



Mount Cardrona Station Landscape Report



CONTENTS

EXECUTIVE SUMMARY 3

INTRODUCTION..... 6

STUDY AREA LOCATION 7

APPROACH AND METHODOLOGY 9

ANALYSIS OF THE STUDY AREA 10

 ENVIRONMENTAL FACTORS..... 10

 GEOLOGY 10

 TOPOGRAPHY 11

 LANDSCAPE CHARACTER OF STUDY AREA 12

 SLOPE ANALYSIS..... 14

 ECOLOGICAL VALUES 15

 LANDSCAPE CLASSIFICATION 16

 CULTURAL HISTORY AND CURRENT LANDUSE 17

 VISIBILITY 19

ZONE VISIBILITY COMPARISON 26

SUMMARY OF VISIBILITY ANALYSIS 33

 CONCLUSION REGARDING ZONE COMPARISONS 34

PLANNING ANALYSIS 35

 RESOURCE MANAGEMENT ACT 35

 DISTRICT PLAN..... 37

SUMMARY AND RECOMMENDATIONS 41

 MASTER PLAN: PLAN CHANGE AREA 43

 FIRST DISCUSSION DOCUMENT 44

CONCLUSION 49

APPENDIX A 50

EXECUTIVE SUMMARY

The purpose of this landscape assessment is to consider an existing Rural Visitor Zone (RVZ) in the outstanding natural landscape of Cardrona Valley and whether this Zone should be relocated to achieve a better environmental outcome. The conclusion reached is that a relocation of the rural visitor zone on to a terrace above the Cardrona Valley would have significantly less landscape effects. Furthermore, the proposed conceptual development plan of the Plan Change Area achieves a considerably better environmental outcome than that anticipated by the existing zone.

The following process was adopted in reaching this conclusion:

- A preliminary landscape report was prepared that considered the effects of the existing RVZ and if it were to be relocated, where the zone could be successfully relocated.
- A draft landscape assessment was then prepared which considered the general landscape values of the area and the areas of the landscape that could absorb development. This draft was based on information provided by other specialists such as archaeologists, ecologists, geologists, surveyors as well as computer generated visual studies and field work. This draft landscape assessment informed the master planners on where the development could be located.
- A collaboration of urban design information, yield assessment and communication with the mater planners including the testing of the model resulted in the present Plan Change concept.

Following on from an analysis of the ecological factors, landscape assessment and planning analysis of the Study Area, this study has made the following findings:

- The Rural Visitor Zone that is partly adjacent to the Cardrona Valley Road and partially on the top of a terrace would be better suited to a move on to the terrace top and away

from the Cardrona Valley Road. This would reduce the prominence of the Zone and ensure that the effect of the Zone is largely contained to one landscape area, instead of being spread over two separate areas.

- The current Zone location would have a high visual impact when viewed from the Cardrona Valley Road (especially from the north when travelling from Wanaka) which is a high volume road known as the scenic route from Queenstown to Wanaka. As can be seen from the slope analysis study, a large percentage of the existing Study Area is located on steep slopes that are less suited to development due to the increased volume in earthworks and the adverse visual effects associated with cuts and retaining walls.
- Figure 1 (in Appendix A) depicts a possible scenario where the Zone could be relocated on to the terrace top. This would increase the visibility from other areas such as the Roaring Meg Pack Track and Paper Roads in the vicinity; however the prominence of the Zone from the Cardrona Valley Road would be removed, where the current Rural Visitor Zone would have a highly adverse visual impact. In addition, because of the topography, moving the Zone onto the terrace would enable a better urban design outcome.

With regard to the visual effect associated with viewing a zone, aspects such as distance viewed, the context of the zone and whether mitigation can reduce the effect all play a part in the impact of the development. The close proximity of the viewer to the adverse visual effects associated with the existing RVZ and its location within an area of low absorption capacity (including escarpments, skyline areas and areas of ecological potential) have a greater impact than those associated with the Plan Change Area.

The core of the Plan Change Area should be located within the area of low visibility as shown on the intervisibility map that is based on views from the Cardrona Valley Road (see Figure 4 in Appendix A).

A separate series of cross sections were used as a basis for the eastern development boundary along the terrace edge to ensure that potential buildings within the Plan Change Area will not break the skyline from the Cardrona Valley Road when travelling adjacent to the Study Area. These cross sections were based on an eight metre high building along the Study Area boundary; however the cross section shows where larger buildings could be built further back from the terrace edge.

These were cross checked by placing building poles on the Study Area along the edges of the Mount Cardrona Station Village Terrace on the eastern and southern boundary to assess the visibility in the field and also through using K2vi 3D terrain modelling, where different scenarios were investigated further. This resulted in some modifications being made to the proposal to reduce visibility after which the poles were re-erected and additional modelling undertaken to check the accuracy of the modifications. This enabled a high level of understanding of the impact of buildings within public/private areas surrounding the proposed Zone which resulted in fine tuning height, location, orientation and the general design of peripheral areas – especially with regard to reducing potential effects on the Paper Road and residential dwellings below the Plan Change area on the Cardrona Valley floor.

The anticipated location of the proposed medium to low density areas on the terrace are based on Study Area visits from both public and private roads and the Roaring Meg Pack Track – a public walking track located opposite the Plan Change Area. From these Study Area visits it was possible to deduct where development could sit within the landscape without appearing as residential sprawl across the terrace tops from Pringles Creek, or without infringing on the more sensitive areas of the Study Area.

These viewing areas must be considered to ensure that the effects created through any change in Zone location would be consistent with the Policies and Objectives of the District Plan.

A Zone comparison matrix was prepared to analyse the difference of visibility between the existing Zone location and a new location on the terrace top (see table 2 in Appendix A). This information was also used in the determination of the proposed Zone development area and boundaries.

The southern development boundary of the core development area was determined by two factors:

1. The need to create a sizeable buffer between the existing Pringles Creek Subdivision and the potential relocation area for the Plan Change; and
2. To allow land for mitigation of any views from the south.

The land on the terrace top was walked over with survey equipment and the main ephemeral waterways and water races that flowed down the terrace were mapped (see Figures 11a and 11b in Appendix A). This enabled the identification of the overland flow paths on the Study Area, which have been taken into account in determining the appropriate location and size of the new zone located on the terrace top and will be crucial for any potential master planning of this area.

A sizeable buffer is required to ensure that should the Zone be relocated, the proposed development does not appear as a continuation of the Pringles Creek subdivision. Mount Cardrona Station must read as a separate consolidated entity in the landscape to prevent the appearance of development sprawl across the terrace tops. There is a private covenant which has created a 100 metre buffer on the Mount Cardrona Station Land. It is proposed to incorporate this buffer into the planning map of the Zone and to plant a small dry gully with evergreen trees to consolidate this buffer and provide visual screening from Pringles Creek.

There needs to be a balance between the effects of a relocation of the Zone in terms of potential visual effects and loss of privacy of neighbouring residents; and the needs of a successful community. The area identified in this report as a suitable location for the relocated zone has been determined through input from myself as a landscape architect and input from the urban designer and master planners, with the focus on the area required to create a successfully functioning village, whilst also minimising the visual effects on the surrounding Cardrona Valley.

The proposed medium density boundary loosely mimics the larger form of the fan on which the RVZ is located. This form will fit in to the landscape, allowing for some development at a higher elevation in the middle of the Zone that fans out along the edge of the escarpment. In this area it is anticipated that the development will be of single storey, with larger lots creating a less dense form of development that is still contained to prevent sprawl up the slope of the terrace top.

The escarpment faces that front Cardrona Valley Road, Homestead Valley and the upper slopes have been assessed as inappropriate for development and therefore should all be included in the new Mount Cardrona Station Zone to enable their protection and enhancement, while also providing extended recreational activities and pedestrian links with existing development areas and the Cardrona River.

Finally the Conceptual Development Plan of the Plan Change Area was considered in comparison to the existing RVZ. The master planning process was built on a draft of this report and the comments made above, incorporating these comments and findings into the design process. The Conceptual Development Plan of the Plan Change Area also had input from the Councils Urban Designer who provided parameters regarding the yield anticipated from the existing RVZ, which established the yield for the Plan Change Area (in terms of the permitted baseline).

In comparison to the existing RVZ, the proposed Conceptual Development Plan of the Plan Change Area is preferable in landscape terms due to the better environmental outcome achieved through a careful analysis of the environment and through the input of the urban designers who have focused on creating a new special zone that will complement the existing township and the Cardrona Valley while minimizing the adverse effects associated with a zone of this size.

INTRODUCTION

Kidson Landscape Consulting Limited has been commissioned by the Queenstown Lakes District Council to provide a landscape assessment that will inform the section 32 analysis for a proposed Plan Change at Mount Cardrona Station

The purpose can be identified as follows:

- To assess the landscape values of the Study Area and its surrounds.
- To establish the landscape components of the Study Area.
- To undertake a visual assessment of both the existing Rural Visitor Zone (RVZ) and the terrace.
- To identify opportunities and constraints within the Study Area.
- Based on the above analysis, to identify appropriate Zone boundaries, and make recommendations for any future development.

This resource study provides the Council and the public with the base information used to consider a change to the location and parameters of the RVZ on landscape grounds and provides information about the land management and character of the surrounding Cardrona Valley Landscape. This report has been developed over the course of the formation of the proposed Plan Change, with input regarding planning, ecology, geology and other matters added as specialised reports became available. This resource study progresses the issues that were outlined in an earlier report also written by Kidson Landscape Consulting Limited¹, and provides a framework for more detailed consideration of the Plan Change.

¹ Mount Cardrona Station Preliminary Landscape Report

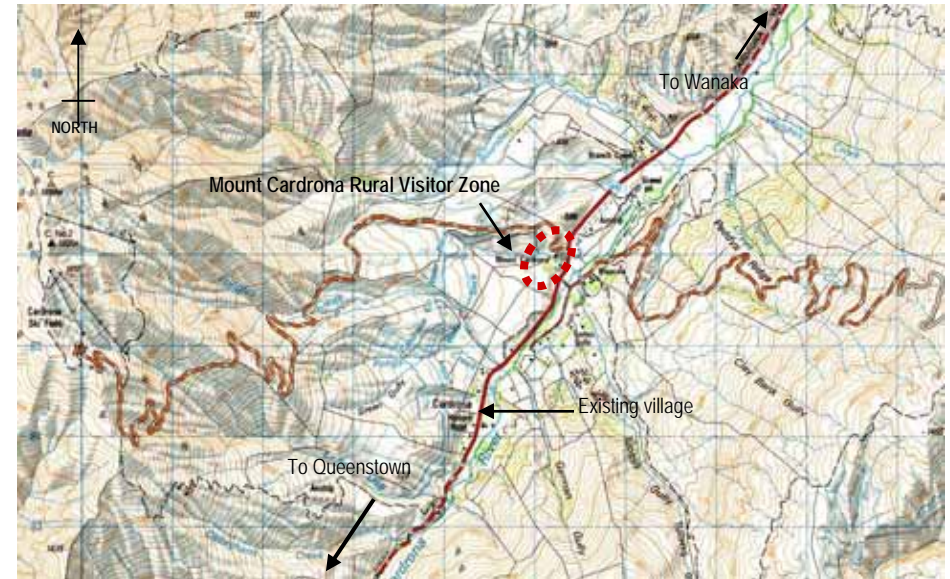


Figure 5: Study Area Location Plan

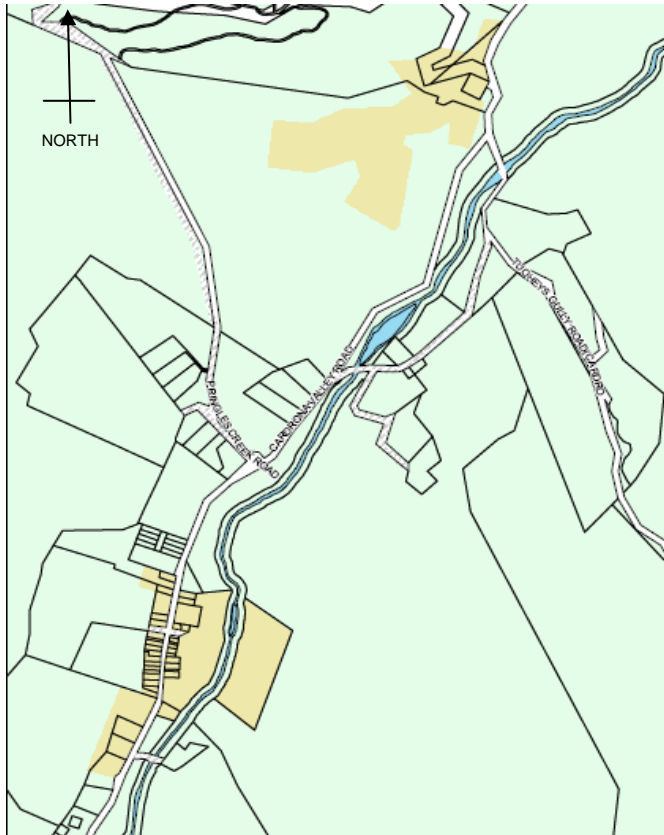


Figure 6: Planning Map 24 from the Queenstown Lakes District Planning Maps

STUDY AREA LOCATION

The Study Area is located on the western side of Cardrona Valley, approximately 1.5 kilometres to the north east of the existing Cardrona Village and approximately 20 kilometres south west of the Wanaka Township. The existing RVZ on Mount Cardrona Station is located to the north and south of the access from the Cardrona Valley Road to the Cardrona Ski Field and can be seen on Map 24 of the Queenstown Lakes District Council's Planning Map (above). This map area includes the historic Cemetery that adjoins the entrance to the Cardrona Ski Field in the RVZ.

The Study Area is contained within Mount Cardrona Station and denotes the area of land that could potentially be subject to a Plan Change. The purpose of this report is to determine, from a landscape perspective, the areas within that Study Area that could best absorb development, and those that may need greater protection than what is currently provided by existing zoning (i.e. Rural General or Rural Visitor).

