

## Appendix 10: Infrastructure Assessment



Shotover Design Limited trading as

# Clark Fortune McDonald & Associates

Licensed Cadastral Surveyors - Land Development - Planning Consultants

11954\_1

12 Feb. 15

Ayrburn Farm Developments Ltd  
C/- Winton Partners  
P O Box 105526  
AUCKLAND 1143

Via email: [andrew.cavill@wintonpartners.com.au](mailto:andrew.cavill@wintonpartners.com.au)

Dear Andrew,

## **AYRBURN FARM DEVELOPMENT – PRELIMINARY INFRASTRUCTURE ASSESSMENT**

### **Introduction**

Further to your instruction we have vetted the proposed concept plan consisting of 150 dwellings in context of existing Council related three waters infrastructure. We have examined the site topography and the QLDC GIS and we provide the following comments:

### **Wastewater**

It appears that all of the site can drain with gravity to the existing QLDC reticulation in Speargrass Flat Road. This is part of the Lake Hayes Scheme. To do this however would require an easement from QLDC to lay a new gravity main (150mmØ should be sufficient) through the existing esplanade reserve adjoining Mill Creek. I have highlighted this on the attached plan. Without obtaining an easement, a Pump station would be needed to pump the effluent to a connection point in the existing reticulation within public legal road.

The following summaries that expected demands generated by the proposed development.

No of residential units:	150.
Average dry weather flow:	300 l / person / day.
Dry weather diurnal peak factor:	2.5.
Infiltration factor:	2.
Occupancy:	3.5 person / du.

*Dry weather average daily flow:* 158 m<sup>3</sup> / day.

*Peak hour flow:* 9.11 l / sec.

The existing reticulation that is proposed to be connected to in Speargrass Flat Road is 150mmØ. Similarly the downstream network to the QLDC pump station at the north end of Lake Hayes is 150mmØ. Empirically, a 150Ø pipe will be sufficient for about 200 dwellings. Therefore some of the downstream gravity network may need some modelling to confirm whether or not upgrades are required. Furthermore, the capacity of the existing pump station and associated reticulation all the way to the Shotover Waste Water Treatment plant would need assessed.



309 Lower Shotover Road - P.O Box 553 - Queenstown

T: (03) 441 6044 F: (03) 442 1066

**CSNZ** THE CONSULTING  
SURVEYORS  
OF NEW ZEALAND  
A DIVISION OF THE NEW ZEALAND INSTITUTE OF SURVEYORS

## Water Supply

Similarly, water supply would need modelled to determine pipe sizing, and levels of service for domestic and fire fighting demands. There would however be sufficient pressure from the QLDC system (Bendemeer reservoir ~ Elevation 430m – Site Elevation ~ 360m) for domestic and fire fighting supply. Supply issues in the Lake Hayes catchment appear to have been mitigated for the time being with the construction of the Shotover Country system. This however may be a short term fix given the potential rate of development in this water scheme catchment.

The following summaries that expected demands generated by the proposed development.

No of residential units:	150.
Average daily demand:	700 l / person / day.
Occupancy:	3.0 person / du.
Peak hour demand:	4.0.

<i>Average Daily demand:</i>	<i>315.0 m<sup>3</sup> / day.</i>
<i>Peak hour demand:</i>	<i>14.6 l / sec.</i>

New water reticulation would likely need to have ring in the layout. A connection through the existing unformed legal road to the west and back down the esplanade reserve with the foul sewer line would facilitate this. At this stage we would anticipate 150mmØ mains to be sufficient.

## Stormwater

Stormwater would ultimately discharge to Hayes Creek. The status of the discharge activity would need to be confirmed under the Regional Water Plan. At this stage however we anticipate consent from the ORC would be needed. To obtain discharge consent storm water treatment and possibly attenuation may be required. Water quality discharging to Lake Hayes would be an important consideration in the storm water design for the development. Equally, attenuation may be needed to mitigate against any potential downstream flooding risk.

## Summary

From a 3 waters infrastructure point of view, the land appears to be relatively simply serviced by extending the adjoining QLDC Lake Hayes infrastructure.

Any effects on the existing QLDC infrastructure of this development will need to be mitigated by the imposition of head works fees (Development Contributions).

In the Lake Hayes catchment for 150 dwellings you could expect contributions of \$411,450 for water and \$1,008,000 for waste waster under the current policy.

