

# BarnHill Corporate Trustee Ltd



## STAGE 3B EVIDENCE

Susan Cleaver | Bunn Family | 29 May 2020

## INTRODUCTION

1. My name is Susan Cleaver and I am one member of the Bunn family. I am a director of BarnHill Corporate Trustee Ltd (BHCT), Barn Hill Ltd and Wine Artisan Ltd. I hold the qualifications of Bachelor of Arts from Canterbury University, and a Diploma of Database and Web Design from Media Design School in Auckland. I am currently living on the Family Farm at Morven Ferry Road.
2. I am an artist and my specialties are photography and composite digital photography. I have completed numerous private and online courses in Photography since 1990, alongside private and professional courses in digital image manipulation since 1999.
3. I have submitted on and attended QLDC hearings as an individual and as part of the Bunn Family through D E Bunn and Co and BHCT Ltd.

## SCOPE OF EVIDENCE

4. This evidence is to assist the hearings panel on Submission 31035 on the proposed District plan (PDP). This evidence is in relation to the Rural Visitor Zone (RVZ) area adjacent to Morven Ferry Road and the Twin Rivers Queenstown Cycle Trail (TRQCT). I utilize my photography and digital skill set to specifically focus on the topic of:
  - Landscape and Visual effects.
5. I have prepared my evidence based on my:
  - a) Academic and professional expertise in photography and digital composite photography.
  - b) Familiarity with the site and surrounding area.
  - c) Experience as a Queenstown Trail user.
  - d) Revision of the below documents.
6. In preparing this evidence I have reviewed several reports relevant to this submission that were prepared for Stage 1 (Submission # 626) and Stage 2 (Submission # 2509) including the following which I will directly reference:
  - Statement of Evidence of Helen Juliet Mellsop on behalf of Queenstown Lakes District Council LANDSCAPE 18 March 2020.
  - S2449 B Espie Stage 2 Evidence, 13<sup>th</sup> June 2018, Appendix 2, & Viewpoint Location Photos Espie Stage 1, Appendix 3.

## RELIEF SOUGHT

7. This evidence relates to a 2.8ha of land owned by BHCT, Aurum Survey plan 3015-570-1D Ref: [\(Appendix 1\)](#). This is an amended area of land from Stage 1 and Stage 2, part of which is a High Landscape Sensitivity Area, which BHCT seek to have zoned Rural Visitor. BHCT also seek to amend the wording of CH 46 notified provisions referred to in points 30, 31 & 32.

## LANDSCAPE & VISUAL EFFECTS

8. Ms. Mellsop in her report noted: [Ref: \(Mellsop, Page 27, 8.10\)](#)  
*"I consider there may be potential for a limited amount of single-storey low key commercial or visitor accommodation development to be absorbed within the landscape, either close to the Twin Rivers trail ... Development close to the trail would need to be of small scale and be well located, designed and landscaped to avoid adverse effects on visual amenity and on views to surrounding ONL/Fs"*
9. We agree that there is potential for a low key, maximum 6m height, visitor development that can be absorbed by the landscape close to the Twin Rivers trail. Please refer to photographs in Appendices 6 & 7 to show the various locations of the visible landscape aspects, including current vegetation patterns, and low-lying, hummocky topography.
10. I took these photographs from several locations including those that both Mr. Espie [Ref: \(Mr. Espie's evidence, Oct 2015, Appendix 3, Viewpoint Location Photos 1,2,3 & 7\)](#) and Ms. Mellsop's brief of evidence dated 18 March 2020 [Ref: \(Mellsop, pg24, 8.5\(d\); pg27 Photograph 1; Page 28, 8.12\(a\)\)](#) mention in their evidence and reports. The aerial photo [Ref: \(Appendix 6\)](#) shows each location in reference to the RVZ.
  - [Aerial Photo](#): aerial view of locations of RVZ and photographs.
  - [Location A](#): Twin Rivers Trail Junction (TRJ) point at Morven Ferry Road.
  - [Location B](#): Morven Ferry road, 400m from TRJ.
  - [Location C](#): Arrow Junction road and TRQCT carpark, 400m to TRJ.
  - [Location D](#): TRQCT and no-name road adjacent to the Arrow River, approximately 420m to TRJ.
  - [Location E](#): TRQCT easement through BHCT land, not a Public Place.
  - [Location F](#): Crown Range road, Chainbay 4 carpark and viewing area.
  - [RVZ Location](#): Views West through to North.
11. As a family we identified a High Landscape Sensitivity Area (HLSA) as the area directly opposite Location A, rising approximately 38m west to the top of the hummocky knobs. [\(refer photos 1a & b, Appendix 7\)](#) As the HLSA is rising hummocky terrain, it largely obscures views from the Locations A, B, C, & D.
12. We took the opportunity to erect poles and place hay, cars, and a tractor to simulate building placement (Positions 1 – 4) on the relatively easy contour land to the West of the TRJ. [\(refer photos 1, 2, 3 & 4, Appendix 7\)](#) The green tractor is approximately 3m high at the cab and 5.3m high with the fork-loader raised to full height position. The poles were 5.5m high, 2 hay bales stacked together represented 2.2m wide x 2.4m high.
13. The composite photos [\(refer photos 2b & 2c, Appendix 7\)](#) in Location B, portray our vision and give a 'sense' of how the buildings would be viewed by a person at that point. It is not until Location B that the RVZ becomes visible from Morven Ferry road, remaining visible for a further 200m in an Easterly direction. [\(refer photos 7a & 7b, Appendix 7\)](#) In the composite photos, I placed buildings with natural materials of stone and timber, then 'grew' the trees that are currently planted at the base of the hill below the RVZ. Note: these composite photos do not show any potential landscaping that would accompany the RVZ.