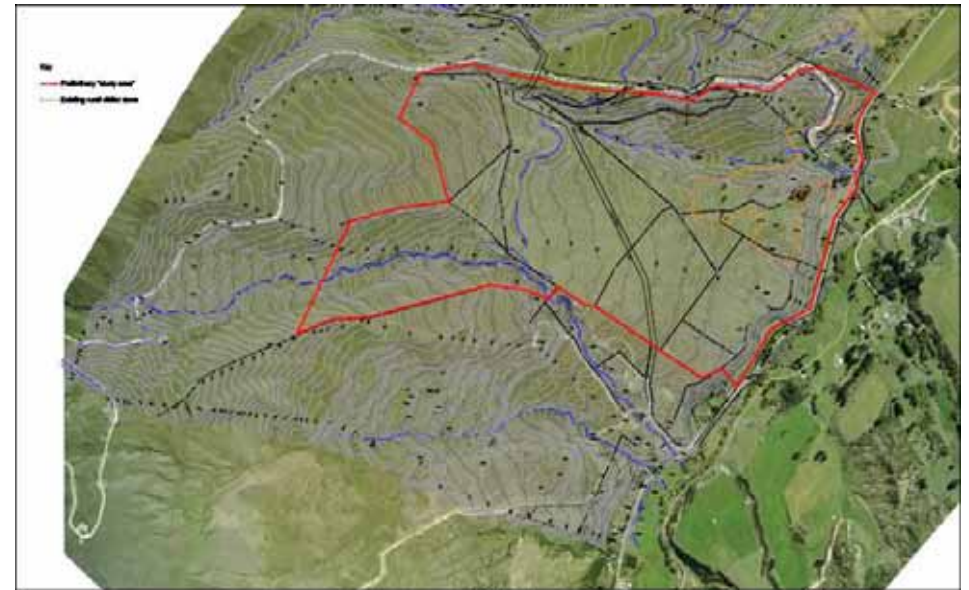


Figure 7: Study Area (outlined in red)

The Study area sits opposite the Waiorau Snow Farm and lies between the 510 masl contour line and 770masl contour at its highest point. This is a height difference across the Study Area of 260 vertical metres from the area adjacent to the Cardrona Valley Road, to the highpoint below Mount Cardrona Ski Field Road.

The Study Area is largely contained by topographical boundaries, with the escarpment (named the Cardrona Valley Escarpment in this report) running along the eastern boundary, then Pringles Creek to the south and the valley (named the "Homestead Valley" in this report) forming containment to the north. The western boundary is part of a slope that continues up to Mount Cardrona. This rises from the lower terrace to form another terrace just below the Cardrona Ski Field Road. These two terraces are separated by the location of a water race and the Upper Terrace Escarpment that follows around the base of the upper terrace.

In general this landscape report will relate to the Study Area; however it is important to consider the Study Area in a wider context and therefore the Cardrona Valley surrounding the Study Area has been considered – especially with regard to landscape character and the effect of any change in use on that landscape character and the wider environment.

The Study Area has been outlined in Figure 7 with the terrace riser adjacent to Mount Cardrona Road referred to as "The Cardrona Valley Escarpment" and the terrace top referred to as "The Mount Cardrona Station Village Terrace" (or the MCS Village Terrace). The Study Area is located approximately 20 kilometres south of Wanaka and 24 kilometres from the Crown Range turnoff in the Wakatipu Basin. It is on the western side of Cardrona Valley Road with the Mount Cardrona Ski Field Road to the north and to the west of the Study Area.

At its highest point, the Study Area reaches 770masl. The boundary then cuts north east across Pringles Creek and hits the top of a spur at approximately 743 masl. The boundary then runs down the spur to the 700masl contour line then loosely follows this contour line for approximately 400metres before hitting the Cardrona Ski Field Road. The Study Area boundary then follows the Cardrona Ski Field Road down to the Cardrona Valley Road (following the cadastral boundary). The Study Area follows this cadastral boundary cutting across Pringles Creek and straight up a ridge line to the 770 masl contour line.

APPROACH AND METHODOLOGY

The methodology has involved an initial assessment of the environmental factors relating to the Study Area and surrounding landscape. These included:

- Geological studies²
- A Ecological Study³
- A Traffic Analysis report⁴
- An Archaeological assessment⁵
- Water overflow paths produced by Clark Fortune MacDonald (see Figure 11a in Appendix A)
- A Cultural Values Report from Kai Tahu Ki Otago⁶
- Urban Design Study⁷

These environmental factors were combined with Study Area visits and technical reports from specialists providing information on the visual effects on the landscape such as:

- An intervisibility study by Boffa Miskell based on the Cardrona Valley Road (the main area for public perception due to high traffic volumes)⁸.
- Preparation of cross sections from the Cardrona Valley road up the escarpment to establish where built form could be located on the potential Mount Cardrona Village Terrace with minimal skyline issues (see Figures 2-3d in Appendix A)

- Terrain modelling undertaken by K2vi (a terrain modelling company) to model the topography and test heights, location, and design of development to ascertain the effects on the environment from various public/private viewpoints.
- Locating profile poles along the development boundary of the Plan Change Area to test the accuracy of the K2vi methodology and the cross sections mentioned above.

This information has then been analysed to determine the areas most suited to development. The level of detail available from the combination of the Boffa Miskell intervisibility study, the K2vi 3D modelling and the cross sections and physical siting of poles along the proposed development boundary has allowed a thorough assessment of the visual effects.

A comparison has also been conducted in terms of the existing RVZ and the Plan Change Area to determine the area best suited for the development. An assessment of the current Objectives, Policies and rules of the RVZ has been conducted to determine whether these are sufficient when considering the sensitivity of the Study Area (situated as it is in an outstanding natural landscape). As the developer has submitted a resource consent relating to the existing RVZ (in order to secure development rights), the landscape effect of this resource consent has also been considered.

² Royden Thomson; Mt. Cardrona Station: Fault Line and Hydrological Report; June 2006. Tonkin and Taylor; Geotechnical Investigations Mt Cardrona Station Plan Change; September 2006

³ The Ecological Values of Mt. Cardrona Station; N C Simpson; November 2006

⁴ Mount Cardrona Station Limited; Mount Cardrona Station Plan Change; Cardrona Transport Assessment; Traffic Design Group; March 2007

⁵ Mt Cardrona Station Archaeological Assessment of proposed rezone area; A Middleton; January 2006

⁶ Cultural Values Report for: Cardrona Valley Proposed Plan Change; Site Inspection 2nd April 2006

⁷ Rural Visitor Zones in Cardrona: Urban Design Study; R.A Skidmore March 2006

⁸ See Figure 4

ANALYSIS OF THE STUDY AREA

ENVIRONMENTAL FACTORS

GEOLOGY

Two geological reports were commissioned by the Queenstown Lakes District Council as part of the technical assessments for the proposed Plan Change:

- *“Geotechnical Investigations; Mt Cardrona Station Plan Change”*⁹ was conducted by Tonkin and Taylor Ltd. in September 2006. The report focused on the part of the preliminary Study Area considered for rezoning (see Figure 7) and comparison was made to the geotechnical issues and potential costs associated with development of this area and the area of the existing RVZ.
- *“Mt. Cardrona Station: Fault Line and Hydrological Report”* was commissioned from Royden Thomson to consider any issues regarding natural hazards.

The geology of the Study Area is best summarised by the following excerpts from Mr. Royden Thomson's report:

“Pringles Creek drains east from the ridge crest immediately south of Mt. Cardrona. The upper half of the catchment comprises a moderate to steep sided basin that spans a vertical relief of more than 1000m. Beyond the basin, Pringles Creek is variably incised into a set of alluvial fans, of different ages, that effectively extend down to the Cardrona Valley floor. A prominent fan, at lower levels, is the dominant area for the proposed plan change on Mt Cardrona Station.

⁹ Geotechnical Investigations; Mt Cardrona Station Plan Change; Tonkin and Taylor; Sep 2006

*...the physiography in the area is dominated by glacial processes. All tributaries draining east and south off Mt. Cardrona have upper morphologies indicative of past glacial occupation; valley glaciers to in excess of 3km in length during the Late Quaternary (probably larger for some older events), and snowfields/cirque glaciers for events associated with very recent cold periods. The alluvial fans are also considered to be fluvioglacial sedimentary deposits that formed by aggradation, in sympathy with the infilling of the main valleys during the same glaciations.”*¹⁰

The Nevis-Cardrona Fault is located in close proximity, and is considered to coincide roughly with the Cardrona Water Race on the Upper Terrace Escarpment. In terms of hazards, a more significant seismic risk is considered by Tonkin and Taylor to be linked to a rupture of the Alpine Fault, which would result in an earthquake with a magnitude of over 7.5 and would affect much of the South Island¹¹.

In terms of Stratigraphy:

“The Plan Change Area is situated on a large alluvial fan surface (Mt Cardrona Station Village Terrace) with only minor modification to the existing morphology by ephemeral stream activity. Consequently alluvial deposits dominate the subsurface in this area with overlying surficial topsoil and loess.

...The stratigraphy of the existing RVZ is significantly more variable than that of the preliminary study area. For descriptive purposes it can be separated into four areas:

1. *The gully region through the centre of the Study Area (running broadly west to east). In terms of the landscape plan, this area lies within the toe region of the Homestead Valley Escarpment as well as the Cardrona Valley Escarpment.*

¹⁰ Royden Thomson; Mt. Cardrona Station: Fault Line and Hydrological Report; pg 1

¹¹ Tonkin and Taylor; Geotechnical Investigations Mt Cardrona Station Plan Change; pg 4

2. *The alluvial fan Zone to the south and south west of the gully (~ Homestead Valley Escarpment and Mt Cardrona Station Village Terrace)*
3. *The early Quaternary deposit areas to the north of the gully (~Homestead Valley Northern Face).*
4. *The Cardrona River-deposited terraces to the east of the Study Area adjacent to Cardrona Valley Road (~Cardrona Valley Escarpment)*
... the stratigraphy of the Plan Change Area is essentially uniform and highly predictable, whereas the existing RVZ exhibits considerable variability in soil types¹²

TOPOGRAPHY

'Topography' relates to the surface features of a landform. The structural appearance of the topography is largely governed by the underlying geology.

The Study Area appears to be an old deposition fan from Mount Cardrona. In the upper reaches of the Study Area, Pringles Creek forms the south west boundary and is located in a reasonably wide gully. Pringles Creek then veers away from the Study Area to run through the Pringles Creek subdivision.

The gradient of the terrace top (titled Mount Cardrona Station Village Terrace) is gently sloping with small ephemeral stream paths running through the Study Area some of which open out along the top of the Mount Cardrona Station Village Terrace above Cardrona Valley Road. Minor water races form an additional complexity to the ground surface - two of which (the Cardrona Water Race and the Walter Littles Water Race) are of historical significance¹³. On the northern Study Area boundary is the Homestead Valley through which a small unnamed creek runs. This creek will be referred to as the Homestead Creek in this report, and the associated valley, Homestead Valley. A spring was discovered by the Kai Tahu representative on a Study Area inspection on 2 April 2006.

¹² Tonkin and Taylor; Geotechnical Investigations Mt Cardrona Station Plan Change; pg 5-6

¹³ See figure 18 Mt Cardrona Station Archaeological Assessment of proposed rezone area; Middleton 2006

This is located on the true right bank of Homestead Valley on the lower reaches – just above the old Homestead Study Area¹⁴.

The southern boundary is defined by Pringles Creek. The Homestead and Pringles Creek demarcate a fan shaped terrace (the Mt Cardrona Station Village Terrace), with the base of the fan starting above the escarpment that sits adjacent to Cardrona Valley Road increasing in altitude and steepness to form the Upper Terrace Escarpment which then tapers to form part of a ridgeline of Mount Cardrona.

The landscape components of the Study Area (and part of the surrounding valley) are generally described in Figure 8 in Appendix A. The Study Area comprises four major landscape units: Fans and Lower Slopes, Upper Slopes, Escarpment Faces and Homestead Valley, with Creeks and Gullies running to the north and south. These areas have been named to gain consistency in the various technical reports commissioned by the Council (see Figure 9 in Appendix A). The Fans and Slopes within the Study area have been divided into "Upper Terrace Escarpment" and "Mt Cardrona Station Village Terrace". The Escarpment that runs below (to the east) this is called "Cardrona Valley Escarpment". Homestead Valley is divided into the "Homestead Valley Escarpment" and the "Homestead Valley Northern Face". Pringles Creek and a Pringles Creek buffer area have also been shown.

While the Mt Cardrona Station (or MCS) Village Terrace appears to have a constant gradient sloping upwards from the escarpment on the west of Cardrona Valley Road, there are major undulations that are evident when walking across the Study Area that create a slightly more complex topography. This landscape component has been divided into three separate units – based largely on contour lines, as I found on Study Area visits that the sensitivity of the Study Area

¹⁴ Cultural Values Report for: Cardrona Valley Proposed Plan Change. Study Area inspection – 2nd April 2006

with regard to absorption of development increased with an increase in elevation (see Figure 9a in Appendix A).

LANDSCAPE CHARACTER OF STUDY AREA

The landscape can be divided into the following components (Refer Figure 8 and Table 1 in Appendix A). The Mount Cardrona Station Village Terrace within the Study Area has been further broken down into the upper, mid and lower terrace (see Figure 9 in Appendix A). This is based on both landscape character and sensitivity to development.



Cardrona Valley Floor

The Study Area contains a section of the floor of the Cardrona Valley. The character of the valley floor is generally flat land with the improved pasture creating a greener landscape. This section includes a cemetery, power lines and the Cardona Ski Field access road as well as a disused toll house.



Escarpment Face

There are two escarpment faces at the base of the Study Area; the Cardrona Valley Escarpment running along the eastern boundary of the Study Area, and the Homestead Valley Escarpment that forms the southern boundary of the Homestead Valley. These Escarpment Faces have a steep and unkempt character consisting of alluvial soil covered in long pasture, with willows and poplars scattered along the base.



Lower terrace 550-570masl

The lower terrace is the base of an old alluvial fan (The Mount Cardrona Station Village Terrace) that runs from the higher slopes of the Study Area through the upper terrace, middle terrace and lower terrace. Each of these areas has been separated due to their different absorption capacity,

and due to some changes that occur across the surface of the Study Area. The lower terrace consists of open golden grassland with occasional fence lines. Undulations run across the surface of the fan which creates a significant variation in the ground level of up to a couple of metres.

Natural drainage patterns in the form of ephemeral streams are very evident. These drainage patterns turn into gullies along the Cardrona Valley Escarpment edge (which have a lower absorption capacity). Large (man made) piles of rocks are notable features on the terrace to the south of the existing RVZ (nearer to Pringles Creek)

A stand of pine trees in the northern corner of the Study Area create a reference point when viewing the Study Area from the surrounding landscape.



