# **APPLICATION FOR RESOURCE CONSENT**

# **FORM 9: GENERAL APPLICATION**





| Contact Name: GRAHAM M-DERMID  Email address*: graham@architectsplus.co.uz  Postal Address*:  P. O. Box 2840.  CHRISTCHURCH.  Phone numbers: Day 03 349806 Mobile 027 4330086.  Our default method of corresponding with you is by email and phone. Alternatively, if you wish to rrespondence by post (including any decision) please provide a postal address and tick the relevant box above.  Company:  Contact Name:  Email address*:  Postal Address*:  Tick if postal address is preferred method of correspondence*:  Tick if this is the address for invoicing purposes:   | PPLICANT   |  |
|---|--|--|
| Contact Name: GRAHAM MEDERMID  Contact Name: GRAHAM MEDERMID  Contact Address*: graham@architectsplus.co.m2  Contact Address*: Tick if postal address is preferred method of correspondence*: Tick if this is the address for invoicing purposes:  Contact Name: Day 03 3798086 Mobile 027 4 33 0086.  Contact Name: Contact Name: Contact Name: Tick if this is the address is preferred method of correspondence*: Tick if postal address is preferred method of correspondence*: Tick if this is the address for invoicing purposes:  Contact Name: Tick if postal address is preferred method of correspondence*: Tick if this is the address for invoicing purposes: | Applicant's Full Name/Company/Trust:                         |  |
| method of correspondence*:  Tick if this is the address for invoicing purposes:  Phone numbers: Day 03 3798036  Our default method of corresponding with you is by email and phone. Alternatively, if you wish to rrespondence by post (including any decision) please provide a postal address and tick the relevant box above.  DDRESS FOR SERVICE (if different from the applicant)  Company:  Contact Name:  Email address*:  Tick if postal address is preferred method of correspondence*:  Tick if this is the address for invoicing purposes:   | 3 BEARS RUNNING.   |  |
| Postal Address*:  P. O. Box 2570.  CHRISTCHURCH.  Tick if this is the address for invoicing purposes:  Phone numbers: Day 03 3798086  Our default method of corresponding with you is by email and phone. Alternatively, if you wish to prespondence by post (including any decision) please provide a postal address and tick the relevant box above.  DDRESS FOR SERVICE (if different from the applicant)  Company:  Contact Name:  Email address*:  Tick if postal address is preferred method of correspondence*:  Tick if this is the address for invoicing purposes:   | Contact Name: GRAHAM MEDE                                    | BRMID  |
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| Street Address: 1089? CHAYTON RD. ASHWICK PLAT  | FAIRCLE.   |  |
| Street Address: 1089? CHATTON RD.   | Legal Description: Pf PC 37380                               |  |
| Street Address: 1089? CHAYTON RD. ASHWICK PLAT FAIRLIE.   |  |  |
| Street Address: 1089? CHAYTON RD. ASHWICK FUAT FAIRLIE.  Legal Description: Pt RS 32380   | Cr 228/1142  |  |
| Street Address: 1089? CHAYTON RD. ASHWICK PLAT FAIRLIE.   | Valuation Number: UR 75280-1                                 | 7014   |
| Street Address: 1089? CHAYTON RD.  ASHWICK PLAT  FAIRLIE.  Legal Description: Pt RS 32380  Certificate of Title: C7 22B/1142  | VO 25 50 5   |  |

| Consent(s) A  | PPLIED FOR — Identify all consents s   | ought fi  | rom Mackenzie District Council  |  |  |  |
|---------------|--|-----------|---|--|--|--|
| Chang         | Jse Consent<br>ge/Cancellation of Consent<br>tions or Consent Notice (s127)  |           | Subdivision Consent  Extension of Lapse Period of Consent (s125)  |  |  |  |
|               | ng Use Right Certificate   |           | Certificate of Compliance   |  |  |  |
| Outlin        | Outline Plan Approval (s176A)  |           |   |  |  |  |
| APPLYING FO   | DR FAST-TRACK RESOURCE CONSENT   | PROCE     | SS  |  |  |  |
|               | g for a Controlled Activity Land Us  |           |   |  |  |  |
| i nave suppi  | ied an electronic address for servi  | ice:      | Yes: No:  |  |  |  |
| DESCRIPTION ( | OF THE PROPOSAL  |           |   |  |  |  |
| OTHER CONSE   | NTS  Quired under a National Environment   |           |   |  |  |  |
|               |  |           |   |  |  |  |
|               | This application does not involve subdivision (excluding production land), change of land use or removal of (part of) a fuel storage system. Any earthworks will mee section 8(3) of the NES (including volume not exceeding 25m <sup>2</sup> per 500m <sup>3</sup> ). Therefore the NES does not apply. |           |   |  |  |  |
|               |  | gesting a | view of District and Regional Council records an activity on the HAIL has taken place on the plication. |  |  |  |
|               | I have included a Preliminary Sit person.  | e Invest  | tigation undertaken by a suitably qualified   |  |  |  |

|         | I have addressed the NES requirements in the Assessment of Environmental Effects.  |
|---------|--|
|         | Any other National Environmental Standard (tick):  Yes  N/A  |
|         | Details: PLOOD ASSESSMENT  |
|         | ditional consent(s) that have been applied for separately (tick)?  Environment Canterbury  Yes N/A   |
|         | Details: Provis ASSESS MENT.   |
| INFORM  | ATION REQUIRED TO BE SUBMITTED   |
| To be a | ccepted for processing, your application <u>must</u> include the following (tick):   |
|         | <u>Computer Freehold Register</u> (Certificate of Title) for the site (no more than 3 months old) and copies of any consent notices and covenants (Can be obtained from www.linz.govt.nz)  |
| 1       | A $\underline{\text{description of the proposed activity}}$ , and $\underline{\text{a description of the site}}$ at which the activity is to occur   |
|         | A site plan/s at a convenient scale showing:  - Location of all existing and proposed buildings and distances to boundaries; - Location of landscape features including trees and waterways; - Existing and proposed access points and internal roading; - Existing and proposed carparking areas; - Location of existing septic tanks and effluent drainage lines; - Details of existing and proposed landscaping; - Location of existing and proposed signs; - Areas and dimensions of property; - Roads onto which the property has frontage. |
| His     | Other plans necessary to detail the proposal e.g. elevations, floor plans, servicing plan.   |
|         | Consideration of any person/s who may be adversely affected by the granting of the consent   |
|         | A <u>description of any other activities</u> that are part of the proposal to which the application relates  |

|                   | A description of any <u>other resource consents required</u> for the proposal to which the application relates  |
|-------------------|---|
|                   | An <u>assessment of the activity against any relevant provisions of the Mackenzie District</u> <u>Plan</u>  |
|                   | An <u>Assessment of Environmental Effects</u> (Please see the separate Resource Consent Application Guide provided by the Mackenzie District Council to determine the information requirements that apply to your application).     |
| Applicat          | ote that additional information requirements may apply. Please refer to the separate Resource Consent ion Guide provided by the Mackenzie District Council in the first instance. For further enquiries, please the Planning staff. |
| PAYMEN<br>and Cha | T – A deposit fee must be paid prior to or at the time of the application as per Council's Fees<br>rges   |
| I/We co           | nfirm payment by (tick):  |
|                   | Bank transfer to account <u>03 0887 0226851 02</u> reference <u>R10821</u> and the first five letters of applicant name   |
|                   | Cheque payable to Mackenzie District Council attached   |
|                   | Manual payment at reception – receipt number:   |
| DECLAR            | ATION   |
| is true           | certify that, to the best of my knowledge and belief, the information given in this application and correct. I undertake to pay all actual and reasonable application costs incurred by the zie District Council.                   |
|                   | In 1. 21/08/2018. Signature*  |
| _                 | GRAHAM MERMID<br>Full Name  |

<sup>\*</sup>If signing on behalf of a trust or company, please provide additional written evidence that you have signing authority.

### **IMPORTANT**

You must include all the information required by this form. The information must be specified in sufficient detail to satisfy the purpose for which it is required.

You may apply for two or more resource consents that are needed for the same activity on the same form.

When your application is accepted, you will receive a letter from the Planning team informing you of the application's acceptance. This letter will contain the contact details of the planner who is processing your consent.

The fee paid at the time of lodgement is a deposit fee only. Further costs may be incurred and all actual and reasonable costs will be passed onto the applicant.

Under the fast-track resource consent process the application must be processed in 10 working days, unless the applicant opts out of that process at the time of lodgement.

A fast-track application may cease to be a fast-track application under section 87AAC(2) of the Resource Management Act 1991.

Non- fast track, non-notified resource consents must be processed within 20 working days.

Planning staff will contact you if the status of your application changes, or if further information is required.









Christchurch U3 303 Blenheim Rd Christchurch

Wanaka Unit 11/12 Frederick Street Wanaka

Mackenzie District Council P.O. Box 52 Fairlie

Att: Duty Planner;

## APPLICATION FOR RESOURCE CONSENT UNDER SECTION 88, **RESOURCE MANAGEMENT ACT 1991**

Applicant:

Three Bears Running Ltd

P.O. Box 2870 Christchurch

Owner:

Three Bears Running Ltd

**Legal Description:** 

Pt RS 32380

Location:

Clayton & Monument Roads, Fairlie

(NZMS 260, Sheet J37, Grid 369/871)

Type of Consent: Subdivision & Land Use.

Other Consents:

None

Description:

Descriptions of the proposal and site are attached.

**District Plan:** 

Information as required in the District Plan is attached.

Assessment:

An assessment of effects is attached.

Plan of Proposal: A plan of the proposal is attached.

Fees:

The fees for the application will be paid by Internet

Banking on receiving a tax invoice from Mackenzie

District Council.

Signed

............

graham@architectsplus.co.nz











# **Description of Proposal:**

#### 1:01 The Proposal

It is proposed to subdivide Pt R.S 32380 into 18 allotments. Areas of proposed allotments to be approximately as follows:

| Lot 1  | 3360 m2 | Lot 2  | 3672 m2  |
|--------|---------|--------|----------|
| Lot 3  | 3236 m2 | Lot 4  | 3214 m2  |
| Lot 5  | 5021 m2 | Lot 6  | 17794 m2 |
| Lot 7  | 4098 m2 | Lot 8  | 3380 m2  |
| Lot 9  | 3626 m2 | Lot 10 | 3626 m2  |
| Lot 11 | 3762 m2 | Lot 12 | 6035 m2  |
| Lot 13 | 4053 m2 | Lot 14 | 3779 m2  |
| Lot 15 | 3020 m2 | Lot 16 | 3017 m2  |
| Lot 17 | 3240 m2 |        |          |
|        |         |        |          |

Lot 200 3000 m2 (vested Road)

It is requested that a Land use Consent be granted for to allow for the minimum internal setback to be reduced to 6m.

#### 1:02 Reason for Subdivision

This subdivision is being undertaken such that the owner can obtain separate certificates of title to and sell Lots 1 through 17 with Lot 200 being vested in Council as a road.

# 1:03 Consent Period

A five (5) year consent period is appropriate for Subdivision and a thirty-five (35) year consent period is appropriate for Land Use.

## **Description of Site:**

#### 2:01 Location & Zoning

This proposal is situated between Monument Road and Clayton Road, Ashwick Flat. Fairlie and is zoned Rural in the Mackenzie District Plan.

# 2:02 Scheduled Items

No scheduled items are shown in the District Plan for this proposal.

graham@architectsplus.co.nz









# 2:03 Topography

The land is flat, while vegetation consists of grass. Soils are listed as Ashwick very stony silt loam on DSIR soil maps.

# 2:04 Structures

There is some fencing on this property and the Allandale water supply main.

