Visual Clarity (mm) <sup>4</sup>	TBC
<i>If turbidity or visual clarity is exceeded, test for...</i>	
Total Suspended Sediment (TSS)	$\leq 50 \text{ mg/L}$
pH <sup>5</sup>	5.5 – 8.5
Hydrocarbons or tannins	No visible trace
Waste	No waste or litter is visible

## 5.3 Management Measures

The following measures will be deployed to ensure the protection of water quality:

- Erosion and sediment controls will be implemented and maintained in accordance with the Erosion and Sediment Control Measures in Section 4.0.
- Refuelling, servicing and storage of hydrocarbons will be in accordance with the relevant procedures in the Chemicals and Fuels Management in Section 9.0.
- All concrete washing is to be undertaken in a designated concrete wash-out pit as per the design specifications in **Appendix 1**.
- All plant and equipment onsite will be inspected regularly to ensure they are of an acceptable standard.

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<sup>3</sup> Turbidity can be instantly measured using a nephelometer. This is considered desirable as opposed to testing TSS which requires laboratory testing and can take several days. Turbidity can be inferred from the relationship with TSS via linear regression. If the specified turbidity value is not met, a water sample will be collected and sent for TSS laboratory testing.

<sup>4</sup> In the absence of a turbidity measure, visual clarity can be inferred from the relationship with turbidity via linear regression. If the specified visual clarity value is not met, a water sample will be collected and sent for TSS laboratory testing.

<sup>5</sup> pH to be tested only when chemical treatment is undertaken.

- Stockpiling of any organic, erodible or hazardous material onsite is not to be placed within close proximity of a watercourse/major drainage line, unless appropriate controls are in place.

#### 5.4 Monitoring

Water quality will be monitored in accordance with **Table 6**.

**Table 6:** Water quality monitoring measures

Sampling Scope	
Objective	To confirm that all controlled and uncontrolled water flowing from the site meets the Discharge Criteria referred to in Section 5.2.
Spatial boundaries	All water that enters and exits the site from rainfall or overland flow.
Frequency	A significant rain event is defined as any forecast/actual rain event of 15 mm within a 24-hour period or a rain event that can generate overland flow, noting that this varies seasonally. Where a Significant Rain Event occurs through the night, monitoring shall be undertaken the following morning.
Sampling Design	
Water Quality Criteria	As outlined in the Discharge Criteria referred to in Section 5.2.
Sampling Locations	At boundaries of the site where any water is flowing, specifically the following point discharges: <ul style="list-style-type: none"> <li>• Water race outlet.</li> <li>• Beyond silt fences.</li> </ul>
Sampling Method	<ul style="list-style-type: none"> <li>• TSS – Registered laboratory</li> <li>• Turbidity (NTU) – Nephelometer</li> <li>• pH – pH meter – only if utilising chemical treatment</li> <li>• Gross pollutants – visual observations</li> <li>• Tannins – visual observations (any unusual darkening of waters?)</li> <li>• Hydrocarbons – visual observations (is there any oily film<sup>6</sup> on surface or smell?)</li> </ul>
Quality Control	Any water quality meter will be calibrated according to manufacturer instructions. All observations will be recorded and analysed.

<sup>6</sup> Some bacteria produce a naturally occurring film on the water surface. Bacteria films breaks apart in angular shapes when disturbed whereas hydrocarbon film separates as globules.

Recording	
Recording Results	All results will be entered into a spreadsheet and kept onsite (form attached as <b>Appendix 9</b> ).
Actions	
Non-conformances	Any exceedances observed will be reported to the Project Manager/ Environmental Consultant who will investigate and ensure appropriate corrective actions are implemented immediately.

### 5.5 Contingency Measures

The following contingency measures in **Table 7** shall be adopted if required.

**Table 7:** Water quality contingency measures

Issue	Contingency Measure
Exceedance of water quality criteria	<ul style="list-style-type: none"> <li>• Contact the Project Manager and Environmental Consultant (SQEP) immediately.</li> <li>• Works will cease or be modified to remove further risk of contamination.</li> <li>• QLDC will be verbally notified.</li> <li>• The Environmental Incident procedure will commence.</li> <li>• Remedial measures will be implemented and the Environmental Incident will be closed out by the Environmental Consultant (SQEP), with a copy of an Environmental Incident report to the Project Manager, QLDC.</li> </ul>

### 5.6 Water Quality Incidents

A water quality incident is considered to have occurred where the water quality performance criteria outlined in Section 5.2 is breached. The incident procedures outlined at Section 3.4 shall commence.



## 6.0 DUST MANAGEMENT

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Dust from construction activities, vehicle movements and stockpiles can contribute to sediment runoff and create a nuisance to the public, neighbouring properties, adjoining roads and service infrastructure. The key risks associated with dust occur during the bulk earthworks phase of the project. There are a range of activities that may produce dust onsite including:

- General disturbance of soil (particularly during drier months).
- Inappropriate staging that does not seek to minimise the extent of exposed soil.
- Sediment-tracking onto surrounding roads.
- Stockpiling of topsoil or subsoil.
- Slow or ineffective revegetation procedures.

### 6.1 Sensitive Receptors

The rural residential setting and minor extent of earthworks required, is not anticipated to generate adverse effects relating to dust. Key sensitive receptors to protect from the effects of dust include the surrounding residential dwellings and workers on site.

The site is located within the Wakatipu basin and due to the surrounding topography and alpine environment, wind direction and speed can be changeable. Contractors shall remain vigilant for variations in wind conditions. The project shall ensure the site is prepared appropriately to manage potential dust effects.

### 6.2 Performance Criteria

The project must ensure that reasonable and practical measures are taken to avoid dust moving across the boundaries of the site at all times.

### 6.3 Management Measures

The following measures will be deployed to ensure dust generation onsite is minimised:

- Stage works where possible to minimise soil exposure extents and timeframes.
- Revegetate disturbed areas progressively throughout construction.
- Dust suppression of exposed areas and stockpiles by water trucks or other methods (e.g., k-lines) approved by the Environmental Representative.<sup>7</sup>
- If dust activities cannot be controlled during high winds, works will cease until favourable conditions return.
- All site access and surrounding roads to be swept clean regularly.
- To avoid spillage risks, trucks will not be overloaded.
- All trucks must have tail gates up and swept or cleaned prior to exiting to external roads.

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<sup>7</sup> Ensure a consented water take permit is approved by the local authority. If taking water from lakes and or rivers, ensure that the permitted volume of water is taken.

- Stockpile heights are to be minimised where possible (< two metres) unless they are covered (e.g. an erosion blanket, chemical sealant, temporary cover crop or mulched).
- Long-standing stockpiles (greater than six weeks) shall be appropriately stabilised.
- Within two weeks of completion, all earth worked areas will be sown out with grass, landscaped or otherwise stabilised by an appropriate erosion control.

#### 6.4 Monitoring

Site staff will maintain continual vigilance for any dust crossing site boundaries. Weekly Environmental Inspections will ensure that the management measures described above are sufficient and performing effectively.

#### 6.5 Contingency Measures

**Table 8:** Dust contingency measures

Issue	Contingency Measure
Excessive dust creation from soil disturbance	<ul style="list-style-type: none"> <li>• Spray down excavation areas and activities where excavator bucket is operating.</li> <li>• Cease excavation during high winds, particularly if wind direction is likely to impact sensitive receivers.</li> </ul>
Excessive dust creation from hauling operations	<ul style="list-style-type: none"> <li>• Reduce truck speeds.</li> <li>• Cover or spray down loads causing dust impacts.</li> <li>• Apply skim of aggregate over the haul road surface.</li> <li>• Install shakedown devices at entry and exit points.</li> </ul>
Excessive dust creation from stockpiles	<ul style="list-style-type: none"> <li>• Spray stockpiles with water or apply a temporary polymer.</li> <li>• Hydro-mulch, seed or stabilise stockpiles, cover stockpiles with geofabric.</li> <li>• Locate stockpiles further away from sensitive receptors.</li> </ul>

#### 6.6 Dust Incident

A dust incident is considered to have occurred where:

- Dust is observed crossing the boundary into sensitive receptors or,
- A justified complaint is received regarding dust emissions across the boundary of the site.

The incident procedures outlined at Section 3.4 shall commence.

## 7.0 NOISE AND VIBRATION MANAGEMENT

The following assessment and management measures are intended for standard construction equipment that is not expected to induce noise or vibration beyond the maximum limits in the QLDC District Plan. Where upper noise and vibration levels of district plans will be breached, an Acoustic Specialist may need to be engaged to assist with the management of these nuisance effects.

Potential noise and/or vibration effects may be generated by the following:

- Excavation and earth moving plant
- Light vehicles near sensitive receptors
- Ancillary plant and equipment
- Compaction equipment
- Reversing alarms

### 7.1 Sensitive Receptors

The rural residential setting and minor extent of earthworks required, is not anticipated to generate adverse effects relating to construction noise and vibration. The following management measures are to be adopted during construction to reduce potential noise and vibration on surrounding receptors.