14. The remaining photos from Locations A, C, D show the various diminishing views of the RVZ. At each location I have identified a 'zoomed cut-out' of the visible portions of the poles, hay or tractor. ([refer photos 1,3, & 4, Appendix 7](#))
15. As Location E is not defined as a public place, I have not included a photo from here.
16. Location F (Crown Range road, Chainbay 4) cannot be seen at all from any of the Locations or the RVZ, due to the Crown Range escarpment blocking the area. ([refer photos 5 & 6, Appendix 7](#))
17. The HLSA rising landform and the current vegetation patterns ensure the site is visually discrete in views from public places and neighbouring dwellings. I note that all neighbouring dwellings face a mainly Northerly or North-Westerly aspect, with their major views away from the RVZ. Most of these dwellings also have significant mature high vegetation surrounding them. Ref: ([Appendix 7](#))

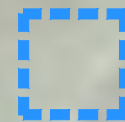
## SUMMARY

18. We believe the RVZ will enable an appropriately located and low key rural visitor development, that can largely be absorbed within the landscape and enhance the visual amenity values of the area.





**LEGEND**



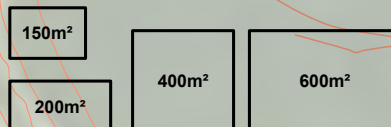
Rural Visitor Zone (2.8ha)



High sensitivity area (0.7ha)



Low sensitivity area (2.1ha)



**DATA QUALITY STATEMENTS**

**PROPERTY DATA**

The property data has been sourced from land information New Zealand (LINZ). The accuracy of the boundary data is estimated to be within 50mm.

**SURVEY DATUMS**

Horizontal coordinates are in terms of Mount Nicholas 2000 Circuit. Vertical elevations in terms of Mean Sea Level (Dunedin Vertical Datum). LIDAR contours sourced from QLDC. Contour interval 1.0m

**ZONE CONCEPT OVERVIEW  
MORVEN FERRY ROAD  
WAKATIPU BASIN**

DATE: 29 May 2020

BY: Antony White

Scale 1:1500  
Original Plan A3

DRAWING & ISSUE No.  
3015-570-1D



PO Box 2493  
Wakatipu 9349  
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## Appendix 2 - Deleted



Appendix 3



**APPENDIX 3: VIEWPOINT LOCATION 1** - Immediately north of the public carpark located at the southern end of Arrow Junction Road.

- The two proposed Rural Visitor Zones are shown in red.
- The two proposed Rural Residential Zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.



**APPENDIX 3: VIEWPOINT LOCATION 2** - North of the "T" intersection of Morven Ferry Road and the Twin Rivers Trail.

- The proposed Rural Visitor Zone is shown in red.
- The proposed Rural Visitor Zone - Restricted and the two Rural Residential Zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.





**APPENDIX 3: VIEWPOINT LOCATION 3** - From the “T” intersection of Morven Ferry Road and the Twin Rivers Trail.

- The proposed Rural Visitor Zones is shown in red.
- The proposed Rural Visitor Zone - Restricted and the two Rural Residential Zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.



**APPENDIX 3: VIEWPOINT LOCATION 4** - Immediately north of the driveway entrance to 287 Morven Ferry Road.

- The proposed Rural Visitor Zone - Restricted is shown in red.
- The proposed Rural Visitor Zone and the two Rural Residential zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.





**APPENDIX 3: VIEWPOINT LOCATION 5** - Located on the Arrow River Bridges Ride trail near 189 Morven Ferry Road.

- The proposed Rural Residential Zone - East is shown in red.
- The proposed Rural Residential Zone - West and the Rural Visitor Zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.



**APPENDIX 3: VIEWPOINT LOCATION 6** - Located on the Arrow River Bridges Ride immediately east of the proposed RRZ-E.

- The proposed Rural Residential Zone - East is shown in red.
- The proposed Rural Residential Zone - West and the Rural Visitor Zones are not visible.
- The Morven Ferry Ltd proposed zone is not visible.





**APPENDIX 3: VIEWPOINT LOCATION 7** - Located on the Arrow River Bridges Ride trail near the south east boundary of 205 Morven Ferry Road (The Hoskin Property).  
- The proposed Rural Residential Zone - East is shown in red.  
- The proposed Rural Residential Zone - West and the Rural Visitor Zones are not visible.  
- The Morven Ferry Ltd proposed zone is not visible.



**APPENDIX 3: VIEWPOINT LOCATION 8** - Located along the SH6 (Gibbston Highway) immediately north of 1330 Gibbston Highway.  
- The proposed Rural Residential Zone - East is shown in red.  
- The proposed Rural Residential Zone - West and the Rural Visitor Zones are not visible.  
- The Morven Ferry Ltd proposed zone is not visible.





**APPENDIX 3: VIEWPOINT LOCATION 9** - Approximately 40m north east of the stock over-pass on the Twin Rivers Ride Trail.

- The proposed Rural Residential Zone - West is shown in red.
- The Morven Ferry Ltd proposed zone is shown in orange.
- The proposed Rural Residential Zone - East and the Rural Visitor Zones are not visible.