# 2:05 Present Land Use

The land is presently used for agricultural (pastoral) purposes.

# 2:06 Surrounding Land Use

Surrounding lands are used for residential, agricultural (pastoral), transport and recreation & conservation (Lake Opuha) purpose.

# 2:07 Landscapes

Landscapes consist of an open alluvial basin surrounded by mountains to the west, north and east used mainly for agricultural purposes, with roads, buildings and shelter belts throughout.

# **District Plan Information:**

# 3:01 Waterways & Esplanades

There are no waterways present on this property.

# 3:02 <u>Ecosystems</u> (on or near site)

There are no known ecosystems associated with the proposal.

# 3:03 Recreation & Reserves

The owners are the only recreational users of the property.

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# 3:04 Heritage, Cultural & listed Trees

There are no heritage items, cultural items, or listed trees, identified in the District Plan for this property.

#### 3:05 Subdivisional Design

The design of the proposed subdivision is to provide new allotments of a varying shape and size that allows for the accommodation of a minimum building site of 20m x 20m after allowance for 20m external and 6m internal yard requirements and package treatment plant effluent disposal, while protecting views from the allotments as far as possible.

The proposed access allotment is designed to provide access to lot 6 through to lot 17. Lot 12 would be accessed directly off Clayton Rd. Lots 1 through to lot 5 would be accessed off Monument Rd.

The subdivision design allows for a minimum setback of residential buildings from external boundaries and roads to be 20m and a minimum set back of 6m from internal boundaries.

#### 3:06 Roading & Access

It is proposed that physical and legal access for lot 6 through to lot 17 be from lot 200 and this access being vested in Council. The access road is designed to have a sealed width of 6.5m. The road access from the formed road surface of Clayton Road to be formed to an all weather standard as per Section 14.2.r of the District Plan. Accessway separation distances from intersections and sight distances meet the requirements of the District Plan. It is proposed that Monument Rd for the length of the road boundary be sealed to match the existing sealed section to the north east of the site.

#### 3:07 Water

There are 14 units of water available on the Clayton Rd boundary. A further 3 units can be transferred from Lot 7 DP 82193. An application to the Allendale Rural Water Scheme has been made requesting the transfer of the three (3) water units to this property.

graham@architectsplus.co.nz

Po Box 2870







# 3:08 Effluent

An application has been made to ECAN for seventeen (17) discharge permits for the disposal of effluent and it is proposed that this will be a condition of consent.

#### 3:09 Storm-water

It is proposed that storm-water disposal from all allotments will be by soakage on the subdivision. A Resource Consent application to ECAN for seventeen (17) discharge Storm-water from roofs has been made. It is proposed that this will be a condition of consent.

#### 3:10 Power

Electric power is not presently supplied to the site. It is proposed electrical services will be provided within the proposed Lot 200 to each of the allotments lot 6 through lot 11, lot 13 through lot 17, and via the easement A and B to lots 1, 3 & 4. lot 2 will be supplied from Monument Road and lot 12 from Clayton Road. Alpine Energy has confirmed it has sufficient capacity in Clayton Road and Monument Road to service the proposal.

#### 3:11 <u>Telephone</u>

Telephone service is not presently available to the site. It is proposed telecommunication services will be provided within the proposed lot 200 to each of the allotments lot 6 through lot 11, lot 13 through lot 17, and via the easement A and B to lots 1, 3 & 4. lot 2 will be supplied from Monument Road and lot 12 from Clayton Road. Chorus have confirmed they can service the subdivision.

#### 3:12 Discharges

No other discharges have been identified for the proposed subdivision.

#### 3:13 Hazards

The proposed subdivision lies within the Ashwick Flat Flooding area. (plan 12,902.11 in MDC Planning Maps.) A flood risk assessment report has been requested from ECAN and a copy is attached.

graham@architectsplus.co.nz

Po Box 2870







# 3:14 Landscaping

No landscaping is proposed as part of the application.

# 3:15 Legal Issues

Easements are required as shown on the Consent Application plan (and associated Memorandum of Easement) for the provision of the conveyance of the Allandale Water Supply scheme. It is proposed that access, power, water and telecommunication services will be provided Lot 200 to each of the allotments lot 6 through lot 11, lot 13 through lot 17, and via the easement A and B to lots 1, 3 & 4. lot 2 will be supplied from Monument Road and lot 12 from Clayton Road.

## 3:16 Financial Contributions

It is understood that the proposal has financial contributions to pay with respect to reserves for proposed lots 1 through lot 17.

# Assessment of Actual & Potential Effects:

The actual effects of this proposal relate to those very minor effects associated with the subdivision process itself, while potential effects (positive. adverse, temporary, past, present, future, cumulative in time or combination. have potential high probability, have potential low probability but high potential impact) include;

### 4.01 People

Effects on people in the neighbourhood and wider community relate to changes in the ownership of property, increased residential density (from additional housing) increased demand on roads, water supply, effluent disposal, electric power, and telecommunication services in the immediate and general area.

# 4:02 Physical

Any residential development of the proposed subdivision would decrease the open space aspect of the basin as viewed from Clayton Road, but with the use of varied layout and large allotment sizes. buildings will not be grouped together or uniformly. Landscaping will

graham@architectsplus.co.nz







make these blend with the surrounding area without decreasing the overall landscape values.

Reducing the minimum setback of buildings from internal boundaries is considered no more than minor. The proposed subdivision design provides a variety of allotment sizes and shapes which will allow for privacy, rural outlook, spaciousness and ease of access and is of a similar nature to previous subdivision in the immediate area.

# 4:03 Ecosystems

No ecosystems have been identified as being effected by this proposal.

#### 4:04 Resources

The only resources which will be affected by this proposal are those services which will be required for the servicing of the proposal. These include roading, power, water and telecommunication services and these being communally used where economies of scale reduce costs to the individual and community as a whole while creating a minimum of adverse environmental effects.

### 4:05 Discharges

Any residential development of the allotments would include disposal of effluent and storm-water and this could potentially increase the likelihood of groundwater contamination through failure of a system. Thus monitoring of a discharge system will be required by the allotment owner.

The proposed allotments are of sufficient area to allow for the installation of various effluent package treatment and discharge systems in compliance with ECAN's NRRP rule WQL8 and the discharge of storm-water in compliance with rule WQL5.

# 4:06 Hazards

The proposed subdivision is situated within the Ashwick Flat Flooding area of the District Plan. A risk assessment report is attached to this application. The only likely outcome would be a suggestion for slightly raised floor levels.

graham@architectsplus.co.nz





# 4:07 Significant

There are no effects that remain significant after the application of mitigation measures.

# 4:08 Other Parties

No other parties have been identified.

Taken as a whole, the actual and potential effects of this proposal are minor.

## District Plan Rules & Status:

#### 5:01 Zone Rules

The proposal complies with the Zone Standards of the District Plan, excluding the proposed 6m minimum setback from of residential buildings from internal boundaries.

## 5:02 General Rules

The proposal complies with the General Performance Standards of the District Plan.

# 5:03 Type of Consent

The proposal is a Discretionary Activity in terms of the District Plan for its location within the Ashwick Flat Flooding area for the Subdivision Consent portion and for the 6m internal setback for the Land Use Consent portion of this application.

# **District Plan Policies & Objectives:**

# 6.01 Zone

The proposal is consistent with the Objectives and Polices of the District Plan.

graham@architectsplus.co.nz







# 6:02 General

The proposal is consistent with the Objectives and Policies of the District Plan.

# Part II of the Resource Management Act 1991:

It is believed the proposal is consistent with Part II of the Resource Management Act 1991.

# Notification:

In terms of sections 93 & 94 of the Resource Management Act 1991, it is believed this application does not require notification.

graham@architectsplus.co.nz











30 August 2018

Graham McDermid Architects Plus Ltd Unit 3a/303 Blenheim Road Christchurch 75 Church Street PO Box 550 Timaru 7940

P. 03 687 7800 F. 03 687 7808

E. ecinfo@ecan.govt.nz

Customer Services
P. 0800 324 636

www.ecan.govt.nz

Dear Graham

Flood Hazard Assessment – Proposed Subdivision Clayton & Monument Roads, Ashwick Flat, Part RS 32380, Valuation no: 25280 170 14

This approximately 7.93 ha property is located about 900 m south of the South Opuha River and extends between Monument and Clayton Roads. All of the property is covered with shallow swales (historic flow paths) and other subtle depressions. A deeper and more significant swale, which originates around 4 km upstream, enters the property near the northwest corner. A second swale also crosses Monument Road and joins into the major swale within the northwest corner of the property. I have attached a map with some descriptions of these features I collated from a visit to the site.

Environment Canterbury has not carried out a detailed investigation into flooding in this area and has little historic flood information specific to the property.

Flood Mapping carried out by the Canterbury Regional Council (for Mackenzie District Council Planning Maps) in 1999 indicates the property is on the southern edge of "being floodable" from upstream breakouts from the South Opuha River. The mapping for this area was carried out using a combination of aerial photographs, contour maps and a ground inspection. The flood extent shown on the Mackenzie District Council planning maps can be described as indicative only.

Two deep swales enter the northwest corner of the property and merge before flowing to the southeast and leaving the property roughly halfway along the west boundary. You have marked this swale on your attached subdivision layout (refer other maps also). It is important to note that while the "main swale channel" is roughly 5 – 7 m wide there is a 30-40 m strip of land, mostly on the north side of the swale, that is also significantly lower than the rest of the subdivision area. I have very approximately marked the lower ground in blue hatch on the attached map.

The major swale and associated low ground will carry significant local runoff originating from upstream, including potentially some overflows from the South Opuha River in major rainfall events. The flooding in the swale, and associated lower area, has the potential to be relatively deep and given the steep fall in the land in this area (the gradient is about 1 in 50) will be fast flowing.

The remainder of the property, clear of the swale and adjacent low ground, is also traversed by numerous more subtle swales. In these areas the swales are non-contiguous and not linked to any major upstream source of floodwater. While these features still have the potential to carry local runoff following periods of prolonged or heavy rainfall the potential depth of flooding is considerably less.

Key Ref:

18176

Contact:

Chris Fauth

As defined by the Mackenzie District Council, the minimum floor height required for new dwellings is 150 mm above the expected 500 year Average Recurrence Interval (ARI) flood level. This is obviously an extreme event that would result in both deep flooding within the swale and low part of the property and widespread but shallower runoff across the remainder of the property.

Note: Average Recurrence Interval (ARI) represents the average time period between floods of a certain size.

The major swale, and lower area approximately marked in blue hatch on the attached plan is a critical flood carrying feature of the Ashwick Flat floodplain. It is important this area is left unaltered and free of development in order to allow runoff to flow through the site as it currently does. This is particularly important given the presence of houses downstream of the subdivision and the significant increase in development on this floodplain generally.

For the bulk of the subdivision area (not in or adjacent to the major swale) a floor level of 400 mm above existing ground level should be suitable for new dwellings. This floor level allows for shallow flooding and includes some allowance for uncertainty as well as the 150 mm freeboard required by Mackenzie District Council. When choosing building sites within each proposed lot, all practical care should also be taken to avoid shallow swales.

The widespread, shallow but fast flowing runoff that is anticipated across the subdivision area can be easily impacted on by built development. Thought should be given to fencing, hedging and other developments that might occur across the floodplain and create impediments to the downstream flow of local runoff.

I have asked Alanna Hollier (Planner with Environment Canterbury) to add some comments regarding wastewater, as follows:

For the installation of on-site wastewater systems into the proposed subdivision I have attached the wastewater rules from the Land and Water Regional Plan. As the development will result in the subdivided lots being smaller than 4 hectares a resource consent will be required under Rule 5.9, as condition 2 of Rule 5.8 will not be met. Please be advised that an assessment of cumulative effects from the proposal will need to be included as part of the consent application. The system will need to be designed to industry good practices, such as inclusion of a secondary treatment system.