### 7.2 Performance Criteria

1. Construction activities shall meet relevant noise limits specified under Rule 36.5.13 of the Queenstown Lakes Proposed District Plan. This rule requires Construction sound at any point within the site must comply with the limits specified in Tables 2 and 3 of *NZS 6803:1999 Acoustics - Construction Noise*, when measured and assessed in accordance with that standard (see [Table 9](#) below).
2. Construction activities shall meet relevant vibration limits specified under Rule 36.5.10 of the Queenstown Lakes Proposed District Plan. This rule requires vibration from any activity must not exceed the guideline values given in *DIN 4150-3:1999 Effects of vibration on structures* on any structures or buildings on any other site.
3. Construction activities shall be undertaken in accordance with the permitted hours of operation outlined at Section 2.2 above.

**Table 9:** Upper limits in dB(A) for construction work noise in residential areas for less than 20 weeks

Time of Week	Time Period	L <sub>Aeq(t)</sub>	L <sub>Afmax</sub>
Weekdays	0630 – 0730	60 dB	75 dB
	0730 – 1800	75 dB	90 dB

	1800 – 2000	70 dB	85 dB
Saturdays	0630 – 0730	45 dB	75 dB
	0730 – 1800	75 dB	90 dB

**Table 10:** Vibration Thresholds for Structural Damage (PPV mm/s)

	Short Term			Long-Term	
	At Foundation			Uppermost Floor	Uppermost Floor
Types of Structures	0 to 10 HZ	10 to 50 Hz	50 to 100 HZ	All Frequencies	All Frequencies
Commercial/Industrial	20	20 to 40	40 to 50	40	10
Residential	5	5 to 15	15 to 20	15	5
Sensitive/Historic	3	3 to 8	8 to 10	8	2.5

**Note:** When a range of velocities is given, the limit increases linearly over the frequency range.

### 7.3 Management Measures

The following measures will be deployed to ensure noise and/or vibration associated with the project are appropriately mitigated:

- Notify surrounding sensitive receptors prior to commencing particularly noisy or vibration inducing activities.
- Where practicable, select lower noise producing equipment or use lower noise generating alternatives.
- Regularly service equipment to ensure plant is running optimally.
- Plant and equipment to be fitted with noise control/attenuation devices as appropriate and maintained and operated in accordance with manufacturer's specifications.
- Revving of engines will be limited. All plant and vehicles will be turned off when not in use and if safe to do so.
- The use of audible alarms on mobile equipment will be limited, and two-way communication will be used.
- Undertake activities that may lead to noise or vibration effects, during reasonable and practical hours.

### 7.4 Monitoring

All earthworks activity will be closely monitored by the operator to ensure that noise and vibration remains within the required limits. If monitoring finds the activity cannot comply with performance criteria, an Acoustic Specialist may need to be engaged to assess the project and provide appropriate mitigation measures and monitoring. Weekly Environmental Inspections shall include an assessment of the site to determine the effectiveness of noise and vibration management controls.



## 7.5 Contingency Measures

The following contingency measures in **Table 11** shall be adopted if required.

**Table 11:** Noise and vibration contingency measures

Issue	Contingency Measure
Noise and/or vibration complaint received	Manage the complaint in accordance with the Environmental Complaints procedure in Section 3.5
Exceedance of performance requirement criteria	The Environmental Consultant (SQEP), in consultation with the Environmental Representative, will investigate and implement actions to reduce noise and/or vibration levels to below criteria levels.
Ongoing noise and/or vibration issues	Where noise or vibration emissions consistently exceed the performance criteria despite the site staff's best efforts, an Acoustic Specialist will be engaged to assist.

## 7.6 Noise and Vibration Incident

A noise or vibration incident is considered to have occurred when a justified complaint is received and on investigation is found to exceed the performance criteria. The environmental incident procedures outlined in Section 3.4 shall commence.

## 8.0 CULTURAL HERITAGE MANAGEMENT

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The loss or damage of cultural heritage items could be caused by construction activities. The damage or loss of artefacts can lead to the loss of culturally or historically significant items and information.

Examples of cultural heritage items include:

- Koiwi tangata (human skeletal remains).
- Waahi taoka (resources of importance).
- Waahi tapu (places or features of special significance).
- Māori artefact material.
- A feature or archaeological material predating 1900.
- Unidentified archaeological or heritage site.

### 8.1 Location of Known Cultural Heritage Significance

A search of QLDC's database indicates there are no known items of cultural or heritage significance on the site.

### 8.2 Performance Criteria

- The protection of cultural heritage artefacts and places in accordance with the *Heritage New Zealand Pouhere Taonga Act, 2014*.
- Strict adherence to Heritage New Zealand's *Archaeological Discovery Protocol* (attached as **Appendix 10**) in the case of unexpected finds.

### 8.3 Management Measures

All works on this project will be undertaken in accordance with the obligations of the *Heritage New Zealand Pouhere Taonga Act, 2014*.

### 8.4 Monitoring

Weekly inspections shall include a visual assessment of the site to ensure that no new significant artefacts have been encountered. However, operators must remain vigilant for such encounters as they occur.

### 8.5 Accidental Finds

If any unknown artefacts are uncovered, the project will work to Heritage New Zealand's *Archaeological Discovery Protocol* (attached as **Appendix 10**).

## 9.0 CHEMICALS AND FUELS MANAGEMENT

Hazardous substances can endanger both human health and the environment. Used incorrectly they can cause catastrophic accidents, such as fires and explosions, and serious harm to people who are exposed to them.

### 9.1 Sensitive Receptors

Key sensitive environmental receptors include staff members working on the site and the irrigation race.

### 9.2 Performance Criteria

- Chemicals and fuels are stored and used in a manner that avoids contamination of site and surrounding environment.
- All spills are cleaned up immediately and the contaminated soils/waters disposed of appropriately.

### 9.3 Management Measures

The following measures will be deployed to ensure chemicals and fuels associated with the project are appropriately managed.

- All hazardous substances to be stored, transported and used according to the safety data sheet requirements.
- Storage of chemicals and fuels shall be located as far as practicably possible from waterways and concentrated flows.
- All concrete washing is to be undertaken in a designated concrete wash-out pit. Examples of concrete washout pits are shown in [Appendix 1](#).
- One 240 L Oil and Hydrocarbon spill kit and one 240 L Chemical spill kit will be located in close proximity to the location of liquid hazardous materials storage and refuelling areas.
- The volumes of the hazardous substances listed in [Table 12](#) will not be exceeded.

**Table 12:** Maximum volumes of chemicals and fuels

Chemicals and Fuels	Maximum Volume	Storage Location
Diesel	1,000 L	Fuel tank or Jerry cans in lockable container
Unleaded Fuel	100 L	Jerry cans in lockable container
Oil	10 L	Packaging in lockable container
Lubricant (WD40 or similar)	Six Cans	Packaging in lockable container
Grease	5 L	Packaging in lockable container
Spot marking paint	2 L	Packaging in lockable container

#### 9.4 Monitoring

Weekly Environmental Inspections shall include a visual assessment of the site to determine the effectiveness of chemicals and fuels management.

#### 9.5 Contingency Measures

The following contingency measures in **Table 13** shall be adopted if required.

**Table 13:** Chemicals and fuels contingency measures

Issue	Contingency Measure
Spills response	<ul style="list-style-type: none"> <li>• Stop works in proximity to the spill and assess the safety of all personnel.</li> <li>• Take immediate action to contain the spill to prevent discharge into stormwater drains or natural waterways.</li> <li>• Use spill kits to contain and treat the spill.</li> <li>• If necessary, notify the Regional Council spill response unit.</li> <li>• Remove contaminated material to a suitable contained location for remediation/disposal (require any necessary approvals/permits from ORC).</li> <li>• The spill kits shall be replaced by an approved supplier.</li> </ul>
Inappropriate storage	<ul style="list-style-type: none"> <li>• Upgrade facility.</li> <li>• Clean-up of storage area.</li> <li>• Notify and train staff.</li> </ul>
Inappropriate handling/transport	<ul style="list-style-type: none"> <li>• Notify and train staff through toolbox meetings on the appropriate handling and transport methods.</li> </ul>
Inadequate spill kit materials	<ul style="list-style-type: none"> <li>• Order more materials.</li> <li>• Investigate types of chemicals onsite and consult a supplier for advice on appropriate equipment.</li> <li>• Develop or revise spill material monitoring and ordering system.</li> </ul>
Inappropriate disposal of chemicals or fuels	<ul style="list-style-type: none"> <li>• Provide appropriate disposal facilities or service providers.</li> <li>• Notify and train staff.</li> </ul>
Inaccurate or insufficient records	<ul style="list-style-type: none"> <li>• Advise staff and update records.</li> <li>• Monitor through inspections.</li> </ul>



#### **9.6 Chemicals and Fuels Incident**

A chemicals and fuels incident is considered to have occurred where:

- A spill more than five litres has occurred.
- A situation is discovered where a spill of more than five litres would likely have occurred before it happens where the management measures listed above have not been followed.

The environmental incident procedures outlined at Section 3.4 shall commence.

## 10.0 WASTE MANAGEMENT

Waste from construction activities can create a nuisance to the public, neighbouring properties, and adversely affect flora and fauna.

### 10.1 Sensitive Receptors

Key sensitive environmental receptors include staff members working on the site and the irrigation race.