**APPENDIX 3: VIEWPOINT LOCATION 10** - Located a few metres east of the Thompson's Hill sign on the Twin Rivers Ride Trail.

- The proposed Rural Residential Zone - West and the Rural Visitor Zones are shown in red.
- The proposed Rural Residential Zone - East is not visible.
- The Morven Ferry Ltd proposed zone is not visible.



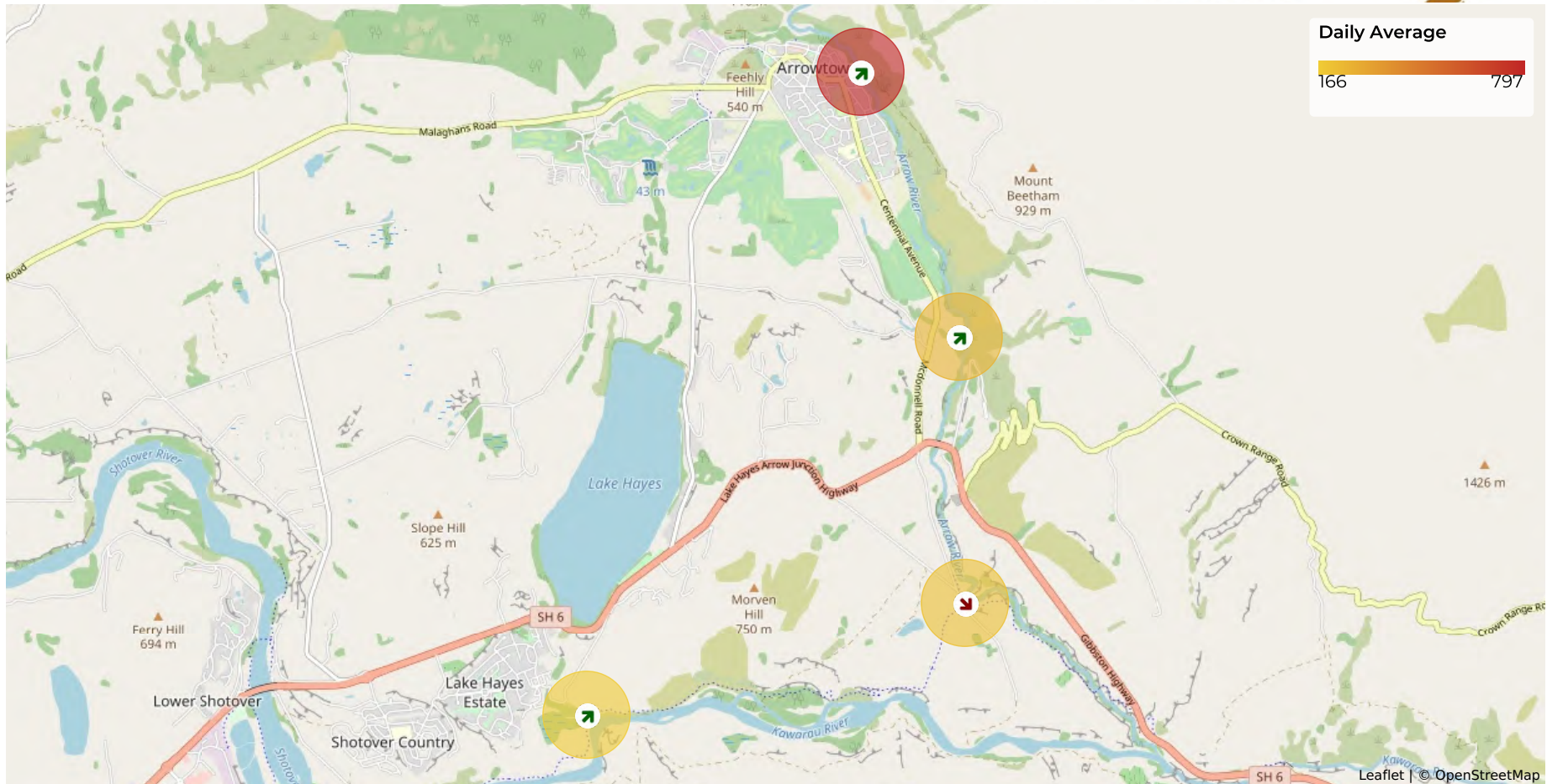
QTT Trail Count  
Report (Twin  
Rivers &  
Arrowtown Trail)  
2020



