

Engineering Advice – Revision 1

9 March 2026

Resource Consent Number: RC250259

Planner/Overseer: Tim Anderson

Short Description/Proposal: Proposal includes the creation of 4 Rural Residential titles comprising a total area of 16.5 ha plus 3 titles within the balance land to be retained by the partners comprising .5 ha each. The latter titles will include a right to an undivided one third share in the balance land being 191.657 ha Lot 1. The proposal proposes a QEII covenant over 182 ha that will provide for the protection of the outstanding natural landscape that exists here from further building development or subdivision and to facilitate the ongoing restoration of the natural vegetation. A weed control and native species planting program has been developed and is in train. In addition to the subdivision, a minor boundary change is being proposed to resolve an adverse occupation.

Lot 1 – 191.4483 ha – QEII Covenant Land

Lot 2 – 0.5 ha – Rural lifestyle allotment

Lot 3 – 0.5 ha – Rural lifestyle allotment

Lot 4 – 0.5 ha – Rural lifestyle allotment

Lot 5 – 6.7 ha – Rural lifestyle allotment

Lot 6 – 5 ha – Rural lifestyle allotment

Lot 7 – 2.5 ha – Rural lifestyle allotment

Lot 8 – 2.3 ha – Rural lifestyle allotment

General

Commentary:

We are seeking legal guidance around when conditions do or do not violate s108AA.

However, in the meantime our position is that we can still require outdated or malfunctioning services to be updated as part of the Resource Consent and subdivision certification processes.

Conditions:

Unless modified by other conditions, all designs and approvals are to be in accordance with NZS 4404:2004 and the July 2008 CODC Addendum. Together these two documents form the Council's Code of Practice for subdivision.

Prior to commencement of any physical work the consent holder must apply for and receive council Engineering Acceptance (EA) via the CODC online portal at:

CODC Home > Services > Planning > Land Development and Subdivision Engineering

This EA application must include:

-  Confirming who their representative is for the design and execution of the engineering work.

-  Provide of design: reports, calculations, specifications, schedules, and drawings, as applicable.

Producer Statements/Certificates where appropriate are to be submitted as per NZS 4404:2004 in the form of:

-  Schedule 1A,
-  Schedule 1B,
-  Schedule 1C, and
-  Standalone Schedule 1B for 3 waters work.

As-built drawings are to be lodged with the Council in accordance with clause 1.5.10(b) of NZS 4404:2004 and must comply with Council's "Specifications for as-built drawing documentation version 3.1". The as-built drawings are to be provided in *.dwg/*.dxf or *.12da, and in *.pdf file format. New Zealand Vertical Datum (NZVD2016) must be used.

Any easements required to protect access or for access to services must be duly granted or reserved.

Potable Water Supply

Commentary: Lots 5-8 are proposed to be serviced by a piped supply from an existing bore on Lot 6.

Lot 2-4 are proposed to be serviced by piped supply from an existing bore on Lot 1, close to the proposed platforms

Each allotment will have a firewater tank, and this will need to comply with the CODC firewater requirements.

Bore water tests for the two bores have been provided which appear to comply. Standard CODC water supply conditions will be required.

Particular care should be taken to ensure that the proposed onsite wastewater systems do not impact upon the existing bores and therefore require suitable treatment and setback distances are required. The onsite wastewater design must explicitly consider these.

Conditions:

An adequate working water supply (with consent notice on title advising that this is an unpowered water source only) must be provided individually to each of the proposed Lots 2-8 from the on-site bore(s) in accordance with the CODC Addendum, including Clause 6.3.15 Small Rural Water Supplies, and other relevant provisions of NZS 4404:2004, with the following specific requirements:

a) **Post-consent/224c Quality.**

- i) Resolution of any non-compliance, through installation of point-of-use remedial treatment, must be confirmed by being retested fully compliant. Or,
- ii) a consent notice must be registered on the title/s describing any non-compliant aspects of the water supply and detailing installation of point-of-use remedial treatment required, and that the adequacy of such treatment must be confirmed through retesting as fully compliant, prior to any domestic use of the water supply or occupation of any connected dwelling.