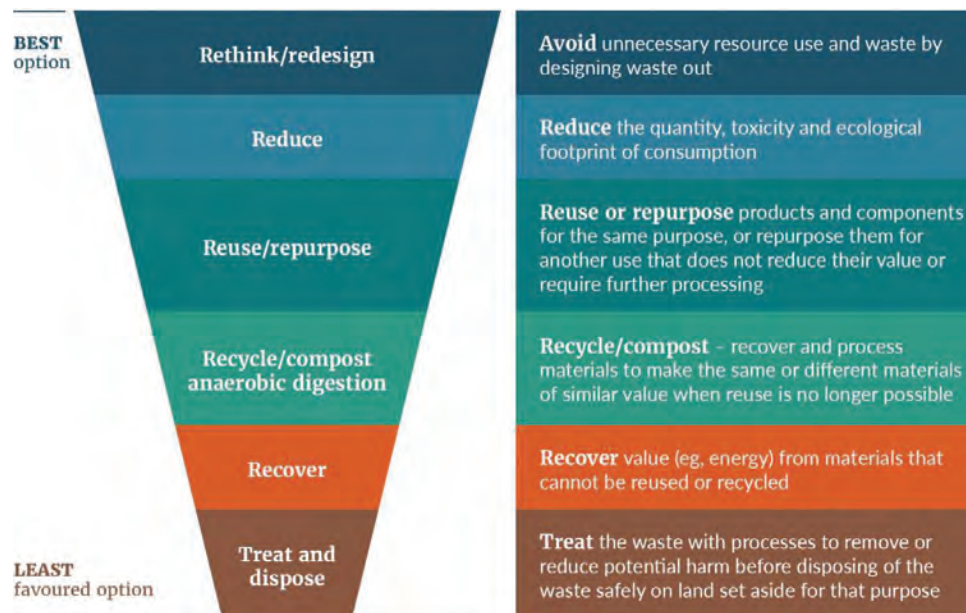
### 10.2 Performance Criteria

- Non-recyclable waste generation is minimised, and the site and surrounds are kept free from waste at all times.
- Wastes shall be stored safely and in an organised manner until recycling, reuse, or disposal.

### 10.3 Management Measures

The following measures will be deployed to ensure waste management associated with the project is appropriately mitigated:

- The Waste Management Hierarchy philosophy will be implemented, as illustrated in **Figure 4**.



**Figure 4:** The Waste Hierarchy (Source: Ministry for the Environment).

- Measures will be implemented to ensure the site is maintained in a safe, clean and tidy state.

- Where possible, waste shall be segregated into labelled bins with lids: General, Hazardous and Recyclables.
- Wastes onsite shall be suitably contained and prevented from migrating offsite.
- The waste is to be contained so it doesn't contaminate soil, surface or ground water, create unpleasant odours or attract vermin.
- Any material dropped in or adjacent to open drains shall be recovered immediately after it occurs.
- Waste storage is not permitted in or near drainage paths.
- The burning of waste is strictly prohibited.
- No wastes shall be disposed of onsite.
- Wastes shall be removed from site regularly and at completion of works.

#### **10.4 Monitoring**

Site staff will be briefed on waste processes prior to works commencing and shall maintain continual vigilance for excess waste around the site and following appropriate disposal procedures. Weekly Environmental Inspections shall include a visual assessment of the site to determine the effectiveness of waste management controls.

#### **10.5 Contingency Measures**

If waste items are accumulating or are stockpiled, the following contingency measures will be adopted:

- Arrange for collection by approved licensed contractor.
- Provide additional bins with lids if available.
- Remove waste offsite as soon as possible.

#### **10.6 Waste Incident**

A waste incident is considered to have occurred where:

- Waste from the site is found within a sensitive environment or where it may reasonably migrate to a sensitive environment,
- A complaint is received regarding inappropriate management of waste and on investigation is warranted.

The environmental incident procedures outlined at Section 3.4 shall commence.

## 11.0 CONTAMINATED SITE MANAGEMENT

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The Preliminary site investigation prepared by Davis Consulting Group January 2013 and concluded that based on the results of the Preliminary Site Investigation, DCG concludes it is highly unlikely that there is a risk to human health.

Later, e3scientific considered via review of the original PSI that the findings of the 2013 PSI are applicable to the whole property, and we conclude that there is no evidence of HAIL activity on 123 Slopehill Road.

### 11.1 Sensitive Receptors

Key sensitive environmental receptors include staff members working on the site.

### 11.2 Performance Criteria

- Effectively identify and manage any sites where contaminants are found and ensure they do not contaminate beyond the location they are found (including offsite) or present a risk to human health.

### 11.3 Management Measures

The following measures will be deployed to ensure contaminated soil associated with the project is appropriately mitigated:

- If any evidence of contamination be noticed in the field, the personnel noting the contamination shall immediately notify the Environmental Representative.
- Many of the controls required to manage potential for effects associated with low level contaminated soil is based on best practice erosion and sediment control and dust management techniques. These are outlined in Section 4.3 (erosion and sediment controls) and Section 6.4 (dust controls). Both sections cover management of stockpiles.
- If materials have been approved to be removed from site, materials will be transported to the approved disposal location.
- Trucks removing or transporting any soil from the site will be covered or sealed to prevent dust, leakage or loss of materials during transport.

### 11.4 Monitoring

Unless any contamination is accidentally found during earthworks, no specific monitoring of soil, groundwater or water quality will occur (other than what is detailed in the water quality criteria outlined in Section 5).

### 11.5 Contingency Measures

It is not expected that contaminated material will be encountered, however this cannot be ruled out. If a potential contaminated site is identified (e.g., by landfilled waste, odour) during construction works, the following contingency measures will be undertaken:



- Immediately notify the Project Manager.
- Prevent spread of contamination by installation of silt fencing downslope of material, covering material with plastic or geofabric material.
- Engage the Environmental Consultant who will advise on the engagement of a Contaminated Soil expert.
- EMP to be amended to manage any new contaminated soil encountered in coordination with the contaminated soil expert (if engaged).

#### **11.6 Contamination Incident**

An environmental incident is considered to have occurred where inspection finds that excavation or other work continues within contaminated soil without report or remedial action.

The environmental incident procedures outlined in Section 3.4 shall be followed.

## APPENDIX 1

## Erosion and Sediment Control Plan Drawing

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### Legend

	Clean water overland flow
	Dirty water overland flow
	Existing open irrigation race
	Existing piped water race
	Proposed piped water race
	Topsoil stockpile
	Super silt fence
	Staging

### Notes

1. This plan is to be read in conjunction with the Environmental Management Plan document prepared by Enviroscope.
2. All locations of erosion and sediment control (ESC) devices are indicative and exact placement to be confirmed onsite.
3. ESC devices to be installed and maintained in accordance with Auckland Council's 'Erosion and Sediment Control Guide for Land Disturbing Activities in the Auckland Region (GD05)' and manufacturer's instructions where relevant.
4. All devices are to be inspected daily and pre and post-rain event to ensure they are fully functional.
5. Stage one- Excavate trench for irrigation pipe and infill existing channel. Refer to section 2.1 of EMP for methodology.
6. Stage two - Cut and fill earthworks for building platforms and general landscaping.

Project: 123 Slopehill Road

Description: Erosion and Sediment Control Plan Drawing

**enviroscope**

Drawn

TG

Date

3/11/2023

Drawing No.

ESCP - 001

Revision

A

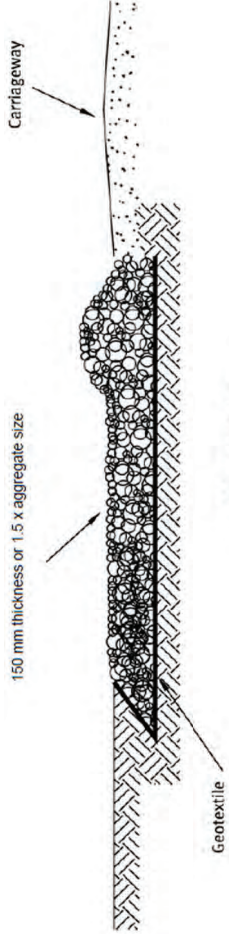
## APPENDIX 2

## Schematics for Erosion and Sediment Controls

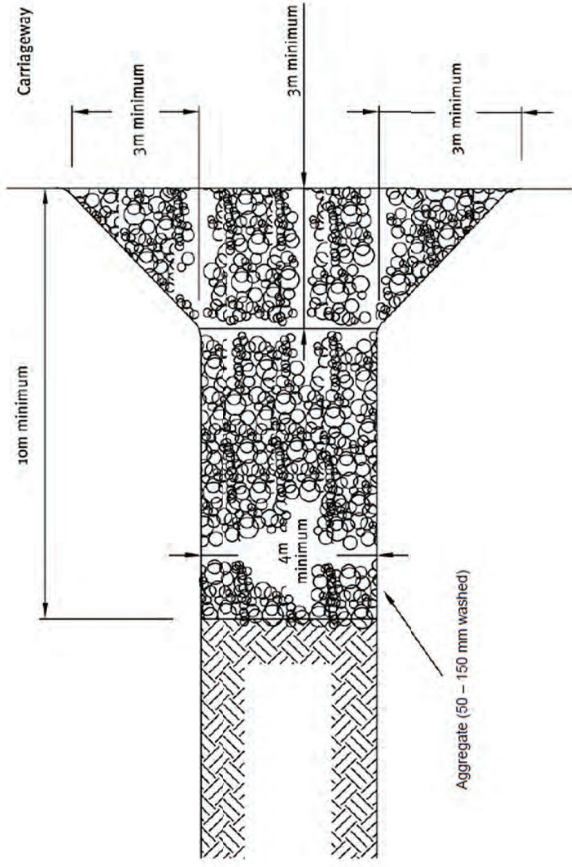
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**STABILISED ACCESS**  
(Page 60 from GD05)



**Side Elevation**



**Plan View**



- Additional aggregate may need to be added to the stabilised entranceway throughout the project to maintain the thickness.
- Any sediment that has been tracked onto the surrounding roads must be swept away at regular intervals.