Mid terrace 570 – 605masl

Old alluvial fan (The Mount Cardrona Station Village Terrace) continued. The landscape character consists of open golden grassland with occasional fence lines. Undulations running across the fan create a variation in ground level of several metres that are evident when walking across the Study Area.

Large boulders follow the paths of ephemeral streams and are strewn across the surface of the land. These continue up into the upper terrace area.



Upper terrace 605 – 890masl

The Mount Cardrona Station Village Terrace continued - The landscape character consists of golden grassland with occasional fence lines, however the landscape is more associated with the Cardrona Mountain than the valley floor. The landscape comprises the upper terrace escarpment that tapers to form a spur in the upper reaches.

Large boulders are evident in the paths of the ephemeral stream (as is evident in the above photo). Two historical water races (the Cardrona and the Walter Littles) run across the Study Area at approximately the 614 and the 640 masl contour lines and an old farm track cuts through this area.



Higher Slopes (Land above 890masl)

The alluvial fan of the lower slopes tapers to form a spur in the upper reaches of the higher slopes, including the Upper Terrace Escarpment. These slopes consist of a steeper gradient, with the character retaining the open golden grassland appearance of the lower slopes, with an increase in native grasses and tussock. Other elements include post and wire fences and the Mount Cardona Ski Field access that cuts through this area.



Homestead Valley

The Homestead Valley which includes the Homestead Valley Escarpment and the Homestead Valley Northern Face is a small valley that forms at approximately 650 masl, widening in its lower reaches to open out at right angles to the Cardrona Valley Road.

Some sheds – a chicken coop and an old (burnt out) homestead are located on its lower reaches adjacent to the Cardrona Valley Road. Further back from the road, the valley has a rich green, verdant floor, showing the path of an ephemeral stream. Matagouri and sweet brier are located on its flanks.



Creeks and Gullies

The gullies and creeks generally occur on the escarpment faces and sides of Homestead Valley – although Pringles Creek runs down through the MCS Village Terrace. These have a rougher texture than the surrounding terraces, and often appear overgrown with weeds and exotic species, although pasture grass is still present. Some areas are fenced off from stock.

SLOPE ANALYSIS

An analysis of the slope has been conducted to help differentiate the areas less suitable for development (i.e. the areas with a gradient of 25-100% slope) (refer Figure 10 in Appendix A) due to the adverse visual effects associated with retaining walls and access roads. This shows that the

escarpments, gullies, creek beds and valley sides are more difficult to develop due to the level of earthworks required and the adverse visual effects associated with this through earth scarring. The two colours on this Figure (the pink and the red) both indicate slopes of 25% and greater. The red area is more accurate as this is based on 1 metre contours of the Study Area provided by Clarke Fortune McDonald. The pink areas are based on topographic information gained from the standard New Zealand Map Series and is based on 20 metre contours.

The following is an excerpt from the Tonkin and Taylor Report:

"Unstable slopes have been identified within the existing RVZ, however no such features are present within the Plan Change Area.

Within the RVZ, two active landslides are present on either side of the swampy alluvial gully situated in the north-western corner of the development and occupy a significant proportion of the Study Area, as shown in Figures 3 and 4. These features occur due to shallow slumping within the saturated loess and alluvial deposits on the gully sides with north and south facing aspects. The failure is caused by groundwater and surface water saturating the alluvial deposits and loess, which are sliding on the underlying Early Quaternary Gravel."¹⁵

ECOLOGICAL VALUES

The ecological values of the Study Area have been considered in depth by Conservation Consultancy Limited. This study found that the landscape up to about 1,100m was previously a closed forest of silver and mountain beech, Halls totara, as well as broad leaf species such as *Griselinia littoralis*, wineberry (*Aristotelia serrata*), putaputaweta, mountain ribbonwood, *Pittosporum tenuifolium* and a variety of coprosma species. Mountain toatoa and bog pine were

most likely to have occupied poorly drained areas and areas of moraine on the forest edge/flat land. Natural and Maori lit bush fires opened up the landscape allowing seral plant communities such as manuka, bracken and native tussock to form a cover. With the arrival of Europeans came a further reduction of the forest and shrubland cover.

The Study Area is mainly improved and unimproved pasture grass, with a stand of *Pinus radiata* trees in the North Eastern corner of the lower terrace. Shrubs are grouped more closely in gullies and on the face of escarpments, with some elderberries, hawthorn and gooseberry located in the wetter more protected areas such as in the gully of Pringles Creek. The main vegetative cover is represented by exotic pasture and consists of a brown top mix, with native species such as hard tussock (*Festuca novae-zelandiae*) and *Raoulia* species becoming more prevalent in the upper reaches of the terrace slope. The terrace top including the slopes up to 800 metres are depleted of native species due to past mining and farming practices and therefore are in an ecologically degraded state, with only small fragments of the original vegetation remaining¹⁶. The vegetation of the upper slopes (above 800m) has a higher component of native grasses with snow tussock and herb fields and upper wetlands. The valley floor wetlands located along the base of the Cardrona Valley Escarpment and within Homestead Valley have a mixture of a remnant endemic wetland habitat such as harakeke (flax) and toi toi (*Cortaderia richardii*). A better representation of a remnant community is found within the Pringles Creek gully, with tree daisy, *Coprosma propinqua*, *Coprosma rigida*, *Coiaria plumosa*, *Carmichaelia petriei*, *Hebe salicifolia*, *Melicytus alpinus* and *Coriaria sarmentosa* currently found in Pringles Creek.

These values have been summarised in Table 1.

As stated in the Ecological report by Conservation Consultancy Ltd:

¹⁵ Tonkin and Taylor; Geotechnical Investigations Mt Cardrona Station Plan Change; pg 7

¹⁶ Conservation Consultancy Ltd; The Ecological Values of Mt. Cardrona Station page 16

"Although little remains of the original plant species, there is still the potential to partially restore some of the natural ecological systems and plant communities. Pringles Creek and the Homestead Valley in particular could have their natural values enhanced by appropriate planting of groups of native plants. Other areas that have the potential for limited enhancement are listed in priority order. If stock are excluded and animal and plant pests controlled then natural regeneration of native species will occur in time as plants mature and produce seed. A wider variety of birds and insects, attracted by the increased cover and food source, will aid seed distribution and the regeneration while both the increased plant cover and bird life will enhance the experience of future residents."¹⁷

The Conservation Consultancy report summarised by stating that the small remnant areas should be enhanced which in turn would encourage the return of insects, birds and lizards. The following priority areas of enhancement were listed:

"Pringles Creek – Add on to and into the existing native vegetation in the valley and around the small wetlands.

Homestead Valley – similar to above, enhancement of the stream and wetlands by planting small pockets of indigenous plants.

Homestead Valley Northern Face – plant small pockets of indigenous plants around the existing shrublands.

Cardrona Valley Escarpment – there is scope here to plant both indigenous and exotic species.

Other Areas – Homestead Valley Escarpment and Upper Terrace Escarpment have the potential for small pockets of grey shrubland. Village Terrace for street and amenity planting.

LANDSCAPE CLASSIFICATION

As previously outlined, the landscape of the entire Cardrona Valley has been classified as an outstanding natural landscape through mediation in the Environment Court; therefore the landscape has not been re-classified here; however the character of the Cardrona Valley landscape is described to ensure the proposed Plan Change is cognisant of the surrounding landscape.

The landscape character is that of an alpine valley system and comprises tall tussock land and herb fields inhabiting the upper slopes, with the tussocks giving way to pasture land in the form of a brown top mix on the lower slopes and clover on the flatter land on the valley floor that is more readily irrigated.

Forestry blocks of pine and/or fir trees are common in the Cardrona Valley – especially at the northern end nearer to Wanaka.

Poplars and Willows tend to be located along the lower reaches of the streams and along the length of the Cardrona River within the Cardrona Valley. Exotic species such as Willow, Hawthorn, Elderberry and Broom give way in the upper reaches of streams and gullies to native plants such as Matagouri, Olearia and the exotic Sweet Brier.

¹⁷ Conservation Consultancy: Mt Cardrona Station Plan Change Ecological Report: pg 1

Kanuka scrub seems to remain largely on the eastern side of the valley and can be seen on the lower slopes of the Waiorau Snow farm.

Farming is the main landuse prevalent in the valley with deer, sheep and cattle all farmed. This landuse in turn creates a mainly pastoral character. Crops are grown on the valley floor on the flat land that can be both ploughed and irrigated. Tracking on the slopes is a visual effect that is associated with farming activities. This is prevalent on the Waiorau Snow farm land.

Some gravel extraction activity is located along the banks of the Cardrona River.

The combination of a predominant use of the land for farming and the native tussocks and grasses result in a landscape that is predominantly a golden hue – even in winter (although the lower valley floor turns green). This is a memorable quality of the Cardrona Valley – especially if travelling through to or from Queenstown over the Crown Range, and is a quality that is memorable and appreciated by locals and tourists alike.



CULTURAL HISTORY AND CURRENT LANDUSE

Prior to European settlement, the Cardrona Valley was part of a track system used by the Maori that linked seasonal travel between Central Otago and the West Coast of the South Island. The eel and koaro in the Cardrona River would have been an important food source and a collection point for water. It is possible that the spring found on the Study Area was pre-European and used by Maori on their travels. *“The Central Otago lakes district was typical of the whole of the interior of Te Wai Pounamu in the sense that it had some permanent settlements, but the area was largely used as a seasonal resource for highly mobile coastal communities.”*¹⁸

¹⁸ Cultural Values Report for; Cardrona Valley Proposed Plan Change; Study Area inspection – 2nd April 2006

The land has been farmed since the 1850's when the area was divided into large pastoral runs. Farming is a continuing influence in the Cardrona Valley, with this dominant landuse creating a cohesive landscape character associated with the open pastoral landscape. The gold rush occurred from 1860 onwards. This too has had a lasting impression on the landscape, with evidence of old tailings visible adjacent to Cardrona Valley Road in the upper (southern) end of the valley and sluicing evident on the valley sides – especially adjacent to the Roaring Meg Pack Track (Tuohys Gully) and at Boundary Creek. Two water races within the Study Area (the Cardrona Water Race and the Walter Littles Water Race) are of historical significance. Gold mining has occurred along the Cardrona Valley Floor as recently as a few years ago.

The existing Cardrona village was founded on the gold rush, with the habitable buildings generally located on the Valley floor (however the remnants of old miner's huts are located at higher elevations). Residential development has most recently been associated with the Valley floor – with the Pringles Creek subdivision directly to the South of the Study Area introducing development on to the terraces above. A rural residential character has developed along the Criffel Range in the vicinity of Mount Barker Station and the Larches. This character is largely consistent with a Rural Residential Zone.



A small number of residential dwellings are also associated with the smaller side valleys that open on to Cardrona Valley, such as Spotts Creek and Branch Creek and are occasionally located on the floor of the Cardrona Valley (although this area is prone to flooding). The main residential development in the Cardrona Valley is associated with the existing village and Pringles Creek subdivision – a subdivision that is located on the terrace directly to the north of the existing village (on the western side of the Valley). This subdivision has not yet reached its capacity. From the Cardrona Valley Road, the main visual impact associated with this subdivision is the formed entranceway with kerb and channel which appears out of context in this rural setting.

The character of the existing village is an eclectic mix of dwellings without many unifying features. The most memorable building in Cardrona is the Cardrona Hotel, which gives some cultural insight into the past design and cultural appearance of buildings. The church and school building (whilst not in their original location) also contribute to the historical aspect of the existing village. A more

comprehensive study of this has been conducted by Councils urban design consultant R. A. Skidmore¹⁹.

Recent cultural activity within the Cardrona Valley includes a wide range of outdoor activities. This has been the result of a conscious effort to offer alternative revenues to agriculture within the Cardrona Valley. Skiing and snowboarding are the activities most recognised and commonly associated with Cardrona. The Cardona Ski Field has been in the Valley since 1980, with the Waiorau Snow farm following on its heels in 1984²⁰ which incorporates a Snow Park (catering for snow boarding), Monster Mountain Rally (monster trucks) and Quad Biking activity.

Horse trekking is another means for the public to enjoy the landscape of the Cardrona Valley, with a horse trekking business located to the south of the Cardrona Township. In addition, there are several Department of Conservation walking tracks including the Roaring Meg Pack Track, the Spotts Creek walkway (up through the Stack Conservation Area to Mount Alpha) and the Criffell Walkway

The Roaring Meg Pack Track offers trampers the opportunity of staying overnight in the Criffell Range (on the opposite side of the Cardrona Valley from the Study Area). This Pack Track follows the course of the early settlers from the Kawarau Gorge through to the Cardrona Valley.

VISIBILITY

Visibility is one of the issues that must be assessed when considering the appropriate location for a Zone. It should be stated that visibility of development is not necessarily an adverse effect; it depends on the sensitivity of the landscape, whether this visibility is on the skyline or has a back

drop of a landform, the context of the surrounding development and the proximity of the viewer to the potential development.

The District Plan gives clear direction in Part 4 District Wide Policies as to the type of visibility that is to be avoided. This will be considered in more depth under the District Plan section of this study.

Based on the focus of the District Plan, the visibility study considered views from both public and private roads, and public walking tracks in close proximity to the Study Area. A topographic map has been included of the visibility analysis conducted from the Roaring Meg Pack Track, the Cardona Ski Field access road and the Waiorau Snow Farm access road (see Figure 12 in Appendix A).

While these different areas have not been weighted to give priority to any one view, it is noted that the Cardrona Valley Road is now considered an Arterial Road – connecting Queenstown to Wanaka and has by far the highest traffic volume of the roads within close proximity to the Study Area. This route is generally considered to be the scenic option and provides a drive that is through mostly outstanding natural landscape. In addition, Cardrona Valley Road is in close proximity to the Study Area and therefore any development on the slopes facing the road will have a significant effect due to this proximity.

Traffic Design Group has found that the estimated traffic volume on Cardrona Valley Road is 3,000vpd (vehicle movements per day) to the north of the Study Area and 2,300vpd to the south of the Study Area during the busy ski season. The difference in numbers must be attributed generally to the ski fields (being Cardona Ski Field and Waiorau Snowfarm/ the Snow Park). The traffic drops in summer to 1,900vpd.²¹

¹⁹ Rural Visitor Zones in Cardrona Urban Design Study; R.A. Skidmore March 2006

²⁰ The Press 27 Jan 2006 Tim Cronshaw

²¹ Traffic Design Group: Mt Cardrona Station Plan Change, Cardrona; Transport Assessment; page 4

The key findings from the visibility analysis are broken down into the following headings.

