

**BEFORE THE QUEENSTOWN LAKES
DISTRICT COUNCIL**

IN THE MATTER of the Resource Management Act 1991
(the "Act")

AND

IN THE MATTER of the Queenstown Lakes Proposed
District Plan

**Statement of Evidence of
Duncan Lawrence White**

**For AW and MK McHutchon #254
Robert and Rachel Todd #783
and Glenys and Barry Morgan #815**

4 April 2017

1.0 Introduction

- 1.1 My name is Duncan Lawrence White. I hold the qualifications of a Bachelor of Science in Geography, a Diploma for Graduates and a Post Graduate Diploma in Science. Both of the latter two qualifications are in Land Planning and Development. These qualifications are all from the University of Otago.
- 1.2 I have over 14 years experience as a planner. I have seven years planning experience with the Manukau City Council, including three years as a subdivision officer processing subdivision resource consent applications, followed by four years as an environmental policy planner undertaking district plan changes, policy development and the acquisition of reserves. For the past seven years I have lived in Wanaka and worked as a planner for Paterson Pitts Limited Partnership (Paterson Pitts). Paterson Pitts is a land development consultancy that undertakes a variety of rural and urban subdivision, resource consent applications and plan change work, primarily around Wanaka.
- 1.3 While this is a Council hearing, rather than an Environment Court process, I confirm I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014, and agree to comply with it. I can confirm that this evidence is within my area of expertise, except where I state that I have relied on material produced by other parties, and that I have not omitted to consider material facts known to me that might alter or detract from the opinions expressed.

2.0 Scope of Evidence

- 2.1 This evidence has been prepared in support of submissions #783 (Robert and Rachel Todd), #815 (Glenys and Barry Morgan) and #254 (AW and MK McHutchon) to the Proposed District Plan. These submissions and submissions #160 and 161 Calvin and Jolene Scurr, #227 Don and Nicola Sarginson, , and #796 Joanne Young seek to have 58 hectares west of the intersection of Cardrona Valley and Studholme Roads, Wanaka rezoned from Rural zone as included notified in the Proposed District Plan to Rural Lifestyle zone. This area is shown on the plan in Appendix **A** and is described in the following section.

- 2.2 This evidence examines the objectives from the Rural Residential and Rural Lifestyle chapter (section 22) of the Proposed District Plan in comparison to those from the proposed Rural chapter (section 21) to consider which of these represents the most appropriate way to achieve the sustainable management of natural and physical resources (the purpose of the Resource Management Act 1991) as required by Section 32(1)(a). In this evidence all references to the Act or the RMA are to the Resource Management Act 1991.
- 2.3 This evidence then considers whether the provisions (the policies and methods) are the most appropriate way to achieve the objectives (Section 32(1)(b)) by identifying other reasonably practicable options for achieving the objectives, and assessing the efficiency and effectiveness of the provisions in achieving the objectives.
- 2.4 This evidence has been prepared to provide the level of assessment required by Sections 32 and 32AA of the Act in relation to the provisions sought by the submissions (S32(3)) at a level of detail that corresponds to the significance of the anticipated effects from the proposed change to Rural Lifestyle zone (S32(1)(c)).
- 2.5 In preparing this evidence I have reviewed (amongst other documentation) the following:
- a) The PDP planning maps, primarily Maps 18 and 23;
 - b) The S32 Evaluation Report – Rural Residential Zone and Rural Lifestyle Zone;
 - c) S42A Hearing Report - Chapter 22 Rural Residential and Rural Lifestyle, including the S32AA evaluation of recommended changes;
 - d) S42A Hearing Report – Upper Clutha Mapping, including the S32AA evaluation of relevant recommended changes.

2.6 I note also that Hawthenden Ltd (in submission #776) have also sought that land immediately west of the submission area also be rezoned to Rural Lifestyle zone. This submission also seeks two further areas of Rural Residential and Rural Lifestyle zoning west of the submission area and south of Studholme Road. I am also aware of the submission of Murray Blennerhassett (#322) that seeks Rural Residential zoning for the smaller rural lots along Studholme Road (east) and a deferred Rural Lifestyle zone between Studholme Road and Cardrona Valley Road.

2.7 I have reviewed the S42A report and agree with its conclusions, including the suggestion of a Building Restriction Area along Cardrona Valley Road.

3.0 The Submission Area

3.1 The area to which the submissions relate is a flat floored valley that runs generally north-west to south-east from 59 Studholme Road through to 178 Cardrona Valley Road. The submissions relate to 18 properties covering an area of 58 hectares. Existing sites in this area range in size from 8,790m² to 6.1 hectares and have an average of approximately 3.2 hectares.

3.2 The submission area is shown on the plan in Appendix A. This area is bounded to the north by Studholme Road and to the east by Cardrona Valley Road. Studholme Road marks the southern extent of urban Wanaka. Under the Proposed District Plan properties to the north of Studholme Road are zoned Low Density Residential or Large Lot Residential and the Urban Growth Boundary follows Studholme Road.