Design Parameter	Specification
Aggregate size	50-150 mm washed aggregate
Minimum thickness	150 mm
Minimum length	10 m
Minimum width	4 m

Project: 123 Slopehill Road

Description: Erosion and Sediment Control Plan - Schematics

**enviroscope**

Drawn

Date

Drawing Number

Revision

TG

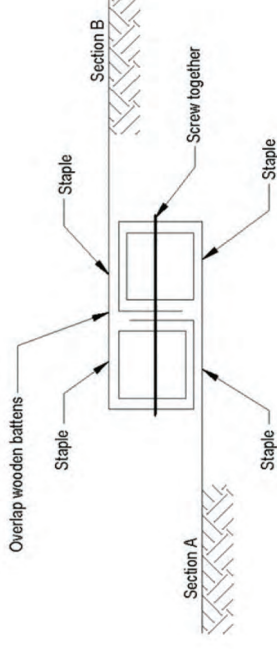
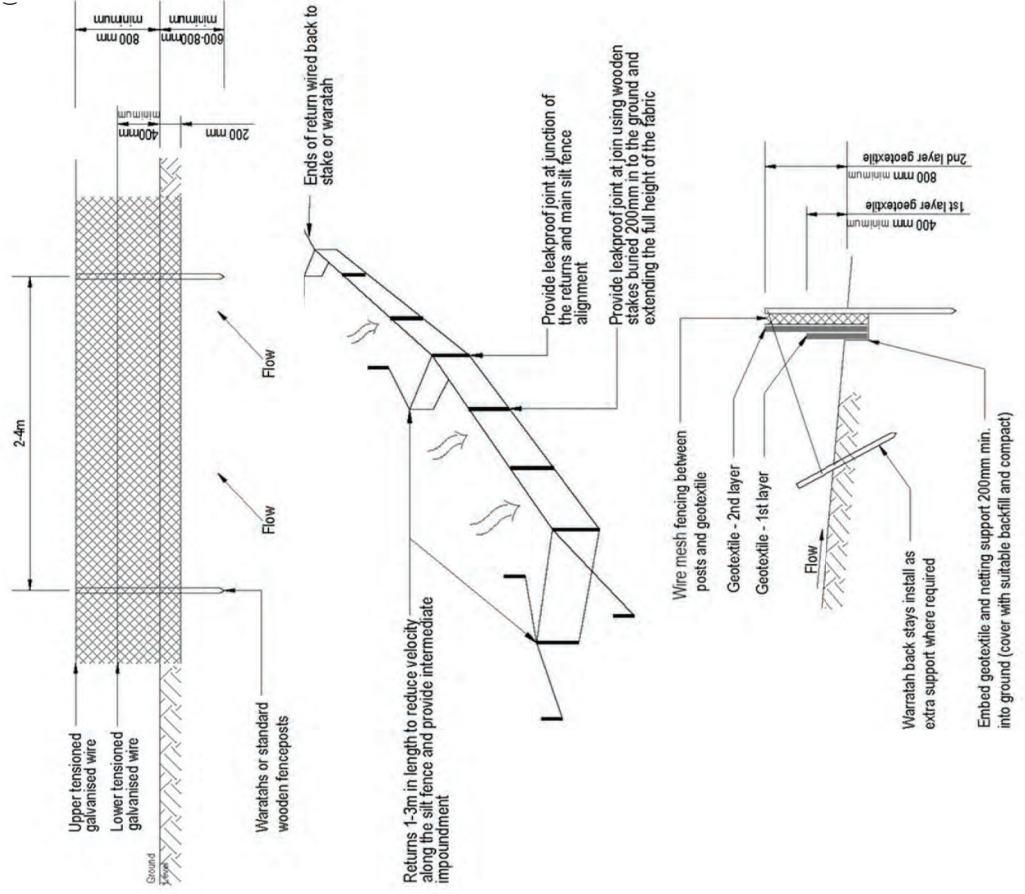
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## SUPER SILT FENCE

(Page 120-125 from GD05)



Slope steepness (%)	Slope length (m) (maximum)	Spacing of returns (m)	Silt fence length (m) (maximum)
0- 10%	Unlimited	60	Unlimited
10- 20%	60	50	450
20- 33%	30	40	300
33- 50%	30	30	150
Greater than 50%	15	20	75

- The super silt fence should be 800 mm above ground level and a minimum of 200 mm below ground level.
- The anchoring of the silt fence should ensure stability and the double layered geotextile should provide for drop-out prior to any water filtering through the upper portions of the fabric.
- It is imperative that the front face of the fence follows the contour as close as possible to ensure the designed holding capacity is achieved and to avoid creating pressure points on the fence.
- Supporting waratahs should be placed at 2-4 m intervals.
- Returns will be installed very ten metres along the silt fence.
- Stays to be installed with silt fence to provide additional structural support.

Project: 123 Slopehill Road

Description: Erosion and Sediment Control Plan - Schematics

enviroscope

Drawn

Date

Drawing Number

Revision

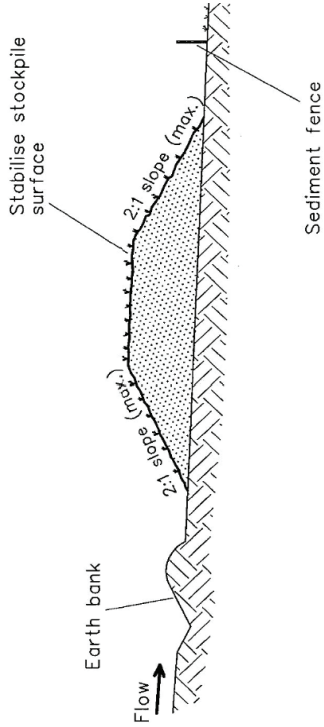
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03/11/2023

ESCP - 003

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TEMPORARY STOCKPILES



- Temporary stockpiles should be a maximum height of two metres to mitigate wind effects and to preserve the quality of the topsoil as future planting media for revegetation.
- If the stockpile is to be left insitu for a period of three weeks or more it shall be seeded with grass or erosion control matting to provide erosion and dust protection.
- A silt fence should be installed on the downslope of the stockpile.

<div>enviroscope</div> <div>Project: 123 Slopehill Road Description: Erosion and Sediment Control Plan - Schematics</div>			
Drawn	Date	Drawing Number	Revision
TG	03/11/2023	ESCP - 004	A



REFUELING BAY



- Locate the hardstand as far as practicably possible from waterways and concentrated flows.
- Ensure spill kit is located nearby.

SPILL KITS



- Spill kits should be located in the laydown area.



CONCRETE WASHOUT PIT




- The concrete wash out pit consists of a plastic-lined banded pit constructed with fill or straw bales.
- After concrete washout any water shall be left to evaporate.
- Cured concrete is to be disposed of within the plastic sheet to a licensed facility.

WASTE



- Where possible, waste shall be segregated into labelled bins.
- Wastes on site will be suitably contained and prevented from escaping off site. This may include covering skip bins during high winds.
- Waste storage is not permitted in or near drainage paths.
- Wastes will be removed from site when bin is full.

<div></div> <div>Project: 123 Slopehill Road</div> <div>Description: Erosion and Sediment Control Plan - Schematics</div>	Drawn	Date	Drawing Number	Revision
	TG	03/11/2023	ESCP - 005	A



## **APPENDIX 3    Environmental Site Induction Handout**

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## ENVIRONMENTAL SITE INDUCTION HANDOUT

### Key Roles and Responsibilities

Role	Responsibilities
Project Manager	<p>The Project Manager is responsible for the effective implementation of the EMP and has overall responsibility for the environmental performance of the project. Duties include:</p> <ul style="list-style-type: none"><li>• Ensuring adequate resources are in place to implement the EMP.</li><li>• Ensuring all staff and sub-contractors operate within the guidelines of the EMP.</li><li>• Ensuring that an EMP is prepared and that environmental standards, processes and procedures meet relevant resource consent conditions.</li><li>• Overseeing the successful implementation, monitoring and review of the EMP.</li><li>• Ensuring that inspections are carried out in accordance with the relevant EMP.</li><li>• Restricting or stopping any activity that has the potential to or has caused adverse environmental effects.</li><li>• Providing notification and reporting of Environmental Incidents to Council and other environmental reports as required by The Guidelines.</li><li>• Delegating authority of the above responsibilities.</li></ul>
Environmental Representative	<p>The Environmental Representative supports the Project Manager in the day-to-day implementation of the EMP. Duties include:</p> <ul style="list-style-type: none"><li>• Ensuring the installation of environmental controls as per the EMP.</li><li>• Undertaking environmental site inspections.</li><li>• Overseeing the maintenance and improvement of defective environmental controls.</li><li>• Providing environmental inductions to all staff and sub-contractors.</li><li>• Assisting the project leadership in attending to Environmental Incidents and Complaints.</li></ul> <p>The Environmental Representative shall be familiar with environmental risks associated with the project, the EMP and best practice erosion and sediment control principles and practices.</p>
All staff and sub-contractors	<p>All staff and sub-contractors have a responsibility to undertake all activities in accordance with the requirements of this EMP. This includes reporting any activity that has the potential to or has resulted in an Environmental Incident to the Project Manager or Environmental Representative.</p>

### Key Environmental Locations

Environmentally sensitive receptors: Nearby residential dwellings, a secondary race ('Strains Race') of the Arrow Irrigation Race that meanders through the property and nearby manmade ponds on neighbouring properties.