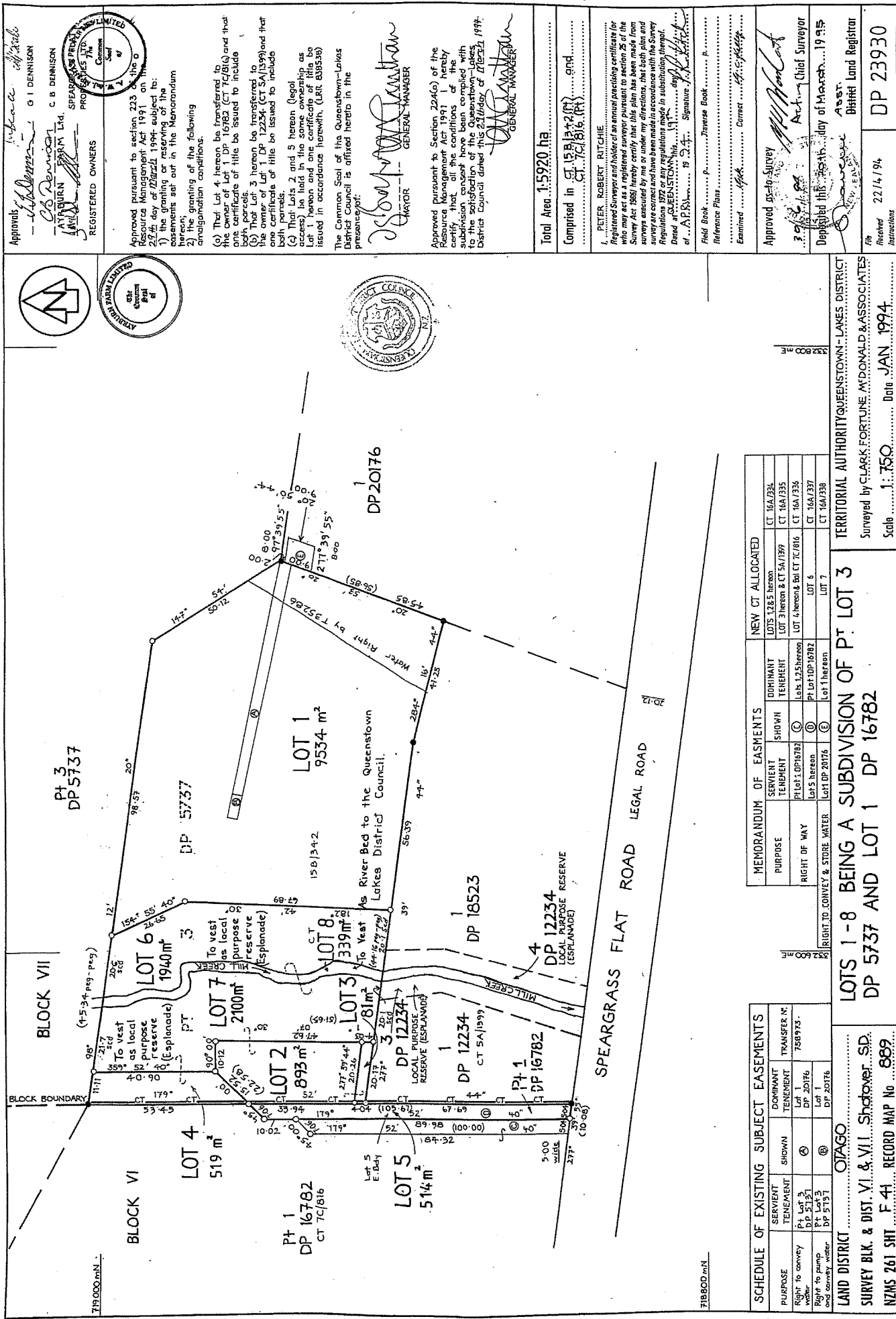
An alternative is for the developer to fund the necessary upgrades and the cost of completing the work offset against the cash contributions. Such work would need to be designed in conjunction with QLDC and if required included in a capital works program. Submission on the Annual Plan process may be required to ensure that appropriate funding is available for upgrades if needed.

Yours faithfully  
CLARK FORTUNE MCDONALD & ASSOCIATES



Chris Hansen  
**SURVEY MANAGER**

p. 03 441 6079  
e. [chansen@cfma.co.nz](mailto:chansen@cfma.co.nz)



Approvals: *W. J. Dennis* G I DENNISON  
*C. B. Dennis* C B DENNISON  
ATHEURN PROPERTY LTD.  
REGISTERED OWNERS

Approved pursuant to section 223 of the Resource Management Act 1991 on the 27th day of March 1994 subject to the easements set out in the Memorandum and/or conditions.

(a) That Lot 4 hereon be transferred to the owner of Lot 1 DP 16782 (CT 7C/816) and that both parcels of title be issued to include both parcels.  
(b) That Lot 3 hereon be transferred to the owner of Lot 1 DP 12234 (CT 5A/1399) and that one certificate of title be issued to include both parcels.  
(c) That Lots 2 and 5 hereon (legal access) be held in the same ownership as Lot 1 hereon and the certificate of title be issued in accordance herewith (LRT 838538).

The Common Seal of the Queenstown-Lakes District Council is affixed hereto in the presence of:  
*General Manager*  
GENERAL MANAGER

Approved pursuant to Section 224(a) of the Resource Management Act 1991 I hereby certify that all the conditions of the subdivision consent have been complied with to the satisfaction of the Queenstown-Lakes District Council dated this 21st day of March 1994.

