
Proposed Wanaka Industrial Zone Extension

LANDSCAPE ASSESSMENT

Prepared for
Queenstown Lakes District Council
by
Lakes Environmental Limited

October 2009

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1.0 Executive Summary

This landscape assessment relates to the proposed reconfiguration and extension of the existing Industrial Zone on Ballantyne Road, Wanaka. It describes the site and its landscape context, analyses the potential landscape and visual effects of the zone changes and recommends measures to mitigate identified landscape impacts.

The zone extension is located on part of a remnant terrace, elevated 4-5 metres above the surrounding glacial outwash terrace that slopes down towards the Cardrona River. The reconfigured existing zoning is on a lower outwash terrace closer to the river. Terminal moraines visually separate the area from Wanaka township.

Although the Ballantyne Road industrial area and rural residential development along Riverbank Road and Orchard Road has altered the rural and pastoral character of the surrounding landscape, it retains a high level of openness and a strong visual connection with the surrounding mountains, hills and rural land. The landscape is appropriately classified as a visual amenity landscape. While future development on the QLDC oxidation ponds site and in the proposed Three Parks Zone will create an urban landscape east of Ballantyne Road, Rural General-zoned land south-west of the road would remain part of a visual amenity landscape until any future rezoning.

The proposed zone extension on the upper terrace would result in adverse effects on the visual and rural amenities of the surrounding rural and future residential landscape, primarily as a result of the elevated topography of the site. Alternative zone extension locations in the vicinity sit lower in the landscape and would result in less visually prominent industrial development. However these locations would still impact on the visual and rural amenities of surrounding rural land and would create similar cross boundary issues with future residential development. The upper terrace zone extension has limited future alternative uses in an urban setting apart from recreational open space or commercial/retail zoning.

The reconfiguration of the existing strip of zoning along Ballantyne Road would have positive effects on the visual and rural amenities of the surrounding landscape, consolidating industrial development in a more defined area and reducing the impression of industrial sprawl or 'strip' development along a future entry to Wanaka township.

There is potential to mitigate the adverse visual and landscape effects of the proposed zone extension and reconfiguration through site and zone standards that require landscaping around the perimeter of the zone and control building height and external

appearance. With vegetative and open space buffers that break up the bulk of future buildings, and limited mounding to attenuate noise, the zoning change is unlikely to significantly degrade the character of the surrounding landscape or undermine the amenity of future adjoining residential areas. In order to ensure rapid establishment and ongoing maintenance of required landscaping mitigation, planting and any mounding should be located either within individual lots or within common land jointly owned and managed by a landowners association.

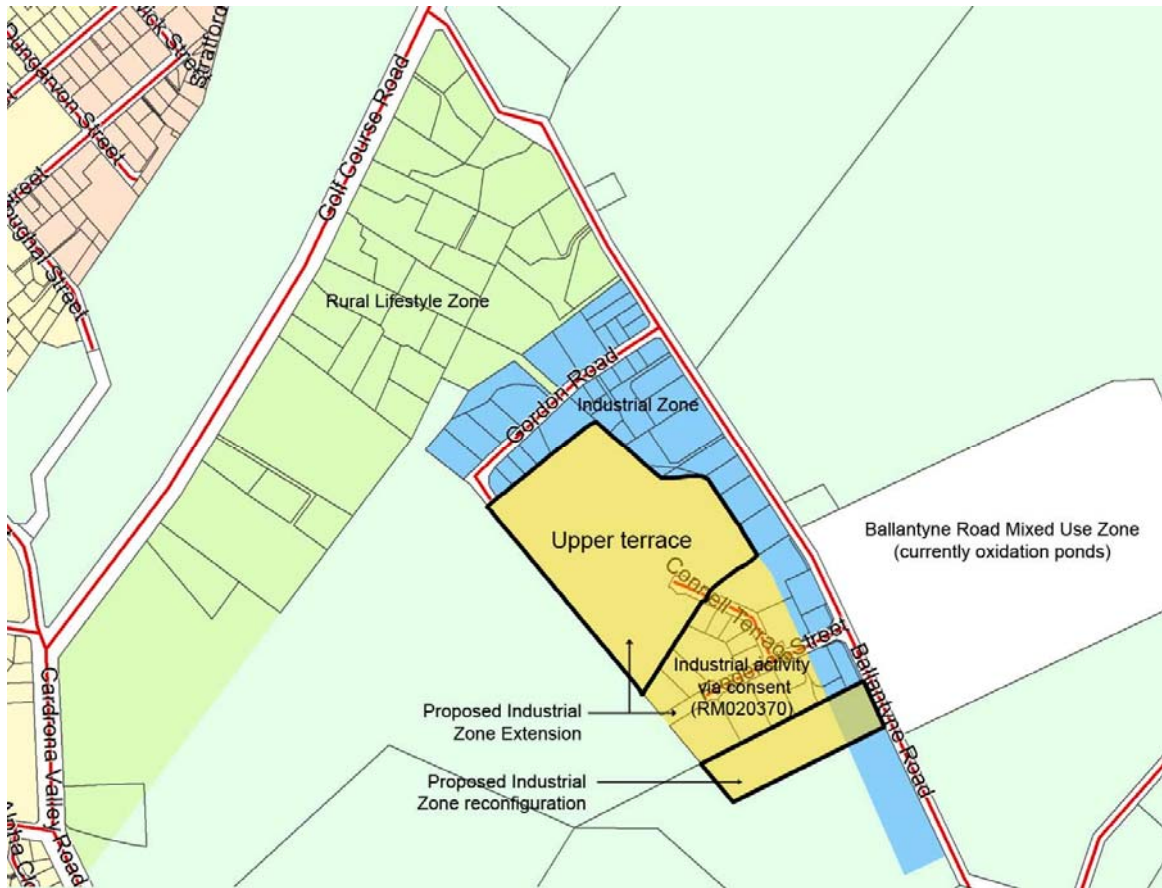


Figure 1: Location of proposed Industrial Zone extension and reconfiguration

2.0 Introduction

Queenstown Lakes District Council (QLDC) is undertaking a Proposed Plan Change to extend the existing Ballantyne Road Industrial Zone into adjacent Rural General-zoned land. This zone extension was a recommendation of the reviewed Wanaka Structure Plan 2007 and is required to provide for future growth in demand for industrial activities up to and beyond 2020. The plan change also proposes to rezone an area of existing industrial development centred on Frederick Street and Connell Terrace and to

reconfigure the existing strip of industrial zoning on Ballantyne Road. The Frederick Street/Connell Terrace part of the Rural General Zone was developed for industrial uses via resource consent (RM020370).

Lakes Environmental Ltd has been engaged by QLDC to undertake a landscape assessment of the undeveloped portion of the proposed zone extension and of the proposed zoning reconfiguration (see Figure 1). This report provides an analysis of the site and its landscape setting, a visual and landscape assessment of the proposed zone changes and recommendations for measures to mitigate potential adverse landscape effects. Alternative sites for the zone extension are also briefly analysed.

3.0 Landscape and site analysis

3.1 *Landform – geomorphology & topography*

The existing Ballantyne Road industrial zone, and its proposed extension, is located just east of the terminal moraine and glacial till deposited during the last major glacial advance in the Upper Clutha (see Figure 2). Existing industrial development sits on a lower outwash gravel terrace extending north towards Mt Iron, while the proposed extension is on a remnant terrace 4-5 metres higher than the surrounding land. This upper terrace area is approximately 17 hectares in area (about 8 hectares of which is proposed to be rezoned) and is separated from the undulating moraine hills east of Golf Course Road by a shallow depression, probably a former water course. Gordon Road and part of the existing industrial zone runs along the depression.

On a wider scale the outwash terraces are part of the glacially formed Upper Clutha Basin, bounded by Lakes Hawea and Wanaka and the surrounding mountain ranges. The Cardrona River is 1.5 kilometres east of the industrial zone and the eroded schist 'roche moutonnée' of Mt Iron 2 kilometres to the north.

The upper terrace of the proposed zone extension is relatively level, sloping gently to the north. There is a small knoll on the northern edge of the terrace and an even linear earth mound (three to four metres in height and 150 metres in length) has been formed along part of the south-western boundary of the proposed zone extension.