b) **Connection.** Standard water connections must be installed to the boundary of the subject property / proposed Lots 2-8 including a standard valve and meter and/or restrictor assembly located at or within the Lot / property boundary.

c) **Documentation.** A new or updated, as appropriate, operation and maintenance manual including a description of the water supply system and as-built drawings of the reticulation layout, and formal ownership and management documentation, must be provided to Council for each network water supply system.

d) **Design.**

i) The bore must be inspected by a suitably qualified person to confirm it is constructed, maintained, tested, and records kept (drilling log), in accordance with NZS 4411:2001 - Environmental Standard for Drilling of Soil and Rock. Including that the bore is constructed to ensure the bore head casing and reticulation is sealed to avoid ingress of surface water and other foreign matter at all times. Specific consideration of the onsite wastewater fields must be made, and the designer is to demonstrate that the required setbacks from the fields are achieved.

This confirmation must be submitted to, and accepted by, Council. If this cannot be achieved, then a new bore must be installed as per ii) below.

ii) The bore must be designed and constructed by a suitably qualified person, and a description of the design along with as-built drawings must be submitted to, and accepted by, Council. Specific consideration of the onsite wastewater fields must be made, and the designer is to demonstrate that the required setbacks from the fields are achieved.

e) **Access.** Necessary easements must be in place for pipework and access to water sources to, or within the boundary of, each lot.

Standard Advice Notes & Comments

Rural Network water supply Advice Note regarding Taumata Arowai:

Advice note: As the potable water supply will be a network supply, the supplier should be aware of the requirements of, and their obligations under, the Water Services Act 2021.

Water meter placement Advice Note:

Advice note: If water toby boxes are to be placed anywhere within vehicle accessway/crossings, because other solutions are not feasible, they must be all-metal so as to support traffic loading.

Note: For the purpose of engineering calculations; the expected potable consumption of worker accommodation / campgrounds is 220 litres-per-person-per-day.

Firefighting Water Supply

Commentary: Firewater tanks are proposed for firewater supply. These will need to comply with the CODC requirements.

Conditions:

Rural Firefighting

The following firefighting requirements must be attached to the title/s of proposed Lots 2-8 by consent notice. At the time of dwelling construction, minimum domestic water and firefighting storage is to be provided by a standard 30,000 litre tank. Of this total capacity, a minimum of 20,000 litres must be always maintained as a static firefighting reserve. Alternatively, an 11,000-litre firefighting reserve is to be made available to the building in association with a domestic sprinkler system installed in the building to an approved standard. A firefighting connection is to be located within 90 metres of any proposed building on the site. To ensure that connections are compatible with Fire and Emergency New Zealand (FENZ) equipment the fittings are to comply with the following standards:

- a) Either: For flooded sources, a 70 mm Instantaneous Couplings (Female) NZS 4505 or, for suction sources, a 100 mm and 140 mm Suction Coupling (Female) NZS 4505 (hose tail is to be the same diameter as the threaded coupling e.g. 100 mm coupling has 100 mm hose tail), provided that the consent holder must provide written approval of Fire and Emergency New Zealand to confirm that the couplings are appropriate for firefighting purposes.
- b) All connections must be capable of providing a flow rate of 25 litres per second at the connection point.
- c) The connection must have a hardstand area adjacent to it to allow a Fire and Emergency New Zealand appliance to park on it. The hardstand area must be located at the centre of a clear working space with a minimum width of 4.5 metres. Access must be always maintained to the hardstand area.
- d) Underground tanks or tanks that are partially buried (provided the tank is no more than 1 metre above ground) may be accessed by an opening in the top of the tank, removing the need for couplings.
- e) Any new water tank must be coloured dark green/grey/brown or similar, and located to ensure it is not visible against the skyline when viewed from any public place.

Advice Note 1: For more information on how to comply with this Condition or on how to provide for FENZ operational requirements refer to the Fire Fighting Water Supplies Code of Practice SNZ PAS 4509:2008.