Total Area 1:5920 ha  
Comprised in 1:15813+2(1) and 1:721816 (1)

PETER ROBERT RITCHIE  
Registered Surveyor and holder of an annual practicing certificate for who may act as a registered surveyor pursuant to section 25 of the Survey Act 1988 hereby certify that this plan has been made from surveys executed by me or under my directions, that both plan and survey are correct and have been made in accordance with the Survey Regulations and have been made in accordance with the Survey Act 1988.

Dated at QUEENSTOWN this 19th day of March 1994.  
Signature: *P. Ritchie*  
Field Book: P. Ritchie Book  
Reference Plans: 1:15813+2(1) and 1:721816 (1)  
Examined: *P. Ritchie* Correct

Approved as to Survey: *P. Ritchie*  
Acting Chief Surveyor  
30/3/94  
Deposited this 30th day of March 1994

Asst. District Land Registrar  
File Received Instructions  
22/4/94  
DP 23930

MEMORANDUM OF EASEMENTS			NEW CT ALLOCATED	
PURPOSE	SERVIENT TENEMENT	SHOWN	DOMINANT TENEMENT	
RIGHT OF WAY	Pt Lot 1 DP 16782	①	Lots 1, 2, 3 hereon	CT 16A/336
RIGHT TO CONVEY & STORE WATER	Lot 5 hereon	②	Lot 4 hereon & Pt Lot 7C/816	CT 16A/336
	Lot 1 DP 20176	③	Pt Lot 1 DP 16782	CT 16A/337
	Lot 1 hereon	④	Lot 7	CT 16A/338

LOTS 1-8 BEING A SUBDIVISION OF PT LOT 3  
DP 5737 AND LOT 1 DP 16782  
TERRITORIAL AUTHORITY QUEENSTOWN - LAKES DISTRICT  
Surveyed by CLARK FORTUNE McDONALD & ASSOCIATES  
Scale 1:750 Date JAN 1994

SCHEDULE OF EXISTING SUBJECT EASEMENTS		
PURPOSE	SERVIENT TENEMENT	DOMINANT TENEMENT
Right to convey water	Pt Lot 3 DP 5737	Lot 1 DP 20176
Right to pump water and convey water	Pt Lot 3 DP 5737	Lot 1 DP 20176

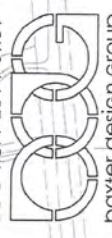
LAND DISTRICT OTAGO  
SURVEY BLK. & DIST. VI & VII Sharrow SD.  
NZMS 261 SHIT F 41 RECORD MAP No 889  
ID F412-3





# **+ AYRBURN - DRAFT CONCEPT**

AYRBURN FARM DEVELOPMENTS LTD  
BDG REF: 2514-SK01 - SCALE = 1:3000 T A3 - 09 FEB 2013



baxter design group





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Queenstown Lakes District Council

Ayrburn

Webmaps your view of your information

09 February 2015





## Appendix 11: Traffic Report



Mr Chris Meehan  
Ayrburn Farm Development Limited  
c/o Winton Partners  
Level 2  
33 Shortland Street  
Auckland 1010

TDG Ref: 13145  
12 February 2015

Issued via email: [chris.meehan@wintonpartners.com.au](mailto:chris.meehan@wintonpartners.com.au)  
[john.edmonds@jea.co.nz](mailto:john.edmonds@jea.co.nz)

Dear Chris

**Ayrburn Farm Development  
Arrowtown-Lake Hayes Road Access**

Following your request, we have prepared a preliminary assessment of the access requirements onto Arrowtown-Lake Hayes Road for the proposed development at Ayrburn Farm.

**1. Proposed Development**

We understand that Ayrburn Farm Development Limited proposes development of a new subdivision at Ayrburn Farm on the northern side of Speargrass Flat Road and west of Arrowtown-Lake Hayes Road. The subdivision will create about 120-150 new residential lots which will be accessed via a new intersection on Arrowtown-Lake Hayes Road about 200m north of the Speargrass Flat Road intersection. The existing homestead will be maintained on a separate access and title.

**2. Existing Transport Environment**

State Highway 6 (SH6) represents the main strategic road in the area linking Wanaka to the north with Queenstown (via State Highway 6A) to the south. Arrowtown is located about 2km north of Ayrburn Farm along Arrowtown-Lake Hayes Road. Arrowtown-Lake Hayes Road represents the shortest route between Arrowtown and Queenstown via SH6 and is classified as an Arterial Road within the Queenstown Lakes District Plan. Arterial Roads are defined as dominant elements of the transport network connecting major settlements within the district and are managed to minimise their local access function.

North of Speargrass Flat Road, Arrowtown-Lakes Hayes Road has been constructed as a rural two lane carriageway with 3.6m wide traffic lanes and 0.4m wide shoulders. The road reserve is about 20m wide and has been grassed. On the Ayrburn Farm frontage, the current speed limit is 100km/h and the road has a straight and generally level alignment. The speed limit on Arrowtown-Lake Hayes Road south of Ayrburn Farm is 70km/h. TDG is aware that a reduction in the speed limit from 100km/h to 80km/h is under consultation.

Photograph 1 shows that a power line runs along the western side of the road in the vicinity of Ayrburn Farm. The power poles are 2.0-2.5m from the edge of the sealed carriageway. Photograph 2 shows a ditch along the eastern boundary of the road reserve.