Key Findings:

Sensitive viewing areas: These are the areas in the surrounding landscape - along the public roads or walkways where the view of the Study Area is most sensitive.

High absorption capacity: This refers to areas of the Study Area that would best absorb development.

Medium absorption capacity: This refers to areas of the Study Area that can absorb some development.

Low absorption capacity: This refers to areas of the Study Area that have limited potential to absorb development.

No absorption capacity: This refers to areas where development is almost always inappropriate

Public roads

Cardrona Valley Road

An intervisibility study has been commissioned to assess the visibility of the study area from the Cardrona Valley Road (see Figure 4 in Appendix A). This has been utilised in conjunction with a number of Study Area visits to verify its findings, and consideration of the k2vi 3D model.

The intervisibility study covers the extent of the Cardrona Valley Road from which the Study Area is visible. This visibility is based on a person sitting in a car (at an eye level height of 1.5 metres) with the lines indicating visible areas from points set at 150 metres along the Cardrona valley Road. The solid lines show where the Study Area at ground level is visible.

As can be seen from this map, the main areas of visibility are associated with the escarpment faces that run adjacent to Cardrona Valley Road, and the gullies that adjoin these on to the MCS Village terrace also have windows of visibility. The Cardona Ski Field access road entrance is also highly visible.

Moderate visibility is gained of some land up Homestead Creek, the mid slopes of the terrace and the land immediately adjacent to Pringles Creek.

The visibility mapping shows that areas of low visibility are on both the upper slopes and the lower slopes of the terrace when viewing from the Cardrona Valley Road, with a band of visibility running through the mid slope of the terrace when viewed from the north. From this location it appears as if one of the dwellings built in the Pringles Subdivision is actually located on the Study Area. This band of visibility corresponds with an area that could be developed under the existing RVZ.

Key Findings for Cardrona Valley Road

Sensitive viewing areas: Existing Village, along Cardrona Valley Road adjacent to the escarpment (where skyline issues are relevant), adjacent to the Cardona Ski Field access road and up to the Boundary Creek Bridge where a dwelling in the Pringles Creek Subdivision appears to be on the Mount Cardrona Study Area.

High absorption capacity: On lower reaches of terrace set back from the Cardrona Valley Escarpment, up to 560/570 masl.

Medium absorption capacity: Between 570 –580 masl, with some of the middle of the fan able to absorb a medium amount of development. The southern edge of the MCS Village Terrace set back from the Pringles Creek subdivision still has some visibility issues from the south.

Low absorption capacity: The edge of the Cardrona Valley escarpment and where it meets the MCS Village Terrace where there are natural gullies has less absorption capacity due to visibility gained up through these areas; and the area adjacent to Pringles Creek subdivision also has less visibility, as this area slopes towards the existing village and is less contained. The land above 580 masl has a diminishing level of absorption up to the 605 – 610 masl contours.

No absorption capacity: other than a small area around the terrace on which the existing woolshed sits, the Cardrona Valley Escarpment has no absorption capacity. The Homestead Valley Escarpment similarly has no absorption capacity due to the prominence of these slopes from the Cardrona Valley Road and the impact that built form would have on these natural features.

Waiorau Snow Farm access road.

From the upper section of the Waiorau Snow farm access road (the lodge area down to approximately the 12km sign), the Study Area is not visible. As one descends down the Waiorau Snow farm road, the Study Area becomes visible (just above the 11km sign).

From above the 11km sign on the Waiorau Snow farm road the upper section of the Study Area is visible, then gradually the entire Study Area is visible. The view is from an elevation of approximately 1300masl, and therefore the Study Area appears in the context of the wider Cardrona Valley (from the existing Village to Mount Roy at the Wanaka entrance in to the Cardrona Valley). From this height, the Study Area and Pringles Creek appear linked to the valley floor and existing village.

When further along the Waiorau Snow Farm Road, in the lower reaches, the MCS Village terrace within the Study Area is seen as a dominating unit. The lower reaches of this terrace (the land immediately above Cardrona Valley Road) appears more able to absorb development. A buffer between Pringles Creek subdivision and development within the Study Area becomes more important in the mid to upper section of the Waiorau Snow Farm Road because any development will be seen in the context of the wider Valley. Without a sufficient landscape buffer, development would appear to sprawl along the terrace tops on the western flank of Cardrona Valley.

Near the base of the Snow Farm Road (on the last Ridge) the Study Area becomes very dominant – with the upper sections of the Study Area more visually associated with Mount Cardrona than the Valley Floor. The Cardrona Valley Escarpment appears dominant and sensitive to development. Development below the 570 masl contour line will sit more comfortably in the landscape, as this area is more visually linked to the floor of the Cardrona Valley. Land above this point has a diminishing level of absorption due to the increased sensitivity associated with an increase in elevation.

As one approaches the Cardrona Valley Road along the Cardrona Valley floor, the Cardrona Valley Escarpment is dominant as is the edge of the MCS Village terrace.

Key Findings for Waiorau Snow Farm access road

Sensitive viewing areas: Lower reaches of Waiorau Snow farm Road – especially first ridge that is driven along and the Valley floor. Also the middle section of the Waiorau Snow farm Road, although the Study Area is viewed at some distance which reduces visual impact.

High absorption capacity: On lower reaches of terrace set back from the escarpment.

Medium absorption capacity: between 560 – 580 masl.

Low absorption capacity: Escarpment edges and upper terrace area (as the upper terrace area appears more associated with Mount Cardrona than the Valley Floor).

No absorption capacity: The land alongside Pringles Creek as development of this area would appear to be a sprawling continuation of Pringles Creek subdivision. The land above the 605 – 610 masl on the MCS Terrace has no absorption capacity due to elevation and increased natural character associated with the outstanding natural landscape of Mount Cardrona. The Cardrona Valley Escarpment other than the flat area around the Woolshed.

Private roads

Paper Road along Cardrona Valley floor (to east of Cardrona Valley Road)

This road is used infrequently by the public as it does not currently lead to a public destination. The Roaring Meg walkway is not accessed from this road, with its access further to the north east. The road currently services a small collection of residential dwellings located along the base of the Cardrona Valley. The formed section of this paper road is approximately 800m long, running parallel to and 200m from the Cardrona Valley Escarpment, separated by the Cardrona River and the Cardrona Valley Road. An unformed section crosses the Cardrona River and joins the Crown Range/Cardrona Valley Road, with another unformed section running southeast along the Valley floor. A thick line of willows follow the path of the Cardrona River, and while these provide screening in summer, they lose their leaves during winter and cannot be relied upon for screening.

Key Findings for Paper Road along Cardrona Valley floor (to east of Cardrona Valley Road)

Sensitive viewing areas: Length of road parallel to Cardrona Valley Road (in front of existing houses on Valley Floor)

High absorption capacity: On the Mount Cardrona Station Village Terrace set back from the escarpment edge by approximately 50 metres. Homestead Valley

Medium absorption capacity: Areas closer to the Cardrona Valley Escarpment, however set back from the edge.

Low absorption capacity: Escarpment edges of the Cardrona Valley Escarpment.

No absorption capacity: The Cardrona Valley Escarpment.

The Paper Road running from Pringles Creek through to Mount Cardona Ski Field Road.

I note that at the time of writing this document an application to close this road has been prepared, however I have recorded its effect as there may be submissions against its closure.

This paper road is largely unused by the public, apart from the initial section from the Crown Range Road as this section is the main access route into the Pringles Creek subdivision. The Road runs through this subdivision in a north westerly direction and cuts up across the Mount Cardrona Station Village Terrace as is evident in Map 24 of the Queenstown Lakes District Planning Maps (refer Figure 6).

The middle section of the paper road traverses across the Mount Cardrona Station Village Terrace to where it intersects with the Mount Cardona Ski Field Access Road. Along this middle section, the existing Rural Visitor Zone that is also located on the Mount Cardrona Station Village Terrace will also be visible, with the upper reaches of the development (closer to the paper road) more visually sensitive than the lower areas.

Development located on the Mount Cardrona Station Village Terrace will reduce the natural appearance and visual coherence currently associated with this landscape feature. Absorption capacity will depend on response to the landscape context, specific height, bulk, external treatment and landscaping to result in a positive outcome. Generally, development located below the road, benched into the landscape and integrated with landscape will be more readily absorbed. Distance of view will affect privacy issues and rural outlook, with development located at a greater distance generally providing a more rural outlook, however good urban design will aid in absorption of development.

Key Findings for Paper Road running from Pringles Creek through to Mount Cardona Ski Field Road.

Sensitive viewing areas: Length of road located on the Mount Cardrona Station Village Terrace

High absorption capacity: Homestead Valley. It is noted that development located on the Cardrona Valley Escarpment and along the Cardrona Valley Road would also not be visible from this area.

Medium absorption capacity: Areas on the Mt Cardrona Station Village Terrace closer to the Cardrona Valley Escarpment.

Low absorption capacity: Development at higher altitude closer to the paper road.

No absorption capacity: The land alongside Pringles Creek as development of this area would appear to be a sprawling continuation of Pringles Creek subdivision.

Mount Cardona Ski Field Road

The Study Area will be most visible when travelling down the Cardona Ski Field Road rather than when travelling up due to the direction in which the viewer will be focusing – with the exception of the lower sections of the road, where one is looking south across the Study Area. For this reason (as for the Waiorau Snow Farm Road), the Study Area is assessed from the top of the Cardona Ski Field Road down.

From the upper reaches of the Cardona Ski Field Road the Study Area appears in almost aerial perspective, and is seen in the context of the existing development – including development on the Cardrona Valley Floor associated with the Waiorau Snow Farm, Pringles Creek subdivision, and some of the Cardrona Valley Township (not screened by topography). From this height the Study Area appears part of the Valley floor landscape, and the height difference between the terrace and the road is not perceptible.

The Study Area is generally not visible between Young and Capells Bluff due to intervening topography.

From the mid section of the Road and when viewing the Study Area from directly above, the viewer is looking directly down on to the MCS Village Terrace and from this middle elevation, the land appears truncated, with the upper terrace screening the upper section of land on the lower terrace.

The lower reaches of the Study Area including the cemetery, the north facing Homestead Valley Escarpment and the edge of the terrace top will be prominent from the junction of the Cardona Ski Field Road and the Cardrona Valley Road. This prominence continues up to the area parallel with the Study Area. However, from the lower reaches of the Cardona Ski Field Road, part of the topography adjacent to the Cardona Ski Field Road will restrict views to the south. When on the adjacent terrace (to the north of the Study Area – near the stand of *Pinus radiata* next to the Cardona Ski Field Road) the MCS Village Terrace appears elongated and the length of area is appreciated.

Key Findings for Mount Cardona Ski Field Road

Sensitive viewing areas: Lower reaches of Cardona Ski Field Road; also when adjacent to and directly above the Study Area.

High absorption capacity: On lower reaches of the MCS Village terrace.

Medium absorption capacity: Between 560 – 580 masl.

Low absorption capacity: The upper reaches of the terrace above 580 masl and up to the 605 masl can absorb a lower density of development, with stricter height and building controls.

No absorption capacity: The Homestead Valley Escarpment is highly visible and prominent from the lower reaches of the Cardrona Valley Ski field Road and has no absorption capacity due to the sensitivity of the landscape. Also the land alongside Pringles Creek as development of this area would appear to be a sprawling continuation of Pringles Creek subdivision when viewed from above on the Mount Cardona Ski Field Road.

Public walking tracks

Roaring Meg Pack Track

If walking up the Roaring Meg Pack Track from the Cardrona Valley floor, then the Study Area is only visible when the walker pauses for a break and turns around. The visibility assessment was therefore based on walking down the Roaring Meg Pack Track as this is where the visibility will be most noticeable.

At the saddle, only the homestead area (adjacent to Cardrona Valley Road) is visible. This general lack of visibility is consistent for the upper third of the Roaring Meg Pack Track, with the ridgeline between Tuohys gully and German Gully to the south containing the view.

The visibility of the Study Area increases in the mid to lower section of the Roaring Meg Pack Track as the view is less contained by this ridgeline, and in the lower elevated areas of the Roaring Meg Pack Track, the Cardrona Valley Escarpment and MCS Village Terrace are both prominent to the viewer. On the flat land leading up to and including the Roaring Meg Car Park, the Study Area is still central, however the vegetation on the flats partially screens the view of the Study Area.

Key Findings for Roaring Meg Pack Track

Sensitive viewing areas: Views from the lower reaches of Roaring Meg Pack Track from approximately 580masl down to the car park of the Roaring Meg Pack Track – with foreground vegetation partially screening view.

High absorption capacity: Homestead Valley area

Medium absorption capacity: MCS Village Terrace top when viewed from upper reaches of the track.

Low absorption capacity: All of MCS Village Terrace and Cardrona Valley Escarpment area prominent from lower reaches of track.

No absorption capacity: A substantial buffer is required between Pringles Creek and the potential development area to ensure that the development doesn't appear to sprawl across the terrace in a continual band. The land above the 605 – 610 masl on the MCS Terrace has no absorption capacity due to elevation and increased natural character associated with the outstanding natural landscape of Mount Cardrona.

screen views across this currently open area. The two existing houses adjoining the Study Area at a lower elevation are benched into the hillside and therefore views across the MCS Village Terrace are partially screened.

Key Findings for Pringles Creek Residential Area

Sensitive viewing areas: Views from the upper house and the lower dwellings located along the boundary with the Study Area

High absorption capacity: Homestead Valley area

Medium absorption capacity: MCS Village Terrace to the north

Low absorption capacity: MCS Village Terrace adjacent to Pringles Creek area.

No absorption capacity: A substantial buffer is required between Pringles Creek and the potential development area to provide visual screening and privacy.