Advice Note 2: Firefighting water supply may be provided by alternative means to the above with written approval of FENZ.

Wastewater

Commentary: Onsite wastewater is proposed for each allotment. A preliminary soil assessment has been provided by a local drainlayer. This doesn't meet the requirements of a Site and Soil Assessment under AS/NZS1547:2012. Site specific sketches of suitable discharge field locations have been provided demonstrating that each allotment has sufficient space on site to provide an onsite wastewater discharge field.

The application notes that "septic tanks treatment" will be provided. The applicant has clarified that that "Secondary Treatment", as per AS/NZS1547:2012 will be provided, and therefore the discharge fields should be designed for Secondary Treatment loading rates.

Conditions:

Rural wastewater consent notice

A consent notice must be attached to the new titles for proposed Lots 2 - 8 requiring the design and installation of an on-site wastewater disposal system by a suitably qualified and experienced person, in compliance with Clauses 5.5 b), c), d), and e) of Council's July 2008 Addendum to NZS4404:2004 (note compliance with 2012 version of AS/NZS1547 required, including the provision of Secondary Treatment), and sited in compliance with Otago Regional Council requirements, at the time of dwelling construction. "Secondary Treatment" shall have the meaning and performance intent described in AS/NZS 1547:2012, including treatment beyond primary septic tank treatment as contemplated by Clauses 1.9 and 5.4, and enabling land application at secondary treatment loading rates in accordance with the Standard.

Stormwater

Commentary: The application is silent on stormwater discharge from individual allotments. This is not unusual for a rural development and based on the existing ground conditions and the proposed lot areas, sufficient area will be available to provide onsite discharge of stormwater runoff from the new impermeable areas for 10% AEP events, under the NZBC Clause E1. Secondary flows are expected to follow existing flow paths and no redirection of existing flow paths are proposed.

It was noted by CODC's roading manager that prior works to the existing accessway on Hawley Road have resulted in changes to stormwater flows which require rectification.

CODC's roading manager requested the following information:

1. Submission of a drainage design completed by a suitably qualified person that addresses the stormwater ingress into 96 Hawley Road.
2. Evidence of liaison with any adjacent landowners affected by the proposed drainage improvements.
3. A timeline for the completion of the above works.

No proposal from the applicant has been presented to address these issues. These aspects should be addressed in the application along with the engineering approval phase of the development.

Conditions:

- i) Stormwater from buildings and other impervious surfaces within each of proposed Lots 2-8 2 must be stored for beneficial reuse or disposed of by soak-pit designed by a suitably qualified and experienced person within the property / boundary / of each lot, or disposed of to overland flow-paths / existing water courses with discharge being attenuated to pre-development levels. This requirement must be secured by means of a consent notice attached to the new titles.
- ii) Submission of a drainage design completed by a suitably qualified person that addresses the stormwater ingress into 96 Hawley Road.
- iii) Evidence of liaison with any adjacent landowners affected by the proposed drainage improvements.

Access

Commentary: Access is proposed via new vehicle crossings constructed in accordance with CODC's requirements. Lots 2-4 are accessed from a new Right of Way, with a QEII covenant, utilising an existing farm track. The existing tracks will need to be upgraded to meet the CODC requirements, as per Table 3.2(a) Road Standards – Rural of the CODC NZS4404:2004 Addendum.

Lots 5-8 will be accessed from an existing formed track within an existing legal road reserve. A portion of the track crosses private property which will be covered by a Right of Way easement. This existing track should be upgraded to the CODC requirements, as per Table 3.2(a) Road Standards – Rural of the CODC NZS4404:2004 Addendum for a Local Access B. However, it is not expected that the track be vested with CODC given the restricted access over the Right of Way portion.

Conditions:

A new vehicle entranceway/crossing from Hawley Road to serve proposed Lot 2-4 must be constructed in compliance with the requirements of Part 29 of Council's Roading Policies January 2015, either as a requirement of 224c certification or at the time of building if secured by the standard consent notice registered on the new title.