***Photograph 1: View South on Arrowtown-Lake Hayes Road from Proposed Intersection Location***



***Photograph 2: View North on Arrowtown-Lake Hayes Road from Proposed Intersection Location***

Speargrass Flat Road meets Arrowtown-Lake Hayes Road at a priority controlled cross-roads intersection with Hogans Gully Road. The shoulders of Arrowtown-Lake Hayes Road have been widened on the approaches to the intersection to accommodate turning movements and provide space for through traffic to pass turning vehicles.

Traffic count information obtained from QLDC indicates that the average daily traffic volume on Arrowtown-Lake Hayes Road north of SH6 was about 3,400 vehicle movements per day (vpd) in November 2013. Current traffic volumes would be expected to be about 3,500vpd based on an average annual growth rate of 2% per annum. The peak period was 5:00pm to 6:00pm with a peak hourly volume of about 300 vehicles per hour (vph).



### 3. Expected Traffic Generation and Distribution

The concept subdivision plan shows 122 residential lots but it is understood that up to 150 lots could be created. The average daily traffic generation of the subdivision with 150 lots would be expected to be about 1,200 vehicle movements per day based on an average traffic generation rate of eight vpd per household. The NZTA Research Report No 453 "Trips and Parking related to land use" indicates that the median peak hour traffic generation rate for rural residential activity is 1.1vph per dwelling. On this basis, the subdivision could generate about 165vph in the morning and evening peak periods.

In the morning commuter peak period, about 80% of all vehicle movements generated by the site would be expected to be outbound with the majority being towards workplaces and other activities within Queenstown. In the evening, about 65% of movements would be expected to be into the subdivision again with the majority being from Queenstown. The following table provides an indication of the expected turning volumes in the morning and evening peak hours based on 75% of movements being to / from Queenstown<sup>1</sup>.

Period	Left-out	Right-out	Left-in	Right-in
AM	30	100	25	10
PM	15	45	75	30

*Table 1: Indicative Movement Patterns at New Intersection on Arrowtown-Lake Hayes Road*

### 4. Intersection Configuration

The industry-standard Austroads Guide to Road Design Part 4A provides warrants for turn treatments at unsignalised intersections. Based on the existing traffic volumes on Arrowtown-Lake Hayes Road and the forecast turning volumes at the subdivision access, the warrants for basic left and right turn treatments would be exceeded in the evening peak period and channelized treatments are preferred. Therefore, it is recommended that the intersection be designed to include a right turn bay and left turn deceleration lane. It is considered that the existing road reserve width will be sufficient to accommodate the road widening required to accommodate the additional lanes.

Since Arrowtown-Lake Hayes Road is generally straight, no issues are anticipated with providing adequate sight lines at the intersection.


The power poles on the western side of the Arrowtown-Lake Hayes Road however, represent a safety hazard because of their proximity to the carriageway. It is recommended that the poles are moved away from the carriageway when the new intersection is constructed. Similarly, the ditch on the eastern side of the road will also represent a hazard because of its proximity to the road when the new intersection is formed. It is recommended that the ditch is replaced by an underground pipe in the vicinity of the intersection.

The proposed location of the new intersection some 200m north of the Speargrass Flat Road intersection represents about nine seconds of travel time at 80km/h and is considered to be adequate to prevent any driver confusion and also provide sufficient space for signage to be provided.

We also recommend that some consideration is given to identifying suitable locations for a bus to stop clear of through traffic so that the subdivision becomes safely access by public

<sup>1</sup> This is consistent with the turning distribution patterns at SH6 / Howards Drive





transport. Subject to discussion with the bus operators, the preferred location would be between the new intersection and Speargrass Flat Road. The allowance for the future provision of a stop in this location is considered to be appropriate for this future residential activity making use of the existing (or future increase) in the bus services along the route. It is recommended that a footpath is provided adjacent to Arrowtown-Lake Hayes Road to link the bus stops with the subdivision.

## 5. Conclusions

Following this preliminary assessment, it is concluded that:

- (i) The proposed intersection location provides adequate separation from other intersections;
- (ii) The proposed development should be supported by an intersection constructed with a right turn bay and left turn deceleration lane;
- (iii) Power poles on the western side of Arrowtown-Lake Hayes Road should be relocated to increase clearance from the carriageway;
- (iv) The ditch on the eastern boundary should be replaced by an underground pipe; and,
- (v) Adequate sight distances can be provided to allow safe and efficient operation of the new intersection.

We trust that this report provides the information that you require but we would be happy to discuss any matters raised as necessary.