Figure 2: Topography of the assessment site and immediate vicinity, showing 1-metre contours (Data source: QLDC, aerial photography flown 2007)

3.2 *Land cover – ecology*

The ecology of the zone extension site and surrounding landscape is highly modified. Forest cover has been replaced by pasture grasses, and taller vegetation is limited to pine, poplar and willow shelter belts and exotic amenity planting. Stormwater within the existing industrial area is disposed of to ground and a detention area has been formed on Ballantyne Road to deal with flood events.

3.3 Land use

The proposed zone extension is currently pastoral land maintained by sheep grazing. Industrial development on the lower terrace wraps around the site on three sides and comprises a mixture of yard-based, manufacturing, warehousing and commercial uses. Some mixed use live/work units and office buildings have also been more recently developed on Frederick Street and Gordon Road.

The wider context of the site is the open rural land extending from the rural lifestyle zone along Golf Course Road to the rural residential development above the Cardrona River. Parts of this rural landscape, particularly those areas close to Cardrona Valley Road and Riverside Road, have been subdivided for rural living use. QLDC's oxidation ponds lie on the northern side of Ballantyne Road, opposite the existing industrial zoning, and this area has recently been rezoned for yard-based industrial and mixed business activities (Ballantyne Road Mixed Use Zone, operative 16 April 2009). The oxidation ponds are to be decommissioned once the Project Pure land-based treatment facility near Wanaka airport is fully operational.

QLDC intends to upgrade the section of Ballantyne Road between the Cardrona River and the Wanaka – Luggate Highway in the future and this road is likely to become a secondary entry to Wanaka from the east. Traffic volumes on the road will increase, especially once development within the Ballantyne Road Mixed Use and proposed Three Parks zones occurs.



Figure 4: Aerial photograph of site context (Source: QLDC, aerial photography flown 2005-2008)

3.4 Aesthetic characteristics

Wanaka township was originally confined by the terminal moraines that enclose the lake head, while the outwash plain landscape extending to the east was occupied by working farms. Establishment of the Ballantyne Road industrial area and rural residential development along Riverbank Road and Orchard Road has altered the rural and pastoral character of this landscape, introducing urban elements and increasing the intensity of human activity. Although productive rural land uses are not dominant with much of the area being currently 'land-banked' by developers, the landscape does retain a high level of openness and a strong visual connection with the surrounding mountains and hills, which are classified as outstanding natural landscapes or features, and the rural land (see Photographs 1 and 2). A moderate level of natural character is retained.



Photograph 1: View towards Ballantyne Road from Riverbank Road



Photograph 2: Panoramic view towards Ballantyne Road from Cardrona Valley Road

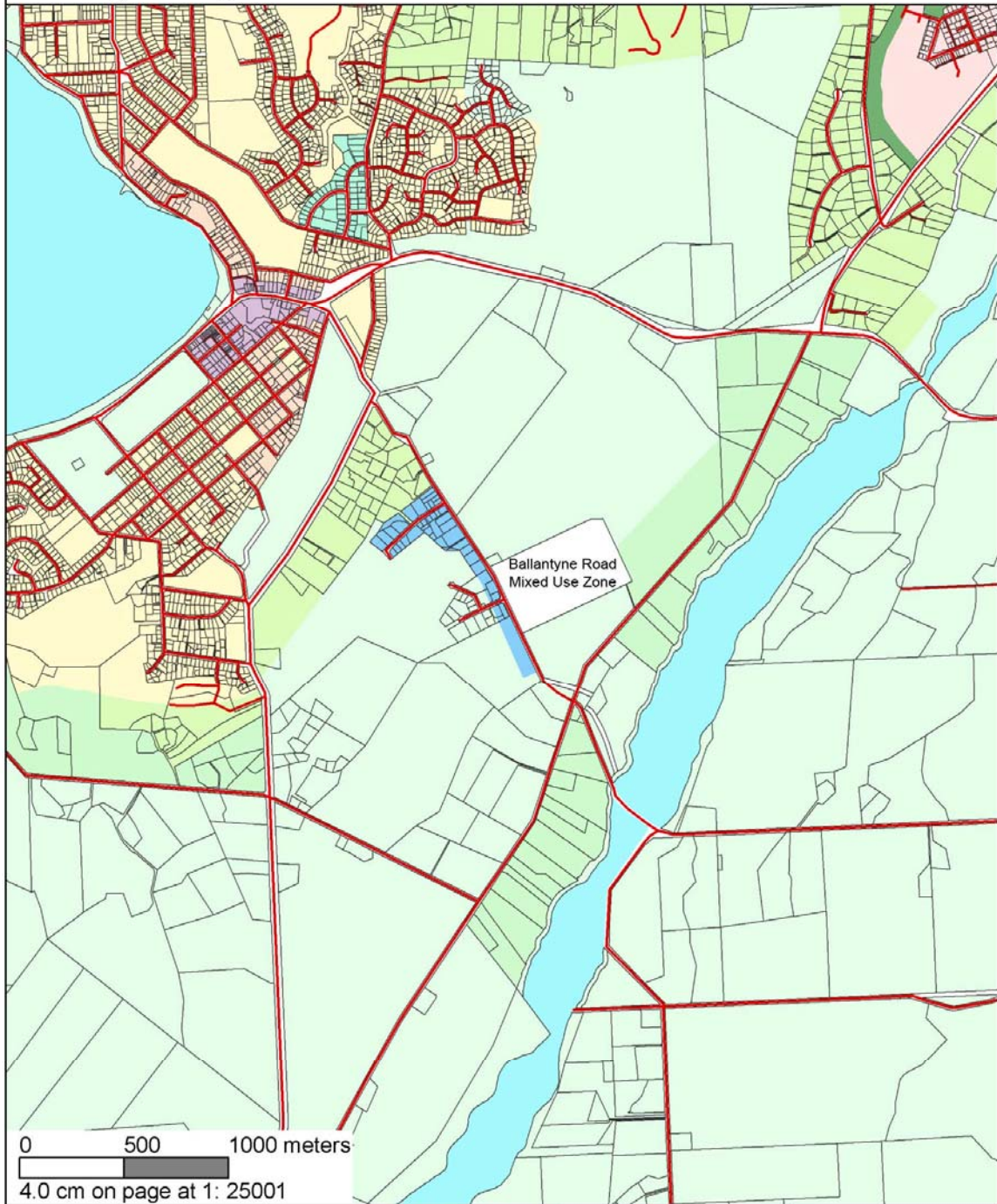


Photograph 3: Panoramic view from top of engineered mound on assessment site

3.5 *Current and proposed land use zoning (see Figures 4 & 5)*

Existing industrial and business zoning along Ballantyne Road encompasses the already developed industrial activities, an undeveloped strip extending along Ballantyne Road towards the Cardrona River and the 20-hectare Ballantyne Road Mixed Use Zone on the oxidation ponds site. The undeveloped strip is proposed to be reconfigured to adjoin the existing Frederick Street industrial development as part of the Plan Change. Although the remainder of the land between Riverside Road and the Golf Course Road rural lifestyle area is currently zoned Rural General, the 2007 Wanaka Structure Plan envisages progressive urbanisation of this area. As a first step QLDC has notified the Three Parks Plan Change, which seeks to rezone most of the land between Ballantyne Road and Wanaka-Luggate Highway to provide for a retail centre, residential development, and additional business activity. Potential low density residential rezoning of rural land to the west and south of the assessment site is envisaged at some time during the next 20 years, depending on growth rates.