### Key Resource Consent Conditions

All resource consent conditions of RM230311 (issued by QLDC) are important to comply with in order to avoid or mitigate adverse environmental effects.

The site EMP has been prepared in response to all environmental-related conditions of consent and therefore provides direction for how compliance with these conditions will be achieved. Provided that the EMP is followed, the project will at the same time comply with all conditions of consent.

## Limits of Clearing and Importance of Staging

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The staging and sequencing of works is a key component to ensure that environmental effects of construction are appropriately managed. It is imperative that the sequencing outlined in Section 2.1 of the EMP is followed so that the site is stabilised in the most efficient manner.

All staff should be familiar with this sequence. Any potential changes to that sequence need to be approved by the Project Manager which will be discussed first with the Environmental Consultant.

## Key Environmental Management Measures in EMP

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### Erosion and Sediment Control (Section 4 of EMP)

- Direction provided in Erosion and Sediment Control Plan (ESCP) in Appendix 1 of EMP.
- Separation of clean and dirty water is the most important principle to ensure that the contributing catchment of dirty water that needs to be treated is as small as possible.
- Progressive stabilisation (revegetation) of disturbed areas will ensure that the extent and duration of exposed soil is minimised. Keep it covered!
- All controls to be checked immediately before storm events to ensure they are in good-working order.
- Erosion and sediment control devices to remain in place until site is stabilised (defined as 80% vegetative cover).

**Any works that disturb the controls outlined on the ESCP must be reinstated before moving to the next task.**

### Water Quality Management (Section 5 of EMP)

- Any water caught in the sediment devices to be re-used in dust suppression where possible and if required.
- Any observations of dirty water running offsite to be reported directly to the Project Manager.

### Dust Management (Section 6 of EMP)

- Dust suppression should occur on any exposed soil on unsealed roads, this can be done using the water caught in the retention basin.
- Avoid all unnecessary vegetation clearing that exposes soil and work should be conducted in stages as this can increase the impact from dust in the event of strong winds.
- During high wind events and dust suppression is becoming difficult works must cease until more favourable weather conditions.
- Constant vigilance should be maintained onsite to ensure that dust is appropriately managed and weekly monitoring should be completed to ensure that management measures are effective.

## Noise and Vibration Management (Section 7 of EMP)

- Noise producing works only be undertaken during the hours of 0730-1800 from Monday-Saturday and no works to be completed on Sundays or public holidays.
- Particularly noisy work should be completed during the middle of the day during business hours.
- Noise dampening should occur when possible.
- Weekly site inspections should be undertaken by the Environmental Representative to ensure the strategies in place are effective.

## Historic Heritage Management (Section 8 of EMP)

- If any artefacts are found works must stop within 20 meters of the discovery and the site manager notified immediately.
- The site manager must then secure the area and notify the Heritage New Zealand Regional Archaeologist, who will advise when works can begin again.

## Chemicals and Fuel Management (Section 9 of EMP)

- Chemicals and fuels are stored and used so not to cause contamination of works areas and surrounding environment.

## Waste Management (Section 10 of EMP)

- Waste management on site will ensure wastes are stored safely and in an organised manner until recycling, reuse or disposal.

## Contaminated Land Management (Section 11 of EMP)

- Prevent spread of contamination.
- Engage the Environmental Consultant (SQEP) to ensure that the site can be managed in accordance with statutory requirements (i.e., National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health).

## Environmental Incidents

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The procedure for managing environmental incidents is outlined in Section 3.4 of the EMP, however these can be summarised as follows:

- Environmental incidents must be reported as soon as they occur, and the Project team must respond immediately to mitigate further environmental impacts.
- Investigation into the cause of the incident should be completed and a solution should be constructed to remediate the Environmental damage.
- The Project Manager must then notify the QLDC and/or the ORC of the details of the incident within 12 hours of being made aware of the incident.

## Rapid Response for Storm Events

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The procedure for rapid response to storm events is outlined in Section 4.5 of the EMP, however these can be summarised as follows:



- The Project Manager will observe and understand the **weather forecast** throughout the project to ensure appropriate preparation onsite.
- If a **significant storm** event is forecast all works should stop within an appropriate amount of time to inspect ESC devices and undertake any maintenance or site stabilisation required.
- The sediment controls should be in operating condition and fully functional.
- During the storm event the site should be monitored to ensure the functioning of the ESC devices and maintained if required.

**When storms are forecast it is crucial that tools are downed in time for the rapid response procedure to be implemented. This will help avoid environmental incidents, potential enforcement action and site shutdown.**

## APPENDIX 4

## Environmental Site Induction Register

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ENVIRONMENTAL SITE INDUCTION REGISTER

Name	Organisation	Date Inducted	Induction Delivered by	Signature

**APPENDIX 5**

**Weekly Environmental Site Inspection Form**

---



# 123 Slopehill Road



## WEEKLY ENVIRONMENTAL SITE INSPECTION FORM

Environmental Representative:

Date:

Item	Yes	No	Comment			
<b>General</b>						
Is the EMP available onsite?	<input type="checkbox"/>	<input type="checkbox"/>				
Have any environmental incidents occurred during the week? If so, provide details	<input type="checkbox"/>	<input type="checkbox"/>	*If yes, complete environmental incident report.			
Complete description of weather for upcoming week – circle applicable						
Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Are there any rain events forecasted for the coming week?	<input type="checkbox"/>	<input type="checkbox"/>				
Have pre rain event inspections been completed?	<input type="checkbox"/>	<input type="checkbox"/>				
Have post rain event inspections been completed?	<input type="checkbox"/>	<input type="checkbox"/>				
<b>Water Quality</b>						
Is water quality monitoring occurring when water is flowing across the site boundaries?	<input type="checkbox"/>	<input type="checkbox"/>	*If yes, complete water quality monitoring form			
Is there visual evidence of sediment from the construction site entering waterways/drainage lines?	<input type="checkbox"/>	<input type="checkbox"/>				
Are daily visual inspections of waterways being conducted and recorded by the Project Manager?	<input type="checkbox"/>	<input type="checkbox"/>				
<b>Erosion and Sediment Control</b>						
Are works contained within the current stage and site boundaries?	<input type="checkbox"/>	<input type="checkbox"/>				
Are completed areas being progressively stabilised?	<input type="checkbox"/>	<input type="checkbox"/>				
Is there any new evidence of erosion?	<input type="checkbox"/>	<input type="checkbox"/>				
Are erosion and sediment controls installed as per the ESCP?	<input type="checkbox"/>	<input type="checkbox"/>				
Do sediment controls have over 80% capacity?	<input type="checkbox"/>	<input type="checkbox"/>				
<b>Cultural Heritage</b>						

## 123 Slopehill Road



Item	Yes	No	Comment
Have any finds of cultural significance been found?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Noise and Vibration</b>			
Have any complaints been received during the week?	<input type="checkbox"/>	<input type="checkbox"/>	*If yes, complete Complaints Register
Are nearby sensitive receptors being notified before significant noise and/or vibration causing activities?	<input type="checkbox"/>	<input type="checkbox"/>	
Are works only occurring within the hours of operation?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Dust</b>			
Have any complaints been received during the week?	<input type="checkbox"/>	<input type="checkbox"/>	*If yes, complete Complaints Register
Are works being staged to minimise soil exposure?	<input type="checkbox"/>	<input type="checkbox"/>	
Have completed areas been revegetated or stabilised?	<input type="checkbox"/>	<input type="checkbox"/>	
Is dust suppression of disturbed work areas and stockpiles occurring?	<input type="checkbox"/>	<input type="checkbox"/>	
Are works ceasing during high winds?	<input type="checkbox"/>	<input type="checkbox"/>	
Are only designated access points and haul routes being used?	<input type="checkbox"/>	<input type="checkbox"/>	
Is the site access and surrounding roads swept clean of sediment?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Contaminated Soils</b>			
Have any contaminants been uncovered during excavations?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Chemicals and Fuels</b>			
Are all hazardous substances on site stored, transported and used according to the safety data sheet requirements?	<input type="checkbox"/>	<input type="checkbox"/>	
Are vehicles and plant being refuelled in the refuelling bay?	<input type="checkbox"/>	<input type="checkbox"/>	
Is concrete washing being undertaken in the concrete wash-out pit?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there an adequate supply of spill kits onsite? Have any used materials been replaced?	<input type="checkbox"/>	<input type="checkbox"/>	
<b>Waste</b>			
Is the site in a safe, clean and tidy state?	<input type="checkbox"/>	<input type="checkbox"/>	
Are wastes segregated into labelled bins with lids?	<input type="checkbox"/>	<input type="checkbox"/>	
Are skip bins not overfilled?	<input type="checkbox"/>	<input type="checkbox"/>	

## 123 Slopehill Road



Item	Yes	No	Comment
Is waste removed from open drains and drainage paths?	<input type="checkbox"/>	<input type="checkbox"/>	

Actions resulting from this inspection must be forwarded to the Project Manager any actions should be recorded in the Non-Conformance Register – Appendix 8.