If you have any further queries, please contact Customer Services on 0800 324 636. You can also use this number to book a free 1-hour pre-application meeting with a consent planner to talk through the proposal in more detail.

When considering the figures and comments given above, it is important you understand the following matters:

- The information provided is the best information Environment Canterbury has available at this time. Flood depths, flows and return periods may change as further investigations into flooding in this area are completed.
- 2. Environment Canterbury is not the only organisation holding information on flooding. The Mackenzie District Council or neighbours may have further details of flooding which has occurred at this property.

- 3. In the calculation of flood depths, Environment Canterbury makes some allowance for water build-up against obstacles but local influences such as solid fences or hedges may alter flood depths at the property.
- 4. Flood flows may be diverted by debris. This may alter flood depths at the property.
- 5. Changes in the floodplain e.g. raising roads or altering swales may alter flood levels at the property.
- 6. Seasonal variations e.g. height of crops, may alter flood depths at the property.
- 7. Many uncontrollable factors influence flooding. The prediction of flood depths requires many assumptions and is not an exact science.

I hope this information is of assistance. Please do not hesitate to contact me if you require any clarification.

Yours sincerely

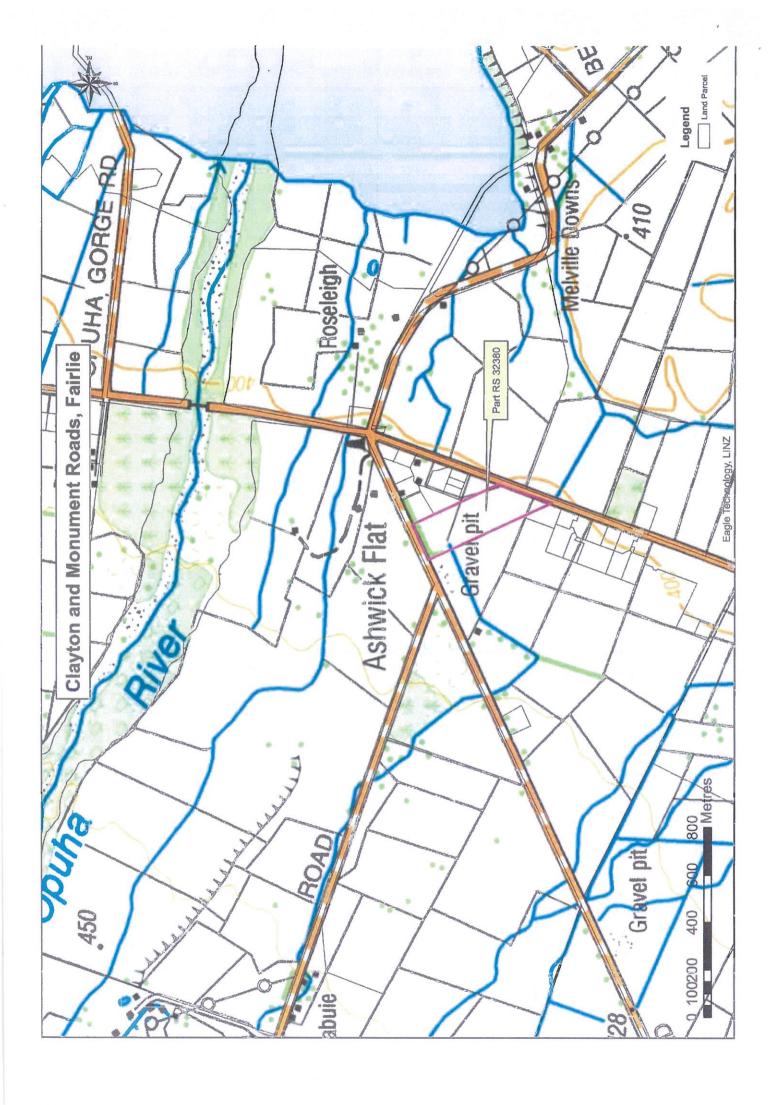
Chris Fauth

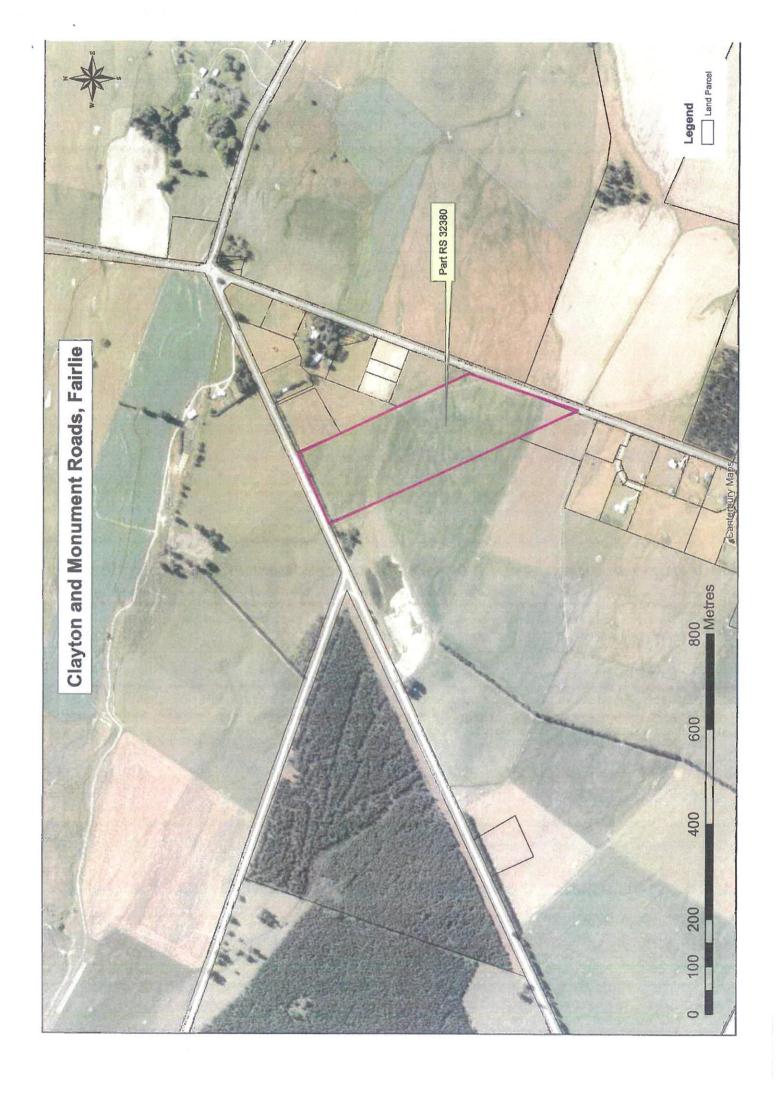
Senior Scientist (Natural Hazards)

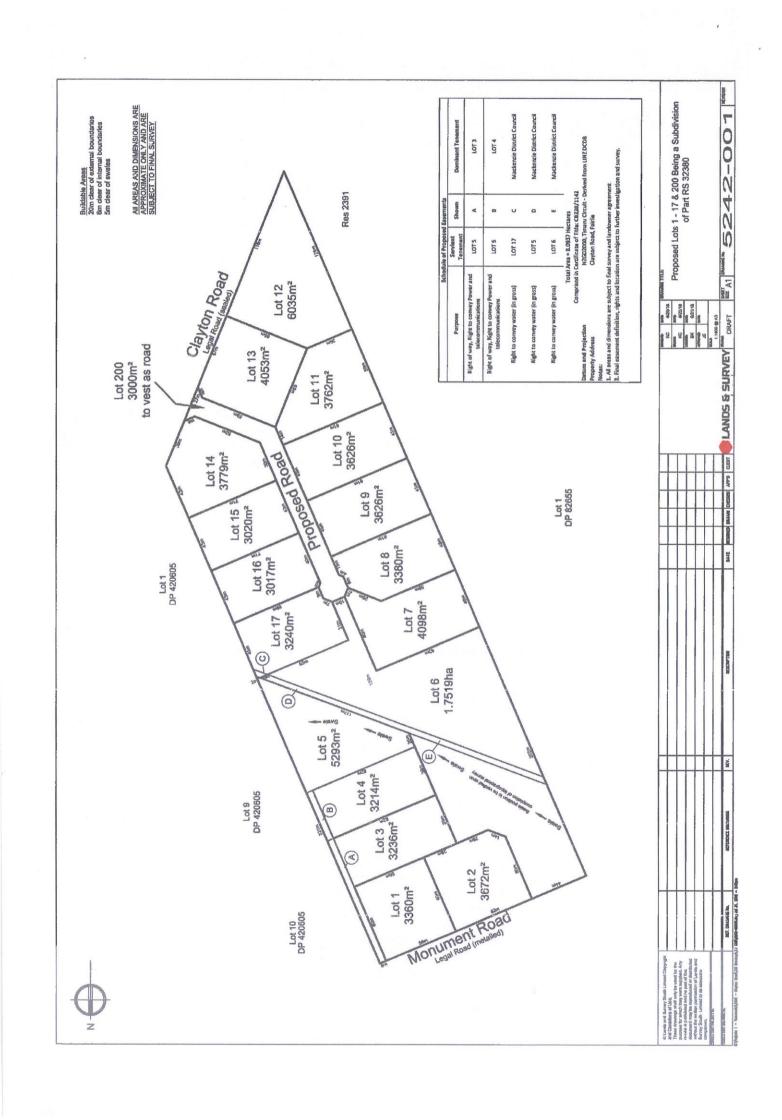
cc: Manager Planning and Regulations Mackenzie District Council

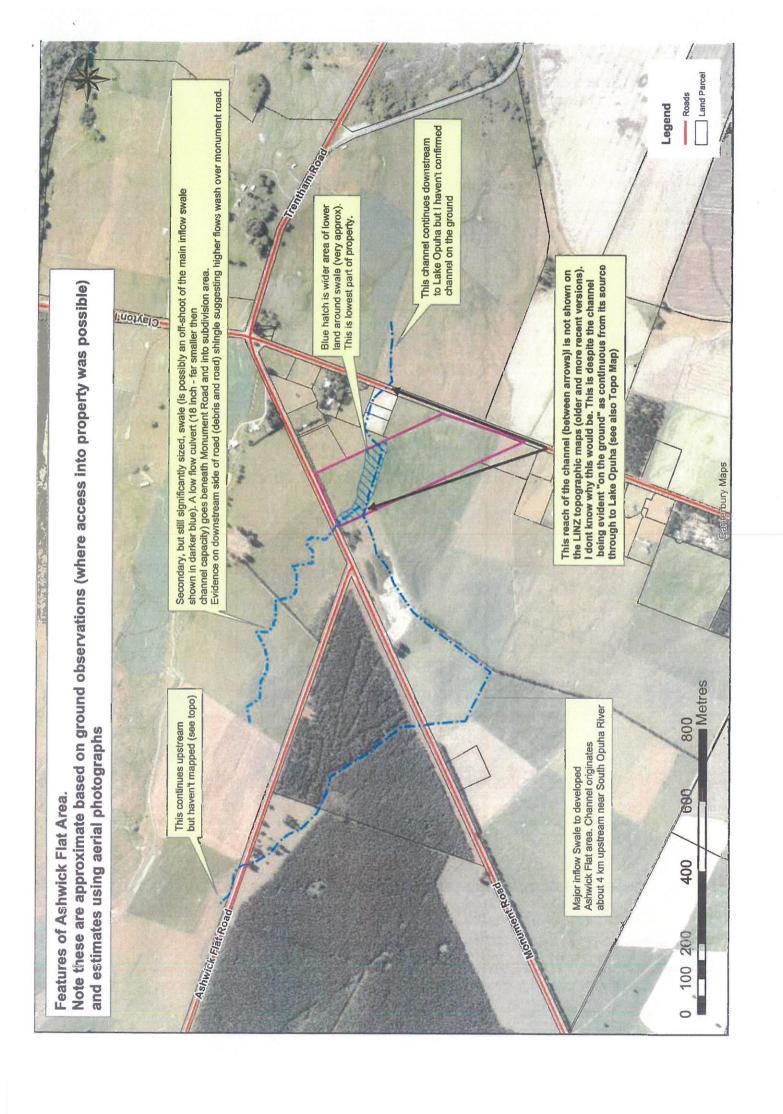
## Attachments:

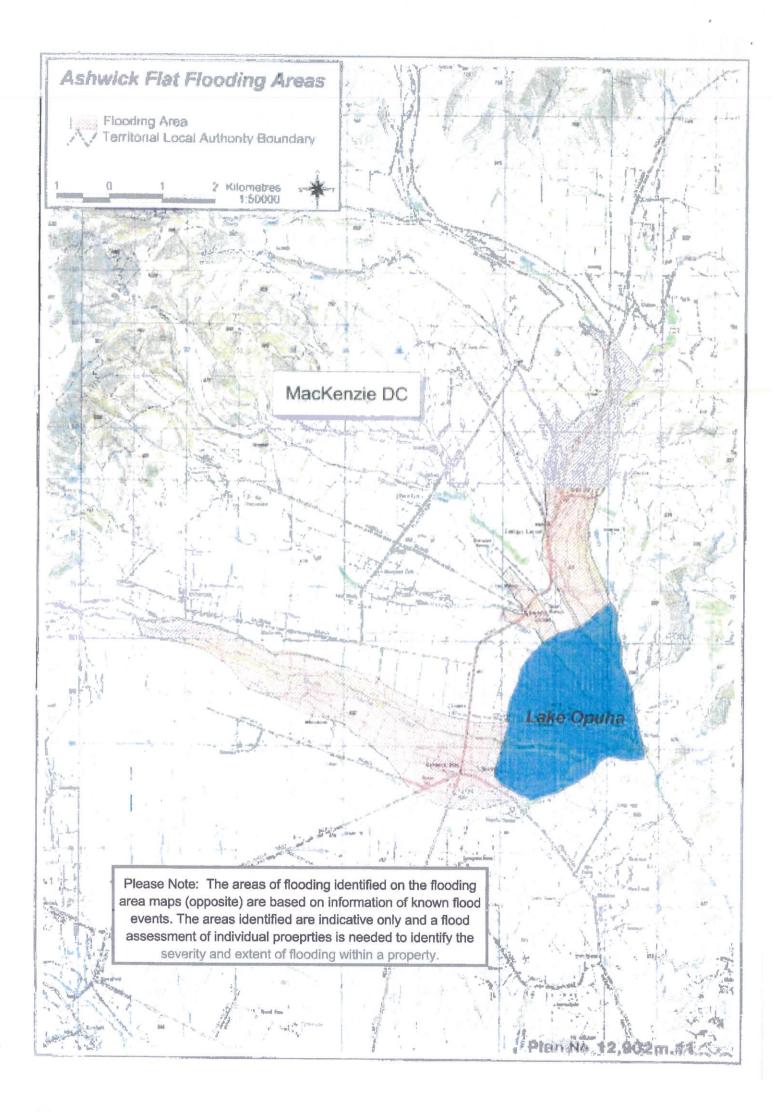
- Topographic map showing location of property
- Aerial photograph of the property
- Proposed subdivision layout provided by the applicant
- Aerial photograph with notations regarding some key features of the area
- Mackenzie District Plan Flood Map
- Land and Water Plan on-site wastewater rules (x3)











### On-site Wastewater

### Notes:

- In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Poutere Taonga Act 2014. An archaeological authority is required from Heritage New Zealand to modify, damage or destroy any archaeological site, whether recorded or not in the New Zealand Heritage List/Rārangi Kōrero website
- Detailed Information about separation distances for on-site effluent disposal systems is available from the Institute of Environmental Science and Research. Information includes the Guidelines for separation distances based on virus transport between on-site domestic wastewater systems and wells (ESR 2010)
- 5.7 The discharge of wastewater from an existing on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge was lawfully established prior to 1 November 2013; and
  - The treatment and disposal system has not been altered or modified from that established at the time the system was constructed, other than through routine maintenance; and
  - The volume of the discharge has not been increased as a result of the addition of buildings, an alteration of an existing building, or a change in use of a building that is connected to the system; and
  - 4. The treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management; and
  - 5. The discharge is not onto or into land:
    - (a) where there is an available sewerage network; or
    - (b) that is listed as an archaeological site; or
    - (c) where the discharge would enter any surface waterbody; or
    - (d) within 20 m of any surface waterbody or the Coastal Marine Area; or
    - (e) within 50 m of a bore used for water abstraction; or
    - (f) within a Community Drinking-water Protection Zone as set out in Schedule 1 of this Plan; or
    - (g) where there is, at any time, less than 1 m of vertical separation between the discharge point and groundwater; and
  - 6. The discharge does not result in wastewater being visible on the ground surface; and
  - 7. The discharge does not contain any hazardous substance.
- 5.8 The discharge of wastewater from a new, modified or upgraded on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge volume does not exceed 2 m³ per day; and

### Canterbury Land and Water Regional Plan

- 2. The discharge is onto or into a site that is equal to or greater than 4 hectares in area; and
- 2a. The discharge is not located within an area where residential density exceeds 1.5 dwellings per hectare and the total population is greater than 1000 persons; and
- 3. The discharge is not onto or into land:
  - (a) where there is an available sewerage network; or
  - (b) that is contaminated or potentially contaminated; or
  - (c) that is listed as an archaeological site; or
  - (d) in circumstances where the discharge would enter any surface waterbody; or
  - (e) within 20 m of any surface waterbody or the Coastal Marine Area; or
  - (f) within 50 m of a bore used for water abstraction; or
  - (g) Within a Community Drinking-water Protection Zone as set out in Schedule 1; or
  - (h) where there is, at any time, less than 1 m of vertical separation between the discharge point and groundwater; and
- The treatment and disposal system is designed and installed in accordance with Sections 5 and 6 of New Zealand Standard AS/NZS 1547:2012 - On-site Domestic Wastewater Management; and
- 5. The treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management; and
- 6. The discharge does not result in wastewater being visible on the ground surface; and
- 7. The discharge does not contain any hazardous substance.
- 5.8A The discharge of wastewater from an existing, new, modified or upgraded back country hut wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge volume does not exceed 2 m³ per day; and
  - 2. The treatment and siposal system has a written system design specification for maintenance (and if such a system design specification for maintenance does not exist, a written system design specification for maintenance shall be prepared in accordance with Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management by the 31st of December 2017) and is operated and maintained within that specification; and
  - 3. The discharge is not onto or into land:
    - (a) where there is an available sewerage network; or
    - (b) that is contaminated or potentially contaminated; or
    - (c) that is listed as an archaeological site; or
    - (d) in circumstances where the discharge would enter any surface waterbody; or
    - (e) within 20 m of any surface waterbody or the Coastal Marine Area; or
    - (f) within 50 m of a bore used for water abstraction; or
    - (g) within a Community Drinking-water Protection Zone as set out in Schedule 1; or
    - (h) where there is, at any time, less than 1 m of vertical separation between the discharge point and mean seasonal high water table; and

- 4. The discharge does not result in wastewater being visible on the ground surface, unless the discharge occurs as a result of a land application system that has been specifically designed to treat and discharge wastewater through application of wastewater to the land surface; and
- 5. The discharge does not contain any hazardous substance.
- 5.9B The discharge of wastewater from an existing, new, modified or upgraded back country hut wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.8A is a discretionary activity.
- 5.9 The discharge of wastewater from:
  - (a) an existing on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.7; or
  - (b) a new, modified or upgraded on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.8;

is a restricted discretionary activity.

The exercise of discretion is restricted to the following matters:

- The actual and potential environmental effects of not meeting the condition or conditions of Rule 5.7 for an existing system; and
- The actual and potential direct and cumulative environmental effects of not meeting the condition or conditions of Rule 5.8 for a new, modified or upgraded system; and
- 3. The actual and potential environmental effects of the discharge on the quality and safety of human and animal drinking-water; and
- 4. The effect of on-site wastewater treatment system density in the local area including known on-site wastewater treatment system failures, the material health status of the community, groundwater quality, the nature of effects of current sewage disposal methods, treatment options available and affordability.

Swimming Pool or Spa Water

- 5.10 The discharge of swimming pool or spa pool water into water or onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - The discharge of filter backwash water is only onto land, and the discharge does not enter any surface waterbody or wetland, including via a stormwater system; and
  - For swimming pool or spa pool water discharges that do not contain filter backwash water, the discharge may be either onto land or into water, provided:
    - (a) that for all discharges:
      - there are no copper chemicals or flocculants, including aluminium saits, in the discharge and the concentration of sodium chloride (common sait) does not exceed 3500 g/m<sup>3</sup>; and





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Alpine Energy Limited 31 Meadows Road, Washdyke P.O. Box 530, Timaru, New Zealand Telephone (03) 687-4300 Facsimile (03) 684-8261 email: mailbox@alpineenergy.co.nz

> MDE:FLH 125/21;40/11

7 September 2018

Graham McDermid Architects Plus Ground Floor Unit 3a 303 Blenheim Road Christchurch 8041

Dear Graham

# Subdivision - Clayton Road/Monument Road Fairlie

Thank you for your enquiry regarding supplying power to the proposed subdivision of Clayton Road and Monument Road Fairlie. The information we have available indicates Alpine Energy are in a position to supply the indicated proposed new subdivision a single phase 60 amp supply per lot(17 lots) to the boundary. There will need to be an upgrade on the network which will be at the customers cost.

Should you require further information please contact me on telephone 027 542 5272 or Michael.Eaton@alpineenergy.co.nz Alpine job reference A3751 MDE

Yours faithfully

Michael Eaton New Connections

Mel



## **Chorus Network Services**

PO Box 9405 Waikato Mail Centre Hamilton 3200

Telephone: 0800 782 386 Email: tsg@chorus.co.nz

7 September 2018

c/o Architects Plus



Chorus Ref #:

AWF47927

Your Ref #:

Attention: Graham McDermid

Dear Sir / Madam

# SUBDIVISION RETICULATION – AWF: Clayton Road, Ashwick Flat. 17 Lots (Lots 1-17) - Estimate

Thank you for your enquiry regarding the above subdivision.

Chorus is pleased to advise that, as at the date of this letter, we would be able to provide ABF telephone reticulation for this subdivision. In order to complete this reticulation, we require a contribution from you to Chorus' total costs of reticulating the subdivision. Chorus' costs include the cost of network design, supply of telecommunications specific materials and supervising installation. At the date of this letter, our estimate of the contribution we would require from you is \$120,388.90 (including GST).

We note that (i) the contribution required from you towards reticulation of the subdivision, and (ii) our ability to connect the subdivision to the Chorus network, may (in each case) change over time depending on the availability of Chorus network in the relevant area and other matters.

If you decide that you wish to undertake reticulation of this subdivision, you will need to contact Chorus (see the contact details for Chorus Network Services above). We would recommend that you contact us at least 3 months prior to the commencement of construction at the subdivision. At that stage, we will provide you with the following:

- confirmation of the amount of the contribution required from you, which may change from the estimate as set out above;
- a copy of the Contract for the Supply and Installation of Telecommunications Infrastructure, which will govern our relationship with you in relation to reticulation of this subdivision; and
- a number of other documents which have important information regarding reticulation of the subdivision, including for example Chorus' standard subdivision lay specification.

