

# **APPENDIX I**

## **Consent Order (Env-2010-Akl-000024) and Evidence Presented As Part of the Te Kauwhata Zoning Plan Change**

**Appendix 1**

***Te Kauwhata Action Group Incorporated v Waikato District  
Council [2012] NZEncV 83***

BEFORE THE ENVIRONMENT COURT

Decision No. [2012] NZEnvC 83

**IN THE MATTER** of appeals under Clause 14 of the First  
Schedule to the Resource Management  
Act 1991 (**the Act**)

**BETWEEN** TE KAUWHATA ACTION GROUP  
INCORPORATED  
(ENV-2010-AKL-000024)

Appellant

**AND** WAIKATO DISTRICT COUNCIL

Respondent

Heard at: Hamilton, 14 - 15, 19 - 20 March 2012

Site Visit: 16 March 2012

Court: Environment Judge J A Smith  
Commissioner C E Manning  
Commissioner A J Sutherland

Appearances: Ms A J Davidson for Te Kauwhata Action Group Incorporated (**the  
Action Group**)

Mr L F Muldowney and Mr B A Parhan for the Waikato District  
Council (**the Council**)

Mr C C Potter for Jetco Waikato Limited - Section 274 Party (**Jetco**)

Mr M Randhawa for Silverstone Developments & Ors (Section 274  
Party)

No appearance for Surveying Company Pukekohe Limited (struck-  
out)

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DECISION OF THE ENVIRONMENT COURT

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- A. The zoning of Areas K1, D & M, as shown in Annexure A (attached), are confirmed as Te Kauwhata West Living as set out in Variation Statutes P6 in Variation 13.

The zoning of Area L, as shown in Annexure A, is deleted as Te Kauwhata West Living. This reverts to that in the Partly Operative District Plan as Country Living.

- B. The provisions of Variation 13 as a result of decisions are otherwise subject to finalisation, as follows:

1. The Council are to consult with the parties to see if this matter can be resolved by consent. We would require an updated Structure Plan and provisions, showing roading, stormwater and reserves, and the concessions made by the Council at hearing:

- a. This should be undertaken by the Council and circulated to the other parties within 30 working days;
- b. The parties then have 20 working days to see if the provisions can be agreed;
- c. If they cannot, then the Council is to file its provisions stating its preference, together with the position and comments of the other parties within a further 10 working days.

2. For clarity, we do not require a Subdivision Plan at this stage.

- C. Any application for costs is to be filed within 30 working days from the date of this decision, with a response in a further 20 working days, and final response for the appellant 10 working days thereafter.



## REASONS FOR THE DECISION

### Introduction

[1] Is it more appropriate that a block of land on the outskirts of Te Kauwhata in the Waikato District, be Country Living Zone or Te Kauwhata West Living Zone? The land is bounded by Travers Road, Wayside Road and Te Kauwhata Road at Te Kauwhata, and is adjacent to State Highway 1 between that highway and Te Kauwhata Village, which has the North Island Main Trunk Railway along its eastern edge.

[2] Immediately north of the subject site and within the bounds of the roads we have mentioned is a portion of Country Living zone which is complemented by a larger area to the north of Travers Road. Annexed hereto and marked **A** is a Planning Map showing the area of land, including the site the subject of this appeal as it was zoned as a result of decisions on the Structure Plan.

[3] The Te Kauwhata West Living Zone is the result of decisions of the Waikato District Council hearing this Variation. Also annexed as **B** is an aerial map of the area showing the various areas the subject of hearing before this Court.

### ISSUES

[4] From the perspective of the Council and the appellant, agreement had been reached that Area K1 should be included in Te Kauwhata West Living zoning, and that Area L should be removed. We should point out that the appeal did not relate to another area of Te Kauwhata West Living zoning to the south of Te Kauwhata Road, and that zoning and the provisions relating to it are now operative.

[5] The appeal is filed by owners of Country Living zoned land to the north of the area for which rezoning is sought. They seek the same zoning as the land they are living on, and issues of urban versus rural amenity are at the fore in their evidence.

[6] The relationship of visual effects to amenity and rural character drives much of the evidence in this case. Underlying this evidence there are assumptions as to how people wish to live at Te Kauwhata. Restated, the issue in this case could be seen as



whether or not the land in question should be part of the village of Te Kauwhata (being an extension to the west) or should remain on the periphery of Te Kauwhata.

[7] Behind this issue lie differing population expectations as to the demand for housing in Te Kauwhata in the next 20 - 50 years. The Council, for example, produced evidence which predicted the population would increase to 6,000 - 8,000. The appellant's expectation seems to be significantly lower. Essentially its argument is that either the land currently zoned Living Zone (new residential) or potentially able to be zoned as residential to the east is sufficient for future population growth. We acknowledge that there is a wide range of views, even between witnesses in this case, as to what constitutes a pleasant environment in which to live. There are also significant differences and expectations as to the population of Te Kauwhata into the future. The District Plan is an opportunity for each community to find a balance which works for that particular district. Fortunately the Court does gain clear guidance from the settled District Plan zoning provisions, including those settled in Variation 13, and these dictate the conclusion in this case which we will discuss later.

#### Settled Areas

[8] Before moving on to the substantive dispute, we consider that we are able to reach an early conclusion on the question of the land in K1 and L. The land at K1 was previously zoned Living, and has Living zones on its eastern and southern boundaries. It is flat land, already serviced with good positioning for roading access through the site. In short, save for the zoning issue, it appears to be ready for and is likely to be developed as residential land in the very near future. No other constraints were pointed out to the Court, and we have concluded that the best zoning for this land is Living, given that:

- [a] it fits the existing pattern of residential development;
- [b] there is no dispute as to its inclusion; and
- [c] services are already accessible to this site.

[9] Turning now to Area L, this area is to the east of Travers Road, and to the south of Moorfield Road. It essentially covers part of an area between the wetland to the South, and the higher land on Moorfield Road. Part of it is intended to remain Country Living, with the inclusion of a residential section within it. All the parties



agree that this is not an appropriate area to rezone as Living and we agree for the following reasons:

- [a] there is likely to be potential impact on the drainage ability of the area, given that some of the land close to Travers Road appears to be zoned Living rather than reserve;
- [b] the higher land towards Moorfield Road relates to the Country Living areas to the north, east and west; the lower land is close to the wetland;
- [c] no particular provisions are suggested in either the Te Kauwhata West Living or Country Living zones to protect the margins of the wetland; and
- [d] given that there is an area of Country Living on Travers Road to the south of this area, a zoning of Living would be disconnected from any other residential area of similar density. The area to the south of the wetland, which is residential, does not assist as it is separated by the low-lying drainage land.

[10] Although we will examine these matters under Section 32 of the Act again, later in this decision, having undertaken the fuller tests under Section 32 we have concluded that the parties have correctly agreed that this area should be excluded from potential development, at least at this stage.

#### **The Approach to Zoning**

[11] The Court does not start with any presumption as to one zoning being more appropriate than the other. Its task is essentially to evaluate the provisions of the Plan which are settled, to try to ascertain the intent and context of the two zones, and then to achieve the best fit in terms of the Plan provisions for this land. We then move to consider the various aspects of Section 32 as they bear upon this evaluation before reaching a conclusion under Part 2 of the Act.



### Plan Sequence

[12] As is becoming increasingly common, councils often undertake various tasks under different legislation, which may have implications for RMA, but have no statutory force in this Court until they are incorporated into an RMA document.

### THE OPERATIVE DISTRICT PLAN

[13] In this particular case, the Council was proceeding with the proposed Waikato District Plan in 2007, and the provisions relating to Te Kauwhata were largely operative. It subsequently resolved in July 2011 to make that Plan partly operative on 16 July 2011.

[14] However, in the meantime, it was clear by 2009 that the partly operative provisions of the Waikato District Plan did not reflect the Council's emerging long-term growth strategy. This was encapsulated in both future-proof strategy and district-growth strategy. Accordingly, the zoning that had been adopted in the District Plan essentially saw the containment of the existing village with some modest growth, and with the area to the west of the railway line a small amount of existing residential, a modest extension area K1, with the balance Country Living. The land zoned for further residential which was not at that stage developed included an area demonstrated on Plan annexed here as C, being the zoning prior to the Te Kauwhata Structure Plan.

[15] Accordingly, Variation 13 was introduced to address new expectations as to future population growth, and to make zoning alterations to the partly operative WDP.

[16] Nevertheless, the underpinning philosophy of the District Plan (use of zones) is now set out in the partly operative Plan, and Variation 13 as we examine in due course merely makes minor alterations to the provisions.

### THE WAIKATO DISTRICT PLAN

[17] The partly-operative Waikato District Plan (WDP) refers to *Land Use Pressures*, including:

#### 1.4 Land Use Pressures

Urban expansion, land subdivision, rural lifestyle demands and soil erosions can compromise access to versatile soil and mineral



resources that are of economic importance to the district and the region, as well as contributing to the loss of cultural and heritage values. Rural residential uses can be sensitive to the effects of mining, farming, intensive farming, and horticulture operations and there is potential for conflict.

[18] In *Rural Land*, it is noted:

### 1.5 Rural Land

... There is potential for conflict between rural activities and other land uses including residential activities on lifestyle blocks ... Clustering of residential activities around villages will be favoured to minimise cross-boundary conflicts, including those caused by reverse sensitivity.

[19] In *Towns and Villages*:

### 1.6 Towns and Villages

The vision for the future of the towns and villages of the district is that:

- (a) the amenity, quality of life, and wellbeing of the residents and their community will be maintained and improved
- (b) the environment will be safeguarded as development proceeds
- (c) existing towns and villages will be consolidated in preference to new towns being created
- (d) services will be provided for new residential development
- (e) a sense of place will be fostered, with urban design that complements both human scale and physical setting

[20] Later at *Te Kauwhata*:

#### 1.6.4 Te Kauwhata

Te Kauwhata will grow in response to demand for housing within commuting and day trip distance of Auckland, while retaining its rural village atmosphere. Population growth is also expected to arise from growth in the wine industry, tourist industry, and arts and crafts. Business activity may expand to service the surrounding population. Residential development will offer a variety of allotment sizes while retaining rural views, trees and open space. Low-density residential development will be favoured over infill.