Additional Comments:

Names and Signatures of inspection attendees:

## APPENDIX 6

## Environmental Incident Report Form

---



## 123 Slopehill Road



### ENVIRONMENTAL INCIDENT REPORT FORM

<b>Project Address:</b> 123 Slopehill Road, Queenstown	<b>Consent Number:</b> TBC
<b>Brief Project Description:</b> Development of a three-bay shed containing a residential flat, accessory building and the associated earthworks including the hard piping of a section of the Arrow Irrigation Race	

**Instructions-** Complete this form for all environmental incident that cause contaminants (including sediment) or environmental nuisance to leave the site. Be succinct, stick to known facts and do not make assumptions. Once completed submit to Queenstown Lakes District Council at [RCMonitoring@qldc.govt.nz](mailto:RCMonitoring@qldc.govt.nz) and Otago Regional Council at [pollution@orc.govt.nz](mailto:pollution@orc.govt.nz) and [compliance@orc.govt.nz](mailto:compliance@orc.govt.nz). Call the QLDC Regulatory team immediately on 03 441 0499 and ORC's Pollution Hotline on 0800 800 033 for any serious or ongoing incidents that cannot be brought under immediate control.

<b>Date and Time</b>	Date: <input type="text"/> / <input type="text"/> / <input type="text"/> Time: <input type="text"/> : <input type="text"/> hours
<b>Description?</b> Provide a brief and factual description of what happened during the incident, include relevant details such as: <ul style="list-style-type: none"><li>- The activity being undertaken when the incident occurred</li><li>- The estimated distance to nearest waterway (include stormwater and dry courses)</li><li>- The estimated distance to the nearest sensitive receiver</li></ul> Sketches/diagrams/photos may be referenced and appended to this report to aid in the description of the incident.	
<b>Exact Location of the incident?</b> Include address, landmarks, features, nearest tree, etc. Maps and plans can be attached.	
<b>Quantity or volume of material escaped or causing incident?</b> (provide and estimate quantity)	
<b>Who identified the incident?</b>	Contractor <input type="checkbox"/> Council <input type="checkbox"/> Community <input type="checkbox"/> Other <input type="checkbox"/>

<b>What immediate actions/control measures were taken to rectify or contain the incident?</b>
<b>What initial corrective action will be taken to prevent similar incidents recurring in the near future?</b>
<b>Has the Queenstown Lakes District Council been notified?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> Will be notified <input type="checkbox"/>
<b>Has the Otago Regional Council been notified?</b> Yes <input type="checkbox"/> No <input type="checkbox"/> Will be notified <input type="checkbox"/>

<b>Role of person making report:</b> Project Manager / Site Supervisor / Environmental Representative / SQEP	
Name.....	Signature.....
Organisation.....	Date.....
Mobile phone number.....	

## APPENDIX 7

## Environmental Complaints Register

---

123 Slopehill Road



ENVIRONMENTAL COMPLAINTS REGISTER

Complaint #	Date and Time Received	Complainant details (name, address, phone number)	Details of Complaint	Investigation and Findings	Outcome	Close out Date

## APPENDIX 8

## Environmental Non-Conformance Register

---



123 Slopehill Road



ENVIRONMENTAL NON-CONFORMANCE REGISTER

Ref Number	Date Observed	Found via (e.g., inspection, monitoring, complaint?)	Details of Non-conformance	Corrective Actions	Updated by	Close out Date

## APPENDIX 9

## Water Quality Monitoring Results Form

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## WATER QUALITY MONITORING RESULTS FORM

Date	Monitoring Trigger	Location Description	
	Yes	No	Measurement
Is the clarity of the water more than 100 mm?	<input type="checkbox"/>	<input type="checkbox"/>	____ mm
Is turbidity less than 100 NTU?*	<input type="checkbox"/>	<input type="checkbox"/>	____ NTU
Is the pH of the water between 5.5-8.5?*	<input type="checkbox"/>	<input type="checkbox"/>	pH ____
Are total suspended solids less than 50 mg/L?*	<input type="checkbox"/>	<input type="checkbox"/>	____ mg/L
Are hydrocarbons visible?	<input type="checkbox"/>	<input type="checkbox"/>	
Are tannins visible in the water?	<input type="checkbox"/>	<input type="checkbox"/>	
Is there any waste in the water?	<input type="checkbox"/>	<input type="checkbox"/>	
Description of any non-conformance and actions required:			
<ul style="list-style-type: none"> <li></li> </ul>			
Include images of sampling location:			

\*Enviroscope can provide Water Quality Monitoring services to measure turbidity and pH. If 100 NTU is exceeded, collect a water sample to send to laboratory for TSS measurement.

## HOW TO: WATER QUALITY SAMPLING

### 1. Select a Sampling Location

#### Sampling a discharge

Collect sample where water crosses the site boundary or enters a sensitive receptor from a retention device. Always photograph the location you sample from.



#### Sampling a waterway

Collect sample from the centre of the flow and the top third of the water column where possible.



#### Sampling a from a Sediment Retention Device

Collect sample from the discharge location, this is either near the decanting arms, spillway, hose or the outlet pipe.





## 2. Collect a Water Sample

### Taking a Water Sample

- Label container with site name, sampling location, date and time taken.
- Fill the container with water from the surface of your sampling location.

If you waded into the water to collect the sample, always collect the sample 'upstream' of where you're standing to avoid contamination by disturbed sediment.

Always ensure your meters are calibrated regularly to ensure accurate sampling results.



## 3. Measure and Record Turbidity, Clarity, and pH



### Measuring Turbidity using a Turbidity Meter

- Fill the turbidity pottle with the sampled water. Wipe away any moisture on the outside of the pottle and insert it into the meter. Turn the meter on and once the standby value appears press read. Record the turbidity value.

### Measuring Clarity using a field testing seechi disc

- Lower the seechi disc into the water sample until you can no longer see the disc. Then lift the seechi disc back up until the disc is just visible. Record the number where the water level sits.



### Measuring pH using a pH Meter

- Submerge the probe of the pH meter into the water sample. Keep the probe in the water until the value on the meter is fixed. Swirling the probe can help the value fix faster. Record the pH value.

## **APPENDIX 10**      **Archaeological Discovery Protocol**

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HERITAGE NEW ZEALAND  
POUHERE TAONGA

## Heritage New Zealand Pouhere Taonga Accidental Discovery Protocol

**This protocol does not apply when an archaeological authority issued under the Heritage New Zealand Pouhere Taonga Act 2014 is in place.**

Under the Heritage New Zealand Pouhere Taonga Act (2014) an archaeological site is defined as any place in New Zealand that was associated with human activity that occurred before 1900 and provides or may provide, through investigation by archaeological methods, evidence relating to the history of New Zealand. For pre-contact Māori sites this evidence may be but is not limited to, bones, shells, charcoal, stones etc. In later sites of European/Chinese origin, artefacts including but not limited to bottle glass, crockery etc. may be found, or evidence of old foundations, well, drains, or similar structures. Burials/kōiwi may be found in association with any of these cultural groups.

In the event that an unidentified archaeological site is located during works, the following applies;

1. Work shall cease immediately at that place and within 20m around the site.
2. The contractor must shut down all machinery, secure the area, and advise the Site Manager.
3. The Site Manager shall secure the site and notify the Heritage New Zealand Regional Archaeologist. Further assessment by an archaeologist may be required.
4. If the site is of Māori origin, the Site Manager shall notify the Heritage New Zealand Regional Archaeologist and the appropriate papatipu rūnaka of the discovery and ensure site access to enable appropriate cultural procedures and tikaka to be undertaken, as long as all statutory requirements under legislation are met (*Heritage New Zealand Pouhere Taonga Act, Protected Objects Act*).
5. If human remains (kōiwi) are uncovered the Site Manager shall advise the Heritage New Zealand Regional Archaeologist, NZ Police and the appropriate papatipu rūnaka and the above process under 4 shall apply. Remains are not to be moved until such time as papatipu rūnaka and Heritage New Zealand have responded.
6. Works affecting the archaeological site and any human remains (kōiwi) shall not resume until Heritage New Zealand Pouhere Taonga gives written approval for work to continue. Further assessment by an archaeologist may be required.
7. Where iwi so request, any information recorded as the result of the find such as a description of location and content, is to be provided for their records.
8. Heritage New Zealand Pouhere Taonga will advise if an archaeological authority under the *Heritage New Zealand Pouhere Taonga Act 2014* is required for works to continue.