Yours faithfully

Reid McKenzie

Network Services Coordinator



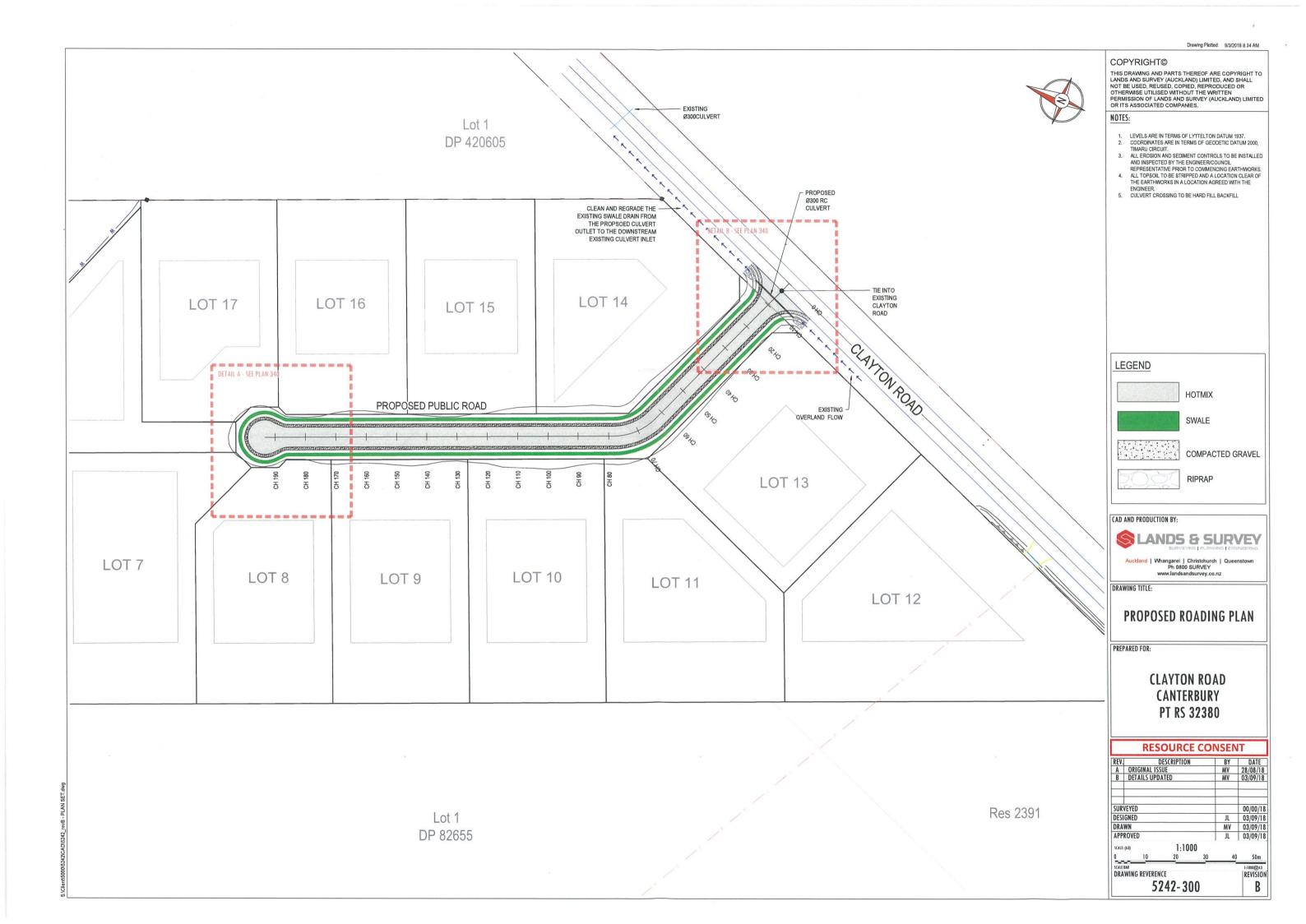


# **Allandale Rural Water Scheme**

# **APPLICATION FOR WATER SUPPLY**

|  | Application No   |
|--|--|
| lame and Contac  | P Details  |
| Applicant's Name:  | 3 BEARS RUNNING & OPTIM HONDINGS   |
|  |  |
| Postal Address:  | P.O. Box 7870 Telephone No. Work: 03 3796 086  |
|  | CHRISTCH 4RCM. Mobile: 0274330036.   |
|  | email: grahan R architectsplus.co.   |
| roperty this appli   |  |
| Valuation No.  | 25780-17007 Legal Description: UT 7 DY 92193   |
| Property Address:  | 1051 CHAYTON RD, ASHWICK PHAT  |
| Area of Property:  | 1,3807m2 hectares/square meters  |
|  |  |
| Application for:   | 17   |
| Full Water Applic  |  |
| TRANSPE  | R 3 WHITS TO LOT PT RS 32380  (tick one 1, 2, 3, 4, 5, or 6)   |
| TRANSES  or the following  1.   A new con  |  |
| or the following   | (fick one 1, 2, 3, 4, 5, or 6)  nnection to the Rural Water Supply (attach sketch plan):   |
| or the following  1.   A new contact to the contact | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  (minimum 1 unit ie., 1800 litres/day)  |
| or the following  1. A new con Location of tank No. of units requ  | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  (minimum 1 unit ie., 1800 litres/day)   |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee:  | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply  (attach sketch plan):  ired:  (minimum 1 unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land   |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee:  | (tick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply  (attach sketch plan):  ired:  ired:  1 unit for first house on property and up to 10ha of land  \$235.00 (1 unit)   |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Development  | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply  (attach sketch plan):  ired:  (minimum 1 unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land  \$235.00 (1 unit)  ht contribution:  \$3,900.00  |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Development  | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply  (attach sketch plan):  ired:  ired:  init contribution:  \$3,900.00  \$4,135.00   |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmental Fee: Note: Minimum tan   | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  ired:  ined:  in |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmental Fee: Note: Minimum tan  2. An addition   | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  ired:  ined:  in |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmental Fee: Note: Minimum tan  2. An addition into an existing  | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  (minimum 1-unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land \$235.00 (1 unit)  nt contribution:  \$3,900.00  \$4,135.00  k size for one unit is 5,400 litres. Fee is GST inclusive.  |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmen Total Fee: Note: Minimum tan  2. An addition into an existing into an exist | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  (minimum 1-unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land \$235.00 (1 unit)  nt contribution:  \$3,900.00  \$4,135.00  k size for one unit is 5,400 litres. Fee is GST inclusive.  |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmen Total Fee: Note: Minimum tan  2. An addition into an existing into an exist | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  (minimum 1 unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land \$235.00 (1 unit)  attach sketch plan):  (minimum 1 unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land \$235.00 (1 unit)  Attach sketch plan):  (minimum 1 unit ie., 1800 litres/day)  a is:  1 unit for first house on property and up to 10ha of land  \$235.00 (1 unit)  \$3,900.00  \$4,135.00  k size for one unit is 5,400 litres. Fee is GST inclusive.  Conal unit(s) of water to an existing scheme tank (for properties which require an increased supply and tank)  Size of existing tank:  |
| or the following  1. A new con Location of tank No. of units requ Allocation criteri Fee: Developmen Total Fee: Note: Minimum tan  2. An addition into an existing tank No: Present supply in Future supply refee:   | (fick one 1, 2, 3, 4, 5, or 6)  Innection to the Rural Water Supply (attach sketch plan):  ired:  ired:  int contribution:  \$3,900.00  \$4,135.00  k size for one unit is 5,400 litres. Fee is GST inclusive.  Size of existing tank:  into existing tank:  quired into existing tank:  |

| Fee:   | Whitestone Contracting fee directly passed on   |
|--|---|
| Note: Reduction in charges will application is made to reinstate                                   | not appear on the rate demand until the next rating year. Fees as in (1) apply if later units if still available.                                   |
|  | to new tank(s) (for applicants who require a second or subsequent tank-on-the same property and eallocate units from the existing-supply)           |
| Fee:   | Whitestone Contracting fee directly passed on   |
| existing tanks on the sam  |   |
| From Tank No(s)  | Present units:  |
|  | 7.1   |
|  | g restrictor to a new position on the property (for applicants who wish to relocate on at position on the property)                                 |
| existing tank to a differer Location of new tank (attach sk  | etch plan):  Whitestone Contracting fee directly passed on  |
| existing tank to a differer Location of new tank (attach sk  | t position on the property) etch plan):  Whitestone Contracting fee directly passed on  Z# Ex(STING WHITS FROM COT 7 IPR2 19                        |
| existing tank to a different Location of new tank (attach sk Fee:  TRAMSFS                         | t position on the property) etch plan):  Whitestone Contracting fee directly passed on  Z# Ex(STING UHITS FROM COT 7 1PR2 19                        |
| existing tank to a different Location of new tank (attach skees:  TO PH US                         | to position on the property)  etch plan):  Whitestone Contracting fee directly passed on  2 3 HEXISTING UNITO FROM. COT 7 178219  32380             |
| existing tank to a different Location of new tank (attach skees:  TO PH WS  Applicant's Signature: | to position on the property) etch plan):  Whitestone Contracting fee directly passed on  3 HEXISTING WHITS FROM COT 7 1982 19 32380  Date: 24 09 18 |
| existing tank to a different Location of new tank (attach skees:  TO PH WS Applicant's Signature:  | to position on the property) etch plan):  Whitestone Contracting fee directly passed on  3 HEXISTING UNITO FROM COT 7 178219 32380  Date: 2409/18   |





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| DESI   | GNED         |            |    | JL   | 03/09/18  |
| DRAWN  |              |            |    | MV   | 03/09/18  |
| APPI   | ROVED        |            |    | _ JL | 03/09/18  |
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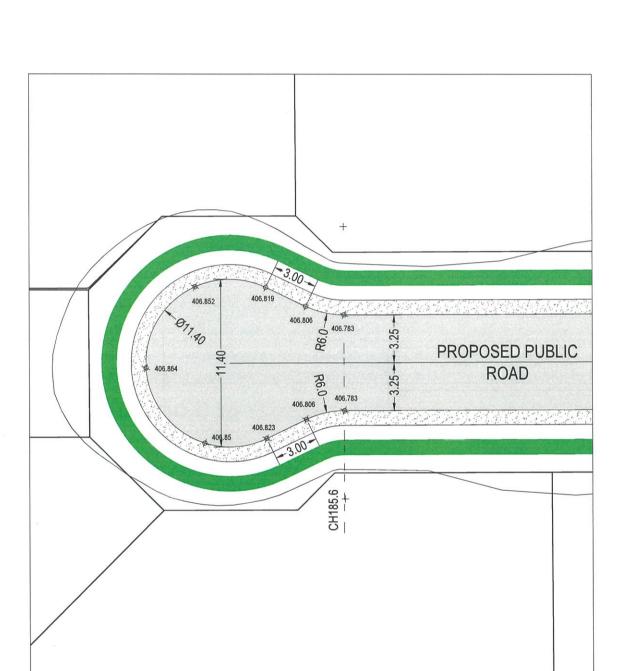