# Report for Debbie MacColl

1 January 2020 → 14 May 2020

## Trail User Heat Map



Compared to 02/01/2019 → 16/05/2019

# Report for Debbie MacColl

1 January 2020 → 14 May 2020

## QTT All Users - Daily Ave.

Daily Average

**1,426**

**↗ +1.7%**

📊 Compared to 02/01/2019 → 16/05/2019

## QTT All Users - Total

Total

**191,081**

**↗ +1.0%**

📊 Compared to 02/01/2019 → 16/05/2019

## QTT - Peds

Total

**105,975**

**▬ -0.1%**

📊 Compared to 02/01/2019 → 16/05/2019

## QTT - Cyclists

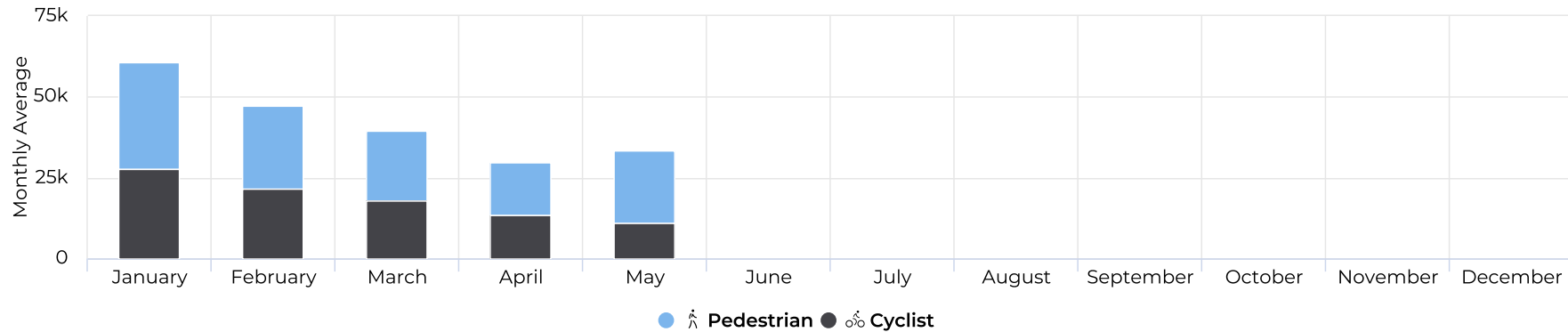
Total

**85,106**

**↗ +2.3%**

📊 Compared to 02/01/2019 → 16/05/2019

## Cyclists versus Pedestrians ↗





# Report for Debbie MacColl

1 January 2020 → 14 May 2020

## Key Figures Summary

Site	Total		Average		Peak Count		Peak Period	
QT - Arrow River	106,777	▲ 1.8%	797	▲ 2.5%	1,825	▼ -0.2%	Thu 2 Jan 2020	Wed 2 Jan 2019
QT - Swain Bridge	34,357	▲ 8.1%	256	▲ 8.9%	575	▼ -16.1%	Thu 2 Jan 2020	Wed 2 Jan 2019
QT - Morven Ferry Rd	27,719	▼ -24.9%	207	▼ -24.3%	551	▼ -65.8%	Thu 2 Jan 2020	Wed 2 Jan 2019
QT - Billies Bridge	22,228	▲ 42.5%	166	▲ 43.5%	463	▲ 45.6%	Fri 10 Apr 2020	Wed 2 Jan 2019