Pringles Creek Residential Area

The topography and positioning of the residences within the Pringles Creek subdivision mean that the MCS Village Terrace area is partially screened from view. The Homestead Valley is completely screened as is the Cardrona Valley Escarpment and the part of the Study Area fronting the Cardrona Valley Road. The most affected parties are the dwellings bordering the MCS Village Terrace, with the most upper residence getting a clear view across the MCS Village Terrace to the north. Planting and mounding would reduce views of the MCS Village terrace, but would also

ZONE VISIBILITY COMPARISON

The RVZ is currently located to the north and south of the access from the Cardrona Valley Road to the Cardona Ski Field and can be seen on Map 24 of the Queenstown Lakes District Council's Planning Map (refer to Figure 6). This map includes the historic Cemetery that adjoins the entrance to the Cardona Ski Field within the RVZ. On Planning Map 24, the outline of the existing RVZ has the appearance of a running man, with:

- The "head" - in the most north east section of the RVZ is located on an escarpment that runs from the Cardona Ski Field Road down to the Cardrona Valley Road.
- The "shoulders" are contained within the gully that runs at a right angle to the Cardrona Valley Road – this area also contains the historic cemetery and the entrance from Cardrona Valley Road to the Ski Field Road. One arm traverses up the northern flank of this gully, the other arm extends south along the escarpment that is parallel to the Cardrona Valley Road in the vicinity of the Woolshed.
- The torso is largely located on the floor of the gully and on the southern flank of the gully.
- Both legs are located on the Terrace Top – which sits between 30 to 60 metres above the Cardrona Valley Road, with a gentle to moderate gradient (of about 6°²²) sloping down to the Cardrona Valley floor to the east.

Mount Cardrona Station Limited has submitted a resource consent that complies with the site and zone standards of the RVZ. Given its controlled activity status, this will be used as an example of the effects that could realistically happen within the current RVZ area.

The Plan Change Area being compared to the existing location of the RVZ is largely located on the MCS Village Terrace. This area contains the "legs" of the existing Zone, and is identified in Appendix A. The following comments compare the existing RVZ with the potential relocation area to consider the effects from the locations considered in the visibility analysis.

From Public Roads

Cardrona Valley Road

As can be seen from the intervisibility map, there is a corridor of visibility that runs across the mid slopes of the Mount Cardrona Station Village terrace top. Currently when viewing the Study Area from Boundary Creek on Cardrona Valley Road, a dwelling that sits within the Pringles Creek subdivision appears to be on the MCS Village terrace top within the Study Area. This view is not on the skyline and the existing RVZ is situated within this view corridor (including the northern escarpment) which influences the baseline for development in this area. Dwellings within the Pringles Creek subdivision can already be seen within this aspect, so the naturalness of this area of the terrace has already been compromised by existing development, therefore I consider that some development could be visible within the Plan Change Area without introducing a new visual effect.

The intervisibility study identifies the existing RVZ as an overlay (see Figure 4 in Appendix A). The existing RVZ will be highly visible when viewed from the north for approximately two kilometres. As the viewer nears the Study Area the visibility increases. This is evidenced by looking at the submitted resource consent. Within this northern visual catchment, Lots 12, 11, 10 and 9 will be visible, as well as Lot 14 further up Homestead Valley, and Lot 8 should the current pine trees be

²² Tonkin and Taylor: Geological Investigations Mt Cardrona Station Plan Change; Sep 2006; pg 2

removed from the edge of the MCS Village terrace. This will transform the current natural view to that of built form. The buildings are either very large such as the three 50 metre long (12 metre high) apartment buildings that surround the cemetery adjacent to Homestead Creek, or are attached apartments ranging from 8 metres high to 12 metres high (given cuts) within Lot 12 and Lot 9. All buildings consist of similar materials being either stacked stone, corrugated steel roof, plaster and timber weatherboard. The impact from the north approaching the Study Area will be considerable, with only Homestead Creek maintaining some form of natural character (which will not be visible from outside of the Study Area). When viewing Lot 14, the foreground lodge buildings and the 106 metre long, 17m high hotel, with a combined mass of 22 metres of built form.

When parallel with the Cardrona Valley Escarpment, the buildings of Lots 10 and Lot 8 and 7 will be visible. The viewer will be in close proximity to the two apartment buildings located in the vicinity of the current woolshed. These will be highly visible. Again these are large scale buildings – 47 metres long and 10 metres high for the rectangular apartments, and 24 metres long and almost 12 metres high for the square apartment building. Both buildings are three stories and their bulk and form will dominate the Cardrona Valley Road. There are also the issues of skyline effect of buildings along the edge of the MCS Village terrace above, with a 116 metre long building suggested along the top of the Cardrona Escarpment in Lot 8.

The increase in the extent of the Plan Change Area compared to the existing RVZ located along the terrace top would increase the size of the Zone that is visible from Cardrona Valley Road to the south (adjacent to the Horse trekking business and in the vicinity of the Cardrona Valley Township), however the area is only visible from distances of 1-2 kilometres. The Cardona Village is an important viewing area along the Cardrona Valley Road, and therefore it would be preferable to have views from this location mitigated. Mitigation such as planting and reducing the size of dwellings combined with the distance involved would reduce (if not remove) their visual impact. Planting would also provide necessary shelter from the prevailing southerly wind.

The MCS Village terrace has a higher absorption capacity than the existing RVZ location due to its overall reduced visibility and need for less earthworks. The improvement of the view from the north is a considerable improvement, with the naturalness of Homestead Valley and the escarpments adjacent to Cardrona Valley Road maintained.

Key Findings:

The Plan Change Area will have a notable reduction in visibility compared to the current position of the existing RVZ from Cardrona Valley Road. There will be some increase in visibility from the Cardona Village, however this view is partially mitigated by topography and distance and planting could successfully screen the Plan Change Area from view.

Waiorau Snow Farm access road

From the lowest section of the Waiorau Snow Farm Access road (up to the second switch back) the existing RVZ will be more prominent due to the location of some of the RVZ on the steep escarpments including the Cardrona Valley Escarpment in the vicinity of the woolshed (i.e. proposed Lot 10 of the existing RVZ). The Plan Change Area should be located off the escarpments and set back from their edge, thus reducing visibility. Buildings within the RVZ would be extremely prominent when exiting from the ski field road onto Cardrona Valley Road.

In the upper sections of the Waiorau Snow Farm Road, the Plan Change Area of the MCS Village Terrace will be more prominent due to the increase in land required to create a viable community.

Key Findings:

The existing RVZ will be more visible in the lower reaches of the Waiorau Snowfarm Access Road due to its partial location on the Cardrona Valley escarpment and the Homestead Valley escarpment which will increase the dominance of built form.

On the upper reaches of the Waiorau Snow Farm road, the proposed Plan Change Area will be more visible due to the increased visibility of the terrace (which appears to tilt towards the viewer). This would be viewed from a distance of 3km, and would be viewed in the context of the wider Valley.

From Paper Roads

Paper Road along Cardrona Valley floor (to east of Cardrona Valley Road)



This paper road runs from the Waiorau Snow farm access road, with a formed section approximately 800m long, running parallel to and 200m from the Cardrona Valley Escarpment, with the Cardrona River and the Cardrona Valley Road in between. From this area, the escarpment edge and any development located on the escarpment would be visible - more so in winter when the Willow trees along the Cardrona River would be bare. The Plan Change Area extends along

the Mount Cardrona Station Village Terrace approximately 480 additional metres to the south; therefore more of the Plan Change Area will be located along this terrace edge. There is the ability to move the proposed Plan Change Area away from the terrace and reduce the bulk and height of buildings so that only the top part of walls and the roofscape will be visible. There is also the ability to mitigate this effect through the planting of appropriate species on the Cardrona Escarpment face – which has been mooted as a good area for revegetation in the Ecological Assessment. There is an area between Mount Cardrona and the mountains to the north within the existing RVZ where development would break the skyline. Plan Change provisions could mitigate this effect through imposing specific building location and design controls.

Further to the south, the paper road runs east along the property boundaries located along the Cardrona Valley Floor. As the distance from the Study Area increases, however the road runs up on to a terrace opposite the Mount Cardrona Station Village Terrace and is at a similar height. From here, the buildings on the MCS Village Terrace appear to sit within the landscape, with the visual area of the development truncated due to viewing the MCS Village terrace at a similar elevation (therefore foreground buildings hide those behind).

Key Findings:

The existing RVZ will enable buildings that will break the skyline and will be visually prominent due to the bulk of the buildings possible. The Plan Change Area will be visible along a greater extent of the escarpment edge, however generally only the roof tops and top of walls will be visible due to a reduction in height of development to 4.5metres. Mitigation planting would reduce the potential visual effect. This would not be possible for the existing RVZ as the escarpment does not form part of the Zone. The Resource Consent has however extended mitigation on to the adjoining land to mitigate this effect. This road is currently used as an access way for residents that have a residential dwelling adjoining the road. The general public do not currently use this road.

The Paper Road running from Pringles Creek through to Mount Cardona Ski Field Road.



The first section of this road where it leaves the Crown Range Road and runs through Pringles Creek is formed and provides the main access route into the Pringles Creek subdivision. Through this section, neither of the development options would be visible. The Paper Road then cuts across the MCS Village Terrace in a north westerly direction to join the Cardona Ski Field Road. Both the existing RVZ and the Plan Change Area will be visible from this paper road, however only a portion of the existing RVZ will be visible (i.e. the legs of the running man) and will be 300m from the paper road at its nearest point; whereas the proposed Plan Change Area will take up most of the MCS Village Terrace, with the paper road running through the proposed development area initially, then running directly above the development at the northern most section along the MCS

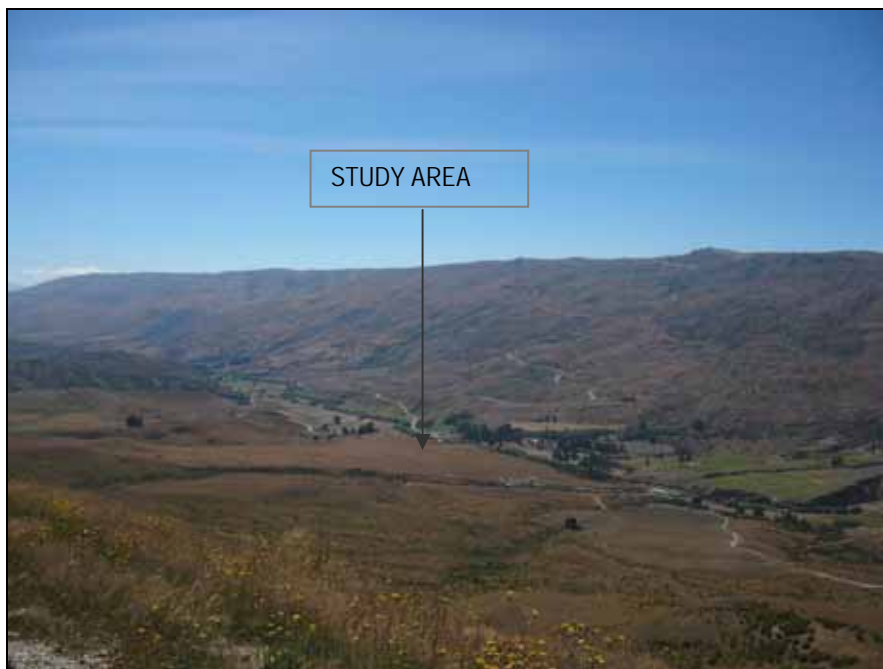
Village Terrace. Therefore the visual effect on the paper road will be greater from the Plan Change Area. However, it should be noted that the Plan Change Area will be more cohesively designed, to create development that is suitable within the landscape context; such as less dense single storey dwellings on the periphery at higher elevations. The existing RVZ, although viewed from a greater distance, may appear more disjointed and out of context due to lax design controls including no control over the bulk of buildings and limited control over the height. It is also doubtful that there would be a transition area on the boundary between the RVZ and the Rural General Zone .

Key Findings:

The Plan Change Area will be more visible along the stretch of the paper road that cuts across the MCS Village Terrace and the viewer will be considerably closer which will create an adverse visual effect on the currently natural environment. However the view of the Plan Change Area will appear more integrated into the landscape due to stronger design controls and guidelines. The existing RVZ will be visible from a greater distance but is likely to appear disjointed from the environment. This road is currently not used by the public and is likely to be stopped.

From Private Roads

Mount Cardona Ski Field Road



From the lower reaches of the Cardona Ski Field Road, the existing RVZ will be highly visible and prominent, creating an adverse visual effect. The Cardona Ski Field Road cuts through the existing RVZ, with the RVZ located up the flank of the valley side that the Ski Field Road climbs up, and on to the southern flank. As is demonstrated by the submitted resource consent application and as mentioned previously, the existing RVZ provisions provide no control over the bulk of a building and therefore large monolithic buildings could be developed which are up to 100m long (see Lot 14). The resource consent application also locates development on the Homestead Valley escarpment and the northern Cardrona Valley Escarpment – both areas with a steep gradient (see Figure 10 (see Appendix A) - the slope analysis study) which increases the visual effect associated

with development due to the cuts and retaining walls required to stabilise the area. The historic context surrounding the cemetery and that of the Cardrona Valley has the potential to be lost within the existing RVZ as can be seen with the submitted resource consent, which shows the cemetery surrounded on two sides by car parks and 50 metre long two storey high apartment buildings. The overall effect at the entry to the Cardona Ski Field Road would be a landscape dominated by built form and out of context with the surrounding environment.

New visibility issues associated with the Plan Change Area would be associated with the increase in development in the upper reaches of the MCS Village Terrace, which is most noticeable when travelling on Cardona Ski Field Road parallel to the Study Area. Due to the gently sloping nature of the MCS Village Terrace, there is 300 metres of land between the 584 masl contour and the 605 masl contours, which would result in an increase in visibility if built on (as part of the development contained within the Plan Change Area) when on Cardona Ski Field Road parallel to this area. This view will not have a skyline or ridgeline issue and while the Plan Change Area appears elongated, there is a greater opportunity to be integrated into the Study Area, if appropriate policies, rules and objectives area established, due to its location on reasonably flat land.