[21] When we come to Issues, Objectives and Policies, two chapters that are of particular interest for this case are *Chapter 6: Built Environment*, and *Chapter 13: Amenity Values*.

#### **Chapter 6: Built Environment**

[22] Objective 6.2.1 refers to *development that is connected or grouped around infrastructure*. This is supported by policies including:

##### **6.2.2**

Subdivision or development should be located, and have a density, scale and intensity, to ensure efficient use of land, public facilities and utilities.

##### **6.2.3**

Residential and business development should occur in current towns and villages in preference to isolated rural locations.

[23] Policy 6.3.1 reads in part:

#### **6.3.1 Disconnected and Scattered Development**

This objective encourages urban consolidation to safeguard the environment, promote community wellbeing, and ensure public infrastructure and utilities are used as efficiently as possible. In smaller villages that are not fully serviced, a compact urban form is desirable to achieve the economies of scale necessary to provide new services. The objective also contributes to other objectives of the plan relating to preserving agricultural land, rural character, and natural features and landscapes.

[24] Policy 6.3.2 addresses *Efficiency and Effects*:

#### **6.3.2 Efficiency and Effects**

While the first policy encourages efficiency through urban consolidation, it also recognises that there are limits to density, scale and intensity of development. The adverse effects of over development include loss of character of the locality, environment effects and conflicts between activities that are too close in proximity.

[25] Policy 6.3.3 deals with *Residential and Business Development*:

#### **6.3.3 Residential and Business Development**

This policy ensures that residential, business and industrial development is consolidated into current towns and villages. This promotes the vitality of existing towns and villages, and the efficient use of infrastructure. The policy is also aimed at preventing new



residential clusters being created in rural areas by cumulative rural subdivisions ...

[26] When it comes to *Chapter 6.6*, an issue is identified with land use intensification (including subdivision), and its environmental effects. Objective 6.6.1 provides:

6.6.1

Adverse effects of use and development are avoided by provision of wastewater and stormwater disposal, supply of water, energy and communications.

[27] Policy 6.6.2 provides:

6.6.2

Where land is subdivided or its use intensified, then adequate water supply, wastewater treatment, and land and stormwater drainage must be provided to each allotment, by connection to available reticulated services, or by on-site facilities where reticulated services are not available.

[28] From this it is clear to us that the WDP Objectives and Policies have a definite preference for reticulated services over on-site facilities. Importantly, in the *Reasons and Explanation 6.7* and *On-site Management 6.7.1*, it is identified that:

... Water supply, wastewater treatment, drainage, and electricity and telephone connections make important contributions to amenity, as well as to health and safety and the environment generally.

[29] When we turn to look at the *Anticipated Environmental Results 6.12*, we can see under *Issues 6.12.1 – Scattered development* that *intensification of development where appropriate* is seen as one of the outcomes.

### Chapter 13: Amenity Values

[30] The *Chapter 13.1 Introduction* identifies green and open spaces among other matters that contribute to amenity values. It is clear, however, that other matters such as infrastructure and utilities also contribute to amenity values as is explained in Chapter 6. It is recognised that residential amenity in rural areas will be affected by existing rural activities, explicitly that:

... The towns of Raglan, Ngaruawahia, Huntly and Te Kauwhata, and the rural villages and localities, all have different amenity values that add to the diversity of the district.



[31] This theme of containing similar activities with similar effects and maintaining compatibility with the amenity and character of localities is carried through in Objectives 13.2.1 and 13.2.2. Zoning is seen as an appropriate response, *Zones 13.3.4*, and the fact that amenity values occur in different localities, *Localities 13.3.3*.

[32] It is also noted that economic and community wellbeing is enhanced by providing a degree of certainty about the effects likely to be encountered in a locality. *Chapter 13.4 Issue – Subdivision, Building and Development* recognises that subdivision can have adverse effects on amenity values, and Objective 13.4.1 identifies that:

13.4.1

Amenity values of sites and localities [should be] maintained or enhanced by subdivision, building and development.

[33] Importantly, although Policy 13.5.5 refers to view sharing, the Policy does not set out to preserve views from private land.

**Is the Country Living Zone a Rural Zone, demonstrating Rural Character?**

[34] One of the core issues that arises in this case is the assertion that the Country Living Zone is in fact a Rural Zone, and thus the zone exhibits a rural character. Many plans in New Zealand have a dichotomy between rural and urban zoning. This Plan does not include Country Living Zone as a Rural Zone. Rural Zones are provided under Chapter 25. Instead, some Special Zones are provided for in Chapter 26 with *Coastal Zones*, and Chapter 27 with *Country Living Zones*. Chapter 27.2 states:

27.2 The Country Living Zone provides for low density living at specific locations in rural areas. Rules seek to manage activities to maintain a high standard of amenity.

[35] This compares with Chapter 25.2, which states:

25.2 ... It is anticipated that the amenity values experienced by residents of the Rural Zone will be lower than those enjoyed in the Living Zone.

[36] Although no explicit discussion of the Country Living Zone is given, one would assume a level of amenity affected by the lower amenities of the Rural Zone, but still to a high standard. The Country Living Zone allows subdivision down to 5,000m<sup>2</sup> and on-site sewage disposal can be provided as an alternative to connection



to a reticulated system. It appears that many of the properties are receiving some form of reticulated water by trickle delivery, but we noted that many had tanks on site. It also appears that power is supplied, largely by overhead line. A number of properties are accessed from a single long entry from the road, e.g. the Peach property on Wayside Road, and there have been several Country Living subdivisions which have sections around the 5,000m<sup>2</sup>. However, most of the sections within the Country Living areas to the north of Areas M, and D are larger than 5,000m<sup>2</sup>. There is also an area of business zoned land on Wayside Road near the corner with Travers Road. This is subdivided to smaller sizes again, and seems to be largely utilised for housing.

[37] Mr C C Potter, a property developer and shareholder in Jetco told us that Jetco undertook the development of the Country Living area to the north of Area M on Travers Road, and found that there were groundwater springs creating some difficulties for the design of septic tank fields. The low-lying wet area between Area M and this Countryside Living area is such that we would consider there are likely to be groundwater issues in the area, and other springs. Certainly there is catchment drainage running through this area, and exiting eventually to the wetland which is the reason that proposed developments of this area and the area to the east of Travers Road all demonstrate water catchment areas.

[38] The land in Areas M and C exhibit rural characteristics, being an orchard, a grape vineyard, and other crops and open pastureland. Given its proximity to State Highway 1 and the town, it cannot be said to have a truly rural character, but nevertheless is clearly currently being used as rural land. The area to the north of D and M, to Travers Road, has a more residential quality. We would describe it, even as it stands, as large lot residential, and perhaps as residential land-in-waiting. We so conclude because the land on the corner of Travers Road and Wayside Road conditions our expectations as to the type of development, given that the sections in that case appear to be in the order of 800m<sup>2</sup> - 1,000m<sup>2</sup>. There are also houses relatively close to the side of the road along Wayside Road, and Travers Road, most of which give the impression of being residential lots. On many occasions the house and curtilage occupies around 1,000m<sup>2</sup>, and the rest appears to be either in pasture or just mown lawn. The larger sites, towards the interior of the block, are not so easily seen from the road but do give a more open, although still mixed, view. If the sections were developed to 5,000m<sup>2</sup> this area would clearly appear as a large lot residential area associated with Te Kauwhata.



[39] The land to the north of Travers Road has a more transitional nature currently, and has the appearance of more rural land beyond the immediate environs of Travers and Moorfield Roads. Overall it gives an impression of rural farmlets rather than large scale residential lots. If this area was developed to 5,000m<sup>2</sup> per lot, it would be difficult to know how it would provide a transition into Te Kauwhata village.

[40] Certainly one would anticipate a higher level of development south of Travers/Moorfield Roads, which is more immediately associated with the village. There is no doubt that the village is unable to expand significantly to the north or south east of the railway line, bounded as it is by the Whangamarino wetland and Lake Waikare. The designation of a bypass road shown on Annexure A, in our view marks the practical demarcation of the village to the south, at least for residential purposes. There is the potential for further residential development between State Highway 1 and the bypass south of Te Kauwhata Road, but again the potential for that is particularly limited – probably again to some form of Country Living similar to that north of Travers/Moorfield Roads.

#### *Town Limits*

[41] We agree that the State Highway 1 constitutes a clear and defensible boundary for the town to the west, and that Wayside Road in practical terms constitutes the limit of the town to the east. Currently Swan Road constitutes the limit to the town to the east. Although there is the potential for further expansion at least to the east of Swan Road and north of Waerenga Road, topography would limit expansion in this area. For our part, we have concluded that the potential rezoning of the land D and M is an appropriate extension to Te Kauwhata for the following reasons:

- [a] There is already residential development on the western side of the railway line;
- [b] The railway line does not divide the town in any cultural sense, it simply limits access points;
- [c] The area will always be seen as part of Te Kauwhata because it sits between State Highway 1 and the centre of the town;



- [d] The main access road to Te Kauwhata is Te Kauwhata Road. Although an alternative might be to use Travers Road, this would travel around the boundary of the subject site.

[42] Accordingly, we have concluded that the WDP anticipates residential development around Te Kauwhata and that Areas D and M are appropriate for it. Clearly both the Country Living Zone or other Living zones would be appropriate zonings on this site. To ascertain the justification for the Te Kauwhata West Living Zone, we must turn to the Variation 13.

### VARIATION 13

[43] Variation 13 appears to have developed as a result of further work by the Council in estimating populations, and involves a number of changes to the Plan to recognise and provide for such population increases. We have already cited the previous *1.6.4 Te Kauwhata* of the WDP. Variation 13 now deletes the existing text and inserts:

#### 1.6.4 Te Kauwhata

Significant growth is expected at Te Kauwhata. This is managed under the Te Kauwhata Structure Plan, see Chapter 15A.