📊 Compared to 02/01/2019 → 16/05/2019

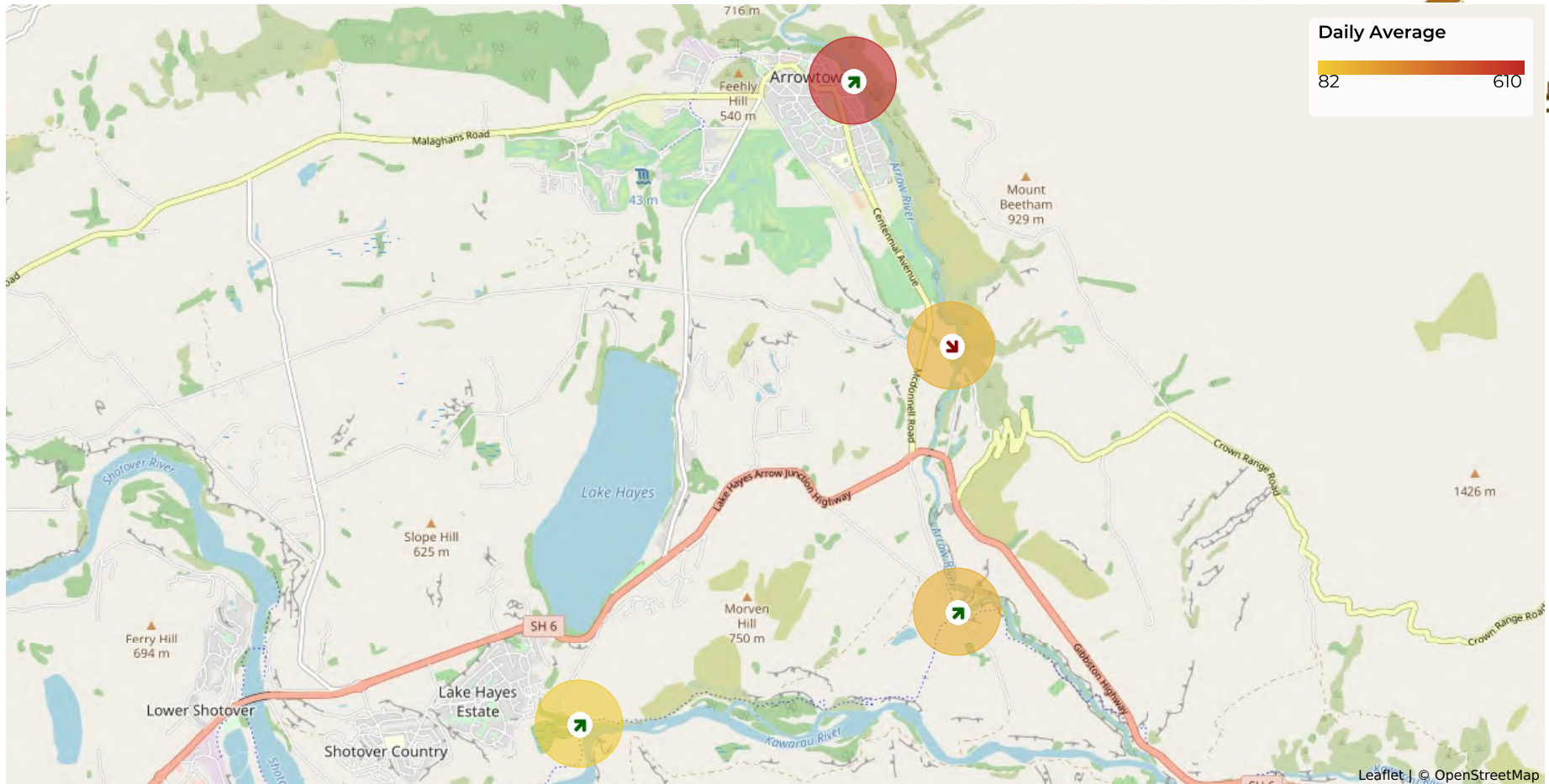


Trail Count  
Report 2019  
(Twin  
Rivers/Arrow  
River Trail)

# Report for Debbie MacColl

1 January 2019 → 31 December 2019

## Trail User Heat Map



# Report for Debbie MacColl

1 January 2019 → 31 December 2019

## QTT All Users - Daily Ave.

Daily Average



**993**

**+30.7%**

Compared to 02/01/2018 → 01/01/2019

## QTT All Users - Total

Total



**362,556**

**+30.7%**

Compared to 02/01/2018 → 01/01/2019

## QTT - Peds

Total



**207,054**

**+24.7%**

Compared to 02/01/2018 → 01/01/2019

## QTT - Cyclists

Total

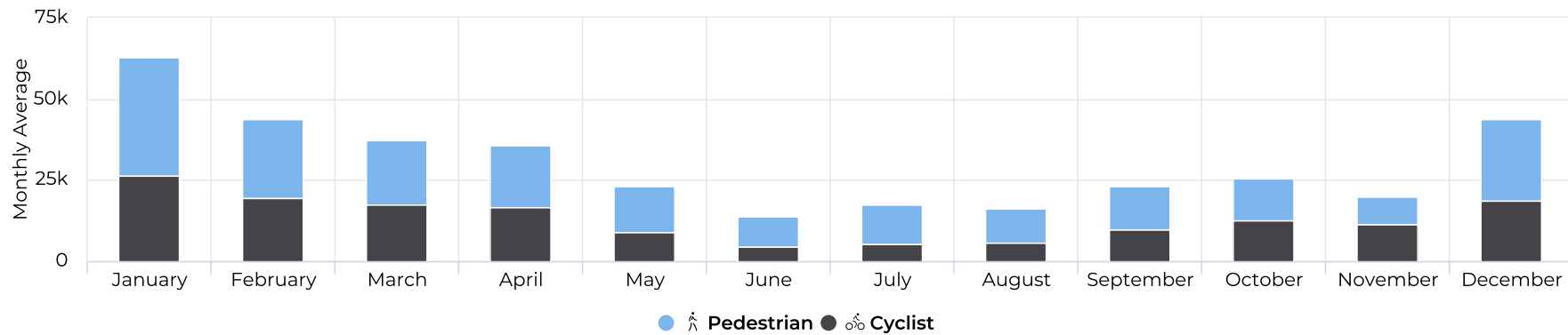


**155,502**

**+39.6%**

Compared to 02/01/2018 → 01/01/2019

## Cyclists versus Pedestrians



# Report for Debbie MacColl

1 January 2019 → 31 December 2019

## Key Figures Summary

Site	Total		Average		Peak Count		Peak Period	
QT - Arrow River	203,898	▲ 72.8%	610	▲ 26.8%	1,987	▲ 3.6%	Sun 29 Dec 2019	Sat 29 Dec 2018
QT - Swain Bridge	64,878	▼ -14.7%	178	▼ -14.7%	2,041	▼ -48.7%	Sat 16 Nov 2019	Tue 30 Jan 2018
QT - Morven Ferry Rd	63,790	▲ 16.2%	175	▲ 16.2%	1,613	▲ 47.3%	Wed 2 Jan 2019	Wed 26 Dec 2018
QT - Billies Bridge	29,990	▲ 5.1%	82	▲ 4.8%	318	▼ -47.0%	Wed 2 Jan 2019	Fri 30 Nov 2018

📊 Compared to 02/01/2018 → 01/01/2019



**Appendix 6: View of Stage 3b proposed RVZ** (aerial photo taken at 50mm lens equivalent at 3.01pm 27 May 2020)



**KEY**

- RVZ boundary - approx 2.8ha
- High Landscape Sensitivity Area
- 1**      **Approx 90m West of TRJ**
- 1a, 2, 2a, 3 & 4**      **Other points spaced out showing potential positions of buildings**
- A**      **Twin Rivers Trail Junction Point - trail branches in 3 directions here**
- B**      **Morven Ferry Road**
- C**      **Arrow Junction Road and Trail carpark**
- D**      **Twin Rivers Trail towards Gibbston valley, no-name road, and beside Arrow River reserve**
- E**      **Twin Rivers Trail towards Lake Hayes Estate**
- F**      **Crown Range Chainbay 4 (East) - not shown**



**Appendix 7: Position A - View West from Twin Rivers Trail Junction to proposed RVZ**  
(Photographs taken at 50mm lens equivalent at 3.59pm 27 May 2020, and 1.05pm 28 May 2020)



Photo 1a:  
Position A - Twin Rivers Trail Junction (TRJ) at the road point on Morven Ferry Road.