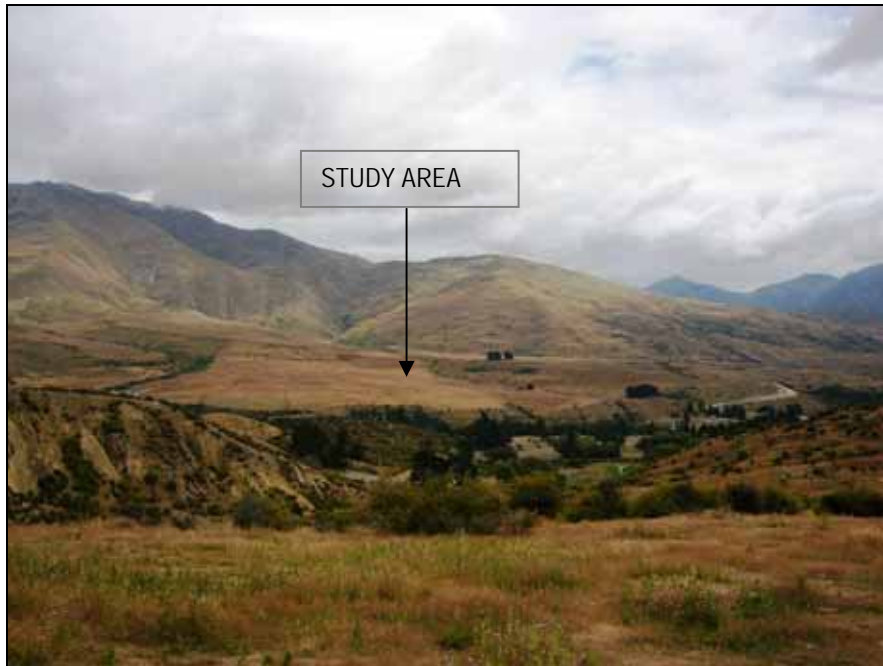
Key Findings:

The existing RVZ would be highly visible in the lower reaches of Cardona Ski Field Road until the Road runs above the Study Area due to the proximity of the RVZ to the Road and the fact that the existing RVZ will sit both to the north and south of the Road; the bulk and height of the buildings, with the bulk and height of buildings appearing out of context with the natural and historic setting. The development within the Plan Change Area will be wholly located to the south of the Cardona Ski Field Road, has only a discrete pocket adjacent to Homestead Creek and is otherwise located on the MCS Village Terrace and separated from the Cardona Ski Field Road by the Homestead Valley. Once parallel to Mount Cardrona Village Terrace, the development on the terrace area will be more visible due to the extension of the Plan Change Area up the MCS Village Terrace,

however this visibility will be in an area more suited to development, due to the angle at which the Study Area is viewed (as the Study Area will not break the skyline or ridgeline and is located near the base of a gently sloping terrace that appears connected to the Cardrona Valley floor).

Walking tracks

Roaring Meg Pack Track



The MCS Village Terrace top is more visible from the Roaring Meg Pack Track than the existing RVZ. However, the area of the existing RVZ located on the Cardrona Valley Escarpment (i.e. Lot 10 of the resource consent) will be visible and will appear out of context with the scale and nature of the Cardrona Valley floor. Weighing up these effects, the central location of the Mount Cardrona Village Terrace from the Roaring Meg Pack Track will result in a viewing area where the Plan Change Area will have a greater visual effect than the existing RVZ and will be more prominent –

although the existing RVZ location would also have an adverse effect. Any Zone relocation on to this terrace needs to carefully consider the effect of development on the Roaring Meg Pack Track – especially the lower reaches.

Key Findings

The MCS Village Terrace Top will be more prominent than the existing RVZ from the lower reaches of the Roaring Meg Pack Track. Good design would aid in the mitigation of this.

From Pringles Creek Subdivision.



The existing RVZ enables development on the MCS Village Terrace already, however further development on this Terrace is likely to bring development closer to the Pringles Creek residences. The dwelling most affected by this within the Pringles Creek subdivision is the upper residence that sits at the highest elevation at the North West corner of the subdivision. This property has a clear view across the MCS Village Terrace. Other views from adjoining dwellings are largely screened by the rolling topography; however views may be gained from outside the house along the northern

property boundaries. Mitigation in the form of planting and/or mounding would remove visibility from these dwellings and reduce visibility from the upper most dwelling. This planting would reinforce the spatial buffer between the Plan Change Area and the Pringles Creek subdivision.

Key Findings

Further development on The MCS Village Terrace Top will be more prominent than the existing RVZ from the periphery of the Pringles Creek subdivision. A substantial buffer is required between these two areas to provide privacy. Planting within this buffer should be incorporated into any development on the MCS Village Terrace to mitigate from this view. This would also aid in screening mid ground views of some of the proposed Plan Change Area from the Cardrona Township.

SUMMARY OF VISIBILITY ANALYSIS

Both the Plan Change Area and the existing RVZ have visibility issues.

For the Plan Change Area, adverse visual effects are associated with the visual prominence from the Roaring Meg Pack Track and the visibility of the Plan Change Area from the Paper Road and associated residences on the Cardrona Valley Floor; and the Paper Road on the MCS Village Terrace.

With regard to the upper reaches of the Waiorau Snow Farm and the Roaring Meg Pack Track, the Plan Change Area is viewed from a distance of between 800m – 3km which helps to reduce this visibility. The view will be mostly of the rooftops and treetops within the zone and views will only be available when one is walking out of the natural area and towards the Cardrona Valley.

Planting along the Cardrona Valley Escarpment can be used to mitigate effects on views along the Paper Road and residences on the Cardrona Valley Floor. Again remaining views will be of rooftops and the top of external walls.

In terms of the existing RVZ, the visual impact will be greatest from Cardrona Valley Road and the base of the Waiorau Snow Farm Road and Cardona Ski Field Road. The combined effect of the bulk and scale of potential buildings (at 8 – 12 metres high) with limited design controls and no control over density will result in an adverse visual effect of high prominence due to the proximity of the viewer being either adjacent to or within 200metres from the buildings within the RVZ. There will be limited room within the RVZ to provide mitigation given the lack of density control. The RVZ location sits across sloping topography that cannot absorb large scale development without significant earthworks and retaining. I consider the visual effect associated with the existing RVZ

are significantly greater than that of the terrace and therefore support the relocation and reconfiguration as proposed by the Plan Change Area.

The area that generally had the highest absorption capacity was the lower reaches of the MCS Village Terrace, set back from the edge of the escarpment to ensure there are no skyline issues from the Cardrona Valley Road; and set back to ensure no visual prominence or privacy issues along the Paper Road along the Cardrona Valley (or Residences adjoining this area).

A large landscape buffer is required between Pringles Creek and any potential development. This corresponds with a covenanted 100 metre buffer that provides a distinction between the Plan Change Area and the Pringles Creek subdivision. Mitigation within this buffer area would provide screening from both Pringles Creek subdivision and the Cardrona Valley Road in the vicinity of the Cardrona Township.

The escarpment that runs adjacent to the Cardrona Valley Road needs to be kept clear of new development – with the exception of some limited development associated with the existing woolshed, and an access in to the Study Area. Sensitive areas (i.e. the gullies) within the Lower Terrace adjacent to the Cardrona Valley Escarpment should also be kept clear of development and enhanced by appropriate planting. Similarly some development of a restricted size would be appropriate in the vicinity of the homestead area, which is set back from the Cardrona Valley Road and is not an area of high visibility.

Homestead Valley has a high visual absorption capacity, which must be balanced with other factors such as the lack of solar gain, potential for adverse effects associated with major earthworks, ecological potential and good urban design practice. With these factors considered, it is an inappropriate location for intense development.

CONCLUSION REGARDING ZONE COMPARISONS

A Zone Comparison matrix has been prepared (see table 2) that identifies the visibility from public and private areas. Locating the development rights associated with the RVZ onto the MCS Village Terrace Top would have less of an effect in most locations than the current location of the RVZ, the exception being the view from the Roaring Meg Pack Track and the Paper Road running from Pringles Creek through Mount Cardrona Station. The existing RVZ location is highly visible from both Cardrona Valley Road and the Cardona Ski Field Road due to parts of the RVZ being located on a steep escarpment that is prominent from these viewing areas. Any development of the escarpment would involve considerable earthworks which would increase the visual effect.

There is an opportunity through the promotion of new policies objectives and rules associated with the Plan Change to better respond to the landscape and surrounding environment. For instance, a differentiation in height and density dependent on the area within the Zone that is being developed. The existing RVZ does not provide this added control.

PLANNING ANALYSIS

RESOURCE MANAGEMENT ACT

SECTION 5 – PURPOSE OF THE ACT

- (1) *The purpose of the Act is to promote the sustainable management of natural and physical resources.*
- (2) *In this Act, “sustainable management” means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well being and for their health and safety while –*
- (a) *Sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and*
 - (b) *Safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and*
 - (c) *Avoiding, remedying, or mitigating any adverse effects of activities on the environment.*

When considering the relocation of the development rights associated of the existing RVZ it is important to have regard to Part 5 of the Act, as it focuses both on the impact of any development on the environment, but also on the needs of the community and the methods of providing for their social, economic and cultural well being. This is a fine balance – especially when development is to be located within landscapes of national importance.

It should be noted at this point that the current RVZ location if developed as anticipated by the District Plan, would have a visual impact that must be considered as part of the permitted baseline.

When considering the effects of a plan change, this is not a case of creating an entirely new zone within this landscape, but of changing the parameters and location of an existing zone to decrease the visual impact and increase the community benefit gained.

SECTION 6 – MATTERS OF NATIONAL IMPORTANCE

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development and protection of natural and physical resources, shall recognise and provide for the following matters of national importance:

- (a) *The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins and the protection of them from inappropriate subdivision, use and development.*

There are no significant wetlands on the Study Area; however the existing wetlands serve an important function in the local ecology due to the general depleted state of wetlands in the surrounding environment. These areas should be identified and protected or enhanced with native wetland species. The margins of Pringles Creek and Homestead Creek should be protected from stock access and development.

- (b) *The protection of outstanding natural features and landscapes from inappropriate subdivision, use and development:*

The study area and the entire Cardrona Valley have been classified as an Outstanding Natural Landscape (ONL), therefore any development within the Study Area must be considered carefully. The existing RVZ has created a permitted baseline where a considerable level of development is anticipated. The relocation of the development rights associated with the RVZ provides an opportunity to protect some of the more sensitive areas of the Study Area such as the escarpment

adjacent to Cardrona Valley Road, the Homestead valley, the upper section of Pringles Creek (that is located within the Study Area) and the upper reaches of the Study Area (See slope analysis study (Figure 10 in Appendix A) and Visual Analysis Study (Figure 4 in Appendix A)). Development should be concentrated in areas that can absorb the change, with the effects appropriately mitigated.

(c) *The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna.*

There are some wetland areas that would benefit from both protection and enhancement due to the proliferation of exotic species (such as *Juncus*) currently in this environment²³. The ecological assessment prepared for the Plan Change has suggested that the most beneficial ecological enhancement would be in the creek margins. In addition, the Cardrona Valley Escarpment and the northern face of Homestead valley would benefit from being protected and ecologically enhanced.

(d) *The maintenance and enhancement of public access to and along the coastal marine area, lakes and rivers.*

No river is located on the Study Area. The Cardrona River is located on the floor of the Cardrona Valley. There is an opportunity to provide pedestrian walk ways that will link with Cardrona River, as well as ecological corridors that link areas together.

(e) *The relationship of Maori and their culture and traditions with their ancestral lands, water, Study Areas, waahi tapu, and other taonga.*

Feedback from Kai Tahu Ki Otago indicates that Mount Cardrona Station may have been a junction for past Maori Trails (From the Roaring Meg through to West Wanaka).

Recommendations for planting include native vegetation in wetland areas and Pringles Creek. This mirrors recommendations from the ecological assessment on areas that would most benefit from revegetation.

SECTION 7

In achieving the purpose of this Act, all persons exercising functions and powers under it, in relation to managing the use, development, and protection of natural and physical resources, shall have particular regard to:

- (a) *The maintenance and enhancement of amenity values:*
- (b) *Maintenance and enhancement of the quality of the environment.*

Amenity has been defined in the Resource Management Act as meaning:

"Those natural or physical qualities and characteristics of an area that contribute to people's appreciation of its pleasantness, aesthetic coherence, and cultural and recreational attributes."

There is an unformed public road that runs through the otherwise private Study Area, however this road is not utilised by the public – mainly due to lack of knowledge of its existence, and perhaps also due to a lack of destination as it cuts up from Pringles Creek and then joins the Cardona Ski Field Road in a relatively arbitrary manner that bears no relation to the existing RVZ (See Figure 6 where the public road is seen as white running from Pringles Creek Subdivision through the Study Area to the Cardona Ski Field Road). Other than the paper road this Study Area is private land and the amenity values currently gained from the Study Area are appreciated from the surrounding landscape.

²³ The Ecological Values of Mount Cardrona Station; NC Simpson; page 2

The most common viewing area of the Study Area is that of Cardrona Valley Road, followed by the Cardona Ski Field Road and the Waiorau Snow Farm Road. Other view points are from private dwellings situated in the landscape around the Study Area and most prominently from the Roaring Meg Pack Track.

The built form within the Study Area will result in a decrease in the appreciation of natural character at the Study Area. It is important that the new amenity created through development does not detract from the landscape, but rather contributes to it. Even with a substantial ecological revegetation programme, the visibility of dwellings has a greater effect on people's perception and association with the Study Area. This is due to the fact that ecological enhancement (especially in an alpine environment where the plants are either low lying shrubs or grasses similar in appearance to the existing pasture) is difficult to discern to the untrained eye. Development however – due to the size of dwellings and the contrast of their form against the natural contours of the land, is more noticeable.

This effect of development must be considered against the existing RVZ location and provisions. As can be seen by looking at the intervisibility map, the existing RVZ is located in an area that is highly visible from the Cardrona Valley Road, especially when travelling from Wanaka towards Cardrona. The visibility of the existing RVZ would also be greater in the lower reaches of the Cardona Ski Field Road, as the Ski Field Road actually cuts through the Study Area. This map also shows how a large area of the existing RVZ consists of steep slopes which will result in excessive earthworks and adverse visual effects associated with the need to create large cuts and batters. As can be seen by reading the comparison between the existing RVZ and the Plan Change Area, a relocation of the development rights associated with the RVZ and a change to the zone provisions creates the opportunity for future development to work more in harmony with the natural contours of the Study Area. The main development area on the terrace top needs to be located so as to not break the skyline, and to have less of an impact when viewed from Cardrona

Valley Road and Cardona Ski Field Road, as these are the large volume areas where the public frequent. The effect on other areas should be considered and mitigated to the greatest extent possible.

The change in location of the RVZ and change in rules and other controlling mechanisms means that there is a greater opportunity to increase the aesthetic coherence and appreciation of the Zone and how it relates to the landscape through the following measures:

- protection and enhancement of the escarpments
- protection and enhancement of the creek margins
- creating a planting palette for each development area
- additional design controls relating to constraints of the Study Area (i.e. differing density, height, colours and materials depending on location)
- public linkages with Cardrona Valley, walkways into wider area.

The Plan Change also provides the opportunity to create a zone providing high amenity values for future residents, particularly greater solar orientation, and controls on density and heights.