Existing zoning

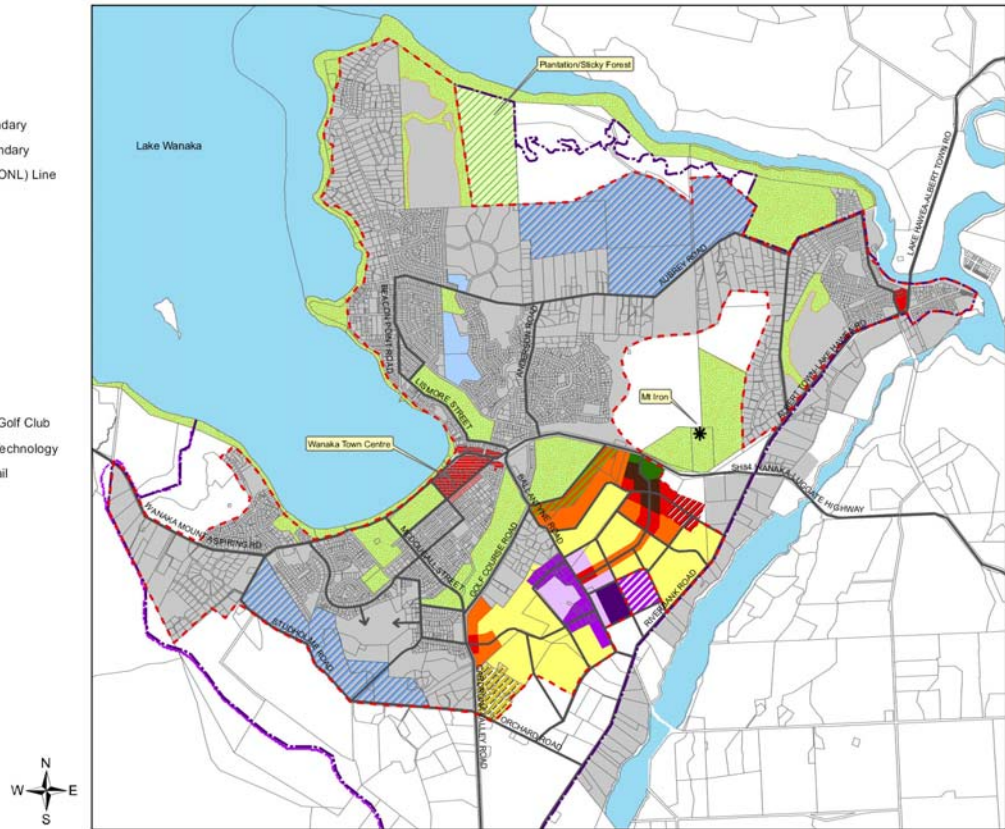


<p>QUEENSTOWN LAKES DISTRICT COUNCIL</p> <p>Author:</p> <p>Scale: 1:25000</p> <p><small>Map produced from Intrapmap on: Fri May 29 16:32:54 2009</small></p>	<p>District Plan Zones</p> <ul style="list-style-type: none"> Airport Mixed Use Arrotoun Town Center Bendmeier Business Corner Shopping Center Frankton Flats Gibbston Character High Density Residential Industrial Low Density Residential Meadow Park Open Space Peninsula Bay Piarahi Park Quail Rise Queenstown Town Center Ris Ain Historic Mgmt Resort Rural General Parahi, Restyle Remarkables Park Rural Residential Rural Visitor Township Water Woodbury Park Estate Wanaka Town Center Rapid Points 	<ul style="list-style-type: none"> Roads Contours Land Parcels Unformed Roads Area Units 01 Area Units 06 Meshblocks 01 Meshblocks 06 	<p>The information displayed in this map has been taken from QLDC's databases. While considerable effort has been made to ensure the information provided is accurate, current and otherwise adequate, QLDC does not accept any responsibility for content and shall not be responsible for, and excludes all liability, with relation to any claims whatsoever arising from the use of this site and data held within.</p>
	<p><small>Information derived from QLDC's GIS. Coordinates are NZGD 2000. Projection is NZ Transverse Mercator.</small></p>		

Figure 4: Existing land use zoning

Zoning Proposed

- - - Structure Plan Inner Growth Boundary
- - - Structure Plan Outer Growth Boundary
- Outstanding Natural Landscape (ONL) Line
- - - ONL Line Not Confirmed
- Road Network (Indicative)
- Retail Core
- New Open Spaces/Reserves
- Wanaka Town Centre
- Education
- Area Subject to Further Study
- Visitor Accommodation Overlay
- Urban/Landscape Protection
- Existing Open Spaces/Reserves/Golf Club
- Deferred Mixed Business/Office/Technology
- Deferred Future Commercial/Retail
- Commercial/Retail
- Mixed Business
- Existing Business/Industrial
- Industrial Yard based
- Medium/High Density Residential
- Low Density Residential
- Landscape Protection Area
- Mixed Use Zone
- Existing Zoned/Developed Areas
- Water



Indicative zone boundaries only, subject to review at implementation stage

Figure 5: Wanaka Structure Plan 2007

3.6 Landscape classification

Classification of the assessment site and surrounding land in terms of the District Plan's tripartite landscape categories – outstanding natural landscape, visual amenity landscape and other rural landscape - is relevant to any landscape assessment of proposed rezoning. Industrial activities are unlikely to be appropriate in an outstanding natural landscape (ONL) or in a location where they would have significant adverse effects on an adjacent ONL or visual amenity landscape. Based on the foregoing analysis of the existing landscape, I consider the appropriate classification would be visual amenity landscape – the landscape has a reasonable level of natural and pastoral character and is brought into the category covered by Section 7(c) of the Resource Management Act 1991 (RMA) by its proximity to and visual connection with the surrounding outstanding natural features and landscapes.

While future development on the oxidation ponds site and in the potential Three Parks Zone will create an urban landscape east of Ballantyne Road, the Rural General land south of the road would remain part of a visual amenity landscape until any future rezoning.

4.0 Visual & landscape effects of industrial zone extension

4.1 *Visibility analysis*

The visibility of the assessment site and potential future development on the site was assessed on visits to the site and surrounding area in May 2009. No building poles had been erected to indicate the potential height of built development on the site and the visibility analysis is therefore general in nature. At the time of writing, site standards for the zone extension had not been decided and building heights could therefore potentially range between 6 metres (Industrial Zone site standard) and 10 metres above existing ground level (Ballantyne Road Mixed Use Zone site standard for yard-based industrial).

4.1.2 Inner visual catchment

The elevated golf course moraine to the north-west prevents visibility of the assessment site from most of urban Wanaka. However, the elevated nature of the zone extension means that development would be seen from the majority of the area bounded by the moraine, Orchard Road, Riverbank Road and Wanaka Luggate Highway. This area is within 1.5 kilometres of the site and can be considered the inner visual catchment. For people traveling along public roads in this inner area, views of the site are often obscured by roadside vegetation or mature shelter belts, although I note that these could be removed during future urban development. Areas of public visibility include:

- Ballantyne Road adjacent to the existing industrial area;
- Riverbank Road north of Ballantyne, intermittently between shelterbelts for about 600 metres;
- Riverbank Road south of Ballantyne, occasional glimpses;
- Orchard Road for a distance of about 500 metres;
- Cardrona Valley Road for a distance of about 400 metres;
- Wanaka – Luggate Highway, a brief glimpse between Puzzling World and the golf course.

From most of these public places, the existing industrial development is already at least partially visible in the same view. Future development in the existing strip of industrial zoning along Ballantyne Road would be visible from Riverbank and Orchard Roads, and the proposed reconfiguration would reduce the spread of visible development from both roads. In terms of private property, visibility of the zone extension would include rural lifestyle homes on the crest of the moraine ridge, dwellings in the Rural General Zone along Orchard and Riverbank Roads, the Puzzling World carpark, and the majority of the proposed Three Parks Zone.

4.1.2 Outer visual catchment

Further from the site, development in the extended and reconfigured zone would be visible from the following places:

- The public walking track and lookout on Mt Iron;
- Parts of the low density residential area on the western flank of Mt Iron;
- Rural land east of the Hawea River;
- Rural residential dwellings along the lower slopes of the Criffel Range (Mt Barker rural residential);
- Rural residential and urban dwellings along Studholme Road and on the corner of Cardrona Valley and Studholme Roads;
- Surrounding mountains, including public walking tracks on Mount Roy and the Criffel Range.

Industrial and commercial buildings on the lower terrace are not currently visible from east of the Hawea River or from the Studholme Road area.