[44] It can be seen from this change that, in fact, the change is not an acknowledgement of growth in the area, but rather the use of the Structure Plan method to address such growth.

#### Variation 13 - Chapter 15A: Te Kauwhata Structure Plan

[45] The introduction to Chapter 15A gives far more detail as to the growth anticipated, formerly under the provisions of the WDP now replaced. It *anticipates a population in Te Kauwhata of 7,800 by 2061*, and states that:

... This chapter presents plan provisions that are specific to the Te Kauwhata Structure Plan area, as shown in the planning maps, which are designed to ensure growth is properly managed ...

[46] Overall, it is clear from the introduction compared with the WDP, that both provisions recognise Te Kauwhata as an area for growth. Chapter 15A, however, is more specific about the population anticipated (7,800 from the growth strategy) and the method by which this is to be achieved. For current purposes we can assume that



the majority of the provisions of this amendment are operative, given that the only outstanding appeal relates to the actual zoning of these pieces of land. Although there was a great deal of dispute about the population calculations, these were agreed by the parties in a joint statement, and the provisions of the plan itself, including the statement of population at *Chapter 15A.1 Introduction*, is not the subject of appeal.

[47] We therefore proceed on the basis that the settled objectives and policies subject to the Variation now recognise the need to provide for 7,800 people by 2061, and to do so on a basis which manages that growth while avoiding the adverse effects identified in *15A.2 Issue – Te Kauwhata effects of growth*. The chapter explains that poorly managed urban expansion in Te Kauwhata has the potential to produce:

#### **15A.2 Issue – Te Kauwhata effects of growth**

... a loss of village character; a lack of community or neighbourhood identity; a loss of landscape values; low residential amenity; conflicts with heavy and through traffic; poor connectivity and lack of transport options; inefficient development of infrastructure; conflicts between land uses; degraded water quality and loss of natural habitat and ecosystems; and a lack of quality open space and amenity, including streetscapes.

[48] For the purposes of this appeal, the Court has no ability to change the content of the Country Living Zone, but does have a wide discretion to change the content of the Te Kauwhata West Living Zone if it concludes that this is appropriate, so long as the provisions provide for development broadly within the densities envisaged for each zone. Fundamentally, it is difficult to see how the particular adverse effects described in the issue statement can be addressed by Country Living Zone, which does not contemplate or address population growth generally, or the adverse effects thereof. Though quite clearly it addresses the question of open space and amenity, it is difficult to see how Country Living can address the other aspects in a detailed way.

#### **Chapter 15A: Te Kauwhata Structure Plan**

[49] Objective 15A 2.1 indicates the Te Kauwhata Village characteristics should be maintained and enhanced. We do not consider that the Country Living Zone is currently part of the village, mainly because the developed area is currently disconnected from Te Kauwhata Road and the village entry. Essentially the Country Living area has been concentrated into the Travers Road/Wayside Road area, particularly to the north. Areas D and M are currently Rural land, with a vineyard operated over part, and other pastoral activities over the balance. Although we would



have described the area of K as part of the residential containment of the village, even though undeveloped, the same could not be said of the Country Living residences further north of Travers Road, Moorfield Road or Wayside Road.

[50] Policy 15A 2.2 indicates that:

15A.2.2

Development should contribute to the Te Kauwhata village character, including:

- (a) a predominance of residential lots that contain significant open space
- (b) retaining amenity trees
- (c) public open space which is conveniently accessed and highly visible
- (d) retaining views to natural landscape and features
- (e) a strong association with rural amenity values
- (f) compact form that does not sprawl into the countryside
- (g) integrated development that reinforces the town centre as a community focal point
- (h) convenient access to light industries
- (i) locating light industry predominantly along heavy traffic routes
- (j) recognising cultural and historical values and land uses including horticulture, viticulture and traditional Māori values
- (k) the integration of buildings, private open space and public open space
- (l) a general consistency of building scale that integrate into the natural landscape
- (m) compliance with the Te Kauwhata Structure Plan and Urban Design guide.

...

[51] There follows Objectives 15A2.3, 15A2.7, 15A2.10, 15A2.15, 15A2.18, 15A2.22, 15A2.23, 15A2.26, 15A2.28, and 15A2.31. This is followed by discussion of the town centre, open space, and amenity values, living and working environments, infrastructure developments, hydrological characteristics, ecological values, public access, flooding and drainage, land transport.

[52] Fundamentally, we consider that the appellants have misunderstood the purpose of the Variation. This is to provide for expansion of the Te Kauwhata Village



in a managed way, particularly to provide for the population anticipated. Given the agreement of all the experts, including those for the appellants, as to population estimates likely to be achieved, albeit more slowly than originally anticipated, the question is where that population should be provided for in the village. Given that the current village footprint is not of sufficient size, it must be extended. Given the very limited ability to extend to the north and south, due to the wetland and lake, it is clear and accepted by witnesses that expansion must occur to the east and west. In relation to the west, the residential area of the village has already crossed the railway line, and is therefore only limited by State Highway 1. All witnesses accepted that SH1 was an appropriate boundary for the village.

[53] To the east, the demarcation point is not so clear. What is clear, however, is that it is moving into clear rural land where issues as to competition between rural land use and urban use become of some importance. There are limitations in relation to Swan Road, given it is used as access to a major quarry. Although we do not see this as a final boundary line, it is clear that at the time of examination the Council considered Swan Road to be an appropriate demarcation point to the east, given that they had designated a bypass route (around Te Kauwhata village) with Swan Road as its eastern route.

#### **Role of the Country Living Zone**

[54] Fundamentally therefore, the Variation requiring provision for greater extension of the village requires land that is zoned for Country Living as opposed to that for rural purposes. We cannot see how Country Living zoning is appropriate, being, as it is intended to be, in rural areas. We agree with Mr Raeburn that a Country Living Zone can be a legitimate transitional zone between rural and urban town/village areas. The most significant problem with such a zoning is that the form of development to which it gives rise cannot be adapted to provide for more conventional urban densities when population pressure requires denser occupation of land on the periphery of towns and villages.

[55] As Mr Raeburn accepted, there are major difficulties with rehabilitating Country Living areas for residential use, not the least of which are the difficult ownership patterns involving often multiple homes off long accessways, difficulties of installing infrastructure including sewer and stormwater, major difficulties with upgrading public space with footpaths, underground power, street lighting and the like, and the difficulty of maintaining appropriate urban design with street frontages to



houses. We agree with Mr Raeburn that in the case of this land, those areas already developed as Country Living are going to prove very difficult, if not impossible, to incorporate into residential zones in due course.

[56] We also agree with Mr Raeburn, that Country Living zones have a legitimate role on a permanent basis to provide a buffer between rural areas and residential areas. Unfortunately, no plans that we are aware of properly provide for this as a method of development. On a permanent basis one would imagine that this would involve covenants against further subdivision, and a notation on the title. The District Council is in a very fortunate position, in that the land closest to the village boundary that was previously zoned Countryside Living is still undeveloped. There is, in our view, a rare opportunity to provide for a consolidation of the village to the west by rezoning this land as residential and thereby providing for a significant population increase without utilising the important rural land resources producing an uncoordinated form of development lacking appropriate connectivity.

[57] An application of all of the provisions of Chapter 15A that we have discussed leads to the inevitable consequence that the Council sees a section size similar to that of the existing village (around 800m<sup>2</sup> from our observation) with good quality street amenities, trees and recreation areas, and provision of advanced infrastructure (sewer, underground electricity and the like) as being an appropriate development for Te Kauwhata.

[58] Although the Country Living Zone does provide a form of consolidated residential dwelling, it does not provide for an integration of infrastructure requirements. Nor does it reduce the impact upon the rural land resource. Put in simple terms, 8,000 more people within the Country Living Zone around Te Kauwhata would involve (at 2.3 persons per household) 3,000 homes or 1,500 ha. Mr Raeburn agreed that this would be unacceptable as a demand and we consider that this would be contrary to the objectives and policies of the Plan as a whole.

[59] In respect of providing further residential Living Zones in Te Kauwhata, it is clear that the Council considered that the various elements of village character would be recognised by development of the type now broadly envisaged. We can indicate that the provisions now sought to be included allow for larger average lot sizes, and involve some significant improvements in terms of amenity over that originally proposed in the notified Plan.



### Village Characteristics

[60] Nevertheless, it is the Te Kauwhata Village character that is seeking to be repeated, not that of the surrounding Rural or Country Living Zones. Amenity in this context is more to do with public open space, recreation reserves, infrastructure. The Explanation and Reasons for the policies at 15A3.3 discusses *Landscape, open space and amenity values*, and describes a *backdrop with views towards Whangamarino Wetland, Lake Waikare and beyond to the Hapuakohe Range*. Vegetation, landforms and waterways are also mentioned, with the Plan noting that it:

... is envisaged that subdivisions will be designed to take advantage of features within a site to create identity and to reflect increasing community interest in environmental issues ...

[61] In this regard the waterway through the site and the retention area appear to be envisaged by the developers as being developed in this way. In short, the appellant's contentions that private open space is intended to provide amenity for the Te Kauwhata Village are not reinforced by reference to either the general plan provisions, or those under Chapter 15A (Section 32 of the Act tests).

[62] The purpose of the Court's examination is to discuss which zone is most appropriate or better for this site. Given the matrix of objectives and policies supporting the Te Kauwhata West Living Zone, it is difficult to see how the Court would be able to reach any other conclusion than that the specialised zoning designed for these areas is the more appropriate zone. It is clearly more efficient in terms of both land use and enabling the utilisation of infrastructure, including waste water treatment.

[63] It offers higher levels of amenity to the village in terms of roading networks, recreational areas, street lighting, footpaths; the cost of this is borne by the developer and is able to be realised through section sales by virtue of the density being achieved. Nevertheless, it appears that the densities that the developer has in mind are within the frame of those considered by the Plan to maintain the character of the Te Kauwhata Village. We are confident that from within this area there will still be clear views towards wetland and waterways, and with further views into the countryside beyond.