3.3 These properties are typically smaller rural lifestyle sites mostly with a house and outbuildings and typically with some small scale grazing, winter feed, or ready lawn production. Views from Cardrona Valley Road are limited by the mature trees on the western side of the road (except within 178 Cardrona Valley Road). In this area Cardrona Valley Road is 41 metres wide and has a berm that is 19 metres wide on its western side. As a result of this trees and development is well set back from the western side of the road. The eastern

side of the road is primarily a vacant cluster development of 18 lots within a rural balance lot.

- 3.4 These submissions seek to have this 58 hectares rezoned from Rural General zone to Rural Lifestyle zone. The following sections assess this proposal against the requirements of Section 32 and 32AA of the Act.

4.0 Evaluation of Proposed Objectives – Section 32 (1)(a)

- 4.1 The following table compares the relevant notified rural objectives with the notified rural living objectives, both sets of objectives are those as modified by the relevant S42A reports. The S32 and S32AA assessments for the proposed rural living chapter have considered the appropriateness of the proposed objectives in the District-wide context and considered these to be an appropriate way of achieving sustainable management (see the S32 report for the Act's definition of sustainable management). The above submissions have sought to apply existing proposed objectives to a different and discrete area of the District, therefore this assessment focuses on the location specific assessment rather than an overall assessment of the appropriateness of the objectives as this has been undertaken in the Section 32 and 32AA assessments already completed.

- 4.2 Four alternative zoning scenarios were considered in preparing the submission: the status quo (Rural); Rural Lifestyle; Rural Residential, and Large Lot Residential. Large Lot Residential was discounted as the subject area is outside the Urban Growth Boundary. Rural Residential provides for lot sizes to 4,000m² and this would mean approximately 145 lots within the submission area (as would Large Lot Residential which has the same minimum lot size). This level of density was considered not to provide a sensitive transition from rural to urban, result in development close to the roads and might diminish the rural character of the entrance into Wanaka (see the proposed Urban Development chapter objectives 4.2.6.1 and 4.2.6.2) and so was not assessed further. The following table therefore compares the Rural objectives against the rural living objectives in order to consider which is most appropriate for the submission area. The objectives listed below are those as modified by the S42A reports:

Rural Residential and Rural Living Objectives	Rural Objectives	Comparison of Appropriateness in Relation to Submission Area
22.2.1 - The district's landscape quality, character and visual amenity values are maintained and enhanced while enabling rural living opportunities in areas that can absorb development	21.2.1 – Undertake a range of land uses including farming, permitted and established activities while protecting, maintaining and enhancing landscape, ecosystem services, nature conservation and rural amenity values.	Both objectives provide for the maintenance and enhancement of landscape quality, character and amenity values. This area is considered in the S42A report to have the capacity to absorb rural lifestyle development without detracting from its landscape character and associated visual amenity. The submission area does not have sensitive landscape, ecosystem or nature conservation values. Objective 22.2.1 is considered more appropriate as it better reflects the existing predominant rural living character of the submission area.
22.2.2 - Within the Rural Residential and Rural Lifestyle Zones predominant land uses are rural, residential and where appropriate, visitor and community activities.	21.2.2 - Sustain the life supporting capacity of soils.	Objective 22.2.2 is considered more appropriate as it better reflects the existing predominant rural living character of the submission area. At an average density of one house/lot per 2 hectares the proposed density is similar to the existing and sites at a minimum of 1 hectare are likely to include some rural use and most likely the planting of a wider variety of trees and shrub species and so sustain and possibly enhance the life supporting capacity of the soils over the existing situation. Even if development does not include some rural use there will be only very limited effect on the life supporting capacity of soils due to the limited extent of the proposed zone.
No similar objective	21.2.3 - Safeguard the life supporting capacity of water through the integrated management of the effects of activities.	No objective is necessary in relation to surface water as there are no surface waterbodies in the subject area. Water quality (particularly from onsite wastewater disposal) and quantity (the effects of water extraction for domestic and irrigation supply) are administered through the Regional Plan: Water. There is capacity in the aquifer for the level of water demand anticipated by further development. It is therefore considered that the objective is appropriate for groundwater but this is given