Zoom 1 inset shows the tops of Position 1 and 1a visible between young cherry trees.

The High Landscape Sensitivity Area (HLSA) overlay is visible in the mid-foreground; approx 15m from Position A at the closest point from TRJ and across Morven Ferry road.



Photo 1b: approx. 30m East uphill from the Position A, and beside Morven Ferry Road. Zoom 2 inset shows the top of Position 2 visible beyond a young cherry tree. The HLSA overlay is visible in the mid-foreground.



**Appendix 7: Position B - View East from Morven Ferry road to proposed RVZ**  
(panorama photo stitched from 6 photographs taken at 50mm lens equivalent at 2.31pm 27 May 2020)



Photo 2a: Current View - photo taken from Morven Ferry Road approx 400m north of proposed zone. Positions from Aerial Photo shown in red. Poles are 5.5m high; tractor and mower is 15m long; Poles 1 and 1a are approx 15m apart; Pole 2 and Car at 2a are approx 18m apart.



Photo 2b: Potential Buildings - x3 at 15m x 10m (150m); x6 duplex accom units at 10m x 8m (80); x1 10m x 7m (70m). Buildings placed behind each other minimise visibility from Morven Ferry road, while maximising view shafts through to Coronet Peak (North-West)



Photo 2c: Current landscaping/trees shown in leaf and grown: minimise visibility from Morven Ferry road, while maximising view shafts through to Coronet Peak (North-West).



**Appendix 7: Position C - View South East from Arrow Junction road and Twin Rivers Trail carpark to proposed RVZ** (Photographs taken at 50mm lens equivalent at 4.09pm 27 May 2020)



Photo 3a: Position C - car park area Twin Rivers trail at Arrow Junction road. Zoom 1 inset shows Position 1 slightly visible between trees; Zoom 2 inset shows Position 2 slightly visible beyond foreground tree trunk. Note: in summer the foreground trees would be in leaf and further obscure the views through. The HLSA is intermittently visible through existing vegetation.



Photo 3b: Position C - on Arrow Junction road directly beside the car park area on the Twin Rivers Trail. The HLSA overlay is partially visible beyond existing vegetation in left mid-view. Zoom 3 - No positions within the RVZ are visible at all.





**Appendix 7: Position D -  
View West towards  
proposed RVZ**

Photos taken at  
lens equivalent of 50mm  
1.10pm to 1.21pm 28 May 2020

Photo 4a: View West along the  
Twin Rivers Trail;  
Position 1 in mid-view.

Zoom 1 inset shows  
tractor and pole at Position 1  
with limited visibility through  
current tree-line at roadside.  
The HLSA has extremely limited  
visibility also, due to the existing  
vegetation and hummocky  
landform in front of it.

The neighbour's dwelling shown  
mid-view, is below the hill opposite  
the RVZ with sheltering mature  
vegetation and views to the North.



Photo 4b: View North  
on the Twin Rivers Trail,  
near the Arrow River;  
A neighbour's dwelling is  
directly beside the Trail.  
Mature vegetation largely  
screens the Property.  
It's views are Northerly away  
from the RVZ.



Photo 4c: View North-East  
from the Twin Rivers Trail. The Arrow  
River bank is in the foreground.

A large house with mostly North  
facing views is partially visible  
on the opposite river bank.  
Mature vegetation including the  
vegetation shown in Photo 4b,  
largely screens the distance views  
of the RVZ.



## Appendix 7: Scenic views of Wakatipu Basin, Crown Range viewpoint Chainbay 4 carpark

(panorama photo stitched from 17 photographs taken at 50mm lens equivalent at 12.25pm 21 May 2020;

View split into 3 slices from left to right, a, b, c)



Photo 5a: South-East View of Wakatipu Basin - Gibbston Valley Winery & Accom complex clearly visible in foreground.



Photo 5b: South-West View of Wakatipu Basin - Chard Farm Winery - mid-view, left.



Photo 5c: West View of Wakatipu Basin - Coronet Peak mid-view right; Crown Range extends across the whole foreground view.

Stage 1 & Stage 2 proposed RV Zone B in left mid-view (pink outline), refer Zoom photos 6a & 6b.

Stage 3 proposed RVZ not visible, refer Zoom photo 6c.



**Appendix 7: Zoom View of Stage 1 & 2 proposed RV Zones; Stage 3b proposed RVZ - from viewpoint above Crown Range Chainbay 4 carpark (from left to right, split into 3 sections)**  
(panorama photo stitched from 7 photographs taken at 600mm lens equivalent at 12.15pm 21 May 2020)



Photo 6a: Zoom - South & West Boundary (pink line) Stage 1 & Stage 2 proposed bespoke RV Zone B.



Photo 6b: Zoom - West Boundary (pink line) Stage 1 & Stage 2 proposed bespoke RV Zone B. Crown Range Escarpment in foreground (blue line).



Photo 6c: Stage 3b RVZ is completely blocked by Crown Range Escarpment (blue line). For reference Zoom 1 inset shows the roof of the BHCT stone barn (shown in photo 7a).