[64] Although we acknowledge that there will be an adverse effect on the views of those living in the Country Living Zone, it is clear that the Plan contemplates that those in the Country Living Zone will be proximate to villages and town. We have



concluded that this means they will have visual impact as well as impact in terms of noise, light and the like, from the village which they surround. Although inefficient, Country Living Zones are provided for because they provide a transition between the general rural area and its impacts, and the impacts of its rural activities, and the residential area with its high level of urban amenity.

[65] Clearly, the Living Zone of Te Kauwhata West is more effective and efficient in delivering the objectives for housing future population. Given the statements in relation to amenity contained within the Plan, and the activities that require consent, we are confident that the planners in examining subdivisions will be seeking to ensure that the village character is maintained. We cannot have the same faith that the village character would be maintained through Country Living. Such a zoning would essentially remove it from the Structure Plan, given that only changes to the Planning Maps were shown and accordingly Structure Plan Planning Map 25A Zone does not show any Country Living. Removal of these areas of land from that would simply revert them to their previous zoning, unaffected by Variation 13. As such, none of the provisions of that variation would apply, meaning that such a zoning could not, by its very operation, seek to achieve or implement the objectives and policies of Variation 13.

[66] When we come to consider the question of costs and benefits, these would have to be broadly evaluated in terms of achieving the objectives and policies of Variation 13. While Country Living Zone might achieve and implement the policies and objectives relating to general growth in the original Plan, the provisions of 1.6.4 *Te Kauwhata* at least have now been changed, and the Structure Plan has become central to achieving the growth envisaged by the Plan. Given that Countryside Living is outside the Structure Plan, by definition Countryside Living is not designed to achieve the purpose of Variation 13, or the general provision as now altered to seek growth in Te Kauwhata.

[67] In terms of cost, therefore, a major purpose of the Variation would not be achieved. This would require a further variation to be introduced to identify how the Structure Plan could achieve the population growth envisaged. It seems to be tacitly acknowledged that the current growth figures, with the removal of the land in L and certain other areas, means that the total target cannot be achieved in any event.

[68] Overall we have concluded that only the adoption of this land as Te Kauwhata West Living achieves and implements the objectives and policies of Variation 13.



## PART 2 OF THE ACT

[69] In the end, all the powers, including those under Section 32 of the Act, are to achieve the purpose of the Act. This is to provide for managed use and protection of natural and physical resources in a way or at a rate that enables people and communities to provide for their social, economic and cultural wellbeing, and health and safety while meeting Section 32(2)(a),(b) and (c). In the end the only way in which we can see that Variation 13 can be achieved is by the adoption of the Te Kauwhata West Living Zone.

[70] Putting the matter more broadly, it is our view that the village of Te Kauwhata is enhanced by the development of further areas at similar densities, and with at least the same if not higher standards of construction, footpaths, lighting. All areas would be connected to sewer, and linked into a single community structure. This enhances the facilities provided by the village, by reinforcing the schools and other community facilities with ongoing population into the future years. This also gives a spread of section sizes and style of housing for people who wish to live in the area.

[71] Overall we conclude that the appropriate zoning of this area is Te Kauwhata West Living Zone. This will achieve the purposes of the Act and the objectives and policies of the Plan.

### The Contents of the Zone

[72] By the time of the hearings, the arguments between the parties as to the contents of the zone had narrowed considerably. Most of the issues were resolved, and in the event the Court felt that it was appropriate to zone the land as Te Kauwhata West Living. The Council's draft provisions for the zone are annexed hereto.

[73] There was some discussion by witnesses for the appellants as to whether or not there should be some form of large lot along the common boundary with the residential zone. We acknowledge that the area on D will be visible to people such as Mr Peach living in the dip off Wayside Road. For the most part, after planting and growth of trees, there will be partial views of houses, it will be clear that there will be a greater concentration of houses in the Te Kauwhata West Living Zone, than within the Country Living Zone, but this will be most obvious to those with boundaries adjacent.



[74] Overall there is a buffer area on M relating to the low-lying wetlands, which provides an adequate buffer between sites. In respect of the boundary on D, which abuts the Country Living Zone, there was some discussion about whether the Court should provide larger sections, say 1,200m<sup>2</sup> – 1,800m<sup>2</sup> or 40m common boundaries for each lot, or some other mechanism for control. We recognise that the hillside will be visible, and even larger sites immediately adjacent to the boundary will not prevent views of other buildings further into the subdivision.

[75] A reduced density on the new zone boundary could reduce the impacts on privacy, and lessens the impact on spaciousness that is an important element of living in some *countryside living* areas. We consider sections 30m wide with a 6m setback from the zone boundary could achieve this. We do not think such a section on the zone boundary provision is necessary where a road separates the two zonings, but only where properties from each zone abut each other.

[76] We recognise that houses in close proximity to the site boundary between Country Living and Te Kauwhata West Living Zones creates clear contrast in housing density.

## CONCLUSION

[77] For the reasons we have set out, we have concluded that areas M and D are most properly zoned as Te Kauwhata West Living, as demonstrated in the Plans. We do understand that the balance of the area owned by Jetco adjacent to M, shown in some maps as C, was to be utilised and an area further into the site was to be utilised for residential activity. It would be our preference that the balance of Area C is shown as reserve if that is the intention of the Reserve/Recreation Zone, along with the hilltop area. We also consider that a more detailed Structure Plan needs to be provided, showing in broad terms the subdivision of the site, including:

- [a] areas of waterway which are to be retained as Recreation or other reserve zoning;
- [b] areas for water ponding at the bottom of the site, including any areas of M and C; and
- [c] the roading plan through the site.



[78] On this basis we would accept that there could be an indication of section sizes subject to modification in due course to achieve the overall average and balance anticipated in terms of the Plan provisions. We would also consider that such a Structure Plan should show in relatively precise terms the stormwater runoff catchment and ponding system, and the wastewater, power and telephone reticulation. In addition to street treatments, in this regard we understand that the main arterial running through the site would be a double boulevard with trees in the centre island. We also understood that the area would have at least one footpath and street lighting.

[79] We wish to give an opportunity for the Council to consult with the parties to see if this matter can be resolved by consent. We would require an updated Structure Plan and provisions, showing roading, stormwater and reserves, and the concessions made by the Council at hearing:

- [a] This should be undertaken by the Council and circulated to the other parties within 30 working days;
- [b] The parties then have 20 working days to see if the provisions can be agreed;
- [c] If they cannot, then the Council is to file its provisions stating its preference, together with the position and comments of the other parties within a further 10 working days.

For clarity, we do not require a Subdivision Plan at this stage.

[80] The Court would then proceed to finalise the Plan provisions.

[81] This does not appear to be appropriate occasion for costs. However, if notwithstanding an application for costs is made:

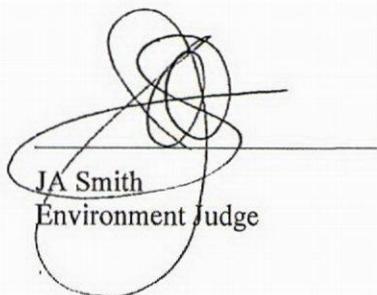
- [a] It is to be filed within 30 working days from the date of this decision;
- [b] Response to be filed within 20 working days; and
- [c] Final response for the appellant 10 working days thereafter.



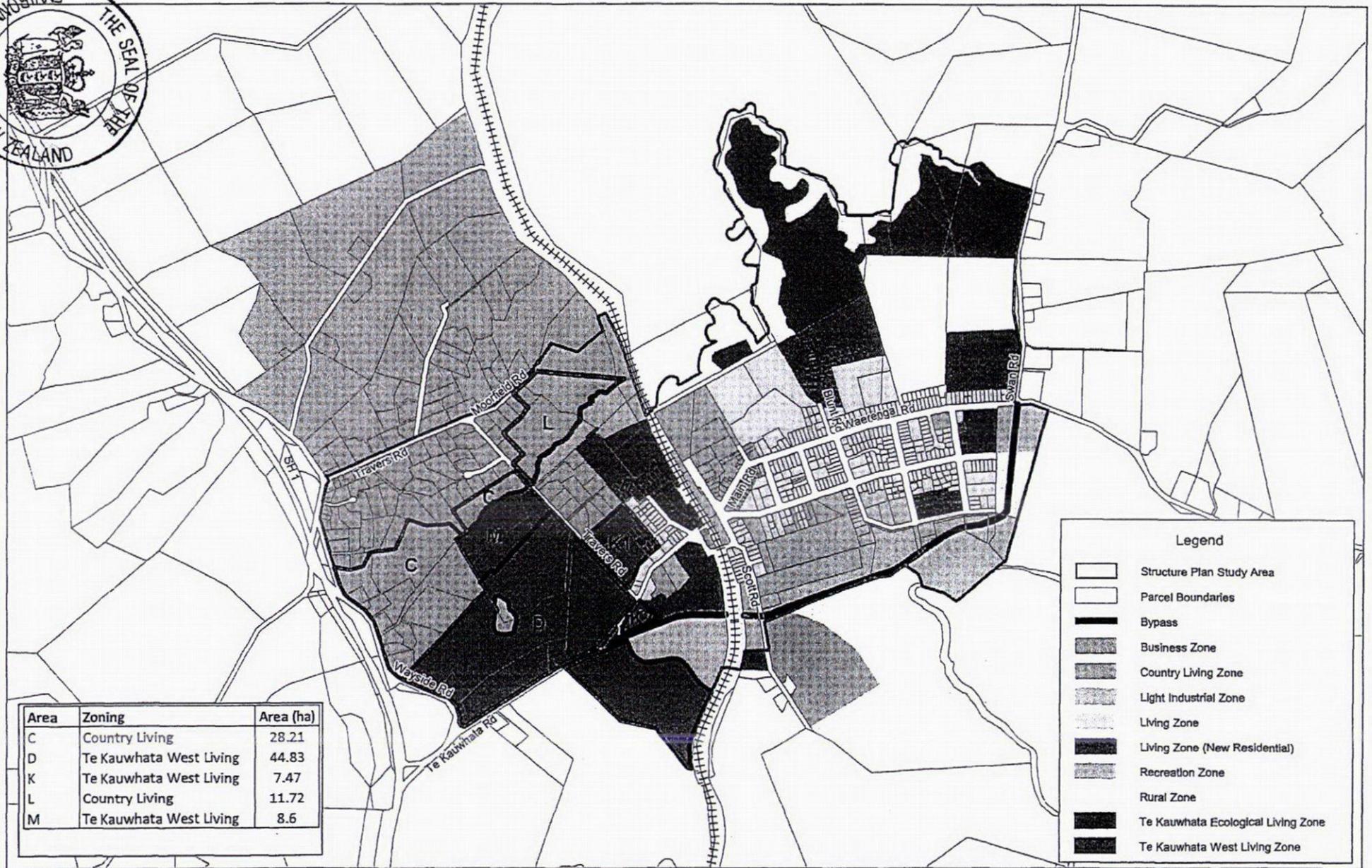
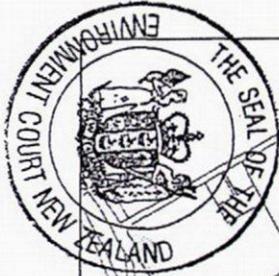
[82] The intention is that questions of costs will reach the Court simultaneously with those relating to final provisions.