Yours sincerely

**Traffic Design Group Ltd**



Chris Rossiter  
**Principal Transportation Engineer**

chris.rossiter@tdg.co.nz



Don McKenzie  
**Technical Director**

don.mckenzie@tdg.co.nz

enc: Subdivision Concept Plan  
Site Location





Potential retail area - garden centre or similar

Historic farm centre maintained & preserved as heart of site

Outdoor area around cafe

Central 'village greens'

Housing: design controls to restrict building forms to Arrowtown vernacular - gables, stone, weatherboard

Visible open space maintained as existing

Managers house & farm sheds

Selfback & screening area

Tree planting to screen views from Arrowtown-Lake Hayes Road

Farmers market space (gravel areas, note - closed to vehicles aside from market days)

Existing homestead maintained on separate access & title

Mill Stream esplanade reserve access walkway

Dwellings located in lower terrace areas - screened from road by landforms

Open visible paddocks protected & maintained

Access from Lakes Hayes - Arrowtown Road in avenue form - no kerb & channel

# **AYRBURN - DRAFT CONCEPT**

AYRBURN FARM DEVELOPMENTS LTD  
BDG REF: 2514-SK05 - SCALE = 1:3000 T A3 - 12 FEB 2015



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## Appendix 12: Geotechnical Report



GEOTECHNICAL ENGINEERING • ENGINEERING GEOLOGY • HYDROGEOLOGY • HYDROLOGY • PAVEMENTS

Geosolve Ref: 150098  
12 February 2015

Ayrburn Farm Developments Limited  
C/- Winton Partners,  
Level 2, 33 Shortland Street,  
Auckland 1010

Attention: Chris Meehan

Dear Chris

### **Proposed Ayrburn Farm Residential Development, Preliminary Geotechnical Comment**

We understand you proposed to develop a residential sub-division on the Lake Hayes – Arrowtown Road approximately 1km north of Lake Hayes. An indicative concept plan of the proposed development, completed by the Baxter Design Group (reference 2541 – sk01), has been provided to Geosolve and indicates the extent and location of the sub-division.

The site is located in a low lying area of the Wakatipu basin and largely comprises undeveloped farmland. There are several nearby residential properties.

A review of published geological information indicates the site is underlain by Glacial Outwash soils. A review of the Geosolve Database for ground investigations completed on nearby sites also indicates glacial outwash deposits are locally present in this area. Glacial outwash typically comprises a mixture of soil types typically with gravel to silt sized constituent grains.

Queenstown Lakes District Council (QLDC) hazard mapping indicates the south eastern corner of the site is designated as LIC 2 (P) with respect to liquefaction. An excerpt from the QLDC hazard mapping is attached. This area is the topographically lowest area of the site and a creek runs through it, potentially resulting in an elevated groundwater table. This is the area designated as Housing Area B on the attached indicative concept plan

Areas with an LIC 2 (P) categorisation are preliminarily assessed as having a 'Possibly moderate' risk of liquefaction. To fully assess the actual risk of liquefaction deep investigations and reporting in accordance with NZS 3604, Department of Building and Housing (DNH) guidelines and QLDC requirements will be required.

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Regional Office: 125 Franklin Road, Franklin Marina, Queenstown, 9300 • PO Box 1780 Queenstown

Phone 04 3 455 0173

Mail: [samin@geosolve.co.nz](mailto:samin@geosolve.co.nz)



GEOTECHNICAL ENGINEERING • ENGINEERING GEOLOGY • HYDROGEOLOGY • HYDROLOGY • PAVEMENTS

If adverse liquefaction conditions are identified during the detailed assessment then a range of established engineering solutions, foundation design, ground improvement etc., are available to address the issue (DBH Technical Categories TC1, TC2 and TC3, and specific Geotechnical design). Residential development in the identified liquefaction hazard area is therefore expected to be feasible.

Elsewhere across the proposed sub-division (Areas A and C on the attached indicative concept plan) preliminary assessment indicates there are no significant geotechnical hazards that would prevent development. It is expected that standard engineering practice with respect to potential issues (construction adjacent to slopes, soft ground, drainage, surface run-off, localised fans etc) will be sufficient to address the geotechnical conditions at the site.

This report has been prepared for the benefit of Ayrburn Farm Developments Limited with respect to the particular brief given to us and it may not be relied upon in any other context or for any other purpose without our prior review and written agreement.

Please don't hesitate to contact the undersigned if you have any questions on the content of this letter.

Report Prepared By:

.....  
Paul Faulkner

Senior Engineering Geologist

Geosolve Ltd

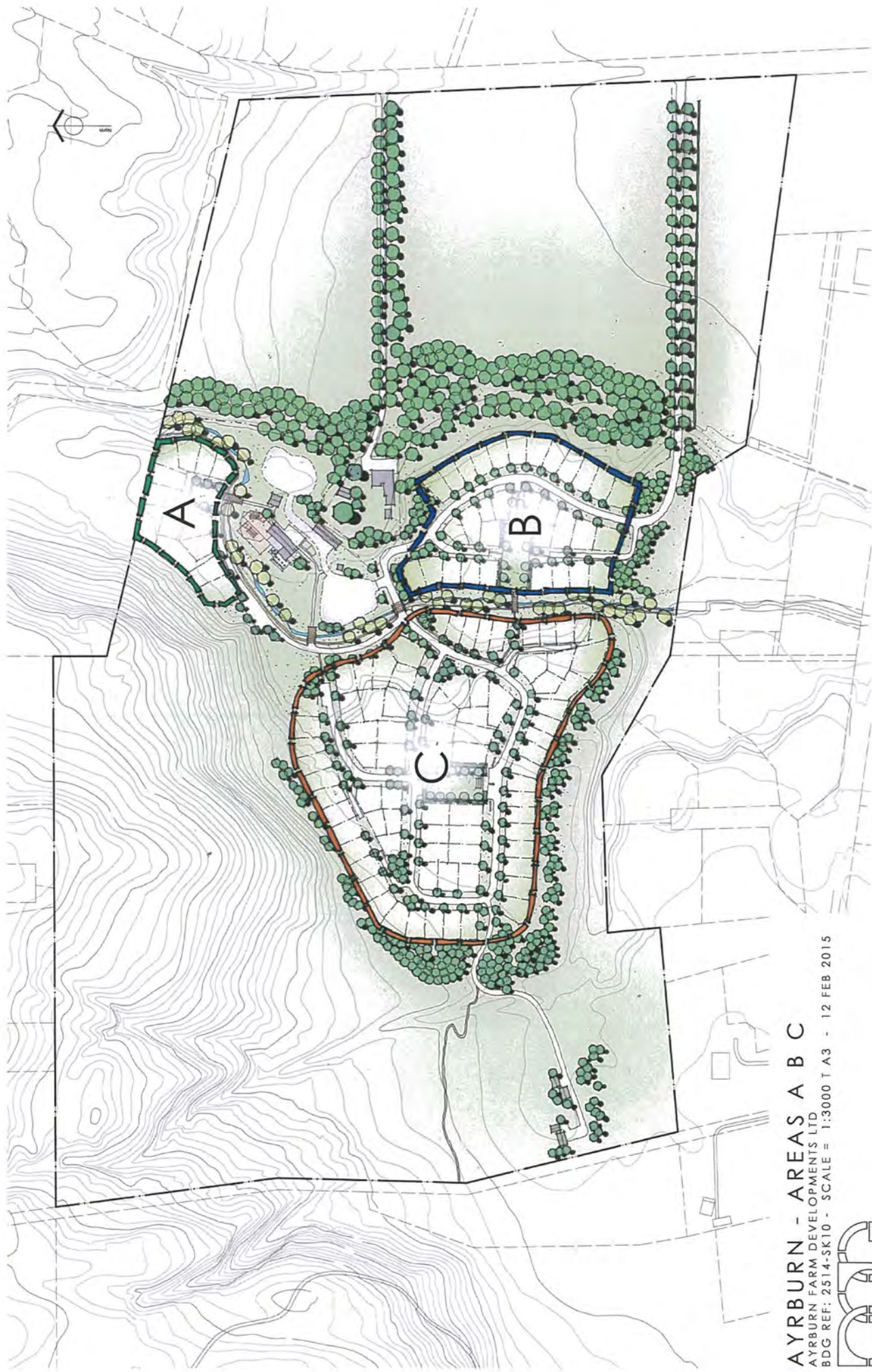
Attachments: Indicative Concept Plan, QLDC Hazard Map Excerpt,



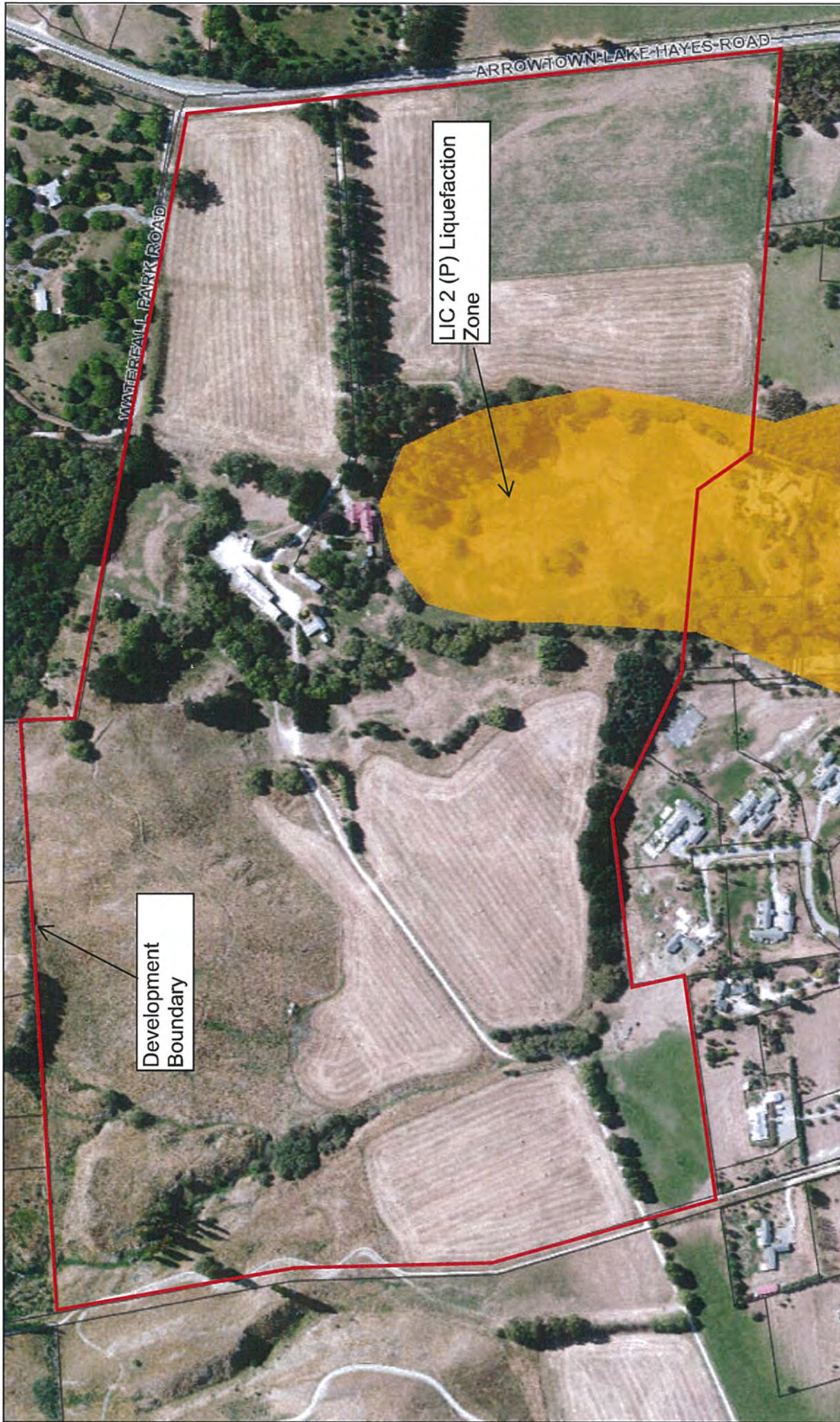
+ AYRBURN - AREAS A B C  
AYRBURN FARM DEVELOPMENTS LTD  
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baxter design group