- For crossings onto sealed roads an upgraded crossing must include a cutout 300 mm into the sealed road or until the full thickness of the sealed road is reached, whichever is greater. The interface must have tape seal banding over all joins for new asphalt crossings, and at least 150 mm chip seal overlap for new chip seal crossings. Chip seal crossings must be two-coat.

The existing vehicle entranceway/crossing from Hawley Road to serve proposed Lot 5-8 must be upgraded in compliance with the requirements of Part 29 of Council's Roading Policies January 2015, either as a requirement of 224c certification or at the time of building if secured by the standard consent notice registered on the new title.

Rural ROW (6 lots or less)

The Right-of-Way (ROW) extending off Hawley Road must be constructed in accordance with the ROW requirements of Table 3.2 (a) of Council's July 2008 Addendum to NZS 4404:2004, and with the following specific requirements:

- Minimum formed carriageway width of 4.5 metres.

- Minimum road reserve / legal width of 10.0 metres.

- Camber of 5-8%.

- Subgrade >CBR of 7.

- Durable well-bound wearing course to be constructed over pit-run base to provide all-weather traction and prevent surface ravelling.

- Shallow trafficable side-drains / water channels over level sections.

- Rock armouring of side channels over steeper sections.

- Stormwater discharging to soak pits within the ROW or to natural water courses, including rectification of drainage issues identified with the stormwater ingress to 93 Hawley Road in Condition (X).

- Accessway/crossings to adjoining lots must be provided off the ROW in compliance with Part 29 of Council's Roading Policies January 2015. For crossings onto sealed roads an upgraded crossing must include a cutout 300 mm into the sealed road or until the full thickness of the sealed road is reached, whichever is greater. The interface must have tape seal banding over all joins for new asphalt crossings, and at least 150 mm chip seal overlap for new chip seal crossings. Chip seal crossings must be two coat.

Rural Local access B requirements

Prior to 224c certification, the section of existing farm track extending from the Hawley Road to service Lots 5-8 must be demonstrated (upgraded as necessary) and vested in accordance with the Local Access B category requirements of Table 3.2 (a) of Council's July 2008 Addendum to NZS4404:2004, with the following specific requirements:

- Design in accordance with Austroads Guide for Geometric Design of Rural Roads.

- 4.5 metre top metal or sealed width with widening on curves.

- 5-8% normal camber and designed super-elevation.

- Subgrade >CBR of 7

- Shallow trafficable side-drains / water channels over level sections.

- Rock armouring to be provided to side-channels along steeper sections.

- A well bound durable surfacing metal to be provided that is resistant to ravelling and provides good all-weather traction. Material to be subject to testing and approval from Council's Roading Manager.

- Suitably sized culverts in water courses including rectification of drainage issues identified with the stormwater ingress to 93 Hawley Road in Condition (X).

Access to individual lots must be provided in accordance with Part 29 of Council's Roading Policies January 2015.

Sealed surface where 12.5% gradient is exceeded, and maximum gradient of 16.7%.

Subgrade requirements and metal depths to NZS4404:2004 and Council's July 2008 Addendum standards.

Power

Commentary: A reticulated power supply is proposed for Lots 5-8.

Standalone offgrid power is proposed for each of Lots 2-4.

Conditions:

Prior to 224c certification, operational underground power connections / services must be provided to the boundary of proposed Lots 5-8.

A suitably worded consent notice is to be placed on the titles of Lots 2-4 noting that no reticulated power supply is provided and that a standalone offgrid power supply is to be provided by the allotment owner.

Telecommunications

Commentary: The application is silent on the provision of telecommunications. I assume that wireless technology will be provided for Lots 2-4 given their offgrid power supply.