DATED at CHRISTCHURCH this 1<sup>ST</sup> day of May 2012

For the Court

  
JA Smith  
Environment Judge





Area	Zoning	Area (ha)
C	Country Living	28.21
D	Te Kauwhata West Living	44.83
K	Te Kauwhata West Living	7.47
L	Country Living	11.72
M	Te Kauwhata West Living	8.6



**Te Kauwhata Structure Plan Zonings at Council's Position March 2012 with Identifiers**

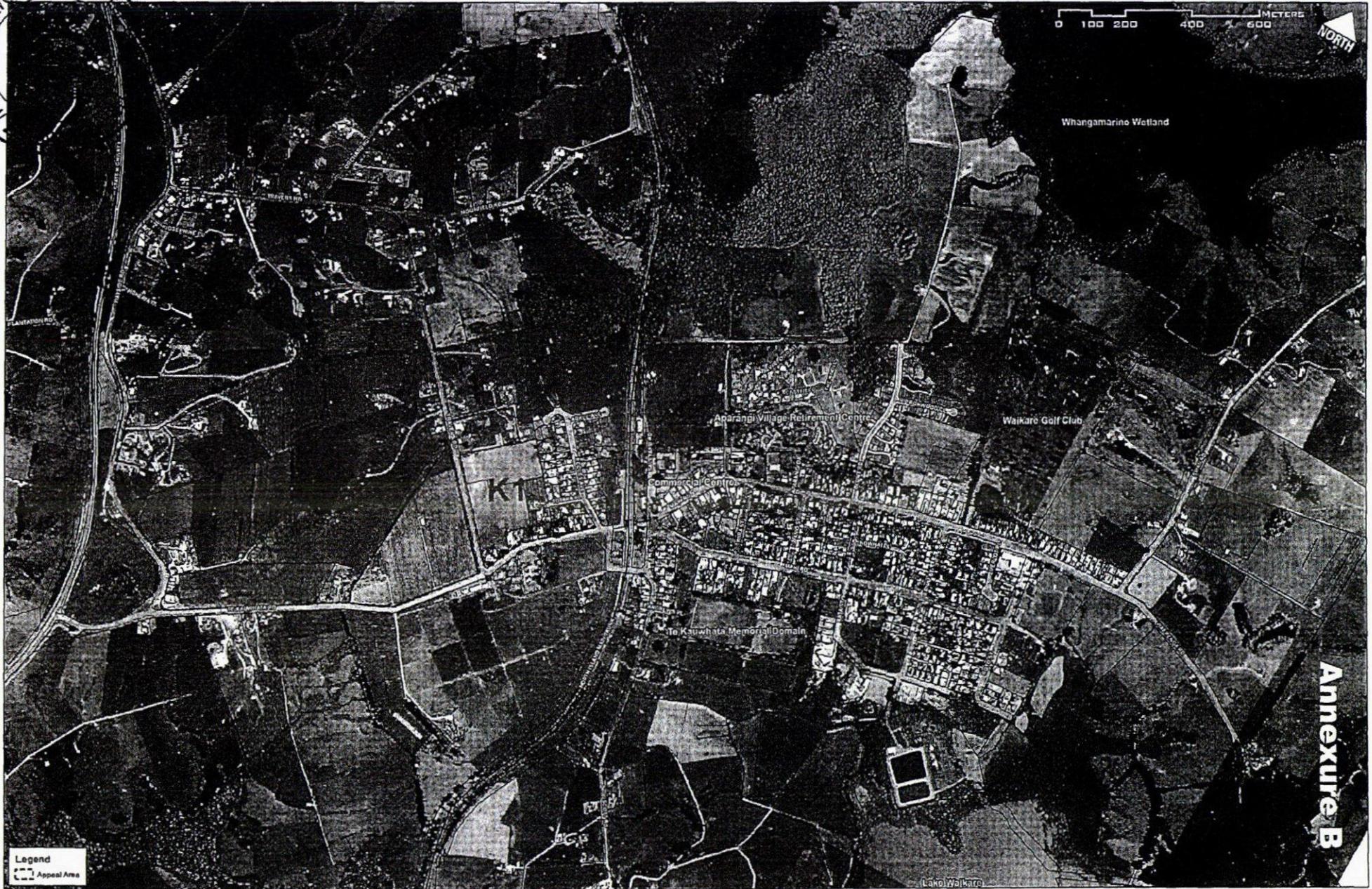
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 Meters

GIS DEPARTMENT  
 Created By: Allans  
 Created For: BMC  
 Date Created: 13/03/09 12  
 Prepared: NZTA  
 Status: 2000  
 Revision No: H05373

Information on this map is derived from the following sources:  
 1. Waikato District Council GIS Database  
 2. Waikato District Council GIS Database  
 3. Waikato District Council GIS Database  
 4. Waikato District Council GIS Database  
 5. Waikato District Council GIS Database  
 6. Waikato District Council GIS Database  
 7. Waikato District Council GIS Database  
 8. Waikato District Council GIS Database  
 9. Waikato District Council GIS Database  
 10. Waikato District Council GIS Database

NORTH  
 A3

ENVIRONMENT COURT NEW



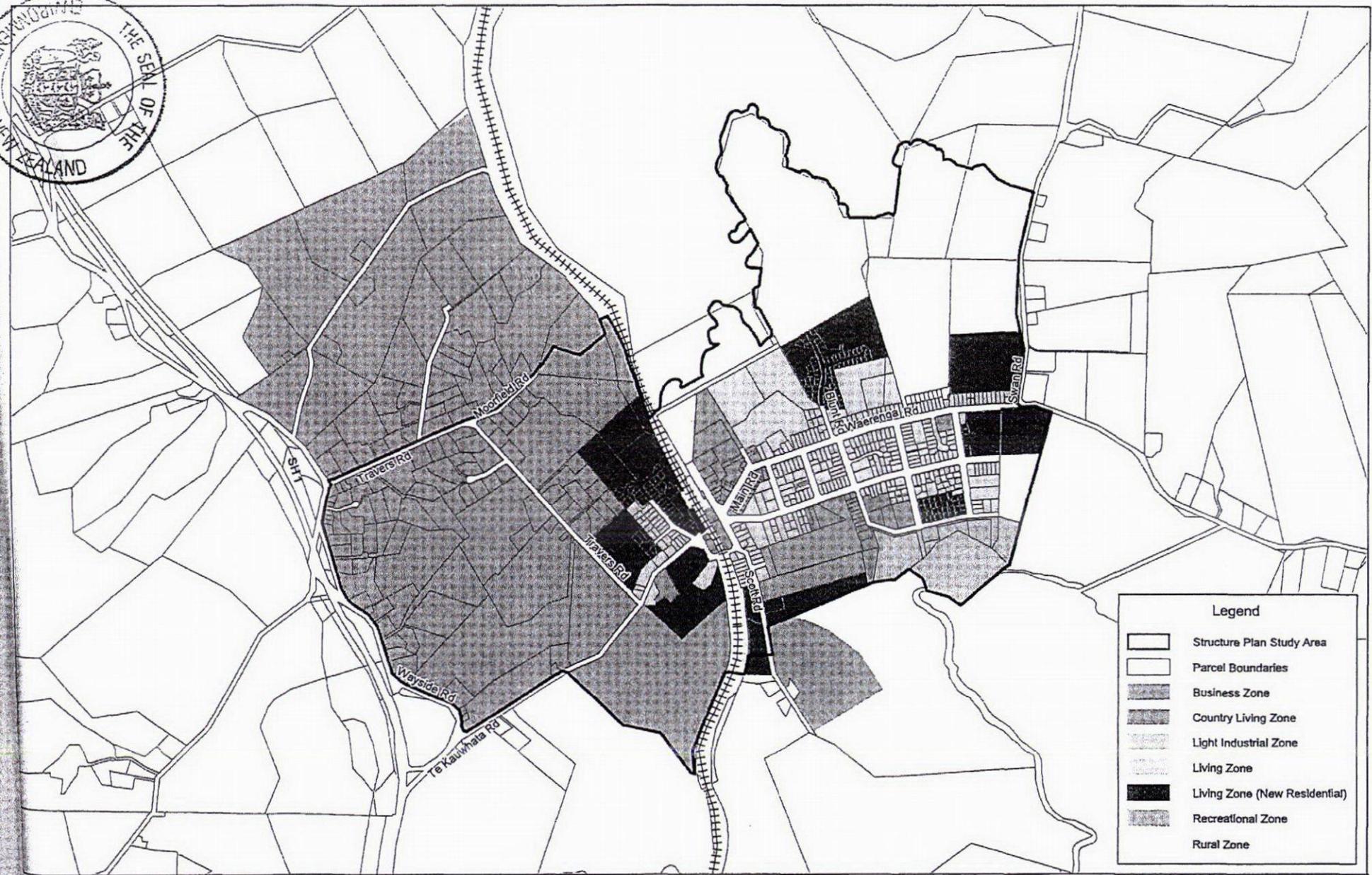
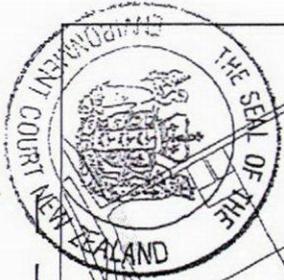
Legend  
--- Appeal Area