## Appendix 7: Views North to West located on the Stage 3b RVZ

(7a & 7b panorama photo stitched from 5 photographs taken at 50mm lens equivalent at 12.59pm 28 May 2020)

(7c panorama photo stitched from 5 photographs taken at 50mm lens equivalent at 11.27am 01 June 2020)



Photo 7a: North-West View from RVZ. Queenstown Cycle Trail in foreground left to right. Morven Ferry road becomes visible at Location B, right mid-view. Neighbours dwellings blocked from views with mature vegetation. BHCT stone barn left mid-view.



Photo 7b: North View from RVZ. Cycle trail continuing through left mid-view, behind hummocky brow to Trail Junction (TRJ). Morven Ferry road disappears from view. Arrow Junction road and carpark centre mid-view, completely obscured by vegetation.



Photo 7c: View West from the edge of the HLSA area. Locations 1-4 are located in the foreground, through to left mid-view. Landscape is low-lying, gentle sloping ground down to the cycle trail. The cycle trail becomes visible in right mid-view, emerging from behind a rocky knob.



# Appendix 8

Before Queenstown Lakes District Council

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In the matter of      The Resource Management Act 1991  
And                      The Queenstown Lakes District Proposed District Plan  
Stream 14 Wakatipu Basin rezoning

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**STATEMENT OF EVIDENCE OF JAMES WILLIAM PETER HADLEY FOR**

Barnhill Corporate Trustee Limited and DE, ME Bunn & LA Green (#2509)

Morven Ferry Limited (#2449)

Dated 11 June 2018

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**Applicant's solicitors:**  
Vanessa Robb | Vanessa Robb

Anderson Lloyd  
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PO Box 201, Queenstown 9348  
DX Box ZP95010 Queenstown  
p + 64 3 450 0700 | f + 64 3 450 0799  
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**anderson  
lloyd.**

## **QUALIFICATIONS AND EXPERIENCE**

- 1 My name is James William Peter Hadley. I am a consulting civil and structural engineer and Principal of the consulting engineering company Hadley Consultants Ltd. (HCL)
- 2 I hold the qualifications of Bachelor of Engineering (Civil) with Honours. I am a Chartered Member of Engineering New Zealand (CMEng), a Chartered Professional Engineer (CPEng) and a member of the International Professional Engineers Register (IntPE). I have over 25 years' experience in the design and construction of civil and building structures with particular expertise in the design and construction of development infrastructure for roading, water supply, wastewater and stormwater disposal systems. I have extensive experience in design and implementation of infrastructure works for both private companies and for Local Authorities throughout the lower South Island.

## **CODE OF CONDUCT**

- 3 Whilst this is not an Environment Court Hearing, I confirm that I have read the Code of Conduct for Expert Witnesses as contained in the Environment Court Practice Note dated 1 December 2014. I agree to comply with this Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

## **SCOPE OF EVIDENCE**

- 4 HCL have been engaged by the land owners (Morven Ferry Limited & Barnhill Corporate Trustees Limited, D. E. & M. E Bunn & L.A. Green "Barnhill")) and, to provide civil engineering advice relating to the 3 Waters servicing and Natural Hazard issues for the proposed zone change identified in their Submissions 2449 and 2509.
- 5 In 2015 my firm prepared separate reports for Morven Ferry Limited and Barnhill with regard to their adjacent land. Reports for both parties related the Preliminary Assessment of Natural Hazard Risk and Servicing Feasibility to support the Morven Ferry Limited and Barnhill Submissions on Stage 1 of the Proposed District Plan (PDP). I refer to these as the "Stage 1 Assessments".
- 6 I understand that the current Barnhill Stage 2 Submissions (to which this evidence relates) have been varied slightly from what was proposed in Stage 1 whereby average lot sizes were sought for the Rural Residential Zone areas (in the alternative, it is sought that proposed RRZ areas are zoned WBLP). In order to alleviate some concerns raised, the submitters now seek a 4000m<sup>2</sup> minimum lot size provision. I am



also aware that new building coverage restrictions are now proposed to apply to Rural Visitor Zones A and B.

- 7 My evidence will address the following:
- (a) Confirmation of the basis and conclusion of HCL's earlier Stage 1 Assessments.
  - (b) The changes now made to the zoning proposals for the sites since the Stage 1 Assessments were prepared and in particular the change in water demand volumes and wastewater flow generation that could apply after confirming amended Stage 2 minimum lot sizes and building coverage.
  - (c) Assessment of whether the changes made to the zoning proposals under the Stage 2 Submissions alters the previous Stage 1 assessment of Natural Hazards for the sites and whether any constraints exist for development.
  - (d) Assessment of the feasibility of 3 Waters Infrastructure servicing under the amended Stage 2 demand scenario arising from alternate zonings and building coverage limits.

#### **DOCUMENTS REVIEWED**

- 8 In preparing this evidence I have reviewed the following documents and reports:
- (a) HCL's Stage 1 Assessments
  - (b) Stage 2 Submissions 2449 and 2509, including the relevant accompanying expert reports.
  - (c) The evidence of Andrea Jarvis for the Queenstown Lakes District Council (QLDC), dated 28 May 2018.

#### **PREVIOUS REPORTING**

- 9 HCL's Stage 1 Assessments (in 2015) related to the feasibility of infrastructure services and the impact of Natural Hazards on the earlier Stage 1 proposals by Morven Ferry Limited and Barnhill.
- 10 The earlier 2015 Stage 1 work assessed rezoning approximately 47.7ha as a Rural Residential Zone and 20.2ha as a Rural Visitor Zone. The proposed new zones were all accessed off Morven Ferry Road. The investigation and reporting work concluded that;
- (i) It was feasible to service the Stage 1 rezoning proposals with both potable water and wastewater disposal solutions which would satisfy QLDC standards. These solutions involved development of new

private water and private wastewater schemes to service the proposed new zones.