DISTRICT PLAN

CURRENT PROVISIONS- RURAL VISITOR ZONE

12.3.4 Objectives and Policies²⁴

Provision for the ongoing operation of the existing visitor areas recognising their operational needs and avoiding, remedying or mitigating adverse effects on landscape, water quality and natural values. Scope for extension of activities in the Rural Visitor Zones.

²⁴ Partially Operative District Plan page 12-30 to 12-31

Policies:

1. *To recognise the existing and proposed visitor and recreation facilities in the rural visitor areas and to provide for their continued operation and expansion*
2. *To ensure development, existing and new, has regard to the landscape values which surrounded all the rural visitor areas.*
3. *To ensure expansion of activities occur at a scale, or at a rate, consistent with maintaining the surrounding rural resources and amenities.*
4. *To recognise the heritage values of the Rural Visitor Zones and in particular the buildings at Walter Peak, Cardrona and Arcadia Station.*
5. *To ensure sewage disposal, water supply and refuse disposal services are provided which avoid, remedy or mitigate adverse effects on water or other environmental qualities, on and off the Study Area.*
6. *...*

These provisions allow for some protection of the landscape (see Policies 2 and 3 above), however these are generic to all Rural Visitor Zones and are not specific enough to consider the intricacies of the Study Area. There are specific values associated with elements such as the Cardrona Valley escarpment and viewing areas such as the Cardrona Valley Road that should be given special mention.

There should be more recognition of the landscape values of the outstanding natural landscape of the Cardrona Valley than is currently provided within these policies.

There is no mention of protecting or enhancing the ecological values of the Study Area.

ASSESSMENT MATTERS- RURAL VISITOR ZONE

xiv Landscaping – Controlled Activity, Rural Visitor Zone

- (a) The level of landscaping required to ensure the development does not visually detract from the environment.
- (b) Whether landscaping is required in the context of the location, or whether there is adequate existing vegetation to ensure any development will blend in with the surrounding environment, having regard to the external appearance of buildings.

The first assessment matter is not very clear in terms of what landscaping or species would be appropriate in the Study Area. Again, the second assessment matter does not relate to the appropriate species of the Study Area, or any kind of cohesive structural planting that would integrate the Zone (rather than smaller developments within the Zone) into the landscape.

There are a number of Policies relating to the built form within the Zone. These are outlined below:

vii **Controlled Activity – Building External Appearance – Rural Visitor Zone**

- (a) External, above ground cladding and roofing materials are to be predominantly local stone, plaster rendered for a stonelike appearance, timber weatherboards and slate or corrugated iron roofs.
- (b) Predominant colours within the Zone are to be creams, greens, greys browns and earth tones.
- (c) Buildings are to follow a unified design theme based on a pitched roof of 20°

- (d) The topography of the Study Area, its vegetative cover and the opportunity to minimise the visual impacts of any buildings or structures.
- (e) The degree to which any buildings and other structures are visible from public roads and other Study Areas adjoining the Zone, and proposals to integrate such buildings and structures into their landscape settings to ensure all new buildings are in character with existing historic buildings.

The first three assessment matters relating to buildings will help to create similarly designed buildings, however there is no control over the bulk of buildings, or importantly with regard to this Study Area, the assessment matters are blanket assessment matters that apply across the Study Area, and do not allow for differing levels of development based on its absorption capacity. The location of the existing RVZ has the potential to create a wall of built form (when stepped in to the Homestead Valley Escarpment) that could appear as 40 vertical metres of built form from the Cardrona Valley Road. This type of development (as a controlled activity) would completely dominate and detract from the natural landscape on the northern approach along the Cardrona Valley Road. It would be preferable to locate development in areas of the landscape where it would sit comfortably. Also it is important to be able to stipulate design controls specific to areas within the Study Area that are more responsive to the underlying landscape and environment.

Policy 4 recognises the heritage values of Cardrona, but does not state how this should be done, other than in assessment matter vii (d) above.

There is limited explanation of what is the historic detail that should be emphasised or emulated. It is left to the interpretation of the planner as to what are the historic buildings within Cardrona and what character is consistent with these buildings. The current development within the existing Village has not created a unifying historic theme of any value. More direction is required to ensure a historic character is represented.

Assessment matter vii (d) also discusses the extent to which development is visible from public roads – but gives no qualitative direction. I note that the Part 4 Policy with regard to outstanding natural landscapes reads as follows:

2 Outstanding Natural Landscapes (District-Wide/Greater Wakatipu)

- (a) To maintain the openness of those outstanding natural landscapes and features which have an open character at present.
- (b) To avoid subdivision and development in those areas with higher potential to absorb change.
- (c) To allow limited subdivision and development in those areas with higher potential to absorb change.
- (d) To recognise and provide for the importance of protecting the naturalness and enhancing amenity values of views from public places and public roads.

The RVZ has been deemed by a past Council to be an area with the potential to absorb change (hence the zoning). This gives certain development rights to this area of land, therefore the policies above must be considered with regard to the overlying RVZ that anticipates a considerable amount of development- as stated in the Environmental Results Anticipated:

- (i) Retention of predominant rural character of the surrounding areas while providing the potential for consolidated areas to be utilised for visitor facilities.²⁵

In terms of visual impact of development, there is less emphasis in an outstanding natural landscape (district wide) than the outstanding natural landscapes in the Wakatipu Basin which

²⁵ Partially Operative District Plan page 12-31

must be reasonably difficult to see²⁶, or the visual amenity landscape where development highly visible from public places and development visible from public roads must be avoided, remedied or mitigated²⁷. Given the Study Area is located within an ONL District Wide, the development can be more readily visible; however care needs to be taken in terms of Policy 9 in the District Wide Policies:

Policy 9

9. Structures

To preserve the visual coherence of:

(a) Outstanding natural landscapes and features and visual amenity landscapes by:

- Encouraging structures which are in harmony with the line and form of the landscape;
- Avoiding, remedying or mitigating any adverse effects of structures on the skyline, ridges and prominent slopes and hilltops;
- Encouraging the colour of buildings and structures to complement the dominant colours in the landscape;
- Encouraging placement of structures in location where they are in harmony with the landscape;
- Promoting the use of local, natural materials in construction.

Development in the existing RVZ will find it hard to meet this Policy due to the location of a considerable amount of the Zone on steep and prominent land that will inevitably end up with issues regarding the skyline, ridgeline and prominent slopes. I have particular concern regarding the visibility of the head, torso and southern arm of the RVZ (see Zone description outlined in the 'Zone visibility comparison') that runs along the Cardrona Valley escarpment. If developed to the

capacity that the RVZ enables, this area will create a development that would be impossible to avoid skyline and prominent slope issues and would require significant earthworks which would result in a disregard to the underlying line and form of the landscape.

The high visual impact of this area when viewed from both the Cardrona Valley Road and the Cardona Ski Field Road would detract from the natural landscape which has already been eroded through insensitive development in the existing Village. Here it is easy to see how buildings of inappropriate scale and design can be built through the Rural Visitor Zone provisions. By driving through the existing Village, it is clearly apparent that the development that has happened to date does not relate to the surrounding outstanding natural landscape or the historical buildings that are located within the existing Village (such as the Cardrona Hotel or the historic school and hall buildings).

²⁶ Partially Operate District Plan page 4-10

²⁷ *ibid*

SUMMARY AND RECOMMENDATIONS

SUGGESTED FORM AND SCALE OF ZONE

I suggest the zone established by the Plan Change be located within the lower and mid terrace areas of the Mount Cardrona Station Village Terrace (the MCS Village Terrace), with the development boundary set back from the terrace edge in areas that were proven to have low absorption capacity. The majority of built development should be located between 556masl and 580masl, with a diminished absorption capacity between 580 and 605 masl. I consider that the Zone should sit largely at the bottom of the fan with the front of the terrace kept development free to ensure there are no skyline issues when viewed from the Cardrona Valley Road, and to reduce the visual effect from the paper road that runs to the east of Cardrona Valley Road. A significant buffer of 100 metres should be enforced along the North West boundary with Pringles Creek. This land area can be utilised for open space and planting that will provide wind protection from the southerlies. Such planting would also mitigate views gained from the Cardrona Valley floor to the south (including views from the existing Village).

Suggested Management of the Study Area

The landscape can be divided in to the following components – each of which requires different treatment.

Upper Terrace Escarpment and Upper Slopes (Land above 640masl)

- Farm management to stay as Rural General.

Upper terrace 605– 640masl

- Development limited to walking and bridle tracks with associated seating.
- Fencing Post and wire.
- Open space zoning.

Mid terrace 580 – 605masl

- Development of a low intensity. Single storey dwellings with large tracts of open space.
- Buildings/development to be in muted natural tones.
- Natural built material to dominate (i.e. stacked stone, rammed earth, wood, grass roofs).
- Native plantings dominant – tussocks and grasses, hebes, matagouri.
- Fencing predominantly post and wire and post and rail.

Lower terrace 550-580masl

- Dense development, double storey dwellings in areas that do not break the skyline.
- Feature colours on trims (i.e. around windows) with natural colours still dominant.
- Exotic planting as feature trees, gardens however should be drought resistant and hardy and utilise native species.
- Fencing post and wire, stone, post and rail.
- Buffer along terrace edge.
 - Low shrubs – no development other than walking/bridle track.
 - Planting and berming only form of enhancement or development along the top of terrace escarpment.
 - Fencing on upper slope of buffer area rather than lower slope.

River/creeks

- Fenced off from stock (post and wire) to enable regeneration – unless already in stock free area.
- Additional native planting for ecological improvement.

Escarpment

- Landscape management either in the form of grazing or regeneration.

- Potential for pedestrian walking track.

Other development areas

There are two small pockets where development could be located away from the terrace top, namely in the vicinity of the Homestead Valley, and limited development associated with the woolshed that sits on a small terrace mid way up the escarpment. Other than these small pockets, Homestead Valley should be kept free of built form and ecologically enhanced.

The height and density should be concentrated in the lower reaches of the Zone (closest to the Cardrona Valley Road), with the upper levels of the development area decreasing with height and density. No development should be located above the 580masl (other than the water reservoir).

MASTERPLAN: PLAN CHANGE AREA

The master planning process has taken into consideration a draft of this report and incorporated these findings into the design process. The Conceptual Development Plan of the Plan Change Area also had input from the Council's Urban Designer who provided parameters regarding the yield anticipated from the existing RVZ, which gave the yield for the Plan Change Area (in terms of the permitted baseline).

There was a consensus with the master planners and my findings as a landscape architect as to areas identified as suitable for development. These were focused on, with different character areas worked up that responded to the landscape character of the site. The village core of the Plan Change Area is located in the area identified in this report as being capable of absorbing the greatest density, with densities and height filtering out to the south and west in response to the receiving environment.

It was agreed that the open space fingers that run through the Plan Change Area formed an important feature that provided a connection to the surrounding alpine landscape, an important ecological corridor and a significant amenity feature of the Plan Change Area. There were sensitive viewing areas where these fingers reached the top of the Cardrona Valley Escarpment and it was also important to keep those more sensitive gullies free of built form.

While the land occupied by the Plan Change Area would be smaller and therefore less visible from elevated areas were the open space areas removed from the Zone layout, the overall reduction in visibility would not outweigh the importance to the integrity of the Zone that these open space fingers provided.

The landscaping within the master planned area is also indicative of the receiving environment, with exotic species located on the lower areas of the Zone, and native species located in the upper

areas and within the open space fingers; within the majority of the Homestead Valley and on the escarpment faces.

Areas sensitive to change such as the Cardrona Valley Escarpment, Homestead Valley and the Upper Terrace Escarpment have been included in the Plan Change Area in order to offer a greater level of protection to these areas. Specific mitigation has been proposed in areas such as the Cardrona Valley Escarpment and along the southern boundary in the Pringles Creek Buffer Zone.

The ability to create design guidelines, objectives, policies and rules that are specific to this site is definitely a good design outcome, considering that the RVZ is currently generic and permissive.

The Plan Change concept has also enabled the creation of pedestrian links and co-ordinated access to the open space areas.

In comparison to the existing RVZ, the proposed Conceptual Development Plan of the Plan Change Area is preferable in landscape terms due to the better environmental outcome achieved through a careful analysis of the environment and through the input of myself, and the urban designers who have focused on creating a special zone that will complement the existing Village and the Cardrona Valley.

FIRST DISCUSSION DOCUMENT

LANDSCAPE RESPONSE TO COMMENTS RECIEVED

A discussion document for the Mount Cardrona Station Plan Change was circulated for comment in December 2006. Comments were received from the public in January 2007. I will respond to the comments where they raise landscape issues. Sometimes the same comment has been raised by different people and is therefore only commented on once.

Upper Clutha Environmental Society

The landscape concerns raised by the Upper Clutha Environmental Society (the Society) relate to:

- Change in size from existing RVZ.
- Total emphasis on Cardrona Valley Road.
- Relocation of Zone on to more elevated land and highly visible landscape.
- Infrastructure (water supply and storage, sewage) to have impact on landscape.
- The ability to control the adverse effects within the existing RVZ.
- UCESI supports the reduction of height across the RVZ to 8 metres.
- Ecological Values.
- Paper Road – open space access.

Change in Size.

This was also a concern of Hil Stapper and Mario Kiesow. The proposed Plan Change Area has increased in size compared to the existing RVZ, with the developable area now approximately 2 times the land size of the original RVZ from 17hectares to 32hectares in size.

The landscape study of this Plan Change has been a process of analysis and re-analysis. My original assessment was to move the same land area up on to the top of the terrace and assess the visual and landscape effects associated with this. Input from Council's urban designer then

provided new information regarding the RVZ capacity (being between 824-1472 units depending on the residential/visitor accommodation mix). The other concern from an urban design perspective was to provide a sustainable and liveable community. This resulted in an increase in size of the footprint of the Plan Change Area. I consider that the overall landscape effect is still better than that of the original RVZ while also providing real benefit to the future inhabitants of the Zone in terms of the proposed layout.

Open space fingers provide a direct link to the surrounding environment and allow some natural overflow paths to continue functioning. Buildings on the periphery of the Zone are moved back from the escarpment edge to reduce skyline issues when viewed from the Cardrona Valley Road.

Planting along the Cardrona Valley Escarpment will mitigate skyline issues and species proposed are detailed in the Ecologists report for the recommended revegetation of this area.

Another key benefit of shifting development rights associated with the RVZ is that the terrace allows better solar access for buildings and allows for a mix of building type that is more responsive to its location and the absorption capacity of the site.