		effect to by existing provisions of the Regional Plan: Water.
22.2.3 - New development adequately manages natural hazard risks.	21.2.8 – Subdivision, use and development is avoided, remedied or mitigated in areas that are unsuitable due to identified constraints	The rural living objective is considered more appropriate as it directs consideration of new development and natural hazards, whereas the rural objectives are not explicit, especially in relation to natural hazards. It should be noted that the investigations for the infrastructure report (Appendix B) undertaken to support this evidence and in the investigations for recent development in this area have noted no conditions that make this area unsuitable for development.
22.2.4 - New development does not exceed available capacities for servicing and infrastructure.	No similar objective	The rural living objective would be more appropriate if further development is anticipated by the zoning, although I note that the Infrastructure Report in Appendix B notes that there are no infrastructure capacity constraints anticipated for the possible level of development anticipated by the Rural Lifestyle zoning.
22.2.5 - Sensitive activities conflicting with existing and anticipated rural activities are managed.	21.2.4 - Situations where sensitive activities conflict with existing and anticipated activities are managed.	The wording of the objectives is very similar and therefore both objectives are equally appropriate.
No similar objective	21.2.13 - Rural industrial activities within the Rural Industrial Sub Zones, will support farming and rural productive activities, while protecting, maintaining and enhancing rural character, amenity and landscape values.	Not relevant and adequately covered by Objective 22.2.2
No similar objective	21.2.5 - Mineral extraction opportunities are provided for on the basis the location, scale and effects would not degrade amenity, water, wetlands, landscape and indigenous biodiversity values.	Not relevant as there are no obvious mineral resources within the submission area and the sites are likely to be too small and too developed to make mineral extraction viable. The Rural objective is therefore no more appropriate than no objective.
No similar objective	21.2.6 - The future growth, development and consolidation of Skiing Activities is encouraged within	Not relevant as the sites do not include Ski Areas.

	identified Ski Area Sub Zones, while avoiding, remedying or mitigating adverse effects on the environment.	
No similar objective	21.2.7 - Retention of an area containing activities that are not sensitive to aircraft noise, within an airport's Outer Control Boundary, to act as a buffer between airports and Activities Sensitive to Aircraft Noise.	Not relevant as the sites are not adjacent to significant airports.
No similar objective	21.2.11 - Manage the location, scale and intensity of informal airports.	Not relevant as the subject sites do not include informal airports and therefore the objective is not necessary.
No similar objective	21.2.9 – A range of activities are undertaken on the basis they do not degrade landscape values, rural amenity, or impinge on farming and established activities.	Adequately covered by Objective 22.2.2.
No similar objective	21.2.10 - Diversification of farming and other rural activities that supports the sustainability of natural and physical resources.	Not relevant as holdings are already smaller than could be considered economically sustainable and the Rural Lifestyle zone provides for Farming as a permitted activity and this provides scope for land use diversification. No objective to provide for this is therefore considered necessary.
No similar objective	21.2.12 - The surface of lakes and rivers and their margins are protected, maintained or enhanced.	Not relevant as the area does not include lakes, rivers or their margins.

4.3 The rural living objectives are more appropriate to achieve sustainable resource management than the objectives of the Rural section of the Proposed District Plan in the submission area as they are considered to better reflect the existing predominant rural living character of the submission area, the fact that the size of the existing (and possible) lots is unlikely to be used for rural purposes except on a small scale, and the likely form of development and issues associated with rural living.

4.4 The proposed rural living objectives themselves have already been considered through the S32 and S32AA assessments, and will be considered again during deliberations and so are considered to be appropriate and an appropriate way overall of achieving sustainable management. These provisions have also been assessed against the higher level strategic resource management plans and policies including national policy statements and the Regional Policy Strategy and the Proposed Regional Policy Statement.

5.0 Evaluation of Proposed Provisions – Section 32(1)(b)

5.1 The following section considers whether the proposed Rural Lifestyle provisions are the most appropriate way to achieve the relevant objectives in relation to the submission area. This section also considers the costs and benefits of the proposed provisions.

5.2 The effects on landscape and amenity values that would arise from the rezoning to Rural Lifestyle are considered in the S42A report landscape assessment. The rezoning would provide for approximately an additional 10 houses. This change would be unlikely to cause a change in landscape character and associated visual amenity. The area would continue to remain more rural than urban in character, and continue to be characterised by residential use in a rural setting, with additional tree and garden planting using similar species and patterns to existing vegetation.

5.3 As the residential density is very similar to the current density and the rezoning will not change the use of the sites it is considered that there will be no reverse sensitivity issues, and the Rural Lifestyle zone makes provision for the continuation of productive rural activities. I note that the Rural zone does not have a minimum lot size and as a result there is no certainty of outcome in relation to the density of development, although I note that such development requires resource consent as a Discretionary Activity and as such requires an assessment against relevant objectives and policies including those that protect rural landscapes from inappropriate development and cumulative effects.

5.4 The infrastructure report in Appendix B includes discussion of the area's susceptibility to natural hazards. That assessment considers that there are no

natural hazard issues in the submission area that would preclude the site being rezoned to Rural Lifestyle.