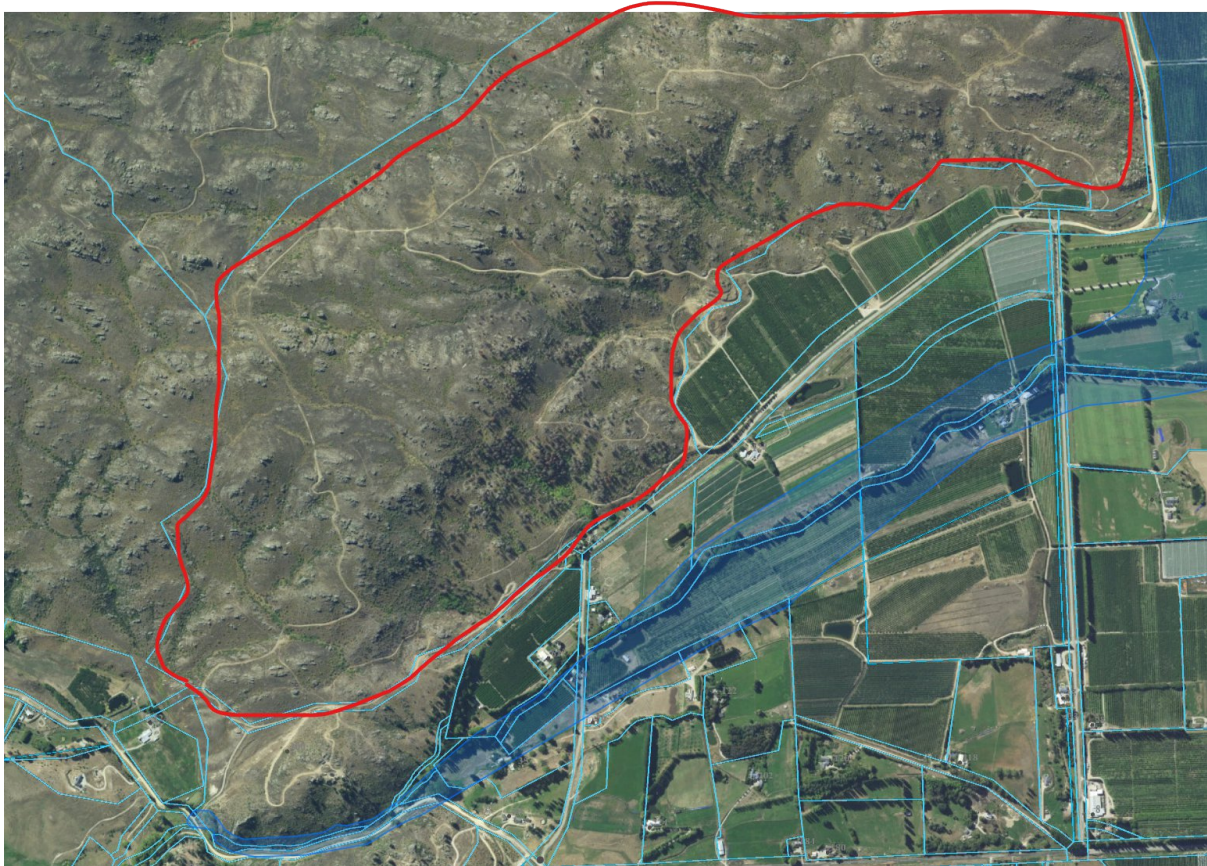
Lots 5-8 may have a reticulated communications network, but equally could have a wireless technology telecommunications provision.

Conditions:

Prior to 224c certification, operational telecommunication connections / services must be provided to the boundary of proposed Lots 5-8. Alternatively, telecommunications may be by wireless technology if desired by the applicant to be formalised by registration of a suitably worded consent notice on the new title. It is expected that Lots 2-4 have a suitably worded consent notice on the new title noting wireless technology for telecommunications.

Flood Risk

Commentary: The application is silent on flood risk, however, a review of the ORC Flood Hazard Map indicates that no flood risk exists on the applicant's land (denoted with a red outline below).



Conditions:

None applicable.

Geotech

Commentary: The application is silent with regards to geotech considerations. No earthworks are proposed for the preparation of building platforms. I expect that suitable geotech considerations will be undertaken at the time of building consent for dwellings.

Conditions:

A suitably worded consent notice should be placed on the titles noting that no geotechnical reporting or hazard assessment has been undertaken and that suitable assessment is to be undertaken as part of the dwelling consenting.

Yours sincerely

Jeremy Rees
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