4.2 Evaluation of visual effects

Since the zone extension area is between four and five metres higher than the existing industrial zone and the height of most existing buildings is six metres, development in the zone extension would not be screened by existing development when viewed from Ballantyne Road and other vantage points to the north and east. The bulk and visual prominence of built development would be significantly greater than that currently perceived. Instead of sitting within the landscape, with the upper terrace and moraine ridge providing a backdrop and landform boundary, development would break the ridgeline or skyline from many places within the inner visual catchment. Large industrial and commercial buildings would further reduce the visual amenity of the surrounding landscape.

Adverse visual effects would be most pronounced from the visual amenity landscape to the west and south, where views of existing industrial development are largely screened by the natural landform and engineered mound. The upper part of buildings within the assessment site would be visible above the existing earth bund and the full bulk of development would be seen where the bund does not provide screening.

Development would not substantially obstruct any important view corridors from public roads in the vicinity, but it would be directly in the foreground of views to the Grandview Mountains from Cardrona Valley Road, Mt Iron from Orchard Road, and Mt Alpha and Mt Alta from Riverside Road. From Cardrona Valley Road, one of the main entries to Wanaka township, more prominent industrial development would detract from the natural and pastoral character of the entry experience.

From more distant viewpoints in the outer visual catchment, including Mt Iron, the increased area of the landscape occupied by industrial/commercial buildings is unlikely to significantly detract from the natural character and visual quality of the expansive vistas. The exception may be those areas of rural Wanaka that do not currently have views of the industrial area.

Reconfiguration of the existing strip of industrial zoning along Ballantyne Road would consolidate industrial development into one area, as the new zone boundary would be relatively close to that of the Ballantyne Road Mixed Use Zone on the eastern side of the road. This is likely to have positive effects on the visual amenity and landscape character of the adjoining areas, limiting the length of the interface between industrial and rural (or future residential) land and placing development further from the rural lifestyle zone along Riverbank Road. It would also improve the amenity of the entry to Wanaka via Ballantyne Road, by limiting sprawl of industrial development or 'strip development' along the road.

4.3 Rural amenities

Rural amenity is generally considered to include aspects such as privacy, a sense of spaciousness, clean air, visual access to open space and, at times, quietness. The level of rural amenity enjoyed by residents of the Golf Course Road rural lifestyle area and rural living areas on Riverside Road and Orchard Road has been modified to some extent by the existing industrial development on Ballantyne Road. Extension of the zone onto the higher terrace would exacerbate these existing adverse effects, particularly for nearby residents on the moraine ridge, who would experience a loss of quietness, privacy, spaciousness and rural outlook. Noise from existing development is mitigated to

some extent by the enclosing landform, but the higher terrace is not screened to the north by any topographical feature.

Until any future rezoning of the Rural General land to the south and west of the site, residents in this area would also experience a loss of rural outlook and spaciousness, both from the zone extension on the upper terrace and from the reconfiguration of the industrial zoning on the Orchard Road Holdings Ltd land.

5.0 Alternative zone extension locations

Alternative locations for an extension of the existing industrial zone on Ballantyne Road include:

- Adjoining the eastern side of Ballantyne Road immediately north of the Ballantyne Road Mixed Use Zone (ie the mixed business area of the proposed Three Parks Zone).
- South of a reconfigured industrial zone on the Orchard Road Holdings Ltd property.

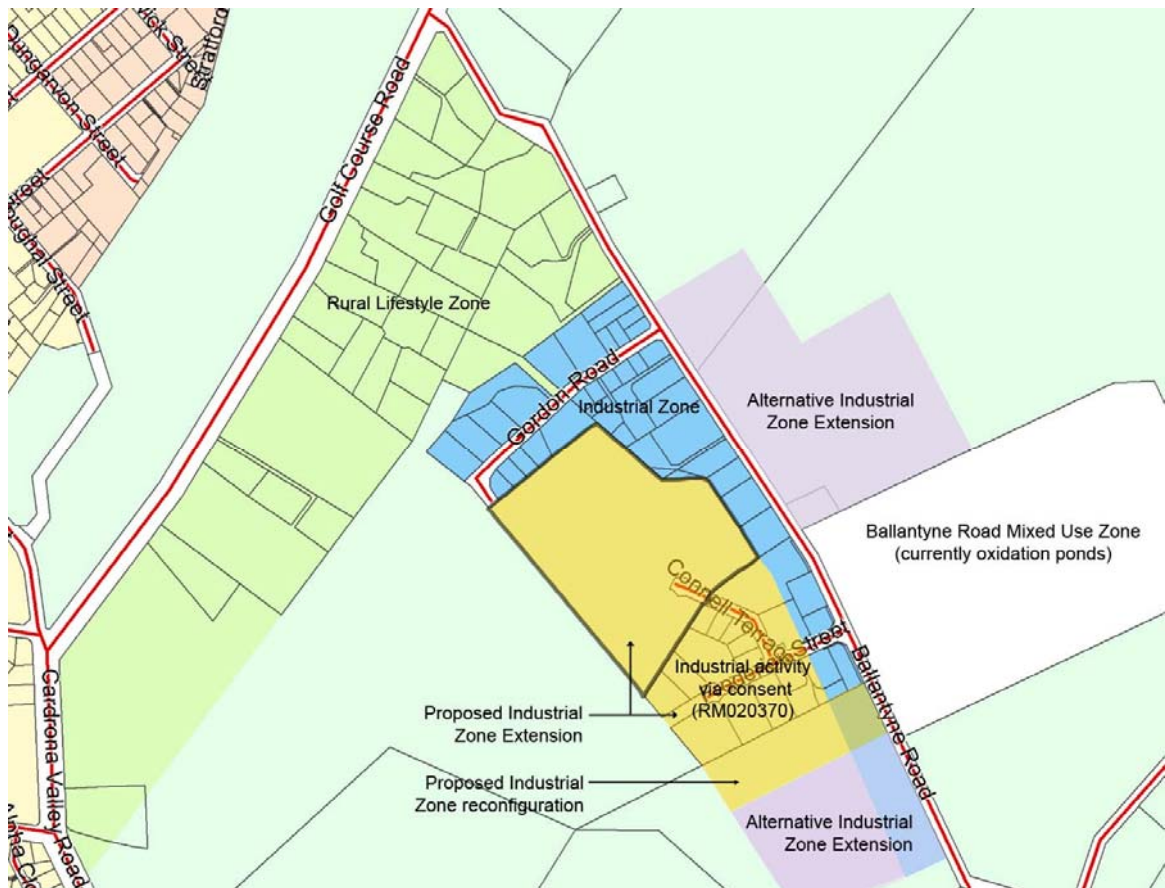


Figure 6: Alternative zone extension locations

5.1 *Landscape and visual effects of alternative zone extension locations*

Both these alternative extension areas are located on the same lower outwash terrace as existing industrial development on Ballantyne Road. If building heights were limited to a maximum of eight metres, development on the eastern side of the road would not be visible from the visual amenity landscape to the west, including Cardrona Valley Road and Orchard Road. Development in this location may also be invisible from more distant rural areas, particularly if shelter belts along Riverside Road and east of the oxidation ponds are retained. The adverse visual and landscape effects of industrial rezoning in this 'Three Parks' location would be less than those of the proposed rezoning area, particularly if a landscaped buffer was established along Ballantyne Road. Although the area adjoins industrial yard-based zoning to the south, a buffer would be required between industrial activities and adjoining low density residential development to the north and east. This could be achieved by an intervening commercial/business zone or by a landscaped open space buffer

If the allowable building height was eight metres or less, additional industrial development on the Orchard Road Holdings Ltd property would be less visually prominent within the landscape than development on the upper terrace. The alternative area is between five and six metres lower than the upper terrace and development would therefore be more readily contained by the surrounding landform. However buildings would still be visible from the west and south, albeit lower in the landscape, and the visual and rural amenities of residents along Riverbank Road could be adversely affected. Mounding and landscape screening, similar to that existing on the southern boundary of existing industrial development on Frederick Street would be required to mitigate adverse visual effects. Extension of the reconfigured zone on the Orchard Road Holdings Ltd land also has the disadvantage of creating a longer potential interface between industrial and future residential activities. An open space buffer would be required to separate these activities.