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## Appendix 13: Hydrology Report



Ref: GL-15-02-12-GMD-000178.docx

13 February 2015

The Directors  
Ayrburn Farms Development Ltd  
C/- Winton Partners Investments Ltd  
Email: [andrew.cavill@wintonpartners.com.au](mailto:andrew.cavill@wintonpartners.com.au)

Attention: Andrew Cavill

Dear Andrew

## **Ayrburn Farms Residential Development Concept – Flood Hazard Mitigation**

### **1.0 Introduction**

We refer to the Winton Partners Limited email from Chris Meehan to Fluent Solutions dated 12 February 2015 and the attached Baxter Design Group "Ayrburn - Draft Concept" drawing dated 12 February 2015 prepared for Ayrburn Farm Developments Limited.

Part of the proposed Ayrburn development would lie within an area described in the Queenstown Lakes District Council GIS based Hazard Register data as being within an area referred to as "Flood Hazard due to rainfall" resulting from flows that pass down Mill Stream that traverses Ayrburn farm. The Flood Hazard area is shown in Figure 1 below (Page 2). A preliminary assessment of the mitigation requirements has been addressed below.

### **2.0 Background**

#### **2.1 Ayrburn Farm Hazard Data**

Three hazards have been identified in Figure 1 below that fall within the Ayrburn farm site. These are:

1. Flood Hazard due to rainfall - addressed below
2. Alluvial fan hazard - "Active Debris Dominant Fan" areas - addressed below
3. "Liquefaction risk - Possibly Moderate" - assumed to be addressed by others in due course.