PROPOSED TE KAUWHATA WEST LIVING ZONE

APPEAL AREA

SCALE 1:10,000 AT A3, MARCH 2012, MAP No:21 REV-D





Legend	
	Structure Plan Study Area
	Parcel Boundaries
	Business Zone
	Country Living Zone
	Light Industrial Zone
	Living Zone
	Living Zone (New Residential)
	Recreational Zone
	Rural Zone



Operative Zoning prior to Te Kauwhata Structure Plan

26/1/10

Scale: 1:15000  
0 100 200 300  
Meters

GIS DEPARTMENT  
Created By: EJK  
Created For: BMC  
Date Created: 28/02/2012  
Projection: NZTM  
Datum: 2000  
Revision: 194373 V2

NORTH  
A3

Annexure C

**Appendix 2**

***Te Kauwhata Action Group Incorporated v Waikato District  
Council [2012] NZEnvC 192***

BEFORE THE ENVIRONMENT COURT

Decision No. [2012] NZEnvC 192

**IN THE MATTER** of appeals under clause 14 of the First  
Schedule to the Resource Management  
Act 1991 (**the Act**)

**BETWEEN** TE KAUWHATA ACTION GROUP  
INCORPORATED  
(ENV-2010-AKL-000204)

Appellant

**AND** WAIKATO DISTRICT COUNCIL

Respondent

Heard at: Hamilton, 14, 15, and 19 and 20 March 2012

Site Visit: 16 March 2012

Court: Environment Judge J A Smith  
Environment Commissioner C B Manning  
Environment Commissioner A J Sutherland

Parties: Ms A J Davidson for the Te Kauwhata Action Group Incorporated (**the  
Action Group**)

Mr L F Muldownie and Mr B A Parhan for the Waikato District  
Council (**the Council**)

Mr C C Potter for Jetco Waikato Limited, Section 274 Party (**Jetco**)  
Mr M Randhawa for Silverstone Developments & Ors, Section 274  
party

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**FINAL DECISION OF THE ENVIRONMENT COURT**

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A. That Variation 13 as amended in Annexure 1 attached hereto is confirmed. This includes changes to be incorporated into Variation 13 as soon as practicable. These are as follows:

1. At Amendment 13.5.3, Schedule 21A: Te Kauwhata Structure Plan Living Zone Rules is to be replaced with a new Schedule 21A as set out in Appendix 1 attached to this order.
2. That after Schedule 21A: Te Kauwhata Structure Plan Living Zone Rules, insert new Schedule 21B: Te Kauwhata West Living Zone Rules, as set out in Appendix 2 attached to this order.
3. That in the Schedule of Amendments to the District Plan at 13.12 Appendix P: Meaning of Words, after 13.12.4 add a new definition for "Neighbourhood block" at P53d as set out in Appendix 3 attached.
4. At Amendment 13.9.1 - Amendments to Appendix A: Traffic Rules, A21 and A23 are to be amended as set out in Appendix 4 attached to this order.
5. At Amendments 13.11.1, Appendix Of: Urban Design Guide:
  - a. Immediately before Appendix Of, insert Appendix Og, Urban Design Guide Te Kauwhata West Living Zone as set out in Appendix 5 attached to this order;
  - b. At Appendix Of: Urban Design Guide, amend the title to read "Appendix Oga: Urban Design Guide Living Zone, Living Zone (New Residential), and Living Zone (Ecological)"; and
  - c. As a consequential change, re-label the rules throughout Appendix Oga to refer to Oga.
6. In the separate planning map volume for the District Plan, existing Maps 4 Lake Waikare Policy, 4 Lake Waikare Zones, 25A Te Kauwhata West Policy, 25A Te Kauwhata West Zones, 26 Te Kauwhata Policy and 26 Te Kauwhata Zones are to be replaced



with the relevant maps set out in Appendix 6 attached to this order.

- B.** The other amendments sought by the appellants are rejected. There is no order as to costs.



## REASONS FOR DECISION

### Introduction

[1] The Court's Decision of May 2012 was subject to directions to finalise and circulate Structure Plans and provisions showing roading, stormwater and reserves and other concessions made at the time.

[2] The changes that have now been agreed include the following:

[a] The boundary adjoining the Country Living Zone:

[i] A 30m wide boundary width adjoining the Country Living Zone has been imposed, illustrated on the Subdivision Plan.

[b] Six metre (6m) front and rear setbacks are required as follows:

[i] Six metres from the road boundary for lots between 600m<sup>2</sup> and 800m<sup>2</sup>, and those 800m<sup>2</sup> or greater;

[ii] The allotments abutting the Living Zone are required to be at least 800m<sup>2</sup> in size to achieve the required width. Allotments greater than 800m<sup>2</sup> must have a 6m setback from the rear boundary.

[3] There has been a consequential need to increase the number of rear lots to achieve the extra width required, and *Rule 21B.20.1A* has been amended to allow an increase from 5% to 10% rear lots. This achieves a greater degree of flexibility and better design outcomes. To avoid potential conflict with traffic on the bypass route, Te Kauwhata Road, the Council is to reduce the number of roads with access from three to two. This is shown on *Structure Plan Rule 21B.30*. There has also been an amendment to the Subdivision Plan so that, where practicable, lots adjoining Te Kauwhata Road are accessed from slip-lanes, leaving the potential for only 15 lots to have direct access onto Te Kauwhata Road.



[4] A new Condition G has been added to *Rule A21.1* that all entrances onto district arterial routes adjacent to the Te Kauwhata West Living Zone be from slip-lanes. There is also an associated landscaping requirement.

[5] The Council submits that this represents a good urban design outcome, and this is agreed by the Court. This includes a restriction on high boarded fences along Te Kauwhata Road addressed in new Condition *C21B.9*.

[6] Street treatments are now addressed through things such as *Figure 4B2*, *Figure 4B3*, underground lighting and power is already provided for under *Utility Rule 21.14.1(c)(i)* in Chapter 1. However, service corridors are now shown in respect of the figures.

[7] Staging of the subdivision is now shown in the *Staged Subdivision Rule 21B.31*, as part of the Te Kauwhata West Living Provisions. There is an allowance for earthworks and installation of utility services to provide for efficiencies of scale (see *Rule 21B.28.1*). The Structure Plan now shows reserves, including the waterway area Roding Plan. There is a general view that the new Roding Plan will reduce potentials for rat-runs or race tracks, and limits access to Te Kauwhata Road and utilises slip-lanes.

[8] Stormwater and ponding are already addressed under Variation 13, but changes to *Rule B5.4* and the inclusion of the Te Kauwhata Catchment Management Plan in Appendix 13 do assist in clarifying this issue. The Structure Plan also shows wastewater and developments for power and telephone.

[9] *Rule 21B.27* is removed as there is no longer a need for a visual barrier between the road and the Country Living area. There have been some consequential changes to the Urban Design Guide, and particularly Appendix Oga.

[10] The Subdivision Plan has now been amended, with changes to the roads and slip-lanes. New lots are now provided around the central reserve to balance the larger lots on the boundary. There has been a consequential change to the Zone Policy Maps and the 4 Lake Waikare Policy Zone, 25A Te Kauwhata West Policy Zone, and 26 Te Kauwhata Policy Zone maps are to be replaced.



## ISSUES NOT AGREED

[11] The appellants seek five significant changes. All are opposed by the Council, and the Section 274 parties. In addition, the Section 274 parties do not agree to any additional recreational areas, and state they are disappointed the matter was raised so late in the process.

### 30m wide lots on Travis Road

[12] This is not a matter that was raised at the hearing, but the appellants contend that larger sections and setbacks would provide a more balanced appearance, with similar setbacks applying on both sides of the narrow Travis Road. The Court refers to paragraph [75] of its Decision, where it notes:

[75] ... We do not think such a section on the zone boundary provision is necessary where a road separates the two zonings, but only where properties from each zone abut each other.

[13] As a result, we clearly conclude that the decision was conclusive on this point, namely that 30m wide sections were not required on Travis Road, or any other road. Furthermore, we note that the Court does discuss the low-lying wetlands which provide an adequate buffer between the sites in that area. Accordingly, we reject the appellant's contention in this regard.

### Planting strip along the Country Living Te Kauwhata West boundary

[14] The potential for a 2m wide planting strip was raised by Mr Mansergh in his report and is now being sought by the appellants. The Court in fact adopted a different approach in this regard in requiring larger sections. It is explicit in such a conclusion that it intended that these sections could be seen from the Countryside Living area, and that it was not the Court's intention that they be screened. This was clearly adopted by the Court as an alternative to planting or other screening attempts. Accordingly, this amendment is also rejected.

### Stormwater Runoff

[15] There was a real concern by residents that silt transported by peak flow events would carry over into the Whangamarino Wetland and have a detrimental impact on that wetland. In this regard it is the intention that all applications for consent be



notified. This significant change in status would undermine the entire purpose of the appeal and zoning. It was clear that developers of this land currently had power to subdivide into rural residential lots, and were concerned that too much constraint would mean the more efficient higher density development cannot be adopted. It is clearly the intention of the applicant and as explicit in their Appendix B Engineering Standards, that the system be able to deal with surface water in the catchment in which it falls, and avoid an increase in the peak flow rate off the land of the residential areas. Furthermore, our inspection would indicate that if there was some development of the low-lying and stormwater areas on the subject property (which is intended), this would have a significant effect in moderating the impact of flood levels on the adjacent wetland.

[16] The Court's view is that the question of how this issue should be addressed is already dealt with by the Plan provisions, and that the argument is not a substantive ground to re-establish the activity as a discretionary or notifiable application. Accordingly, this concern is rejected also.