- 5.5 The infrastructure report in Appendix B includes discussion of the ability for rural lifestyle development to be serviced. That assessment at para 4 (p 6) considers that rural lifestyle development within the submission area *“can be serviced in accordance with Council’s District Plan and Land Development and Subdivision Code of Practice. Specific design issues can be identified and resolved at the time of resource consent or specific engineering design and approval (if necessary). There are no engineering or servicing issues that would preclude the subject area being rezoned from Rural General to Rural Lifestyle.”*
- 5.6 No specific adverse cultural or social effects are expected to arise from the rezoning. The rezoning will provide additional opportunities for rural living in close proximity to the Wanaka urban area and provide some lifestyle and housing choices and some economic benefits.
- 5.7 As a result of the above factors the submission area is considered able to accommodate change and would be suitable for appropriate subdivision and would be consistent with the relevant objectives and policies of the Strategic Direction (Chapter 3) and Landscapes (Chapter 6) sections of the PDP.
- 5.8 Section 32(2)(c) requires an assessment of the risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the provisions. In the case of the proposed Rural Lifestyle zone in the submission area there is very limited uncertainty and sufficient information in order to make a decision on the submissions. The risk associated with the zoning sought is very low as it is an existing zoning, with provisions that are similar to the Operative District Plan, in an area already developed to a similar density. The likely outcome of the Rural Lifestyle zoning sought would be approximately 10 more houses/lots is already known and the environmental conditions are already well understood to the extent that the level of risk associated with the rezoning is very low.
- 5.7 Unlike the Rural zone (where there is no density or minimum lot size as almost all applications for subdivision consent or building platforms are a discretionary activity), the Rural Lifestyle zoning has a minimum lot size of 1 hectare and an

average of 2 hectares with only one residential unit per building platform (Proposed District Plan Rule 22.5.12). This provides more certainty of outcome and consequently less risk than the Rural zone.

6.0 Efficiency and Effectiveness of Provisions

6.1 The provisions have already been considered through the S32 and S32AA assessments and commissioners' deliberations to be efficient and effective in relation to the areas that are currently proposed to be zoned Rural Lifestyle. The area proposed to be zoned Rural Lifestyle has similar characteristics to the existing Rural Lifestyle zoned areas along Riverbank Road and at Hawea Flat and so the provisions are considered to be efficient and effective.

6.2 The Rural Lifestyle provisions provides certainty of outcome for both landowners and Council as they provide a minimum lot size and maximum development density. This is compared with the proposed Rural provisions that do not provide a minimum lot size or maximum density as almost all subdivision and building platform applications require resource consent application as a Discretionary Activity. Consequently the Rural Lifestyle provisions are considered more efficient and effective than the proposed Rural provisions.

7.0 Section 42A Report

7.1 I have reviewed the S42A report and agree with its conclusions, including the suggestion of a Building Restriction Area along Cardrona Valley Road.

8.0 Conclusions

8.1 Submissions #254 (AW and MK McHutchon), #783 (Robert and Rachel Todd), #815 (Glenys and Barry Morgan) and #160 and 161 – Calvin and Jolene Scurr, #227 Don and Nicola Sarginson, and #796 Joanne Young to the Proposed District Plan seek to have 58 hectares west of the intersection of Cardrona Valley and Studholme Roads, Wanaka rezoned from Rural zone to Rural Lifestyle zone. This evidence considers these submissions against the requirements of Sections 32 and 32AA of the Act.

- 8.2 It is considered that the objectives from the Rural Residential and Rural Lifestyle chapter (section 22) of the Proposed District Plan are more appropriate to achieve the sustainable management of natural and physical resources in the submission area than those of the proposed Rural chapter (section 21) and would be efficient and effective in achieving the Strategic Direction and Landscape objectives of the Proposed District Plan.
- 8.3 The area has already been developed to the extent that it is already rural living in character, but is considered able to accommodate limited further subdivision and development in accordance with the Rural Lifestyle zone provisions without causing changes in landscape character and associated visual amenity. As a result there will be limited adverse environmental effects, no cultural effects and some social and economic benefit benefits arising from the proposal.
- 8.4 The risks of acting or not acting have also been considered. It is considered that there is very limited uncertainty and sufficient information in order to make a decision on the submissions. The risk associated with the zoning sought is very low as it is an existing zoning in an area already developed to a similar density and on the rural fringe of Wanaka township.
- 8.5 As a result of the above it is sought that the submission be adopted and the land within the submission area be zoned Rural Lifestyle.

Appendix A – Submission Area

Appendix B – Infrastructure Report

Appendix A – Submission Area




Cardrona Valley Road

Studholme Road

Proposed Rural Lifestyle

PATERSONPITTSGROUP
Your Land Professionals
www.ppsgroup.co.nz
0800 PPSGROUP



WANAKA
19 Raupo Crescent
P.O. Box 283
Wanaka 9343
T 03 443 0110
E wanaka@ppsgroup.co.nz

© COPYRIGHT: This design concept and design remains the property of PaterSONPITTS GROUP. No part of this document may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of PaterSONPITTS GROUP. This drawing and its content shall only be used for the specific project and site identified herein. It shall not be used for any other project or site without the prior written permission of PaterSONPITTS GROUP. Limited or its subsidiaries use.