5.2 *Alternative zoning for the assessment site*

The presence of existing industrial activity wrapping around the upper terrace zone extension on three sides limits alternative future uses for the land. Appropriate alternative activities could include:

- Recreational open space in the north-eastern part of the site with low density residential zoning in the western part. Future residents would however still be affected to some extent by adjacent industrial activity to the north and south.

- Mixed business zoning providing for office and retail activities and vehicle-oriented services. As with the industrial zoning of the site, business zone development would result in adverse effects on the character of the surrounding landscape and the visual amenity of future residential areas. However, the finer grain of commercial/retail activity means that these effects are likely to be less than those of industrial zoning. Landscaping mitigation would be required.

6.0 Recommended mitigation measures

The landscape assessment above has identified potential adverse effects of the proposed zone extension and reconfiguration that will require mitigation. The following discussion identifies the main issues that require addressing and recommends potential measures to mitigate adverse landscape effects (see Figure 7).

6.1 *Visual amenity effects from the north and east*

Issue: the visual prominence of future development from the north and east and resulting adverse effects on the visual amenity of future residential and business areas.

Recommended mitigation measures:

- Retention of the small knoll on northern edge of the upper terrace. Retention of this knoll and establishment of additional vegetation on it would screen part of the upper zone extension from points to the north and east of the assessment site, including the Three Parks Zone, the Puzzling World carpark and the Wanaka-Luggate Highway. The knoll would form a natural break between development on the lower and upper terraces and reduce the apparent bulk and visual prominence of built form. I recommend that this knoll be covenanted for protection as part of any adjacent industrial lots rather than being vested as a reserve. The area of land has very limited potential for recreational use and any reserves set aside would be better located between the industrial zone extension and future residential development to the west.
- Establishment of a landscape buffer along the other north-eastern and south-eastern edges of terrace to provide a vegetative break between lower and upper development and partially screen built development on the upper terrace. I recommend that the buffer be in the order of 10 metres in depth, with the type of planting to be established being part of an Outline Development Plan for the assessment site.

- Restricting the height of buildings to 6 metres above existing ground level and restricting the external colours of buildings to natural recessive tones with low reflectivity.



Figure 7: Recommended landscape mitigation measures

6.2 Visual amenity effects from the west and south

Issues: the visual prominence of future development from the west and south, resulting adverse effects on the natural and pastoral character of the adjacent rural landscape. Adverse effects on the existing rural character and future visual amenity of the entry to Wanaka along Cardrona Valley Road.

Recommended mitigation measures:

- Reshaping of the existing mound to a more naturalistic form and continuation of this mounding along the western boundary and wrapping around the southern corner of the assessment site towards Connell Terrace. The existing mound and any extensions to the mounding should be included within the industrial zone extension. Mounding should be no higher than two metres above surrounding ground level, naturalistic in form (ie varied in both vertical and horizontal dimensions) and, where the mounding meets the terrace escarpment crest, formed at the same angle as the escarpment. The mounding would partially screen future development, but its main purpose would be to mitigate noise. I recommend that mounding be required as part of an Outline Development Plan for the site.
- Establishment of a landscape buffer (predominantly evergreen trees) along the western boundary of the upper terrace site and along the boundaries of the existing and reconfigured industrial development to screen built form within the Industrial Zone. I recommend that the buffer be 10 metres in depth, with the type of planting to be established being part of an Outline Development Plan. I recommend that either the buffer be included as part of each industrial lot, with the lot owner responsible for ongoing maintenance of the planting, or that a landowners organisation be formed that has responsibility for ongoing maintenance of any common land.
- A building set-back from the Rural General boundary of 15 metres.
- Restricting the height of buildings to 6 metres above existing ground level in the upper terrace zone extension and to 8 metres above existing ground level in the reconfigured zone on the Orchard Road Holdings Ltd land.
- Restricting the external colours of buildings to natural recessive tones with low reflectivity.

6.3 *Future interface between Industrial and Low Density Residential Zones*

Issue: The future interface between existing and proposed industrial zoning and future low density residential development to the west and south.

Recommended mitigation measures:

- The mitigation measures in Section 6.2 above.
- Two potential means of providing a more effective buffer between industrial and residential activities would be to create a large reserve (possibly a sports park) on the remainder of the upper terrace or constructing a future road along the zone boundary. A wide road reserve could accommodate an additional landscaped buffer adjacent to the zone boundary and a separate pedestrian/cycleway linking through to Gordon Road, Frederick Road and directly into the industrial zone extension.
- Provision of a direct pedestrian/cycle link between the industrial zone extension and future residential.

6.4 *Effects on the rural amenities of neighbouring rural lifestyle residents*

Issue: adverse effects on the rural amenities of neighbouring residents in the Golf Course Road Rural Lifestyle Zone.

Recommended mitigation measures:

- The mitigation measures in Section 6.2 above.
- Planting along the south-eastern boundary of the rural lifestyle lots.

6.5 *Amenity within the industrial zone extension*

Issue: Providing an appropriate level of streetscape amenity within the Industrial Zone.

Recommended controls:

- Restriction on the height of road boundary fences to 1.2 metres in height.
- Provision of street trees on internal roads.
- Provision of footpaths within the road reserve.
- Building setbacks from road boundaries (6 or 10 metres).

7.0 Conclusions

The proposed zone extension would result in adverse effects on the visual amenity of the surrounding rural and future residential landscape, primarily as a result of the

elevated topography of the upper terrace. However, there is potential to mitigate these adverse effects through site and zone standards that require landscaping around the zone extension perimeter and control building height and external appearance.

Alternative zone extension locations in the vicinity sit lower in the landscape and would result in less visually prominent industrial development. However, these locations would still impact on the visual and rural amenities of surrounding rural land and create cross boundary issues with future residential development, as envisaged by the 2007 Wanaka Structure Plan.

The upper terrace extension has limited future alternative uses in an urban setting apart from recreational open space or commercial/retail zoning. The latter use would also result in adverse effects on the character of the surrounding landscape and the visual amenity of future residential areas, though the finer grain of commercial/retail activity means that these effects are likely to be reduced compared with industrial zoning.

Reconfiguration of the existing strip of zoning along Ballantyne Road would result in positive effects on the amenity and character of the surrounding landscape, reducing the impression of 'strip' development along a future entry to Wanaka township and consolidating industrial uses into a more defined area. Mitigation measures in the form of buffer planting around the perimeter of the area would still be required to address adverse effects on the visual and rural amenities of adjoining rural areas.



REPORT TO: Vicki Jones – Senior Policy Analyst, QLDC
FROM: Marion Read – Principal Landscape Architect
REFERENCE: Plan Change 36 – Wanaka Industrial Zone Extension
DATE: Wednesday June 23rd 2010

1.0 INTRODUCTION

- 1.1 In October 2009 a Landscape Assessment report on the proposed Wanaka Industrial Zone Extension was provided to Council by Lakes Environmental. This report was undertaken without the benefit of height poles. As a consequence, in part, of the conclusions of that assessment a subdivision concept has been drawn up and height poles erected to indicate a height limit of 7m above a finished design level or 334masl, whichever is lower.
- 1.2 I undertook a site visit on June 17th 2010 in order to inform a peer review of the conclusions of that previous report under the current circumstances. Specifically I have been asked to make the following assessments:
- Whether I agree or disagree with the previous report re visibility of the site.
 - Whether or not I consider the proposed height limit to be adequate.
 - Whether or not I consider the knoll on the eastern edge of the site should be retained to provide mitigation of the development.
 - Whether or not I consider that the buffer strip proposed along the south western boundary could be reduced in width from 30m.
 - The optimum height of bunding along the south western boundary.
 - Whether or not planting should be required in this buffer strip prior to development or as a part of the outline development plan.
- 1.3 Since the original report was completed the receiving environment has changed. On March 10th 2010 Wanacare Ltd was granted consent (RM090946) to construct a medical centre in the Cardrona Valley Road on a Rural Lifestyle zoned site due east of the intersection with Stone Street. Plan Change 16 was approved with modifications in December 2009 creating the Three Parks Special Zone. This decision is under appeal.