#### **Protection of Historical Roses**

[17] This is an issue that was not raised in any way at the appeal stage. The roses are planted on private property, and there is limited control that the Council or other parties have in respect of them. This is a matter, however, that can be considered by the developer and/or landowner in due course, and may benefit from useful discussion and liaison between the residents group and the landowners in due course. The Court accepts that it is not an issue within the jurisdiction of this appeal and was not the subject of any evidence or determination by this Court.

#### **Recreational Areas**

[18] This is not an issue that was raised during the hearing, but the Court did indicate that it considered that there should be adequate connections so that the subdivision was walkable. The re-design of the subdivision appears to have addressed this issue in part. The Council argues that the issue about further reserves was raised on 5 July. The Court's perspective was that there was no evidence addressing the issue of recreational reserves. On the face of the evidence before the Court, i.e. the subdivision plans, reserves appeared to be relatively generous when waterways and other passive recreation areas were taken into account. This Court is certainly not



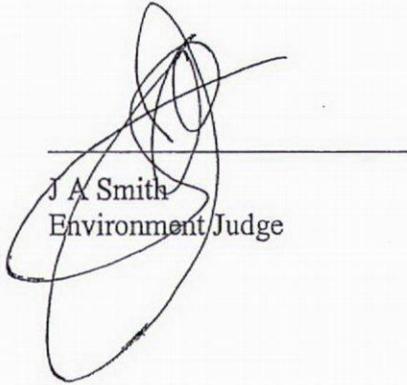
prepared to re-open the appeal at this point in time, having heard all the evidence. Accordingly, this ground is rejected also.

### CONCLUSION

[19] The provisions now proposed and contained within the various documents annexed hereto are appropriate, and should be incorporated within the Variation in Plan forthwith. We note that no party has sought costs in this matter, and accordingly there is no order for costs.

SIGNED at AUCKLAND this 7<sup>th</sup> day of Sept 2012

*For the Court*

  
\_\_\_\_\_  
J A Smith  
Environment Judge



**BEFORE THE ENVIRONMENT COURT**

**ENV-2010-AKL-00024**

**IN THE MATTER** of the Resource Management Act 1991

**AND**

**IN THE MATTER** of an appeal under clause 14(1), First Schedule of the Act

**BETWEEN** **TE KAUWHATA ACTION GROUP INCORPORATED**

**Appellant**

**AND** **WAIKATO DISTRICT COUNCIL**

**Respondent**

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**STATEMENT OF EVIDENCE OF DAVID GRAHAM MANSERGH ON BEHALF  
OF WAIKATO DISTRICT COUNCIL**

**8 December 2011**

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## INTRODUCTION

### Qualifications and experience

1. My name is David Mansergh. I am a qualified Landscape Architect and Recreation Planner. I am a Registered Member of the New Zealand Institute of Landscape Architects and a Director of Mansergh Graham Landscape Architects Ltd. My qualifications include a Dip P&RM (Diploma in Parks and Recreation Management with Distinction) completed in 1988, a BLA Hons (Bachelor of Landscape Architecture with Honours) completed in 1990 and an MLA (Master of Landscape Architecture) completed in 1992, from Lincoln University, Canterbury.
2. I have been a Director of Mansergh Graham Landscape Architects Ltd since 1996. Prior, I was employed by the company as a landscape architect (1992 - 1996). I have also worked for the Department of Conservation (1986 – 1988) and before that, the Department of Lands and Survey (1985).
3. During my career I have been involved in the preparation of a large number of visual and landscape assessments, and the peer review of landscape assessments for a range of activities and developments in rural and urban landscapes, including rural-residential subdivisions, wind farms, power transmission lines, substations, power stations, hydro dams, major port facilities, commercial and industrial buildings, quarries, telecommunication masts, canal housing, marinas, coastal infrastructure, dairy factories and poultry farms.
4. I have prepared several district-wide landscape studies, and have provided advice to various councils on the preservation of landscape character, urban design and growth strategies for both rural and urban areas.
5. I have presented evidence at Resource Management hearings before Council, the (then) Planning Tribunal and the Environment Court.
6. I have visited Te Kauwhata and the study area on three separate occasions whilst undertaking my assessment. I am the principal author of the assessment report entitled: *Landscape and Urban Amenity Effects of Variation 13 on Te Kauwhata West*. **(Tab B1 Agreed Bundle Vol 2)**

7. I note Variation 13 is now referred to as Plan Change 1 to the now Waikato District Plan (operative in part) dated 16 July 2011. However, for continuity I will continue to refer to Variation 13 throughout my evidence.

#### **Expert witness code of conduct**

8. I have been provided with a copy of the Code of Conduct for Expert Witnesses contained in the Environment Court's Consolidated Practice Note 2011. I have read and agree to comply with that Code. This evidence is within my area of expertise, except where I state that I am relying upon the specified evidence of another person. I have not omitted to consider material facts known to me that might alter or detract from the opinions that I express.

#### **Extent of evidence**

9. My original assessment was limited to the land within the proposed *Te Kauwhata West Living Zone*, bounded by Te Kauwhata West Road, Travers Road, and Wayside Road ('Appeal Area'). I am advised the appeal has been narrowed to the Appeal Area. Therefore, whilst other land within Te Kauwhata Structure Plan area has the same proposed zoning, I have not considered the effects on these areas and do not address them in my evidence. The boundaries of the Appeal Area are identified in the map at **Tab A2 and 3 Agreed Bundle Vol 2**.
10. In my evidence I will address the following:
  - (a) The existing landscape context of the Appeal Area and its surroundings;
  - (b) My involvement in the plan change process;
  - (c) My assessment methodology;
  - (d) Effectiveness of Variation 13 from a landscape and urban design perspective;
  - (e) Effects on existing landscape and visual amenity;

- (f) My findings; and
  - (g) My recommendations for amendments to Variation 13 in order to maintain existing landscape values and optimise urban amenity values.
11. I do not intend to provide an in-depth repetition of the contents of my original assessment report as it is annexed to my evidence. Rather I will provide a precise of the key findings and recommendations
  12. For ease of reference, all of my graphical evidence is contained in the Agreed Bundle of Documents Volume 2 at **Tab B numbered 2 to 23**.
  13. I will also present to the Court 3 short GIS animations, depicting various development scenarios under the Country Living and Variation 13 planning provisions.

## **LANDSCAPE CONTEXT AND SITE DESCRIPTION**

### **Landscape context – Te Kauwhata**

14. Te Kauwhata is a small Waikato township with a population of approximately 1200, located approximately halfway between Auckland and Hamilton. The township is set within the rural landscape east of SH1, nestled between the Whangamarino Wetland to the north and Lake Waikare to the south. (Refer **Maps 13 & 1 at Tab B2 and 3 of Agreed Bundle Vol 2**).
15. In general, the urban grain within the township is characterised by pockets of subdivision from different eras of development over the last 50 or so years. Each is noticeably different in its visual and urban characteristics due to variations in section sizes, building footprint, setbacks, architectural style, the extent and height of fencing and vegetation, and the width and configuration of roads and footpaths. Collectively, this mixture characterises the built character of the township as a whole. (Refer **Figures 1 to 3 at Tab B4 Agreed Bundle Vol 2**).

16. The majority of the existing residential development in Te Kauwhata is concentrated to the east of the commercial centre, with the urban blocks generally conforming to a grid configuration. This is manifest in the neighbourhood blocks bounded by Waerenga Rd, Mahi Road, Rata Street, and Roto Street and produces a road network with good connectivity and legible way finding.
17. The township's commercial service centre comprises of a short strip of shops and community facilities on Main Street, with a small node of commercial services at the eastern end of the town.
18. Recreational green space in Te Kauwhata is provided to the north of Waerenga Road by the Waikare Golf Club, while the Te Kauwhata memorial domain forms part of the southern boundary of the township.
19. Immediately to the west of the main commercial strip, the main trunk railway line (three tracks) severs the commercial centre from the residential development that has occurred within the existing *Country Living* and *New Residential Zones* around Eccles Ave and Totara Place. The railway line also forces a deviation in the alignment of Te Kauwhata Rd, the only entrance to the town from this direction.

#### **Site context – Appeal Area**

20. The landscape within the Appeal Area is currently characterised by a mix of rural land uses and large lot residential development. (Refer to **Figure 4 at Tab B4 and Figures 5 to 8 at Tab B5 Agreed Bundle Vol 2**).
21. To the west of the township, large lot development has occurred within the *Country Living Zone*, concentrated around Travers, Orchard, Wayside and Moorfield Roads. This has resulted in the peri-urban scaled development interspersed between larger productive rural lots. A small commercial node exists at the corner of Te Kauwhata and Wayside roads. This currently contains an apple juicing factory. Some of the buildings within this node appear derelict.
22. Within the proposed Te Kauwhata West Living Zone, current land use and land cover includes a mixture of viticulture and pastoral production on the flats and gentle hill slopes, small scale commercial processing

along Wayside Road, large lot residential development and life style blocks along Travers and Wayside Roads,

23. Despite being in relative close proximity to SH1, the Appeal Area has largely maintained its rural characteristics. Internally, shelterbelts are predominantly contained in the northern part of the Appeal Area delineating the pastoral land.

### **INVOLVEMENT IN VARIATION 13**

24. In response to a request from the appellants at Court assisted mediation in March 2011, I was subsequently engaged by Council to assess the potential effects of Variation 13: Te Kauwhata West Living Zone on landscape and urban amenity.
25. I have reviewed Variation 13 (decisions version) within the context of current “best practices” in urban design, landscape architecture and landscape planning. I have considered the potential effects of Variation 13 on the amenity of the current and future residents of Te Kauwhata, paying particular attention to the identification of potential effects on residents of the Country Living Zone adjoining the Appeal Area.
26. As part of my assessment, I have prepared a “possible” subdivision scenario in the Appeal Area within the context of the objectives, policies and rules of Variation 13 (Refer **Map 3 at Tab B6 Agreed Bundle Vol 2**). I have used this design as a test case for the basis of my analysis.
27. The “possible” subdivision would be a discretionary activity due to minor non-compliances associated with building on slopes. I consider this to be a likely scenario, as the planning mechanisms contained within Variation 13 will make it difficult to achieve controlled or restricted discretionary status. The “test case” is conceptual only and its economic feasibility has not been assessed. It represents one possible development scenario and is intended to illustrate the general distribution and density of lots achievable within the Appeal Area.
28. In combination with field investigation, I used the “test case” in my assessment of effects, comparing it to consented and likely subdivisions achievable under the Country Living Zone provisions (Variation 13

changes the zoning of the Appeal Area from Country Living to Te Kauwhata West Living Zone).