Sheet No: **101** Scale: **1:5000 @ A3**

Project Name: **Studholme Road Wanaka**

Purpose & Drawing Title: **District Plan Review Wanaka**

Submitted By	Date	Original Size	Scale
Author	2017	A3	1:5000 @ A3
Checked By	2017	DO NOT SCALE	
Approved By	2017	Sheet No:	Revision No:
Doc No:	2017	101	A
Date:		Date Created:	
2017		20/03/2017	

Appendix B – Infrastructure Report



INFRASTRUCTURE REPORT

Cardrona Valley Road and Studholme Road

Rural Lifestyle Zone Submission

PROJECT: -

PRINCIPAL: Glenys and Barry Morgan

OUR REF: W4792

DATE: 25 February 2017

DUNEDIN:
P.O. Box 5933,
Dunedin 9058.
T 03 477 3245

CHRISTCHURCH:
P.O. Box 160094,
Christchurch 8441.
T 03 928 1533

ALEXANDRA:
P.O. Box 103,
Alexandra 9340.
T 03 448 8775

CROMWELL:
P.O. Box 84,
Cromwell 9342.
T 03 445 1826

QUEENSTOWN:
P.O. Box 2645,
Queenstown 9349.
T 03 441 4715

WANAKA:
P.O. Box 283,
Wanaka 9305.
T 03 443 0110

REVISION / APPROVAL PANEL

Rev:	Date:	Prepared By:	Reviewed By:	Comments:
A	25/02/17	PHJ	DLW	Original issue

CONTENTS

1. SCOPE 3

2. Natural Hazards..... 3

 2.1 Underlying Geology 3

 2.3 Flood Hazards 4

3. PROPOSED INFRASTRUCTURE..... 4

 3.1 General..... 4

 3.2 Water Supply 4

 3.3 Wastewater 5

 3.4 Stormwater..... 5

 3.5 Network Utility Services..... 5

 3.6 Access..... 5

4. Conclusion..... 6

1. SCOPE

This report has been prepared to provide servicing and hazard information to support submissions #783 (Robert and Rachel Todd) and #815 (Glenys and Barry Morgan) to the Proposed District Plan. These submissions and submissions (#160 and 161 – Calvin and Jolene Scurr), #227 Don and Nicola Sarginson, #254 AW and MK McHutchon, and #796 Joanne Young seek to have 58 hectares on the intersection of Cardrona Valley and Studholme Roads, Wanaka rezoned from Rural General zone to Rural Lifestyle zone. This area is shown on the plan in Appendix A. This report covers the following natural hazard and infrastructure issues.

- Natural Hazards
- Water Supply
- Wastewater
- Stormwater
- Network Utility Services (electricity and telecommunications)
- Access

2. Natural Hazards

2.1 Underlying Geology

The area to which the submissions relate is considered a fluvioglacial (outwash) landform from the Mt Iron Advance (approximately 23,000 years old), through which a later (Hawea Advance approximately 18,000 years ago) meltwater channel eroded a flat floored valley. This valley floor runs generally north-west to south-east from 59 Studholme Road through to 178 Cardrona Valley Road.

Bore logs indicate sandy gravels to 35 - 40 metres, with a watertable at approximately 20m below ground.

The active Cardrona Fault is mapped as crossing Cardrona Valley Road approximately 500 metres south of the submission area and trending north-east to south-west. The inferred average return period on the fault is 5,000 to 10,000 years (GNS Science website, Active Faults Database), and it is capable of generating a quake of around M7.

A fault running north-west to south-east parallel with the meltwater channel is mapped as being inactive and concealed.

The greatest seismic risk in the region is due to the Alpine Fault (return period 300 to 350 years) which is located along the West Coast of the South Island. There is a high probability that an earthquake with a magnitude of up to 8 will occur on the Alpine Fault within the next 50 years, which would subject the district to strong shaking.

2.2 Seismic Hazards

The risk of ground rupture at the site is considered low and it is considered no direct rupture effects on the area would be expected (Thomson 2013).

Geosolve have completed an assessment of the risk posed by the Nevis-Cardona Fault using guidelines provided by the Ministry for the Environment and Geological and Nuclear Science

for subdividing and developing land close to active faults. For the assessment the Nevis-Cardrona Fault has been categorised with a return period of 5,000 to 10,000 years (GNS Science website, Active Faults Database), and the location is assessed as uncertain, as indicated on published geological mapping.

Following the Ministry for the Environment guidelines provided in Section 11 “Taking a Risk-Based Approach to Resource Consents”, building importance category structures 1, 2a and 2b, are a permitted activity. NZS 3604 dwelling structures fall under category 2a, and are therefore considered to be a permitted activity in close proximity to the Nevis-Cardrona Fault System.