2.0 ASSESSMENT OF VISIBILITY

- 2.1 The original assessment of visibility was made without the benefit of height poles and with an assumption of a maximum building height of 10m. I have had the benefit of height poles and with an agreed maximum height of 7m or 334masl, whichever is lower.
- 2.2 It is the case that I concur with the locations and extent of visibility described on pages 11 and 12 of the original report. Development on the site to the maximum heights now agreed would remain visible from all the locations listed within the inner and outer visual catchments.
- 2.3 I agree that buildings proposed within the proposed zone would be elevated and that their bulk would likely appear greater than the existing buildings in Ballantyne Road, Gordon Road and Frederick Street. However, I do consider that they would be partially screened by the existing development. Buildings within the proposed zone would break the ridgeline in views from Ballantyne Road but it is the case that the existing buildings already do this.

- 2.4 I agree that the most pronounced adverse visual effects would be in views from the west and south. These would currently be from Orchard Road and the Cardrona Valley Road. The industrial development would be visible from approximately 200m of the Cardrona Valley Road from West Meadows Drive to Stone Street. While in the short to medium term this would be over open pasture the consented retirement village (RM070220) and Wanacare medical centre will, in time, provide a developed foreground to these views. According to the Wanaka Structure Plan the area between these roads and the site in question is intended for Low Density Residential zoning in the future. This means that this residential zone would abut the industrial development within this proposed zone and the visibility and other adverse effects such as noise should be given consideration at this point in the zoning process. Views from the dwellings constructed at The Venue and Heritage Park would be over this residential development. Views from Orchard Road towards the area are over a rural foreground which would be retained as the area proposed for low density residential development is further to the north. Consequently these views would have an intervening area of low density residential development in their mid-ground.
- 2.5 Industrial development within the proposed zone would be visible from Riverbank Road to the north of Ballantyne Road and from SH 84. While it is the case that the views from the eastern portion of Riverbank Road are currently over open pasture they are nonetheless across the Ballantyne Road Mixed Use Zone which is yet to be developed. In Area C of this Zone buildings can be constructed up to 10m high and so a part of the mid-ground of these views will have an industrial appearance and may in fact obscure much of the Ballantyne Road industrial area from view. Under the Three Parks Plan Change the area currently zoned Rural General along the western side of Riverbank Road is to be rezoned for low density residential use. The proposed industrial zone would be readily visible from this area, although over the Ballantyne Road industrial areas. From SH 84 any views of development within the proposed zone would be over the Business and Commercial Core areas of this Zone. Because of the nature of this development finding ways to break up the density of the built form will be important in order to ensure that the area retains a level of amenity for Wanaka residents and for workers within the business, commercial and industrial areas.
- 2.6 Development within the proposed zone would be visible from Riverbank Road to the south of Ballantyne Road. From this direction the site is screened by existing trees and would be visible only behind existing development. While buildings in the proposed zone would appear significantly higher than existing buildings they would, in my opinion, appear as a part of the overall industrial development and not dominate the existing development.
- 2.7 It is my conclusion that the adverse effects of the visibility of industrial development within the proposed zone at the agreed height limits in views from the east (Ballantyne Road, Riverbank Road and SH 84) are relatively minor but could be lessened with mitigation. It is also my conclusion that visibility from the west and south have significant effects but that these could be adequately mitigated by planting and mounding.

3.0 HEIGHT LIMIT

- 3.1 The site is elevated and slopes from 331masl at its most southern corner to 324masl at its northern most corner (nominally Lot 7 on the Draft Concept Plans). The height limit has been set at 7m above design level or 334m, whichever is the lesser. On the basis of the visual assessment undertaken I consider that this is an appropriate height limit in this location. It could be possible to absorb buildings of up to 8m in height in the north eastern corner of the proposed zone (approximately in the area of Lots 6 – 12 in the Draft Concept subdivision plan) and a split height limit could be considered. I consider that the proposed height limit is the maximum which can be absorbed over the balance of the site.

4.0 RETENTION OF THE KNOLL

- 4.1 An issue of general concern to me in the vicinity of Wanaka township is the ongoing obliteration of the complex natural landforms of the moraine crest. What this means is that the very thing which makes the landscape of the vicinity interesting and which forms the container of the original lakeside town is being progressively flattened, smoothed homogenised and built

on. The rezoning of this area of land for industrial use is likely to have the same outcome for the broader site also as the expectation is that this moraine terrace will be reduced in height and flattened to fit development under the proposed height limit.

- 4.2 Retention of the knoll on the north eastern corner of the site would screen development on nominal Lots 18 – 22 from views from Ballantyne Road. Height poles in place at the time of my site visit suggest that if the knoll were removed buildings constructed on the location of the knoll to the agreed height limit would not dominate the existing buildings to the east in views from Ballantyne Road. I consider the value of the screening effect, given the existing industrial development in Ballantyne Road, to be marginal, but the retention of the knoll would provide some natural relief from the intensity of industrial development in the vicinity and help to maintain some amenity in the area.
- 4.3 I consider that the retention of the knoll while not necessary for its screening effect per se should be required in order to reduce the intensity of the built form in the vicinity and to ensure the retention of a small part of the natural landform. I do not consider that it is necessary that it be retained as a reserve. It could, for example, be a special purpose lot which allowed for the construction of a small building on its south western side allowing for the development of a café, say, and the provision of an amenity area for the use of workers within the zone. The north eastern side of the knoll should be retained as open space but could be a part of the lot placing the responsibility for its planting and maintenance into private hands.

5.0 WESTERN BUFFER STRIP / MOUNDING HEIGHT

- 5.1 I consider that mitigation is required along the western boundary of the proposed zone. This is, firstly, in order to reduce the visibility of the industrial zone from existing public and private views. Secondly this is also to provide the mitigation of other effects, particularly noise, on future users of the land between the Cardrona Valley Road and the site including, the consented retirement village.
- 5.2 The original report recommended mounding of up to 2m high; a 10m wide landscape buffer; and a 15m building setback from the Rural General zone boundary along the western side of the site. The landscape buffer was to be contained within future individual lots.
- 5.3 In my opinion mounding along the entirety of the western boundary of the zone is acceptable in this instance as a means of mitigating noise effects from the industrial zone. I consider that it could be more than 2m high, but should be so constructed as to blend into the natural landforms, where possible, along its western edge. It should also be under or inside of (to the east of) any planted buffer. I note that the existing bund is approximately 8m high at its northern end and 4m at its southern end. I am unable to determine the optimum height for bunding for noise control but as the issue is, broadly put, to prevent a line of sight connection between the noise source and the receiver, 2 to 3m high bund should be adequate in this case. Alternatively, a 30m thick strip of densely planted vegetation would also reduce noise transmission¹. The final height of any mounding should be decided on the basis of the requirements of noise mitigation and the need for the combined mounding-planting combination to reach 8m in height.
- 5.4 The main constriction on the width of the buffer strip is the ability to construct a bund within it and to plant it adequately to provide a dense screen. The final height of planting would also need to be adequate to provide screening but not so high as to create a shading problem for future development to the west and I consider approximately 8m in total would be appropriate. This would exceed the height of buildings within the industrial zone but not cause a shading problem. If planting was undertaken on a bund of, say, 3m in height species which reached approximately 5m would be adequate. I do consider that they should be evergreen and mixed indigenous species could provide an ecological as well as aesthetic benefit. In order to accommodate a bund of up to 3m high and planting I consider that the buffer strip should be 15m wide. As with the knoll, however, I do not consider that the buffer need be a reserve. Some private vehicle parking, for example, could be incorporated in the eastern side of it. If

¹ <http://acoustics.nzta.govt.nz/approaches-to-noise-management/noise-barriers-and-bunds>

this were to be the approach taken then the buffer strip would need to be wider, 20m as a minimum.