- (ii) Stormwater runoff could be adequately managed for the proposed new zones in accordance with QLDC Standards, including use of Low Impact Design (LID) principles.
- (iii) Natural hazard issues did not inhibit the development proposals over the areas to be rezoned.

## **THE KEY CHANGES IN THE STAGE 2 PROPOSAL**

- 11 Since the Stage 1 Assessments were prepared, the key changes that have been made to the zoning proposals pursued for each area (being an alternative amended WBLP zoning via Stage 2 of the PDP) are as follows;
- (a) The areas to which the Stage 2 zoning proposals relate are unchanged and remain the same as addressed in HCL's Stage 1 Assessments. Therefore, there is no affect on HCL's Stage 1 Assessment of natural hazard impacts for the site and our Stage 1 findings are unchanged.
  - (b) The proposed zoning density in terms of development potential for the Rural Residential Zone/WBLP (47.7ha) has been amended to a minimum lot size of 4,000m<sup>2</sup>. The Stage 1 Assessments were considered on the basis of conservative potential flow generation using the minimum average lot size for the Rural Residential Zone in 2015. This was also 4,000m<sup>2</sup>. Accordingly, the new Stage 2 proposals do not impact the demand scenarios considered in the Stage 1 Assessments and consequently there is no impact on, or change to, the findings of HCL's earlier Stage 1 work.
  - (c) There are some changes proposed to the maximum permitted building coverage in the Rural Visitor Zones. The Stage 1 Assessments considered Rural Visitor Zone A (1.5ha) with no building coverage limit and Rural Visitor Zone B (18.7ha) with a 5% building coverage limit, equating to a maximum building coverage of some 9,350m<sup>2</sup>. Under the Stage 2 proposal, Rural Visitor Zone A is now limited to a maximum building coverage of 1,500m<sup>2</sup> (being 10%) and Rural Visitor Zone B is limited to a maximum of 3,000m<sup>2</sup>. These new Stage 2 proposals are therefore now considerably less than the potential demand considered under the Stage 1 Assessments and again there is no impact on, or change to, the findings of HCL's earlier Stage 1 work.



## **NATURAL HAZARDS ASSESSMENT FOR STAGE 2**

- 12 As stated at 11(a), there is no change to the areas to which the Stage 2 zoning proposals relate and as such there is no effect on or change to HCL's Stage 1 Assessments. Therefore, natural hazard issues do not inhibit the Stage 2 rezoning proposals by Morven Ferry Limited & Barnhill.

## **3 WATERS SERVICING FEASIBILITY FOR STAGE 2**

- 13 The demand scenarios under the Morven Ferry Limited & Barnhill rezoning proposals in Stage 2 have been compared against the Stage 1 Assessments and have been found to be less than those considered in HCL's Stage 1 work. Therefore, it is feasible to service the Stage 2 rezoning proposals with both potable water and wastewater disposal solutions which would satisfy QLDC standards. These solutions involve development of new private water and private wastewater schemes to service the proposed new zones. There is no change in the areas included in the Barnhill Stage 2 Submission, therefore there is no change in the findings of the Stage 1 Assessments for stormwater.

## **THE EVIDENCE OF ANDREA JARVIS**

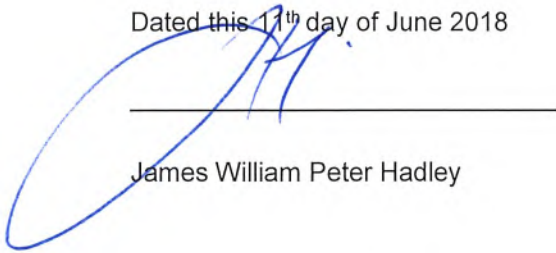
- 14 Andrea Jarvis addresses the Morven Ferry Limited & Barnhill proposals at her paragraph 88.1 and does not oppose the rezoning requested from an infrastructure perspective. Ms Jarvis notes the expectation that sites such as Morven Ferry Limited & Barnhill's will be serviced privately on-site at the developer's cost, and due to this on-site servicing, there is no increase in the QLDC infrastructure requirements (physically and financially). She further notes that there should be no expectation that the on-site infrastructure will ultimately be joined to the Council schemes.
- 15 I agree with Ms Jarvis and confirm that the basis of the feasibility assessment of the 3 Waters infrastructure for the proposed Barnhill Stage 2 rezoning is consistent with her qualifications and assumptions that any on-site infrastructure will remain privately owned.

## **CONCLUSION**

- 16 The Morven Ferry Limited & Barnhill Stage 2 Submissions for rezoning have been considered against the 2015 Stage 1 Assessments conducted by HCL.
- 17 The findings of the Stage 1 Assessments are unchanged whereby natural hazard issues do not inhibit the Stage 2 rezoning proposals and it remains feasible to provide private 3 Waters infrastructure to service the proposed rural living areas

and Rural Visitor areas requested by Morven Ferry Limited & Barnhill under their Stage 2 Submission.

Dated this 11<sup>th</sup> day of June 2018

A handwritten signature in blue ink, consisting of a large, sweeping loop followed by several vertical strokes, positioned over a horizontal line.

James William Peter Hadley