It is an offence under S87 of the *Heritage New Zealand Pouhere Taonga Act 2014* to modify or destroy an archaeological site without an authority from Heritage New Zealand irrespective of whether the works are permitted or consent has been issued under the Resource Management Act.

Heritage New Zealand Pouhere Taonga Archaeologist contact details:

Nikole Wills  
Regional Archaeologist Otago/Southland  
Heritage New Zealand  
PO Box 5467  
Dunedin  
Ph. +64 3 470 2364, mobile 027 240 8715  
Fax. +46 3 477 3893  
[nwills@heritage.org.nz](mailto:nwills@heritage.org.nz)



# View Instrument Details



**Instrument No** 8243173.5  
**Status** Registered  
**Date & Time Lodged** 06 November 2009 11:32  
**Lodged By** Kennedy, Leilani Floris  
**Instrument Type** Easement Instrument



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## Affected Computer Registers    Land District

427400	Otago
427401	Otago
427402	Otago
427403	Otago

---

**Annexure Schedule:** Contains 4 Pages.

---

## Grantor Certifications

I certify that I have the authority to act for the Grantor and that the party has the legal capacity to authorise me to lodge this instrument	<input checked="" type="checkbox"/>
I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument	<input checked="" type="checkbox"/>
I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply	<input checked="" type="checkbox"/>
I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period	<input checked="" type="checkbox"/>
I certify that the Mortgagee under Mortgage 5799639.5 has consented to this transaction and I hold that consent	<input checked="" type="checkbox"/>
Caveat 6358789.1 is being withdrawn or removed or an application to lapse will be made, in a prior dealing or in the same dealing	<input checked="" type="checkbox"/>

## Signature

Signed by Jayne Elizabeth Macdonald as Grantor Representative on 05/11/2009 11:14 AM

---

## Grantee Certifications

I certify that I have the authority to act for the Grantee and that the party has the legal capacity to authorise me to lodge this instrument	<input checked="" type="checkbox"/>
I certify that I have taken reasonable steps to confirm the identity of the person who gave me authority to lodge this instrument	<input checked="" type="checkbox"/>
I certify that any statutory provisions specified by the Registrar for this class of instrument have been complied with or do not apply	<input checked="" type="checkbox"/>
I certify that I hold evidence showing the truth of the certifications I have given and will retain that evidence for the prescribed period	<input checked="" type="checkbox"/>

## Signature

Signed by Jayne Elizabeth Macdonald as Grantee Representative on 05/11/2009 11:14 AM

\*\*\* End of Report \*\*\*

Approved by Registrar-General of Land under No. 2007/6225

**Easement instrument to grant easement or profit à prendre, or create land covenant**  
Sections 90A and 90F, Land Transfer Act 1952

Land registration district

OTAGO



BARCODE

Grantor

Surname(s) must be underlined or in CAPITALS.

SLOPEHILL PROPERTIES LIMITED

Grantee

Surname(s) must be underlined or in CAPITALS.


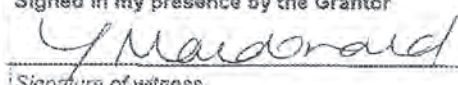

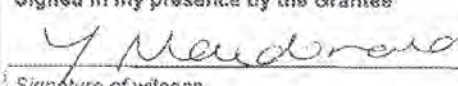
SLOPEHILL PROPERTIES LIMITED

Grant\* of easement or profit à prendre or creation of covenant

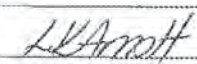
The Grantor, being the registered proprietor of the servient tenement(s) set out in Schedule A, grants to the Grantee (and, if so stated, in gross) the easement(s) or profit(s) à prendre set out in Schedule A, or creates the covenant(s) set out in Schedule A, with the rights and powers or provisions set out in the Annexure Schedule(s).

Dated this 5th day of November 2009

Attestation

 Director	Signed in my presence by the Grantor
	 Signature of witness Witness to complete in BLOCK letters (unless legibly printed) Witness name Occupation Jayne Elizabeth Macdonald Solicitor Address Queenstown
Signature [common seal] of Grantor	
 Director	Signed in my presence by the Grantee
	 Signature of witness Witness to complete in BLOCK letters (unless legibly printed) Witness name Occupation Jayne Elizabeth Macdonald Solicitor Address Queenstown
Signature [common seal] of Grantee	

Certified correct for the purposes of the Land Transfer Act 1952.

  
 (Solicitor for) the Grantee

\*If the consent of any person is required for the grant, the specified consent form must be used.

REF: 7003 -- AUCKLAND DISTRICT LAW SOCIETY



Approved by Registrar-General of Land under No. 2007/6225

**Annexure Schedule 1**

Easement instrument

Dated

5 November 2009

Page

1

of

1

pages

**Schedule A**

(Continue in additional Annexure Schedule if required.)

Purpose (nature and extent) of easement, profit, or covenant	Shown (plan reference)	Servient tenement (Identifier/CT)	Dominant tenement (Identifier/CT or in gross)
Right of Way, Right to Convey Water, Right to Convey Electricity, Right to Convey Telecommunication Cables and Computer Media	A and B on DP 407786	Lot 2 DP 407786 CT 427400	Lot 4 DP 407786 CT 427402  Lot 5 DP 407786 CT 427403
Right of Way	H, J and K on DP 407786	Lot 3 DP 407786 CT 427401	Lot 2 DP 407786 CT 427400
Right to Convey Water	A and B on DP 407786	Lot 2 DP 407786 CT 427400	Lot 3 DP 407786 CT 427401

**Easements or profits à prendre**  
rights and powers (including  
terms, covenants, and conditions)

Delete phrases in [ ] and insert memorandum  
number as required.

Continue in additional Annexure Schedule if  
required.

Unless otherwise provided below, the rights and powers implied in specific classes of easement are those prescribed by the Land Transfer Regulations 2002 and/or the Fifth Schedule of the Property Law Act 2007.

The implied rights and powers are ~~varied~~ ~~negotiated~~ ~~added to~~ or ~~substituted~~ by:

~~{Memorandum number \_\_\_\_\_, registered under section 165A of the Land Transfer Act 1952}~~

~~{the provisions set out in Annexure Schedule 2}~~

**Covenant provisions**

Delete phrases in [ ] and insert memorandum number as required.

Continue in additional Annexure Schedule if required.

The provisions applying to the specified covenants are those set out in:

~~{Memorandum number \_\_\_\_\_, registered under section 165A of the Land Transfer Act 1952}~~

~~{Annexure Schedule 2}~~

All signing parties and either their witnesses or solicitors must sign or initial in this box

Approved by Registrar-General of Land under No. 2003/5150  
**Annexure Schedule - Consent Form**  
 Land Transfer Act 1952 section 238(2)



Insert type of instrument  
 "Caveat", "Mortgage" etc

Easement Instrument

Page 1 of 1 pages

Consentor

Surname must be underlined or in CAPITALS

Capacity and Interest of Consentor

(eg. Caveator under Caveat no./Mortgagee under Mortgage no.)

WESTPAC NEW ZEALAND LIMITED

Mortgagee under Mortgage No. 5799639.5

Consent

Delete Land Transfer Act 1952, if inapplicable, and insert name and date of application Act.

Delete words in [ ] if inconsistent with the consent.

State full details of the matter for which consent is required.

Pursuant to [section 238(2) of the Land Transfer Act 1952]

[Section] of the [Act]

[Without prejudice to the rights and powers existing under the interest of the Consentor]

The Consentor hereby consents to:

Registration of the Easement Instrument attached hereto creating Right of way, right to convey water, Right to convey electricity and Right to convey telecommunication cables and computer media easements in favour of Lot 2 DP 407786 Certificate of Title 427400, Lot 3 DP 407786 Certificate of Title 427401, Lot 4 DP 407786 Certificate of Title 427402 and Lot 5 Deposited Plan 407786 Certificate of Title 427403.

Dated this 3rd day of November 2009

Attestation

 Grant William Riddell BANK OFFICER WESTPAC CHRISTCHURCH	Signed in my presence by the Consentor
	Signature of Witness
	Witness to complete in BLOCK letters (unless legibly printed)
	Witness name
Signature of Consentor	Occupation Grant William Riddell Bank Officer Address Christchurch

An Annexure Schedule in this form may be attached to the relevant instrument, where consent is required to enable registration under the Land Transfer Act 1952, or other enactments, under which no form is prescribed.

REF 7329 - AUCKLAND DISTRICT LAW SOCIETY



CERTIFICATE OF NON-REVOCATION OF POWER OF ATTORNEY

I, Kaye Schumacher, of Christchurch in New Zealand, Bank Officer

HEREBY CERTIFY -

1. THAT by Deed dated 6 September 2006 a copy of which is deposited with Land Information New Zealand and numbered 7032934.1, WESTPAC NEW ZEALAND LIMITED, incorporated in New Zealand and having its principal place of business at 188 Quay Street, Auckland appointed me its attorney on the terms and subject to the conditions set out in that Deed.
2. THAT at the date hereof I am a Tier Three Attorney for Westpac New Zealand Limited.
3. THAT at the date of this certificate I have not received any notice or information of the revocation of that appointment by the winding up or dissolution of Westpac New Zealand Limited or otherwise.