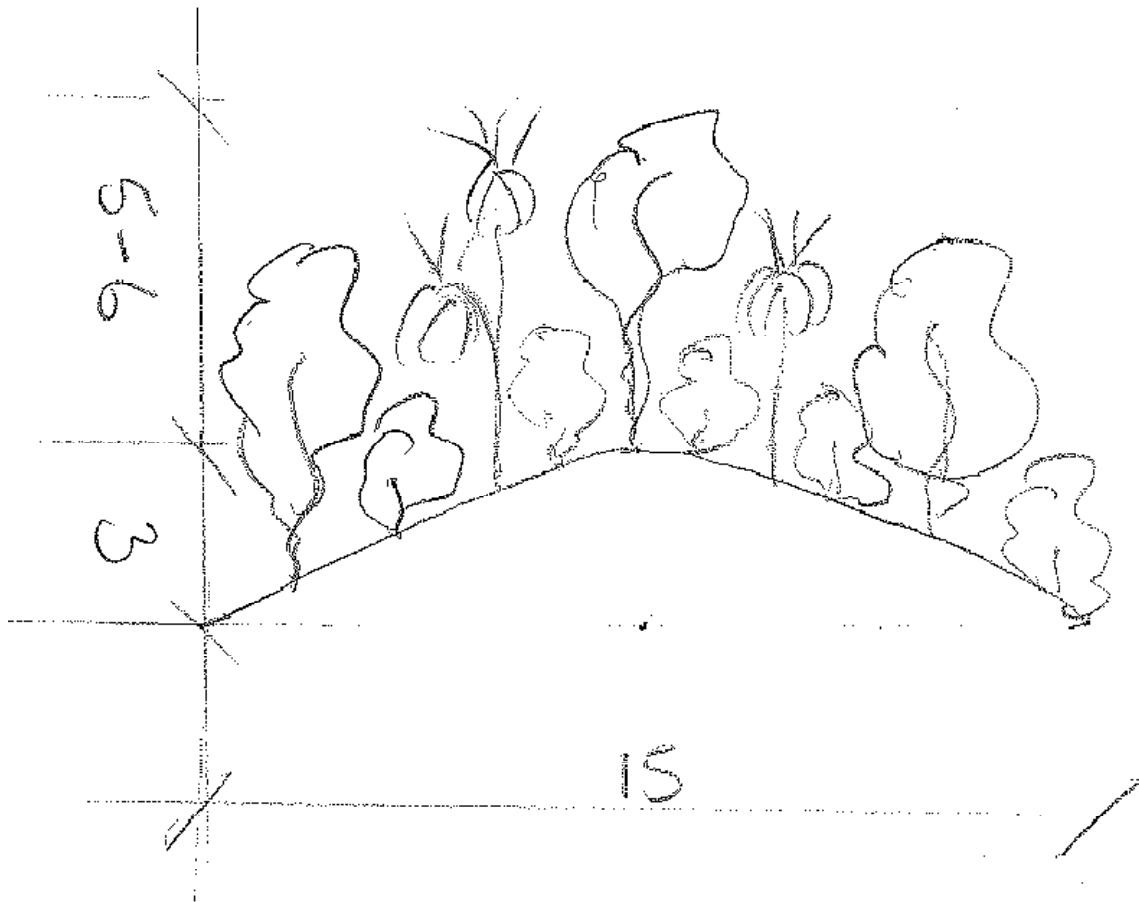


Fig 1: 15m buffer with 3m mound and dense planting to 5 or 6m.

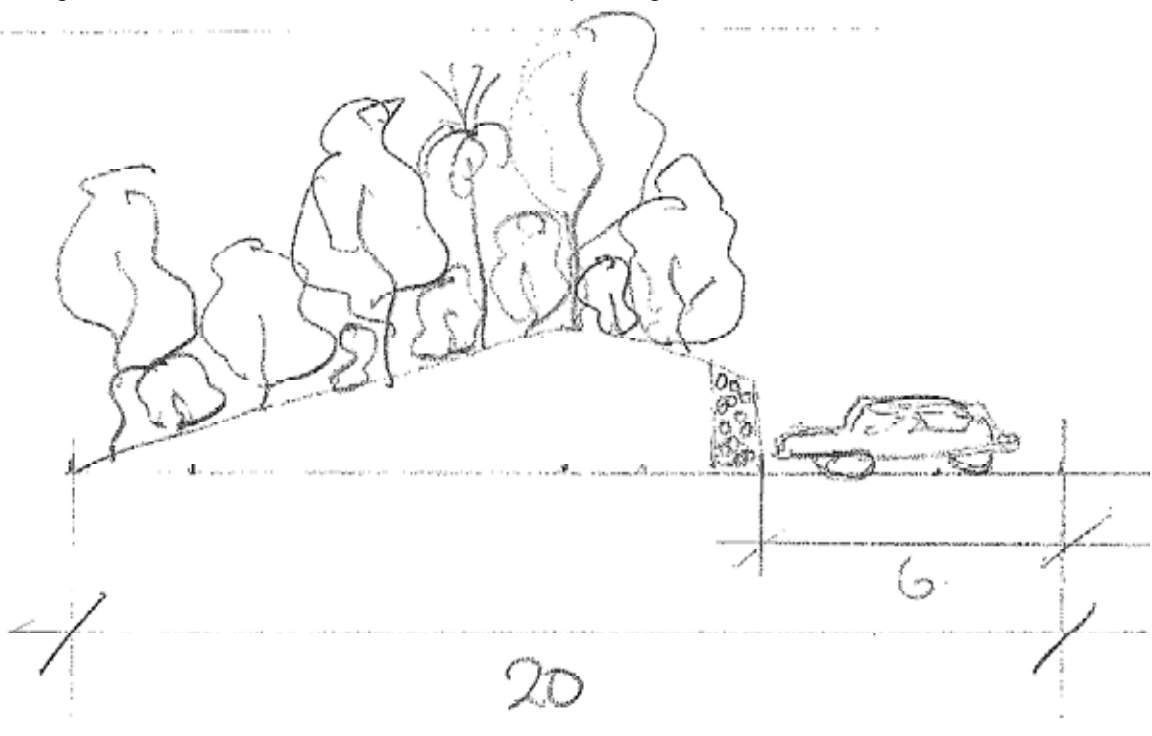


Fig 2: 20m buffer with 3m mound, dense planting, and gabion wall allowing vehicle parking.

6.0 SCHEDULING OF PLANTING / MOUNDING

6.1 I consider that planting and mounding need to be done together to provide adequate mitigation of the effects of the industrial zoning and that this needs to occur prior to the construction of any buildings within the new zone.

7.0 CONCLUSION

7.1 In conclusion I agree with the original report in terms of the visibility of the site but consider that the extent of the effects of that visibility are less significant, in part due to the altered receiving environment and the reduced maximum allowable building height.

7.2 I consider the proposed height limit to be appropriate. I consider that the southern parts of the site, the higher areas, are more sensitive than the lower northern area and consider that it is possible that a limited number of buildings of 8m could be absorbed in the northern part of the site.

7.3 I consider the knoll on the eastern edge of the proposed zone should be retained in order to provide a degree of screening; to reduce the intensity of the built form in the area; to provide a relic of the natural landform and to provide a level of amenity to the vicinity. While the top and eastern flanks of the knoll should be retained as open space the western side could be used for a non-industrial function such as providing a food outlet for local workers.

7.4 The buffer strip along the western margin of the site could be reduced in width to a minimum of 15m provided mounding was also used to mitigate noise effects on future residential development to the west. If mounding was not used 30m of dense planting would be the minimum necessary to mitigate noise effects as well as visual effects. The buffer if widened to 20m, could have low level uses such as vehicle parking incorporated within it.

7.5 The optimum height of bunding along the western margin of the site should be that necessary to mitigate noise effects. This would be in the vicinity of 3m in height.

7.6 Planting and bunding should be done at the same time and should be completed prior to any buildings being constructed within the zone.