PROPOSED ROADING **OVERALL PLAN** 

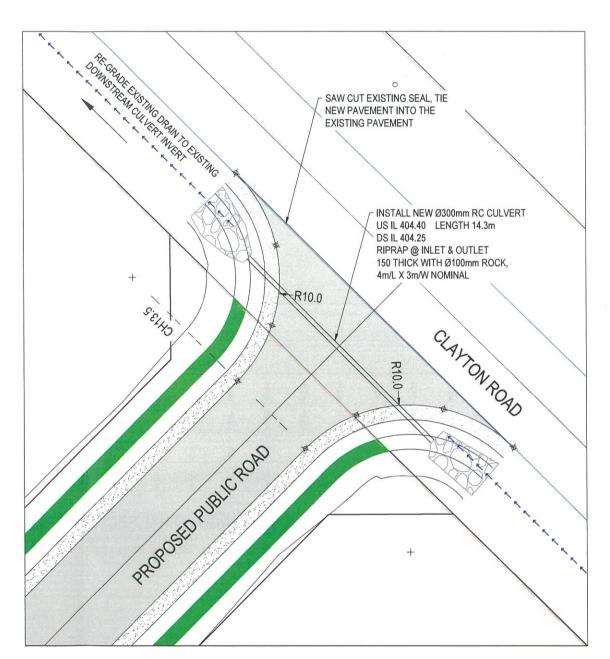
> **CLAYTON ROAD** CANTERBURY PT RS 32380

| RESOL | JRCE | COI | <b>VSENT</b> |
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| DRA     | WN                     | MV         | 03/09/18 |          |          |
| APPI    | ROVED                  | JL         | 03/09/18 |          |          |
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| SCALE I | 1:2000@A3<br> REVISION |            |          |          |          |
|         | В                      |            |          |          |          |



DETAIL A - CULDESEC DETAIL **SCALE 1:200** 



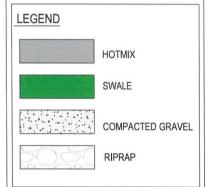
**DETAIL B - INTERSECTION DETAIL SCALE 1:200** 

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### NOTES:

- 1. LEVELS ARE IN TERMS OF LYTTELTON DATUM 1937.
  2. COORDINATES ARE IN TERMS OF SEODETIC DATUM 2000, TIMARU CIRCUIT.
  3. ALL EROSION AND SEDIMENT CONTROLS TO BE INSTALLED AND INSPECTED BY THE ENGINEER/COUNCIL REPRESENTATIVE PRIOR TO COMMERCING EARTHWORKS.
  4. ALL TOPSOIL TO BE STRIPPED AND A LOCATION CLEAR OF THE EARTHWORKS IN A LOCATION AGREED WITH THE ENGINEER.
  5. CULVERT CROSSING TO BE HARD FILL BACKFILL





DRAWING TITLE:

## PROPOSED ROADING PLAN INTERSECTION DETAILS

PREPARED FOR:

**CLAYTON ROAD** CANTERBURY PT RS 32380

|  | R | RES | OL | JRO | CE | COI | VSE | NT |
|--|---|-----|----|-----|----|-----|-----|----|
|--|---|-----|----|-----|----|-----|-----|----|

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| /N          |  |  | MV  | 03/09/18   |  |
| OVED        |  |  | JL  | 03/09/18   |  |
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|             | 1975 - Anno 19   |  |   | REVISION   |  |
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| ֡           | ORIGINAL IS DETAILS UPD  EYED ENED IN OVED  A.33  2  SERVING REVEREN | ORIGINAL ISSUE DETAILS UPDATED  EYED INED IND OVED Lai 2 4  WING REVERENCE | ORIGINAL ISSUE DETAILS UPDATED  EYED IND OVED  1:200 / 1:100  2 4 6 | ORIGINAL ISSUE MV DETAILS UPDATED MV  EYED  SINED  JL  VN  OVED  J1:200 / 1:100  2 4 6 8 |  |

# PROPOSED CULVERT IL 404.30. HARD FILL BACKFILL DATUM399.00 K = 2.5 VC 6.0m VERTICAL GEOMETRY -1.5% HORIZONTAL GEOMETRY R 20.0m **DESIGN LEVEL** EXISTING LEVEL CUT/FILL **CHAINAGES**

# LONGITUDINAL SECTION CR01

HORIZONTAL SCALE 1:1000 VERTICAL SCALE 1:200

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### NOTES:

- FOR GENERAL NOTES REFER TO PLAN 300
   ALL DIMENSIONS ARE IN METERS UNO.
   CULVERT CROSSING TO BE HARD FILL BACKFILL

### CAD AND PRODUCTION BY:



Auckland | Whangarei | Christchurch | Queenstown Ph 0800 SURVEY www.landsandsurvey.co.nz

### DRAWING TITLE:

# PROPOSED ROADING LONGSETION

### PREPARED FOR:

**CLAYTON ROAD CANTERBURY** PT RS 32380

### RESOURCE CONSENT

| REV. DESCRIPTION |                 | BY       | DATE    |  |  |
|------------------|-----------------|----------|---------|--|--|
| A                | ORIGINAL ISSUE  | MV       | 28/08/1 |  |  |
| В                | DETAILS UPDATED | MV       | 03/09/1 |  |  |
| SURV             | /EYED           |          | 00/00/1 |  |  |
| DESI             | GNED            | JL       | 03/09/1 |  |  |
| DRA              | WN              | MV 03/09 |         |  |  |
| APP              | ROVED           | JL       | 03/09/1 |  |  |
| SCALE:           | NWOH2 2A (EA)   |          |         |  |  |

SCALE BAR DRAWING REVERENCE 5242-320

N.T.S. REVISION B

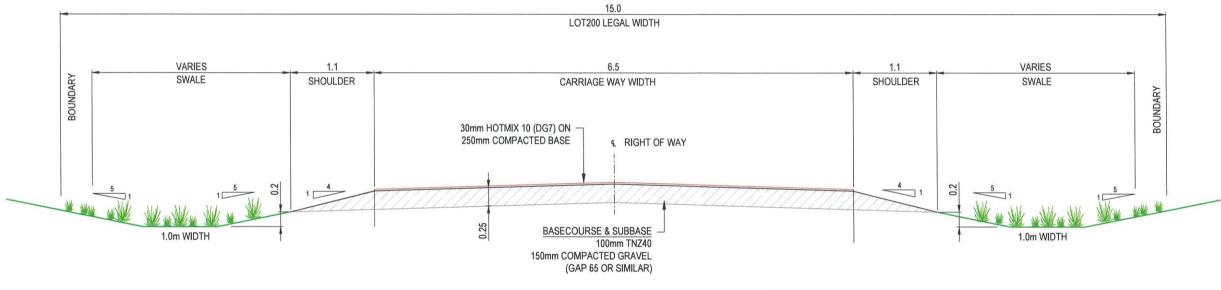


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### NOTES:

- FOR GENERAL NOTES REFER TO PLAN 300
   ALL DIMENSIONS ARE IN METERS UNO
   ALL PAVEMENT DEPTHS ARE DESIGNED ON
- SPECIFIED CBR MEASUREMENTS, DEPTHS MAY BE ADJUSTED BY THE ENGINEER FOLLOWING TESTS OF THE SUBGRADE SURFACE.
- LEVELS SHOWN ARE FINISHED LEVELS.
   HARDFILL TO BE PLACED WHERE PIPELINES CROSS OR WHERE LINES CROSS
- CROSS OR WHERE LINES CROSS
  CARRIAGEWAYS.
  6. ALL PAVEMENT LAYERS REQUIRE INSPECTION
  AND APPROVAL FROM THE SUPERVISING
  ENGINEER.



# PUBLIC ROAD TYPICAL CROSS SECTION

SCALE 1:50

CAD AND PRODUCTION BY:



Auckland | Whangarei | Christchurch | Queer Ph 0800 SURVEY www.landsandsurvey.co.nz

DRAWING TITLE:

PROPOSED ROADING TYPICAL CROSS-SECTION

PREPARED FOR:

**CLAYTON ROAD CANTERBURY** PT RS 32380

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| REV.   | DESCRIPTION  | BY       | DATE     |
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| Α  | ORIGINAL ISSUE   | MV MV    | 28/08/18 |
| В  | DETAILS UPDATED  | MV       | 03/09/18 |
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| DESI   | ORIGINAL ISSUE B DETAILS UPDATED  URVEYED ESIGNED RAWN PPROVED | JL       |          |
| DRA  | WN   | MV       | 03/09/18 |
| A ORIGINAL ISSUE B DETAILS UPDATED  SURVEYED DESIGNED DRAWN APPROVED | JL   | 03/09/18 |          |
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AS SHOWN SCALE: (A3)

| SCALE BAR         | N.T.S.  |
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30 August 2018

Graham McDermid Architects Plus Ltd Unit 3a/303 Blenheim Road Christchurch

i o SEP 2018

RECEIVED

03 SEP 2018

WANNATE DISTRIOT COUNCIL



75 Church Street PO Box 550 Timaru 7940

P. 03 687 7800

F. 03 687 7808

E. ecinfo@ecan.govt.nz

Customer Services P. 0800 324 636

www.ecan.govt.nz

Dear Graham

Floód Hazard Assessment – Proposed Subdivision Clayton & Monument Roads, Ashwick Flat, Part RS 32380, Valuation no: 25280 170 14

This approximately 7.93 ha property is located about 900 m south of the South Opuha River and extends between Monument and Clayton Roads. All of the property is covered with shallow swales (historic flow paths) and other subtle depressions. A deeper and more significant swale, which originates around 4 km upstream, enters the property near the northwest corner. A second swale also crosses Monument Road and joins into the major swale within the northwest corner of the property. I have attached a map with some descriptions of these features I collated from a visit to the site.

Environment Canterbury has not carried out a detailed investigation into flooding in this area and has little historic flood information specific to the property.

Flood Mapping carried out by the Canterbury Regional Council (for Mackenzie District Council Planning Maps) in 1999 indicates the property is on the southern edge of "being floodable" from upstream breakouts from the South Opuha River. The mapping for this area was carried out using a combination of aerial photographs, contour maps and a ground inspection. The flood extent shown on the Mackenzie District Council planning maps can be described as indicative only.

Two deep swales enter the northwest corner of the property and merge before flowing to the southeast and leaving the property roughly halfway along the west boundary. You have marked this swale on your attached subdivision layout (refer other maps also). It is important to note that while the "main swale channel" is roughly 5 – 7 m wide there is a 30-40 m strip of land, mostly on the north side of the swale, that is also significantly lower than the rest of the subdivision area. I have very approximately marked the lower ground in blue hatch on the attached map.

The major swale and associated low ground will carry significant local runoff originating from upstream, including potentially some overflows from the South Opuha River in major rainfall events. The flooding in the swale, and associated lower area, has the potential to be relatively deep and given the steep fall in the land in this area (the gradient is about 1 in 50) will be fast flowing.

The remainder of the property, clear of the swale and adjacent low ground, is also traversed by numerous more subtle swales. In these areas the swales are non-contiguous and not linked to any major upstream source of floodwater. While these features still have the potential to carry local runoff following periods of prolonged or heavy rainfall the potential depth of flooding is considerably less.

Key Ref:

18176

Contact:

Chris Fauth

As defined by the Mackenzie District Council, the minimum floor height required for new dwellings is 150 mm above the expected 500 year Average Recurrence Interval (ARI) flood level. This is obviously an extreme event that would result in both deep flooding within the swale and low part of the property and widespread but shallower runoff across the remainder of the property.

Note: Average Recurrence Interval (ARI) represents the average time period between floods of a certain size.

The major swale, and lower area approximately marked in blue hatch on the attached plan is a critical flood carrying feature of the Ashwick Flat floodplain. It is important this area is left unaltered and free of development in order to allow runoff to flow through the site as it currently does. This is particularly important given the presence of houses downstream of the subdivision and the significant increase in development on this floodplain generally.