Signed at Christchurch



Kaye Schumacher

this 3 November 2009

**From:** "Kim Banks" <kim@brownandcompany.co.nz>  
**Sent:** Fri, 13 Oct 2023 13:24:28 +1300  
**To:** "Vicki Jones" <vicki.jones@qldc.govt.nz>  
**Subject:** RE: RM230311 – Sam Hazledine - S92(1) REQUEST FOR FURTHER INFORMATION  
**Attachments:** 278\_SK-102\_Earthworks Plan.pdf

Hi Vicki

Please see below responses to your RFI.

Kind Regards,  
**Kim Banks**  
Planner

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**From:** Vicki Jones <vicki.jones@qldc.govt.nz>  
**Sent:** Friday, October 6, 2023 4:37 PM  
**To:** Kim Banks <kim@brownandcompany.co.nz>  
**Subject:** RM230311 – Sam Hazledine - S92(1) REQUEST FOR FURTHER INFORMATION

**S92(1) REQUEST FOR FURTHER INFORMATION**

Hi Kim

**Re: RM230311 – Sam Hazledine - s92(1) Request for further information**

This email is a request under s92(1) of the Resource Management Act 1991 (RMA) for further information to assist Council in processing your application and understanding of the actual or potential adverse effects of your proposal. Please see the below, which sets out why the request is being made, and the process should you refuse to provide information or not respond to this request.

As I have not yet had a response to the informal request for further information sent to you on 3 October 2023, I felt it was prudent to send out a formal RFI in relation to those two points and one additional point that has come to light during my report drafting.

**Requested Information**

The following additional information is requested for the reasons set out below:

1. **Consenting history for the large shed in the western setback and other small sheds along the right of way.**

Can you please provide the consenting history of the large (150m<sup>2</sup>) shed that is located within the western boundary and also confirm whether the other small structures/ shed along the ROW, including a recently constructed one close to the proposed residential flat) are consented and, if not, whether they will be removed or included in this current consent.

This information is necessary to enable council to fully understand what is consented and what is not and whether any unconsented buildings are being included in the current application.

*[Kim Banks] I have been unable to find the consenting history for the large 150m<sup>2</sup> shed. However, the plans of RM120730 from 2012 show that this shed was 'existing' at that time. In any case, RM210095 consented all existing built form and proposed additions, and included this shed within the approved footprint. Therefore, this shed has been consented.*

*In relation to the other small sheds, the applicant agrees to a condition requiring that they be removed upon construction of the proposed buildings. It is noted that the storage proposed through the current application is intended to tidy up these other small structures which have been necessary to store horse care equipment to date.*

**2. The approximate extent of earthworks within 10 m of the water body, the volume and area of earthworks required for the trench to pipe the water race, and the provision of an EMP**

- a. Can you please provide me with the approximate volume of earthworks that will occur within 10 m of the open water race. In doing so, it strikes me that this may depend on whether the earthworks will all be done at once (meaning a lot of it will be within 10 m of the existing open race) or whether you will pipe the race first thereby meaning that most of the existing open race will no longer be a water body and that only a small area of earthworks in the north-eastern corner will be within 10 m of that part of the water race that is proposed to stay open. Can you please confirm whether any such staging is intended (and ideally volunteer a condition in relation to that if it is to be staged) and then base your estimation of the volume of earthworks within 10 of a water body off that. Given that it is likely that the Council will consider the water race to be a Sensitive Environmental Receptor\*\*, this information is required in order to understand the risks posed by the earthworks and to determine whether a low risk or medium risk EMP is required.

*\*\* - Living things, ecosystems or sites of cultural significance that can be adversely impacted by exposure to pollution or contamination. Includes places and areas occupied by people that are more susceptible to the adverse effects of exposure to toxic chemicals, pesticides, and other pollutants than the general population (e.g. hospitals, schools, daycare facilities), drinking water sources, and also sensitive plant and animal species and habitats. Also includes wāhi tūpuna and other places of cultural and heritage significance.*

*[Kim Banks] It is intended that the piping of the race would be undertaken first, before any earthworks associated with construction of the buildings. The applicant is willing to accept a condition specifying that the piping shall be undertaken as the first stage of earthworks.*

- b. Please confirm the volume provide an updated earthworks plan showing the earthworks that will be required to relocate and pipe the water race (presumably this will increase the volume and area (and potentially the max depth of cut)

*[Kim Banks] See attached revised earthworks plan which now includes volumes associated with the piping of the race. This plan also clarifies the position of the existing piped section of the race*

*through the property. As shown, proposed earthworks within the open race itself are limited to a minimal amount of each end of the pipe only.*

- c. Please provide an EMP that accords with the level of risk posed by the earthworks (which will be influenced by whether you stage the fill in the manner outlined above in order to minimise or avoid breaching the amount of earthworks within 10 m of the water race).

**[Kim Banks]** *It is requested that this EMP be specified as a condition of consent, or alternatively, that this RFI item remains to be responded to later in the processing stages.*

**3. Assessment of effects on landscape character and visual amenity values if the proposed buildings are extended or altered in the manner permitted by the plan and re-used for other residential purposes or volunteered conditions restricting the use and scale of the buildings to that applied for in this consent.**

As the PDP permits residential activity and alterations to buildings beyond the building platform, if the applicant has not volunteered conditions limiting the scale and use of those buildings to that which has been applied for approved by the consent, it is necessary for Council to consider the effects on the landscape character and visual amenity values that would result if the buildings were all increased in height to permitted building height of 6.5 m and the external appearance and use of those buildings is changed to some other residential activity. As such, please either provide an assessment of this or, if you prefer, volunteer conditions that limits the use of the buildings to that specified in the application and restricts any changes to their external appearance.

**[Kim Banks]** *It is noted that the footprint of buildings could not be increased without consent, as any increase to GFA on the site would exceed 500m<sup>2</sup> and require consent under Rule 24.5.5 and/or 24.5.6. In relation to these rules, I interpret that these are additional to each other, i.e. a maximum of 500m<sup>2</sup> GFA is enabled for a residential unit within a platform, and 500m<sup>2</sup> for buildings outside of a residential platform. This is relevant to the consideration of the total GFA proposed.*

*As such, the permitted increases you refer to are limited to increases to building height only, with the permitted building height for the zone being 6.5m. It is not within the scope of the application or the effects of the proposal to impose conditions on existing or previously consented buildings, and any conditions must be related to the current proposal. Additionally, the Rules of the PDP acknowledge that some alterations are reasonable to permit over time. However, the applicant is willing to accept a condition that the buildings proposed through this application shall not be altered to increase beyond the consented maximum height (or footprint).*

**Responding to this request**

This letter represents the formal request under Section 92(1) and sets out the reasons for the Council requesting the information in accordance with section 92(3)(a) of the RMA.

You are required to respond to this request in writing within **15 working days** from the date of this email, which is **30 October 2023**, to advise the consent authority that you either agree or refuse to provide the information requested, or to seek an alternative timeframe to provide the information in accordance with RMA section 92A(2)(a).



If you are seeking an alternative timeframe to provide the information, this new timeframe must be agreed in writing with Council.

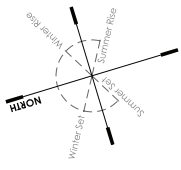
In accordance with RMA section 88C(2), the consent authority will exclude all time from the consent process working days starting from the date of this request, and ending when – satisfactory information is received on or before either the statutory 15 working day date (above), or other agreed date; or if no information is received the agreed date; or the date Council receives confirmation the applicant refuses to provide the information (in accordance with s88C(2)(b)).

In accordance with section 92A(3) of the RMA, if the applicant refuses to provide, or does not provide the information in the agreed timeframe, or does not respond to this request, the Council must advance processing the application without the benefit of the requested information, and must publicly notify the application in accordance with section 95C of the RMA.

Ngā mihi | with kind regards,

**Vicki Jones** | Resource Management  
Consultant | Planning and Development  
Queenstown Lakes District Council  
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**KEY:**

Existing contours (1m)  
Proposed contours (1m)

Cut  
Vol. 75m<sup>3</sup>, Area 380m<sup>2</sup>  
Fill  
Vol. 650m<sup>3</sup>, Area 1260m<sup>2</sup>

Ex. water race to be filled:  
Fill  
Vol. 200m<sup>3</sup>, Area 131m<sup>2</sup>

Proposed water race piped:  
Cut  
Vol. 58m<sup>3</sup>, Area 58m<sup>2</sup>

Fill  
Vol. 48m<sup>3</sup>, Area 58m<sup>2</sup>

Total earthworks volume = 1,031m<sup>3</sup>  
Total earthworks area = 1,887m<sup>2</sup>

Max. depth cut = 0.4m  
Max. depth fill = 1.5m

Water race to be piped ahead of  
undertaking site earthworks

Volume are approximate only for  
purposes of resource consent

All areas of exposed earthworks to  
be regrassed with browntop /  
rescue grass in the next available  
growing season

Earthworks to be in accordance  
with QJDC Guide to Earthworks