Thomson (2013) considers the inactive and concealed fault mapped north-west to south-east through the submission area to be a *“geologic “construct” to accommodate differences in schist characteristics across the south-east arm of Lake Wanaka. It may or may not be real. If the former, it is speculatively defined in the vicinity of the site.”* *“Given both the uncertainty of its existence, and an assessed inactive status, it is concluded that the fault does not pose a realistic hazard to the site.”*

Given the relatively long return period for the Nevis-Cardrona Fault (5,000 to 10,000 Years), the Alpine fault, with a return period for major earthquakes of 300-350 years, and predicted ground accelerations an order of magnitude higher than the Nevis Cardona, is considered to provide the governing seismic risk to the area.

As a result of the sandy gravels and the depth (20m) to the water table it is considered that the soils of the submission area are not susceptible to liquefaction (Thomson 2013). This is consistent with Council’s Hazards Register (based on a report from Tonkin and Taylor 2012) of a nil to low liquefaction risk.

2.3 Flood Hazards

The submission area is not known to be subject to flooding, however future development should be subject to specific site investigations and the standard provisions of the Building Code to mitigate against possible effects of overland flow during storm events.

3. PROPOSED INFRASTRUCTURE

3.1 General

It is anticipated that all infrastructure for development would be designed and constructed in accordance with Council’s infrastructure standards – “Land Development and Subdivision Code of Practice” adopted June 2015 and any subsequent amendments.

3.2 Water Supply

There is no reticulated Council water supply to the subject area. All potable water supply is provided by private bores. This is not expected to change as a result of the change in zoning to the proposed densities.

The aquifer is located at a depth of 19m plus below ground level, test pumping of the bore located on Lot 3 DP471084 at 75l/s drew down the static water by 100mm indicating a very high recharge rate suitable to service the proposed density.

Any future bores / subdivision plans will need to comply with rule of the Otago Regional Plan: Water relating to the location of bores greater than 50 metres from septic disposal fields.

There is an active irrigation race from the Cardrona River that comes along the western margins of the submission area and provides irrigation water to some properties in the submission area. Development of the area could be designed in such a way as not to affect the operation of this race.

3.3 Wastewater

As with water supply there are no reticulated wastewater networks in the submission area. Future development would therefore rely on the onsite treatment and disposal of wastewater. Recent testing (eg Petherick 2013) has confirmed the suitability for onsite wastewater treatment and disposal in accordance with NZ 1547:2012.

3.4 Stormwater

There is no reticulated stormwater networks in the subject area. All current and future stormwater from roofs and impermeable areas will need to be to ground in accordance with the requirements of the building act. The test pitting that was undertaken by Petherick consultancy for the foul sewer disposal for lots 1-3 DP471084 indicates a high permeability rate of 3 metres per day. This permeability rate will allow disposal to ground of site stormwater with relatively small soak pits. Specific stormwater design will need to be undertaken at the time future development is proposed.

3.5 Network Utility Services

3.5.1 Telecommunications

Chorus has confirmed that telecommunications can be made available to future development within the submission area. Confirmation from Chorus is included as Appendix B.

3.5.2 Electricity

There is existing electrical reticulation to the area of single phase 15kVA. A letter from Aurora confirming that future development in this area can be serviced to this standard is included in Appendix C.

3.6 Access

Each of the existing lots have a vehicle access that has sufficient site distances to provide safe access. The suitability and safety of proposed accesses can be assessed in accordance with District Plan and Council's Land Development and Subdivision Code of Practice standards at the time subdivision or development is proposed.

It is noted that Development Contributions will be payable for development within the submission area to pay for the costs of growth associated with transportation effects arising from development. This could fund any intersection upgrades necessary, although it is noted that only limited additional development would result from the rezoning to Rural Lifestyle and so upgrade of the Studholme Road intersection is unlikely to be necessary.

4. Conclusion

Development within the submission area can be serviced in accordance with Council's District Plan and Land Development and Subdivision Code of Practice. Specific design issues can be identified and resolved at the time of resource consent or specific engineering design and approval (if necessary). There are no engineering or servicing issues that would preclude the subject area being rezoned from Rural General to Rural Lifestyle.

Peter Joyce
Registered Professional Surveyor
Paterson Pitts Limited Partnership

Appendix A

Site Plan



Cardrona Valley Road

Studholme Road

Proposed Rural Lifestyle

District Plan Review
Wanaka

Studholme Road
Wanaka

PATERSONPITTSGROUP
Your Land Professionals
www.ppsgroup.co.nz
0800 PPSGROUP



WANAKA
19 Raupo Crescent
P.O. Box 283
Wanaka 9343
T 03 443 0110
E wanaka@ppsgroup.co.nz

© COPYRIGHT: This design concept and design remains the property of PatersonPitts Group and shall not be used without the written permission of PatersonPitts Group. This drawing and its content shall only be used for the specific project and shall not be used for any other project without the written permission of the author(s).