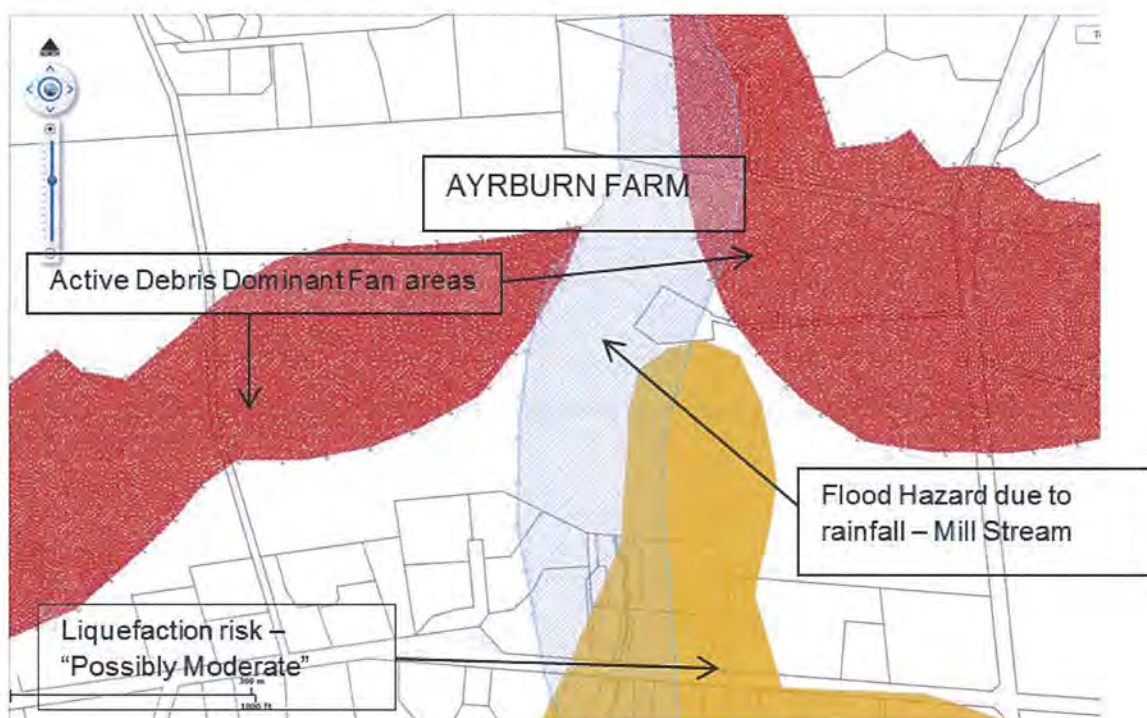
#### **2.2 Alluvial Fan Risk**

Reference to an "Active Debris Dominant Fan" hazard on the site outside of the flood hazard area is referred to in the Otago Regional Council (ORC) "Regional" alluvial fan hazard map but no reference to an alluvial fan hazard is mapped on Ayrburn farm in the "Selected Area"

or “High Hazard” maps. The “Active Debris Dominant Fan” mapping in the Regional map is assumed to be a flag for further assessment.

Based on the data from the ORC “Selected” alluvial hazard map the alluvial hazards are confined to areas further upstream in the Mill Stream catchment above the “Waterfall” that is approximately 750m north of the site boundary. Downstream of the waterfall, Mill Stream is confined to a valley and within a defined stream path that falls outside the Active Debris fan area. Since Mill Stream is confined there are no significant existing watercourses that would have the ability to perpetuate the “active” state of the alluvial fan material and hence there is no apparent significant risk to the proposed Ayrburn development.

Figure 1: Hazard Register Data - Ayrburn Farm



### 2.3 Flood Risk Mitigation

The Mill Stream catchment above Ayrburn farm extends northwest to Coronet Peak and westwards almost to Arthurs Point. A course assessment of the catchment area was completed in order to derive the order of magnitude for a 100 year Average Return Interval (ARI) flow estimate using a regional flood assessment technique. The flood flow assessment suggests that a 100 year ARI event through Ayrburn farm could be of the order of 100 cubic metres per second. The flood way allowed for Mill Stream through the proposed development has a minimum width of the order of 20metres. Indicative calculations confirm that the floodway width is sufficient. The depth of the flow would be up to of the order of 1.8m and based on the average gradient the velocity of food flows would be of the order of 3 metres per second. The estimated flow depth is of the order of the depth of the existing stream channel and therefore transitions to the existing stream channel at the upstream and downstream boundaries should be straightforward.



The floodway would be designed to account for the flow velocities and for protection of building floor levels in adjacent properties according to Council's Code of Practice for land development. The protection of floor levels requires attention to the freeboard in the channel to ensure the design event is safely confined without causing property damage.

The estimated flow velocity means that the channel design would need to account for erosion and sedimentation processes. This means the channel is expected to require a combination of rock protection, proprietary erosion control and planting treatments to mitigate potentially significant erosion effects.

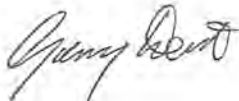
### **3.0 Conclusion**

Based on the assessment above, the potential flood effects on the proposed development can be mitigated within the proposed Mill Stream conveyance corridor shown in the attached Ayrburn - Draft Concept drawing.

Yours faithfully

**FLUENT INFRASTRUCTURE SOLUTIONS LTD**

Per:



Gary Dent  
Senior Environmental Engineer  
CPEng / IntPE

#### **Attachment:**

- Baxter Design Group "Ayrburn - Draft Concept" Drawing dated 12 February 2015 (1page)





Potential retail area - garden centre or similar

Historic farm centre maintained & preserved as heart of site

Outdoor area around cafe

Central village greens

Housing: design controls to restrict building forms to Arrowtown vernacular - gables, stone, weatherboard

Visible open space maintained as existing

Managers house & farm sheds

Set back & screening area

Farmers market space (gravel areas, note - closed to vehicles aside from market days)

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Mill Stream esplanade reserve access

Dwellings located in lower terrace areas - screened from road by landforms

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Access from Lakes Hayes - Arrowtown Road in avenue form - no kerb & channel

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## Appendix 14: Contact Details

Chris Meehan  
88 Speargrass Flat Road, Arrowtown  
mobile +64 21 744 483  
[chris.meehan@wintonpartners.com.au](mailto:chris.meehan@wintonpartners.com.au)

Andrew Cavill  
Level 2, 33 Shortland St Auckland 1010  
Landline +64 9 3777 003  
[andrew.cavill@wintonpartners.com.au](mailto:andrew.cavill@wintonpartners.com.au)