Total emphasis on Cardrona Valley Road.

The UCESI stated that the landscape assessment only considered visibility from Cardrona Valley Road. This is incorrect. The initial landscape assessment considered Cardona Ski Field Road, Waiorau Snowfarm Road and Roaring Meg Pack Track. This information was in the written text and also contained in the visual information that was notified in the form of a topographic map with comments included (Figure 12 in Appendix A of this report). An intervisibility map was produced for Cardrona Valley Road as part of the methodology (Figure 4 in Appendix A).

More computer analysis was produced for Cardrona Valley Road due to the high traffic volume along this road.

This information was also useful when considering the development boundary along the edge of the escarpment to remove skyline issues. In addition, because of the location of built form associated with the existing RVZ, its effect on the Cardrona Valley Road would be significant; and would overlook people travelling on this road. In comparison, when viewed from other public places, the perspective is completely different, as the viewer is above the development area. For this reason, while the landscape study does consider all view points, it does concentrate on the effects on Cardrona Valley Road because of the significance of these effects, and the number of people that would be affected.

Relocation of Zone on to more elevated land and highly visible landscape.

Views of the Plan Change Area are available from all public and private roads that are listed and considered in this study. The difference between the RVZ and the Plan Change Area is that the Plan Change Area is more readily absorbed into the landscape and environment than the RVZ. By locating the Plan Change Area on the Mount Cardrona Station Village Terrace, the more sensitive escarpment areas are protected and immediate views of the RVZ are removed from the Cardrona Valley Road, and the Cardona Ski Field Road. Developments inappropriate in size and scale have also been removed from the Cardrona Valley Escarpment (adjacent to the woolshed site) which would have been highly visible from Waiorau Ski Field Road.

In terms of visibility in the Outstanding Natural Landscape (district wide) and keeping in mind that there are existing development rights – with the capacity given as 824 – 1472 units, the object is to reduce adverse visual effects and prominence of the RVZ. The shifting of the development rights associated with the RVZ on to the MCS Village Terrace top does this.

The Plan Change is a large area of land being rezoned. The increase in size will increase its visibility from some views from the more elevated areas (such as Roaring Meg Pack track – Cardona Ski Field access and Waiorau Ski field), however the prominence of the Plan Change

Area has been reduced through the prescribed single storey perimeter dwellings, the proposed colour and materials and the removal of development from the low absorption high visibility areas adjacent to both Cardrona Valley Road and Cardona Ski Field Road. The Plan Change Area is sited on a topographical area that reduces cut and fill requirements will reduce the retaining walls and allows for the retention of the natural values associated with the more steeply sloping areas.

The visual effect associated with the current location of the RVZ with regard to Cardrona Valley Road and Cardona Ski Field Road should not be overlooked.

Infrastructure (water supply and storage, sewage) to have impact on landscape

It is my understanding that the water take consent has been approved. The storage area (water reservoirs above the MCS Village Terrace) has been granted resource consent. Careful consideration to this area was given in the consent process, with an existing access way utilised to the reservoir site and with the reservoir tanks buried underground and regressed. The effect on the landscape for this site will be minimal. Resource consent for sewage treatment and disposal has been granted and is located on the Cardrona Valley Floor within a paddock north of the Study Area. The visual effects of this location are minimal, with the landscape in the vicinity of the treatment plant (an area of an old quarry site with abandoned vehicles) being tidied up resulting in an increase in local amenity.

The ability to control the adverse effects within the existing RVZ.

Having seen recent developments within Rural Visitor Zone I disagree that Council has retained considerable control over the density and style of development. There are no density or site coverage controls and the following height limits are specified as a Zone standard:

- (a) Visitor accommodation – 12m
- (b) Commercial, recreation and residential activities – 8m
- (c) All other buildings and structures – 7m

There is the requirement of a structure plan, however – unlike the outline development plan for Jacks Point and Henley Downs²⁸, the District Plan does not really give direction as to what should be achieved by the structure plan, other than it should include a landscape plan, show where development is to be located and the density of that development and that open space should be provided. In addition, the lodging of the structure plan is controlled, however there is no site or zone standard requiring that development is discretionary or non-complying if a structure plan isn't lodged. Also, an inappropriate development could meet the Structure Plan Criteria.

UCESI supports the reduction of height across the Zone to 8 metres.

It is not possible to reduce the development rights associated with the existing RVZ unless the developer agrees to this.

Ecological Values

As stated in the Ecological study conducted by Conservation Consultancy, the site of the MCS Village Terrace consists mainly of pasture grass and its ecological values are depleted. The areas identified for potential enhancement are:

- Pringles Creek,
- Homestead Valley,
- Homestead Valley Northern Face,
- Cardrona Valley Escarpment,
- Street and amenity planting on the Village Terrace.

The existing RVZ is located across the Homestead Valley, Cardona Valley Escarpment and Homestead Valley Northern Face and provides no protection of the ecological values in this area, while the Plan Change identifies and protects ecologically sensitive areas. Planting in the existing RVZ is most likely to be located around parking areas and buildings – as there are no density

provisions or limitations on hard surfacing; landscaping is unlikely to be substantial. There is no requirement for the species to relate to the ecological environment or the historical character of the Valley within the existing RVZ, whereas the Plan Change Area has a list of ecological species suited to each specific area of the Zone.

Paper Road – open space access.

The Paper Road does currently provide access to open space. However the public are currently choosing not to use this area. This may be because they are unaware of it, or because the Paper Road does not have a destination – running from Pringles Creek to the Cardona Ski Field Road. Also, it is not marked on the landscape and therefore would be difficult to follow. The existing RVZ would be visible from the Paper Road as it cuts across the MCS Village Terrace. This would have an impact on the open space values currently experienced. The Plan Change would offer a greater amount of open space areas, with formed tracks that would also link in to existing settlements (Pringles Creek and Cardrona Village). It is understood that the developers have lodged an application to close the Paper Road. This is being considered by the Council.

Another paper road is located on the opposite side of the Cardrona Valley and running parallel to the Cardrona Valley Escarpment. The potential effects of the Plan Change when viewed from this Paper Road have been considered through the K2vi simulations, which have been used to determine the edge of the developable area that runs along the eastern boarder of the Plan Change Area. Heights along this boundary have been reduced to 4.5 metres and planting is to be established in the next planting season to provide mitigation. This will ensure that only the upper walls and roofs of buildings will be visible from the Paper Road. The existing RVZ, while not continuing as far south along the eastern boarder, would allow buildings up to 12 metres high further east of the boundary now proposed. It is believed that these would be more prominent.

²⁸ Partially Operative District Plan; page 12-44 and 12-45

Pippa Kyle and Glynn Russell

The roadside is where you anticipate development

The Terrace has better opportunities for an integrated development that would fit into the landscape. In this instance, there is not enough flat land to successfully fit the development in to the landscape alongside the Cardrona Valley Road, and the bulk and scale of building that can occur within the existing RVZ is out of context with the surrounding environment. As can be seen by the landscape plan for the existing RVZ (submitted with the resource consent), the majority of flat land is taken up by hard surfaces associated with car park space. The landscape screening/amenity planting is fitted in around this – and is located outside of the RVZ in that instance to provide additional screening. If one looks at the objectives and policies of the District Plan, these aim at preventing sprawl along the Districts roads and also preventing development on the skylines, ridgelines and prominent slopes.

Screening from all perspectives

With regards to screening from the Cardona Ski Field Road, additional screening could be added along Homestead Valley – however it is my opinion that the proposed planting within the Zone will soften the appearance of the overall built form and while peripheral mitigation planting is important to the east and south where views may effect the outlook and privacy of residential dwellings, I think it is unrealistic to anticipate that there will be no visual effect associated with a Zone. The aim is to reduce the overall effect of the existing RVZ which has been achieved through rules and assessment matters relating to height, bulk, colour, landscaping which are more restrictive than what applies in the existing RVZ.

Limit extent of development area that extends up terrace - screening will be difficult at altitude.

In visual terms it would be preferable to have a smaller development area; however there are other considerations with regard to creating good urban design, and existing development rights. In terms of screening at higher levels, good architectural design, a restriction on materials and colour

and the restriction of dwellings to single story will help integrate these into the landscape. The plant palette has also been restricted to ensure that buildings and landscaping will fit into the environmental context.

Ian Leslie and Toni Rasmussen

Moving and enlarging the Zone increases visibility from surrounding roads

With regard to the relocation and enlargement of the Zone increasing the visibility from surrounding roads, one must consider the extent of visibility, whether this visibility is adverse (based around the absorption capacity of the land) and the ability to mitigate any adverse visibility.

The MCS Village Terrace has a greater absorption capacity than the existing RVZ due to the topography and siting. The Terrace form allows for the location of the Zone on a gently sloping landform within which development can be located without excessive earthworks. The containment of the Zone within one topographical unit provides topographical constraints which reduce the potential for further incremental development. I consider that the effect of allowing the RVZ to be developed in its current form and location would have a far greater visual effect due to its high visibility and visual dominance from Cardrona Valley Road and Cardrona Ski Field Road and location on unsuitable topography.

The Plan Change allows for a transition between the surrounding open and undeveloped character and the proposed built form. Some of the views of the Plan Change Area (such as those along the Cardrona Valley Road) can be mitigated through planting. The proposed peripheral development to the Zone has specific controls in the Plan Change to reduce the visual effect of this on the surrounding area, and planting from within the Zone will aid in integration. Overall the proposed Plan Change Area will, when developed, appear to relate more to environment within which it sits – with regard to scale and form of buildings and location.

Reduce overland flow path to decrease Zone coverage

The overland flow paths could be reduced to decrease the footprint of the Plan Change Area. This may be preferable from a visual assessment perspective as the development could be brought further down the slope, or further away from the eastern escarpment. However I consider that these open space fingers provide several important elements to the Plan Change:

- Maintaining the overland flow paths allow for green engineering in a manner that is provided for naturally.
- This allows for ecological corridors through the development which will be enhanced from their current state by planting.
- The open space fingers provide a high level of amenity from within the Plan Change Area in terms of views and solar access for potential buildings.

Increase Pringles Creek Setback (also submission of Martin and Kay Curtis and Mary Anderson)

I consider 100m a sufficient set back from Pringles Creek subdivision – especially as there is planting proposed in a small dry gully between the two areas that will further cement the buffer. Mitigation planting has been proposed to reduce the visual impact of the Plan Change Area from the south. This will reduce the visibility of the Zone from Pringles Creek and views from the Crown Range Road as it enters into the Cardrona Township area. This will also muffle sound between the two areas.

Other species are proposed that will be planted during subdivision stage as street trees, with other smaller species listed for individual lot owners. This will soften the appearance of the Plan Change Area, and in other areas will reduce the visual impact of the Plan Change.

I agree that in visual terms it would be preferable to keep development below the 580 contour line on the MCS Village terrace, as containing the Zone in a smaller area would have less visual impact when viewed from surrounding locations, however the need to provide for the existing development rights while creating diversity in housing and a Zone that has internal amenity and good sustainable urban design has increased the overall area of land required. This is countered by ensuring that

buildings in the upper regions of the site are single storied with only vegetation native to the area to be planted. In my opinion the overall benefits of the Plan Change outweigh this visual effect.

Chas and Jenny Roberts

Current RVZ is appropriate

The following responds to the comments by the Roberts that the physical constraints of the existing RVZ would ensure buildings are sympathetic to the environment: The submitted resource consent in this area shows the bulk and scale of buildings that are possible under the RVZ provisions. The topography of the current RVZ results in a more engineered development, which necessitates cuts and retaining walls and has development of considerable bulk and scale on the escarpments. The visual effect of this is not contained to one area, but forms a linear development along Cardrona Valley Road, up into Homestead Valley and on to the Mount Cardrona Station Village Terrace. From a landscape perspective the RVZ is not appropriate within this location.

Bruce Williams

Loss of privacy

The concern raised by Mr. Williams relates to the potential visibility of the development along the Cardrona Valley Escarpment edge from his house and his curtilage area on the Cardrona Valley Floor below. Emphasis has been placed on reducing the visual effect from both this private residential area and the Paper Road that runs along the western boundary of Bruce Williams' property. The level of effect has been assessed through K2vi three dimensional computer modelling and through erecting height poles along the eastern developable area of the MCS Village Terrace. This analysis resulted in moving the development further back from the edge of the Cardrona Valley Escarpment, reducing the height of peripheral development to 4.5 metres and requiring mitigation planting along the upper reaches of the escarpment face and in the escarpment gullies to reduce the visual effect.

The preference for Mr Williams and other residents along the Valley floor that could potentially see residential development along the edge of the escarpment is for the eastern development boundary to be moved further away from the escarpment edge and higher up the escarpment.

I disagree with this solution for the following reasons:

- There is concern expressed by other members of the public about how high up the terrace the Zone is currently located. The development is currently located below the highest dwelling in Pringles Creek subdivision and I think this is appropriate. The visual effects associated with the Zone should be kept in association with the Valley Floor as the wild and natural values of the landscape increase with height.
- Increasing the height of the overall Zone would increase the prominence of the Plan Change Area from other public areas namely the Roaring Meg Pack Track and Waiorau Snow Farm Road.
- The sloping nature of the MCS Village Terrace means that in some areas, a building would have to be moved back a considerable distance before the visibility was successfully mitigated.
- Pushing development up the slope further would compromise the historical protection of the lowest water race. The Historic Places Act requires the protection of this water race.
- For these reasons, providing a height limit of the buildings along the eastern periphery and landscape mitigation along the Cardrona Valley escarpment edge is a better environmental outcome.

CONCLUSION

The comments received from the first discussion document were helpful in refining the layout, design and Policies and Objectives for the Plan Change. I consider that the Plan Change Area is still preferable to the existing RVZ due to the ability to create a zone that fits into the landscape. The visibility issues associated with the Paper Road and residences along the Valley floor are able to be mitigated, as are those views from the south and along the lower periphery of the Pringles Creek area. The views associated with the Roaring Meg Pack Track and sections of the Waiorau Snowfarm and Cardona Ski Field Roads must be compared to those that could have occurred with the existing RVZ where the viewer was in closer proximity to a more adverse effect. The Conceptual Development Plan proposed responds more to the environment and is cohesively designed whereas the location, bulk and scale of development anticipated in the existing RVZ will appear out of context with the Cardrona Valley.

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Mount Cardrona Station Landscape Report

APPENDIX A

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