Sheet 3 of 3 sheets

Purpose & Drawing Title:

Submitted By	Author	Original Name	Scale
Drawn By	Checked By	Sheet No.	1:5000 @ A3
Approved By	Drawn No.	Sheet Title	DO NOT SCALE
Drawn No.	Drawn Date	Revision No.	Total Sheets
WAT92	101	A	20/03/2017

Appendix B Confirmation of supply Telecommunications.

Chorus Network Services

PO Box 9405
Waikato Mail Centre
Hamilton 3200
Telephone: 0800 782 386
Email: tsg@chorus.co.nz



27 February 2017

Chorus Ref: WNK39112

Your Ref:

C/O PATERSON PITTS GROUP

Attention: Duncan White

Dear Sir / Madam

SUBDIVISION RETICULATION - WNK: Studholme Road, Wanaka, 10 additional units - Simple 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 Copper 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 \$18,400.00 (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

A handwritten signature in blue ink, appearing to be "AV", written over a horizontal line.

Alex Vatavu
Network Services Coordinator

Appendix C Confirmation of supply Electricity



Your Ref:
Our Ref:

28 March 2017

Peter Joyce
Paterson Pitts Group
P O Box 283
WANAKA 9305

By email: Peter.Joyce@ppgroup.co.nz

Dear Peter

**RE: ELECTRICITY SUPPLY FOR SUBDIVISION STUDHOLME ROAD WANAKA
PROPOSED SUBDIVISION OF CURRENT 18 RURAL LOTS TO 28 RURAL LIFESTYLE LOTS**

Thank you for your email and accompanying plans dated 27 March 2017, outlining the above proposed development.

Aurora can make an electricity supply available for this development, subject to the following conditions:

- Supply confirmation is limited to a single phase 15kVA supply per lot.
- Easements in gross, in favour of Aurora, must be granted over the placement of all new and existing Aurora plant associated with this development, unless installed in road reserve.
- Where the development involves further subdivision of a land parcel containing an existing serviced installation, the mains cables (overhead or underground) intended to supply each lot must be completely contained within the lot that it serves. In some cases this will require relocation of the cable serving the existing installation.
- All electrical installations must comply with Aurora's Network Connection Requirements and related standards & policies.
- The developer must comply with the Electricity Act, subordinate Regulations and associated Codes of Practice. Particular attention must be paid to the minimum distances between power lines and other structures defined in NZECP34:2011 "NZ Electrical Code of Practice for Electrical Safe Distances".
- No building shall be erected over any electricity easement without specific written authority from Delta's General Manager – Network Commercial
- The developer is responsible for all resource consents and local authority approvals.
- The developer will be required to make capital contributions toward the costs of providing the power supply, in accordance with Aurora's Capital Contributions policy prevailing at the time the development, or each stage of development, proceeds.
- This approval will lapse within 12 months of the date of this letter, unless the developer enters into a formal supply agreement with Aurora for this development.

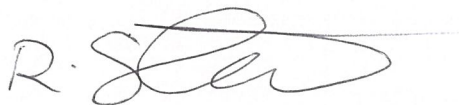
Aurora Energy Limited
10 Halsey Street • Dunedin • New Zealand
Email enquiries @auroraenergy.co.nz
Postal PO Box 1404
Phone 03-474-0322
Fax 03-477-5771



Please note that this letter is to confirm that a power supply can be made available and does not imply that a power supply is available now, or that Aurora will make power available at their cost.