For the bulk of the subdivision area (not in or adjacent to the major swale) a floor level of 400 mm above existing ground level should be suitable for new dwellings. This floor level allows for shallow flooding and includes some allowance for uncertainty as well as the 150 mm freeboard required by Mackenzie District Council. When choosing building sites within each proposed lot, all practical care should also be taken to avoid shallow swales.

The widespread, shallow but fast flowing runoff that is anticipated across the subdivision area can be easily impacted on by built development. Thought should be given to fencing, hedging and other developments that might occur across the floodplain and create impediments to the downstream flow of local runoff.

I have asked Alanna Hollier (Planner with Environment Canterbury) to add some comments regarding wastewater, as follows:

For the installation of on-site wastewater systems into the proposed subdivision I have attached the wastewater rules from the Land and Water Regional Plan. As the development will result in the subdivided lots being smaller than 4 hectares a resource consent will be required under Rule 5.9, as condition 2 of Rule 5.8 will not be met. Please be advised that an assessment of cumulative effects from the proposal will need to be included as part of the consent application. The system will need to be designed to industry good practices, such as inclusion of a secondary treatment system.

If you have any further queries, please contact Customer Services on 0800 324 636. You can also use this number to book a free 1-hour pre-application meeting with a consent planner to talk through the proposal in more detail.

When considering the figures and comments given above, it is important you understand the following matters:

- 1. The information provided is the best information Environment Canterbury has available at this time. Flood depths, flows and return periods may change as further investigations into flooding in this area are completed.
- 2. Environment Canterbury is not the only organisation holding information on flooding. The Mackenzie District Council or neighbours may have further details of flooding which has occurred at this property.

- 3. In the calculation of flood depths, Environment Canterbury makes some allowance for water build-up against obstacles but local influences such as solid fences or hedges may alter flood depths at the property.
- 4. Flood flows may be diverted by debris. This may alter flood depths at the property.
- 5. Changes in the floodplain e.g. raising roads or altering swales may alter flood levels at the property.
- 6. Seasonal variations e.g. height of crops, may alter flood depths at the property.
- 7. Many uncontrollable factors influence flooding. The prediction of flood depths requires many assumptions and is not an exact science.

I hope this information is of assistance. Please do not hesitate to contact me if you require any clarification.

Yours sincerely

**Chris Fauth** 

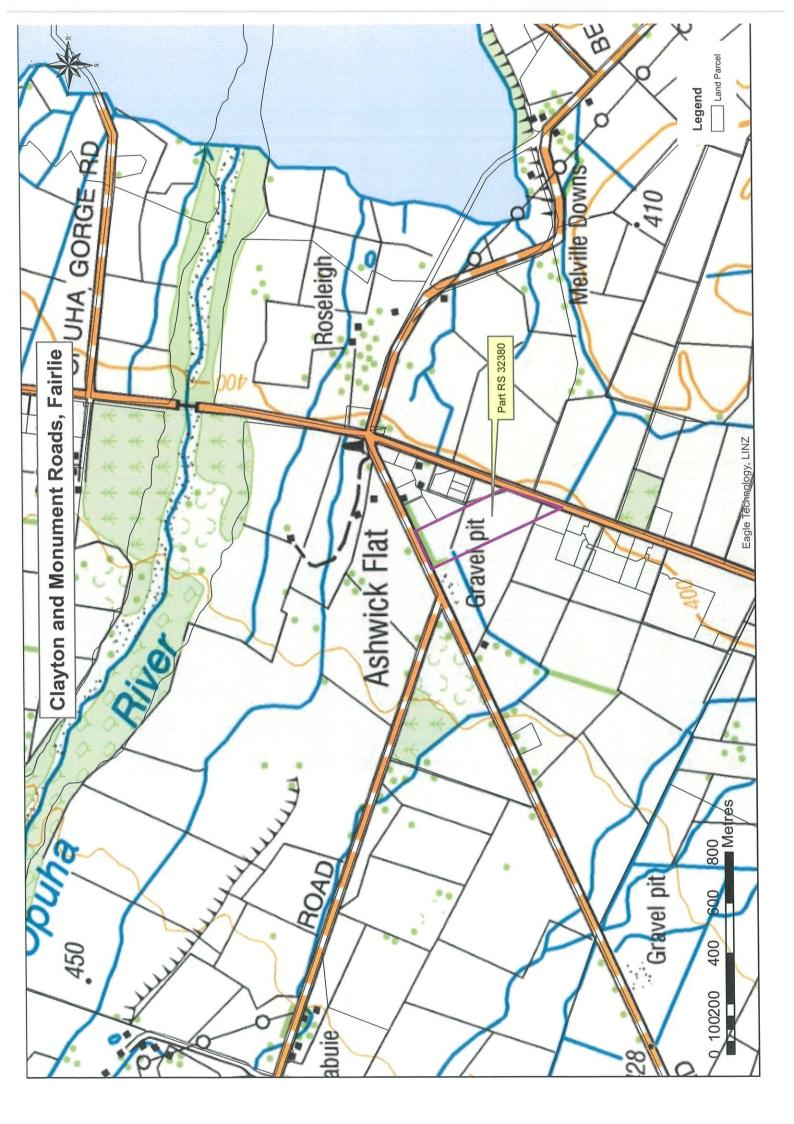
Senior Scientist (Natural Hazards)