Report prepared by

Report reviewed by

Marion Read
PRINCIPAL : LANDSCAPE ARCHITECTURE

Antony Rewcastle
SENIOR LANDSCAPE ARCHITECT



REPORT TO: Vicki Jones – Senior Policy Analyst, QLDC

FROM: Marion Read – Principal Landscape Architect

REFERENCE: Plan Change 36 – Wanaka Industrial Zone Extension

DATE: Wednesday June 23rd 2010

SUBJECT: **Addendum to report dated Wednesday June 23rd 2010 re Gordon industrial area rezoning**

1. Subsequent to the report of 23rd June the following further questions have arisen from Council:
 - Possible uses for Lot 46 as noted on the Patterson Pitts Concept 3 plan dated May 06 (PP 3).
 - Effects of the land swap proposed and noted on the Patterson Pitts Concept 4 plan dated May 10 (PP 4).
 - Possible uses for Lot 45 as noted on the Patterson Pitts Concept 3 plan dated May 06.
2. Lot 46, as noted on PP 3, is a triangular lot occupying the most southern part of the area proposed for the plan change. It is also the most elevated part of the site and potentially provides a high level of screening to potential development within the site. I consider that this screening is important as it would provide some mitigation of the effects of the visibility of industrial development on the site in close and more distant views from the Rural Lifestyle zone on the lower slopes of the Criffel Range which is almost due south of the site. The highest point of Lot 46 is approximately 341m. The concepts promoted by the developer set a maximum height for buildings within the zone of 334m or 7m above a design level, whichever is lesser. I understand that the intention is that the ground will be excavated to create this design level across the site. I consider it important that the existing ground level at this most southern point is not lowered and that planting be utilised in this area to augment the screening provided within the buffer to the west. However, the proposed lot is approximately 80m deep from its most southern point to a point due north. I consider that it would be appropriate to utilise a strip no wider than 30m running along the service lane for development provided that the maximum height of any buildings or stored materials was limited to 334m. The remaining area should be retained at its natural ground level and densely planted in a similar manner to the western buffer.
3. PP 4 proposes the creation of a walkway running along the inside of the south eastern boundary of Lot 1 DP 25235 to connect the proposed industrial zone with Ballantyne Road. In order facilitate this walkway it has been proposed to undertake a land swap providing the owner of Lot 1 DP 25235 with a wedge of land (of some 235m²) extending from the north western corner of that lot to a point approximately 10m to the west of the southern corner of that lot. I understand it is intended that this land would be excavated to extend the level area available to that landowner for vehicle parking. This wedge would cut right through the southern spur of the knoll and would significantly diminish the integrity of the landform. It would also create a sight line into the proposed industrial zone behind, diminishing the screening effect of the knoll. Thus, while the concept of the walkway has much to commend it, it is my opinion that the adverse effects of this proposal would be significant and that it is not an option which should be pursued.
4. I have attached a copy of PP 3 on which I have located the no-build area which I consider should be imposed on Lot 45. The boundary has been located so that it would retain the integrity of the landform in views from Ballantyne Road. I consider that a lesser height limit of

3.5m above the design level should be imposed for buildings and activities on the remaining land so that they can be tucked into the landform and not appear too obtrusive in views from both Ballantyne Road and from within the proposed industrial zone. In my original report I suggested that this lot could be the location of a café for the use of the workers in the industrial zone. I have been asked to comment on other possible uses. In my opinion so long as an appropriate height limit was retained, for both buildings and activities, the type of activity on the site is not necessarily relevant. However I would qualify that with the proviso that I think a lesser site coverage for buildings should be maintained on this site than is likely permissible on other sites within the proposed zone so as to allow for views of the knoll from inside the zone and to ensure that a single roofline does not protrude from behind the knoll at both ends when viewed from Ballantyne Road. I continue to be of the opinion, however, that an industrial area such as this should provide some amenity for its workers. The provision of a facility such as a café within an industrial area is probably best done by allocating a particular location, something like a corner shopping zone. In this case it would provide an appropriate use for a sensitive site which is fairly centrally located within both the existing and proposed development and which would ensure that such a facility is not developed on one of the less sensitive industrial sites displacing the intended activities elsewhere.

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GENERAL NOTES

1. Coordinates in terms of NZGD 2000, Lully Peak Horizontal Datum, SRS CGS2.
2. Levels in terms of South West Datum.
3. Outline indicates the proposed site plan information for the site.

AMENDMENTS

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Source	Name	Date
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Approved		

JOB TITLE:
GORDON INDUSTRIAL DEVELOPMENT
WANAKA

SHEET TITLE:
DRAFT CONCEPT 3

PATERSON PITTS LTD
 Heads Office: Hamilton, Auckland, Dunedin
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 Phone: 06 378 7077 Fax: 06 378 7088
 Job No: N2055
 File: L:\M\G\2055\land\concept3.dwg

SCALE: 0 A3 1:1000 SHEET No



REPORT TO: Vicki Jones – Senior Policy Analyst, QLDC
FROM: Marion Read – Principal Landscape Architect
REFERENCE: Plan Change 36 – Wanaka Industrial Zone Extension
DATE: Wednesday July 28th 2010
SUBJECT: **Addendum 2**

1. Subsequent to the addendum to my original report the following further questions have arisen from Council:

- Would you support 30% building coverage on the buildable area of the knoll enabling a building/s totalling around 450m² in area (single storey)?
- Do you agree with point 2 of the original assessment below; that a 10 m landscape strip is required as per the plan included on Pg 17 of her Oct 09 report? (this has 'fallen off' the plans in recent months but can be added back on, if required)

2. 6.1 Visual amenity effects from the north and east

Issue: the visual prominence of future development from the north and east and resulting adverse effects on the visual amenity of future residential and business areas.

Recommended mitigation measures:

• *Retention of the small knoll on northern edge of the upper terrace. Retention of this knoll and establishment of additional vegetation on it would screen part of the upper zone extension from points to the north and east of the assessment site, including the Three Parks Zone, the Puzzling World carpark and the Wanaka-Luggate Highway. The knoll would form a natural break between development on the lower and upper terraces and reduce the apparent bulk and visual prominence of built form. I recommend that this knoll be covenanted for protection as part of any adjacent industrial lots rather than being vested as a reserve. The area of land has very limited potential for recreational use and any reserves set aside would be better located between the industrial zone extension and future residential development to the west.*

• *Establishment of a landscape buffer along the other north-eastern and south-eastern edges of terrace to provide a vegetative break between lower and upper development and partially screen built development on the upper terrace. I recommend that the buffer be in the order of 10 metres in depth, with the type of planting to be established being part of an Outline Development Plan for the assessment site.*

In addition to these questions, comment was requested on the following matters:

- With regard to the buffer strip, it is proposed to narrow it to 15 m but with no outdoor storage allowed (including car parking) in this or any of the other open spaces – this means that storage and parking would still be an option but the cars will, as far as the Structure Plan is concerned, actually sit outside of the open space.
- Re earthworks on the open spaces, it is intended to include a rule making “any earthworks on open spaces which is not in accordance with an approved ODP or Landscape plan” non complying and include assessment matters which clarify that the

ground level (other than in the 'buildable area') should not be excavated/ lowered other than to enable the formation of naturalistic mounds.

2. Regarding site coverage on the knoll site, a 30% coverage would ensure a significant amount of open space and still allow for a fairly large building enabling the effective use of the site and the protection of the landscape value of the knoll. I think this would be satisfactory.
3. Planting on the terrace face could certainly have positive effects, including breaking up the dominance of the built form. It seems, however, that most of the escarpment along the north eastern and south eastern sides of the terrace is actually outside of the subject site. Also, the more southern portion of the buffer that was recommended is taken up with the southern service lane in the Patterson Pitts concepts. I would recommend that Lots 7-12 and 13 – 16, or whatever ends up along those boundaries, could simply be required to do some tree planting to the rear of their sites, without specifying a 10m no build strip, in order to break up all the built form. This would result in dense planting between the future low density res zones and some looser planting roughly in the middle of the industrial zone which would break up the density of the built area.
4. Regarding the buffer strip, this seems a sensible solution which should ensure its integrity for landscape mitigation.
5. Regarding earthworks contrary to the ODP or landscape plan, it would be my preference to make any earthworks within the buffer areas, other than those necessary to raise the ground level to mitigate noise and visibility, a prohibited activity. The land level within the buffer strips would not need to be lowered to create the required mounding as they would be being created on top of the natural land form. Non-complying status would not provide a guarantee that the intended outcomes would be achieved.

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