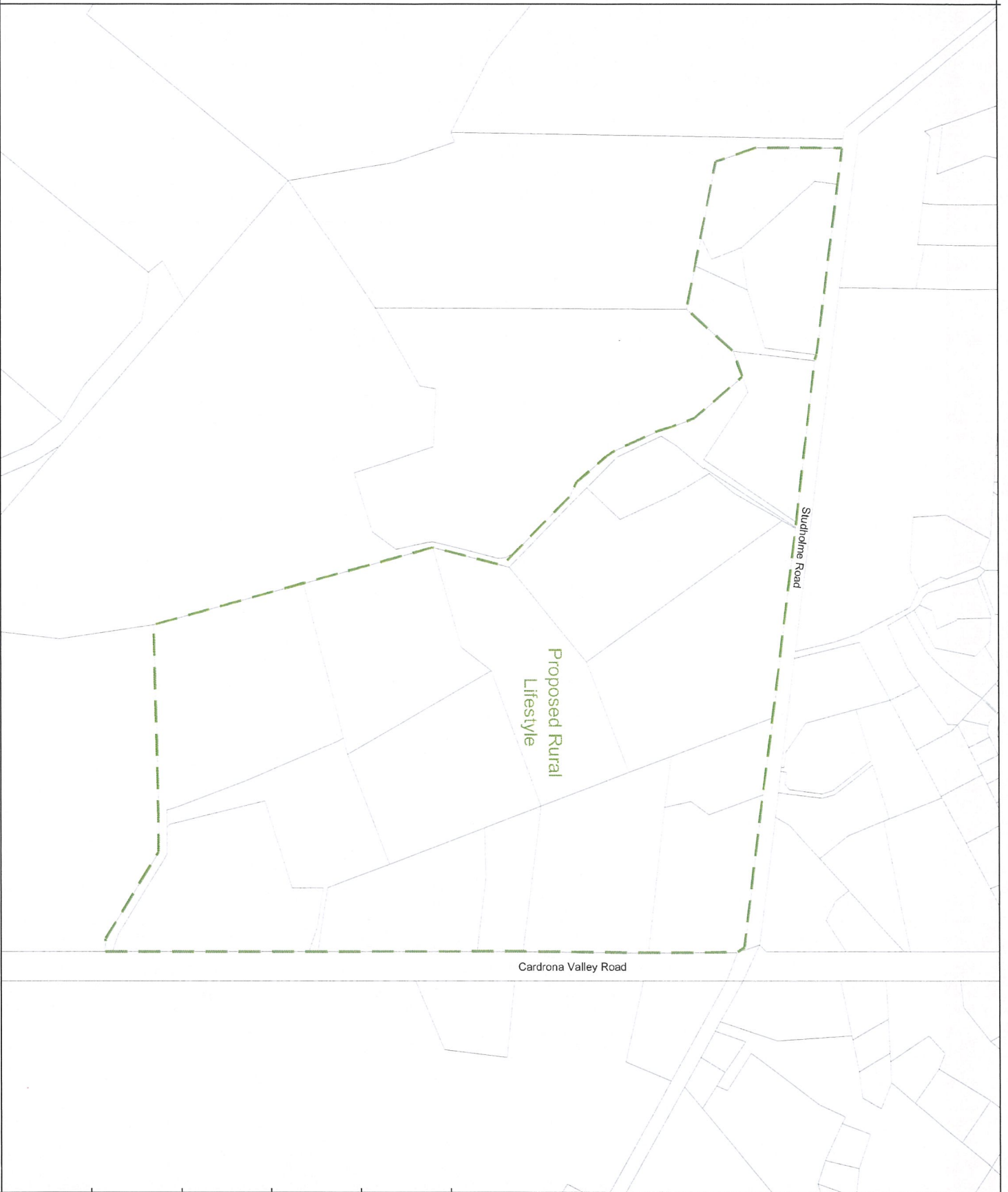
Aurora's Network Connection Requirements and Capital Contributions policy provide more specific information on matters identified in this letter. These documents are available from <http://www.auroraenergy.co.nz/>. Should you require further information or clarification please contact the undersigned.

Yours sincerely

A handwritten signature in black ink, appearing to read 'R. Starkey', with a long horizontal flourish extending to the right.

Richard Starkey
Commercial Development Manager (Delta)
For Aurora Energy Limited

DDI Phone	(03) 470 7504
Mobile	(021) 177 5100
Fax	(03) 477 5771
Email	richard.starkey@thinkdelta.co.nz



Proposed Rural Lifestyle

Studholme Road

Cardrona Valley Road

<p>PATERSONPITTSGROUP Your Land Professionals www.ppgroup.co.nz 0800 PPGROUP</p> <p>WANAKA 13 Poplar Crescent PO Box 293 Wanaka 9303 T 03 443 0110 E wanaka@ppgroup.co.nz</p>	<p>© COPYRIGHT. This draft consent only remains the property of Paterson Pitts Group and all or where shown under permission of Paterson Pitts Group. The draft and its content shall only be validly used for the purposes of the group listed in its introduction.</p>	<p>Client Location</p> <p>Studholme Road Wanaka</p> <p>Project Drawing Title</p> <p>District Plan Review Wanaka</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>Drawn by</td> <td>DP</td> <td>Checked by</td> <td>DP</td> <td>Scale</td> <td>1:5000 @ A3</td> </tr> <tr> <td>Approved by</td> <td>DP</td> <td>Drawn by</td> <td>DP</td> <td>Sheet No.</td> <td>101</td> </tr> <tr> <td>Drawn by</td> <td>DP</td> <td>Drawn by</td> <td>DP</td> <td>Revision No.</td> <td>A</td> </tr> <tr> <td>Drawn by</td> <td>DP</td> <td>Drawn by</td> <td>DP</td> <td>Date Issued</td> <td>2003/2017</td> </tr> </table>	Drawn by	DP	Checked by	DP	Scale	1:5000 @ A3	Approved by	DP	Drawn by	DP	Sheet No.	101	Drawn by	DP	Drawn by	DP	Revision No.	A	Drawn by	DP	Drawn by	DP	Date Issued	2003/2017
Drawn by	DP	Checked by	DP	Scale	1:5000 @ A3																					
Approved by	DP	Drawn by	DP	Sheet No.	101																					
Drawn by	DP	Drawn by	DP	Revision No.	A																					
Drawn by	DP	Drawn by	DP	Date Issued	2003/2017																					