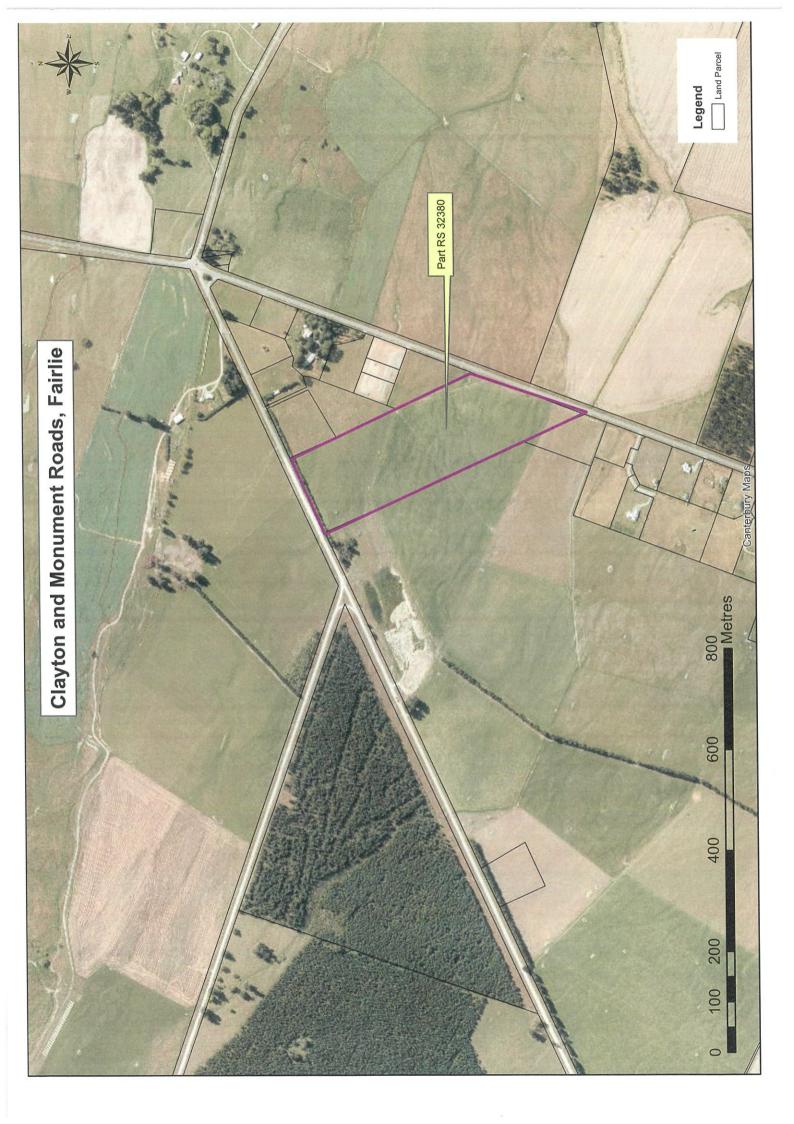
cc: Manager Planning and Regulations

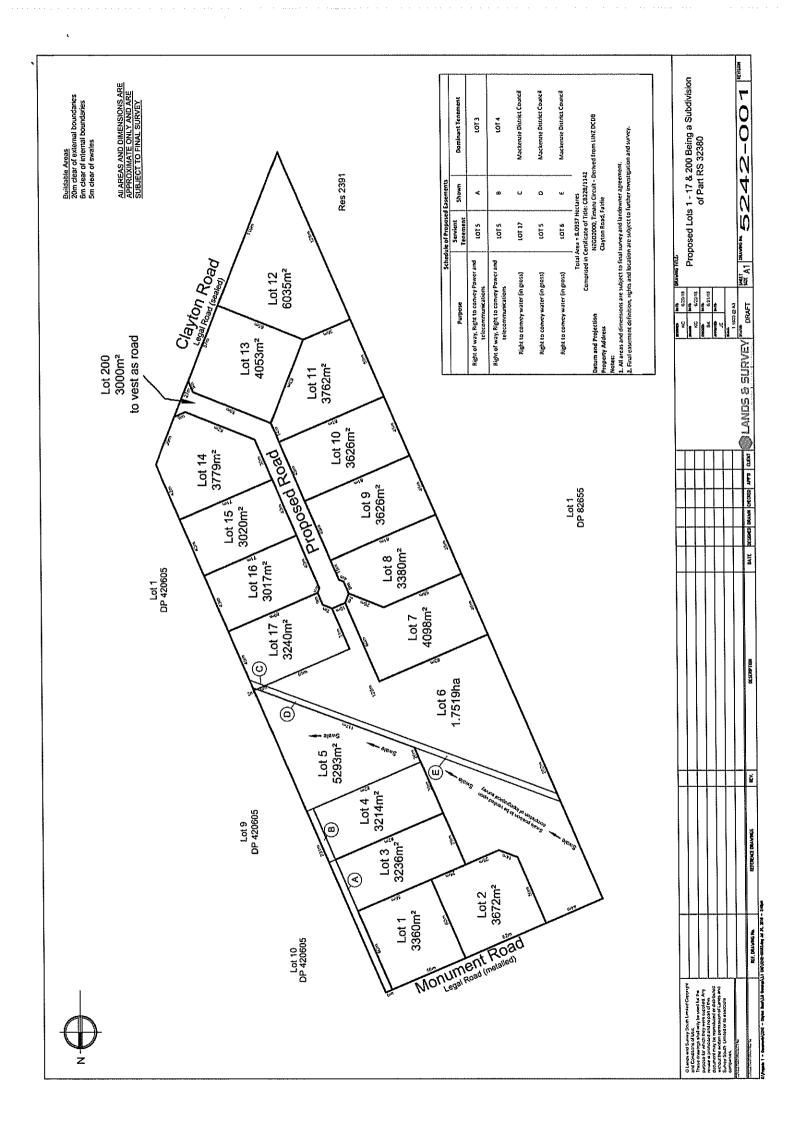
Mackenzie District Council

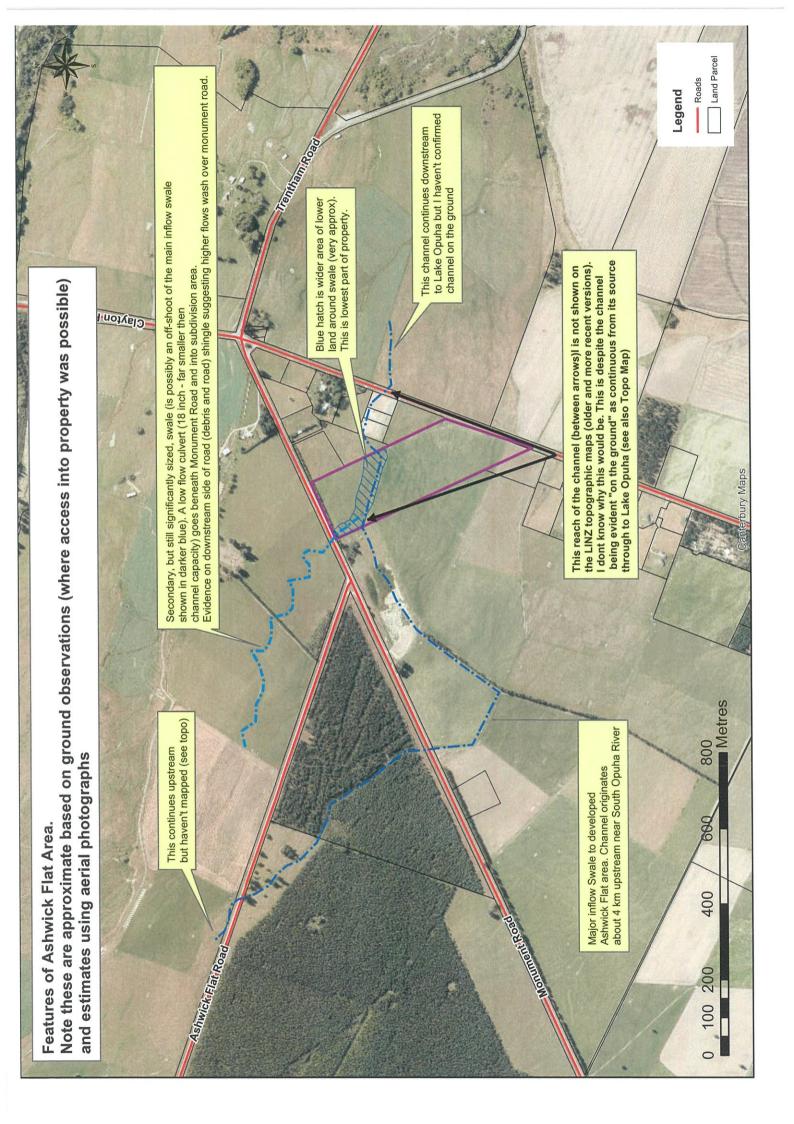
### Attachments:

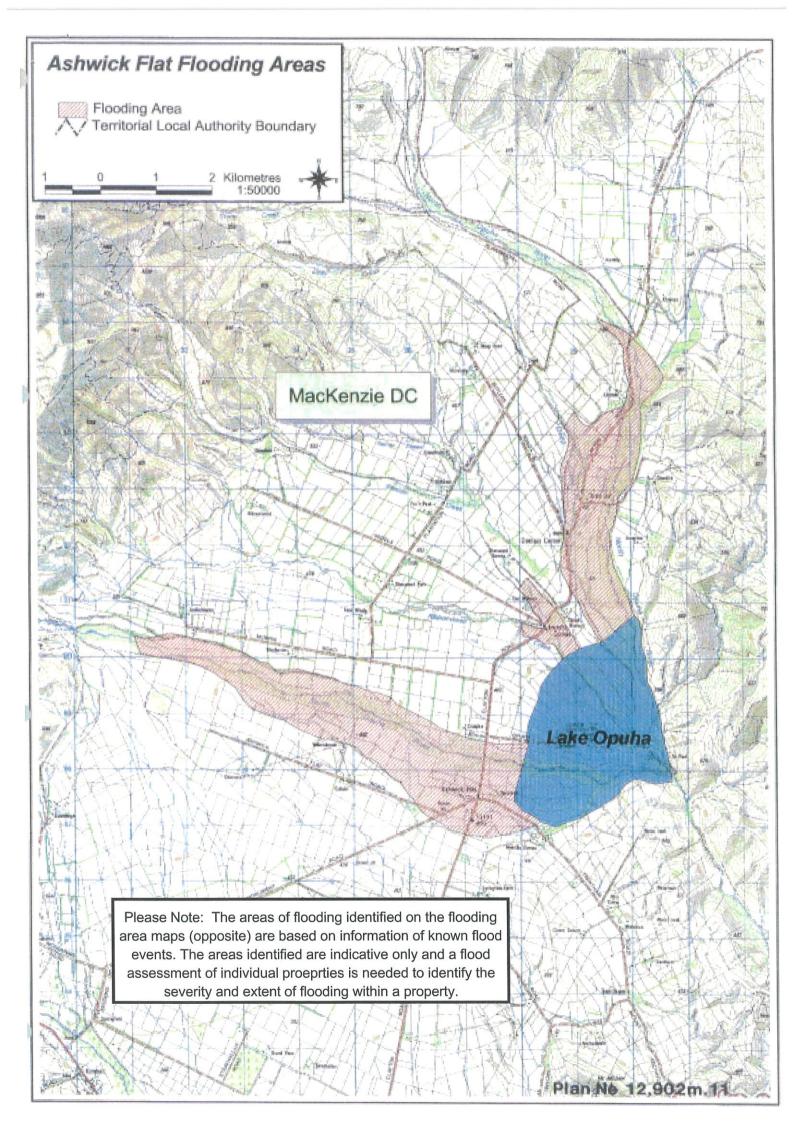
- Topographic map showing location of property
- Aerial photograph of the property
- Proposed subdivision layout provided by the applicant
- Aerial photograph with notations regarding some key features of the area
- Mackenzie District Plan Flood Map
- Land and Water Plan on-site wastewater rules (x3)











### Canterbury Land and Water Regional Plan

### On-site Wastewater

#### Notes:

- In addition to the provisions of this Plan and any relevant district plan, any activity which may modify, damage or destroy pre 1900 archaeological sites is subject to the archaeological authority process under the Heritage New Zealand Poutere Taonga Act 2014. An archaeological authority is required from Heritage New Zealand to modify, damage or destroy any archaeological site, whether recorded or not in the New Zealand Heritage List/Rārangi Kōrero website
- 2. Detailed information about separation distances for on-site effluent disposal systems is available from the Institute of Environmental Science and Research. Information includes the Guidelines for separation distances based on virus transport between on-site domestic wastewater systems and wells (ESR 2010)
- 5.7 The discharge of wastewater from an existing on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge was lawfully established prior to 1 November 2013; and
  - The treatment and disposal system has not been altered or modified from that established at the time the system was constructed, other than through routine maintenance; and
  - 3. The volume of the discharge has not been increased as a result of the addition of buildings, an alteration of an existing building, or a change in use of a building that is connected to the system; and
  - 4. The treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management; and
  - 5. The discharge is not onto or into land:
    - (a) where there is an available sewerage network; or
    - (b) that is listed as an archaeological site; or
    - (c) where the discharge would enter any surface waterbody; or
    - (d) within 20 m of any surface waterbody or the Coastal Marine Area; or
    - (e) within 50 m of a bore used for water abstraction; or
    - (f) within a Community Drinking-water Protection Zone as set out in Schedule 1 of this Plan; or
    - (g) where there is, at any time, less than 1 m of vertical separation between the discharge point and groundwater; and
  - 6. The discharge does not result in wastewater being visible on the ground surface; and
  - 7. The discharge does not contain any hazardous substance.
- 5.8 The discharge of wastewater from a new, modified or upgraded on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge volume does not exceed 2 m³ per day; and

### Canterbury Land and Water Regional Plan

- 2. The discharge is onto or into a site that is equal to or greater than 4 hectares in area; and
- 2a. The discharge is not located within an area where residential density exceeds 1.5 dwellings per hectare and the total population is greater than 1000 persons; and
- 3. The discharge is not onto or into land:
  - (a) where there is an available sewerage network; or
  - (b) that is contaminated or potentially contaminated; or
  - (c) that is listed as an archaeological site; or
  - (d) in circumstances where the discharge would enter any surface waterbody; or
  - (e) within 20 m of any surface waterbody or the Coastal Marine Area; or
  - (f) within 50 m of a bore used for water abstraction; or
  - (g) within a Community Drinking-water Protection Zone as set out in Schedule 1; or
  - (h) where there is, at any time, less than 1 m of vertical separation between the discharge point and groundwater; and
- The treatment and disposal system is designed and installed in accordance with Sections 5 and 6 of New Zealand Standard AS/NZS 1547:2012 – On-site Domestic Wastewater Management; and
- 5. The treatment and disposal system is operated and maintained in accordance with the system's design specification for maintenance or, if there is no design specification for maintenance, Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management; and
- 6. The discharge does not result in wastewater being visible on the ground surface; and
- 7. The discharge does not contain any hazardous substance.
- 5.8A The discharge of wastewater from an existing, new, modified or upgraded back country hut wastewater treatment system onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge volume does not exceed 2 m<sup>3</sup> per day; and
  - 2. The treatment and siposal system has a written system design specification for maintenance (and if such a system design specification for maintenance does not exist, a written system design specification for maintenance shall be prepared in accordance with Section 6.3 of New Zealand Standard AS/NZS 1547:2012 On-site Domestic Wastewater Management by the 31<sup>st</sup> of December 2017) and is operated and maintained within that specification; and
  - 3. The discharge is not onto or into land:
    - (a) where there is an available sewerage network; or
    - (b) that is contaminated or potentially contaminated; or
    - (c) that is listed as an archaeological site; or
    - (d) in circumstances where the discharge would enter any surface waterbody; or
    - (e) within 20 m of any surface waterbody or the Coastal Marine Area; or
    - (f) within 50 m of a bore used for water abstraction; or
    - (g) within a Community Drinking-water Protection Zone as set out in Schedule 1; or
    - (h) where there is, at any time, less than 1 m of vertical separation between the discharge point and mean seasonal high water table; and

### Canterbury Land and Water Regional Plan

- 4. The discharge does not result in wastewater being visible on the ground surface, unless the discharge occurs as a result of a land application system that has been specifically designed to treat and discharge wastewater through application of wastewater to the land surface; and
- 5. The discharge does not contain any hazardous substance.
- 5.9B The discharge of wastewater from an existing, new, modified or upgraded back country hut wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.8A is a discretionary activity.
- 5.9 The discharge of wastewater from:
  - (a) an existing on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.7; or
  - (b) a new, modified or upgraded on-site wastewater treatment system onto or into land in circumstances where a contaminant may enter water that does not meet one or more of the conditions of Rule 5.8;

is a restricted discretionary activity.

### The exercise of discretion is restricted to the following matters:

- 1. The actual and potential environmental effects of not meeting the condition or conditions of Rule 5.7 for an existing system; and
- 2. The actual and potential direct and cumulative environmental effects of not meeting the condition or conditions of Rule 5.8 for a new, modified or upgraded system; and
- 3. The actual and potential environmental effects of the discharge on the quality and safety of human and animal drinking-water; and
- 4. The effect of on-site wastewater treatment system density in the local area including known on-site wastewater treatment system failures, the material health status of the community, groundwater quality, the nature of effects of current sewage disposal methods, treatment options available and affordability.

### Swimming Pool or Spa Water

- 5.10 The discharge of swimming pool or spa pool water into water or onto or into land in circumstances where a contaminant may enter water is a permitted activity, provided the following conditions are met:
  - 1. The discharge of filter backwash water is only onto land, and the discharge does not enter any surface waterbody or wetland, including via a stormwater system; and
  - For swimming pool or spa pool water discharges that do not contain filter backwash water, the discharge may be either onto land or into water, provided:
    - (a) that for all discharges:
      - there are no copper chemicals or flocculants, including aluminium saits, in the discharge and the concentration of sodium chloride (common salt) does not exceed 3500 g/m³; and