29. As part of my assessment, I recommended that Council make a number of amendments to the provisions of Variation 13. In my opinion these amendments will help improve amenity within the Appeal Area in the future. I note that Council has agreed to 20 of the 22 recommendations made. I will discuss the recommendations later in my evidence.

### **ASSESSMENT METHODOLOGY**

30. I have followed a standard assessment approach in my review of the urban design components of Variation 13 and in my assessment of landscape, visual and amenity effects. Further detail is contained within my original report.
31. I have considered two key aspects in my analysis. These are:
- (a) Urban Effects: The effectiveness of the Variation 13 planning mechanisms in delivering a quality urban environment within the context of current “best practice” techniques (from an urban design and landscape planning perspective); and
  - (b) Landscape, Visual and Amenity Effects: The likely effect of development (within the Appeal Area) on landscape character and the visual amenity of adjacent zones.

### **URBAN EFFECTS**

32. The following section of my evidence examines the effectiveness of Variation 13 in the provision of (future) amenity from an urban design and landscape planning perspective.

#### **Subdivision potential under the Country Living Zone**

33. Under the existing County Living Zone provisions within the entire Structure Plan area, subdivision yield under Variation 13 is potentially 115 lots with a minimum lot size of 5000m<sup>2</sup>.
34. Prior to notification of Variation 13, Jetco Ltd and Silverstone Wayside Ltd had each obtained consent to undertake a subdivision under the

Country Living zone provisions on two blocks of land within the proposed Te Kauwhata West Living Zone within the Appeal Area. This would create an additional 48 building lots, with potential development densities similar to the existing pattern of large lot lifestyle subdivision, evident on Travers Road and between Wayside and Moorhouse Roads. (Refer **Map 8 at Tab B7 Agreed Bundle Vol 2**)

35. I am advised by Mr Dawson (planning witness) that these existing but unimplemented consents form part of the existing environment, and therefore I have considered their effects in my assessment.
36. The Appeal Area has not yet reached its full development potential under Country Living. If this was to occur I consider that it is likely that the existing open spatial characteristics of the Appeal Area will change considerably. Rural development patterns would give way to the densities and patterns found along Travers Road and Wayside Road, consolidating peri-urban character.
37. In order to understand how this might occur, I have used the Country Living provisions to develop a theoretical 100 lot subdivision model, based on the two existing Country Living consented subdivisions. This provides a useful baseline against which the effects of both the existing and proposed planning provisions can be compared. (Refer **Map 9 at Tab B8 Agreed Bundle Vol 2**).

### **Subdivision potential under variation 13**

38. Under Variation 13, subdivision in the Appeal Area would result in an obvious change in existing land use patterns. Dispersed development patterns would give way to sub-urban and urban development patterns that more closely resemble the densities found in Te Kauwhata.
39. Under Variation 13, approximately 410 to 420 lots could be created in the Appeal Area (dependant on final road network configuration). From my review of the rules, I consider that it will be very difficult to achieve controlled activity application status without compromising efficiency, yield or the recommendations of the urban design guidelines. I consider it likely that developers will adopt a maximum yield approach through the uptake of discretionary applications, arguing these to be generally in

keeping with apparent direction and intent of the district plan, and in general compliance with the proposed urban design guidelines.

40. Under Variation 13, residential development within the Appeal Area would contrast markedly with the current low levels of building development and the open spatial/rural characteristics of the site. However, it is important to note that if the Appeal Area were to be fully developed under existing Country Living rules, this too would result in a significant shift in landscape character. The compartmentalisation of the Appeal Area, associated with development under existing Country Living rules, albeit at a coarse grain than that which would occur under Variation 13, would represent a domestication of the landscape with notable effects on amenity derived from existing views of the rural landscape from surrounding locations.
41. In my opinion, the change from rural character to peri-urban character (country living) will not be that far removed from that change from peri-urban character (country living – once full development potential is taken up) to sub-urban (Variation 13) character.

#### **CGI images and animations**

42. To illustrate the development densities that may occur under each planning regime, I have also prepared three animated flyovers and a number of computer generated images (GCI) from each of the view locations identified in my original report (Refer **Figures 9 to 12 at Tab B9 and Figures 13 to 16 at Tab B10 Agreed Bundle Vol 2**). These depict the consented and possible development densities. (Refer to CD ROM provided with my evidence).

#### **Comparison of existing subdivision and its relationship to densities achievable under Variation 13**

43. In order to determine if the planning mechanism proposed in Variation 13 would produce subdivision patterns consistent with what has already occurred within Te Kauwhata, I have analysed the development patterns within Te Kauwhata's neighbourhood blocks. (Refer **Map 4 at Tab B11 Agreed Bundle Vol 2**).
44. Analysis of the ratio of building coverage to lot size indicates that:

- (a) The average building coverage for older subdivisions (under previous planning regimes) is approximately 13%; whereas
  - (b) More recent development under the 1995 Operative District Plan has an average building coverage of around 31%.
45. Review of the Variation 13 provisions indicates that the type of subdivision patterns likely to occur will be akin to the more recent subdivision that has occurred. This is exemplified by recent development in Merlot Place (Refer **Figures 2 to 3 at Tab B4 Agreed Bundle Vol 2**).

#### **Rate of development**

46. Effects of subdivision on existing amenity values will be strongly influenced by the rate and pattern of development. This will be largely determined by the rate of population growth in Te Kauwhata and may be affected by the following factors:
- (a) The establishment of new industry and/or commerce in Te Kauwhata (or the surrounding area).
  - (b) An increased demand for housing within a commutable distance of Auckland or Hamilton.
47. Plausible scenarios of how this growth may take place include the following:
- (a) Subdivision will grow slowly with demand. Small clusters of lots will gradually expand, matched by an expansion in the road network.
  - (b) The entire road network will be developed initially and stages of development will be constructed in line with demand.
48. Further detail on predicted population growth rates is contained within the evidence of Mr Dawson and Mr McDermott on behalf of the Council.
49. The effects on amenity will differ under these two scenarios. Gradual development, on a lot by lot basis, which occurs over a relatively long

time, will enable existing residents to gradually adapt to the change in landscape patterning in the Appeal Area. In addition, both street trees and planting within lots will have time to mature as development proceeds, softening views of subdivision as it expands.

50. Establishing the road network over the entire site at the early stages of development will enable street tree planting to take place early on. This will have benefits in terms of enhancing the natural character of the Appeal Area.
51. However, if small pockets of subdivision are allowed to develop at varying rates, the potential for disconnected patterns of settlement will exist. This would make it difficult to plan for connectivity between new areas of development and existing surrounding development. The same problem arises if large lot subdivision, allowed under the Country Living provisions, is later subdivided down to lot sizes akin to those proposed under Variation 13. This scenario would result in significant infill patterning, poor connectivity and permeability, and a likely heavy reliance on creating rear lots and shared right of ways.
52. In my opinion, staging in the Appeal Area addresses these issues. The Stage One Staging Plan (**Map 10 at Tab B12 Agreed Bundle Vol 2**) indicates the general extent of staging for the Jetco Ltd and Silverstone Wayside Ltd land, adapted to my “possible” subdivision design. The Full Staging Plan depicts the staging of all land within the Appeal Area (**Map 11 at Tab B13 Agreed Bundle Vol 2**).
53. I recognise that some flexibility and fine tuning will have to be built into the staging plan to allow any actual subdivision proposals to be developed in a sensible manner.
54. In addition to enhancing connectivity, by adopting this staging recommendation, subdivision will be managed in a manner that preserves the open spatial and rural characteristics of the surrounding landscape for as long as possible.
55. The recommendation in my report that there be a staged release of the land within the Appeal Area was not initially agreed to by Council given the existing consents to subdivide under Country Living Zone rules could

be implemented, thereby comprising the future urbanisation of the land under Variation 13. However, Council and the consent holders have now entered into an agreement to stage the release of land owned by the consent holders.

### **Key urban design factors**

56. In my opinion, successful integration between the existing township and the proposed Te Kauwhata West Living Zone is dependent on a number of key urban design factors. These include:
- (a) Consistency in the general road network pattern, road reserve width and road reserve treatment between old and new areas;
  - (b) Consistency in the general design and size of development;
  - (c) Similarity in site coverage;
  - (d) Similarly in curtilage patterns;
  - (e) Either achieving general consistency in lot size and shape or achieving appropriate lots sizes in relation to a continuum from urban (smaller) and rural (larger) lots through “transect planning”;
57. Using the urban amenity assessment framework (Refer to Appendix 1 on page 27 of my written evidence) I have considered the following factors in terms of their effect on amenity and functionality within the proposed Te Kauwhata West Living Zone.

### **Transition between zones**

58. The average lot size within the Appeal Area (875m<sup>2</sup>) is considerably smaller than that within the adjoining Country Living Zone. At present, Variation 13 does not address the distribution of lot sizes within the Appeal Area or manage the transition from urban to rural. As it stands, there is likely to be an abrupt transition from a relatively dense urban grain within the Appeal Area to large lots in the neighbouring Country Living Zone. In my opinion, this is contrary to good urban design practice

which identifies transects<sup>1</sup> that transition from “higher” to “lower” density toward the Rural Zone.

59. In my opinion, establishing larger lots on the boundary between the Appeal Area and adjoining Country Living Zone land is one way of managing this transition. This will have the most noticeable effect on properties immediately adjacent to zone boundary. As a result a property within the Country Living Zone could border two 900m<sup>2</sup> sections rather than three dwellings on 650m<sup>2</sup> sections. This would noticeably reduce any urban edge and apparent density effects experienced by Country Living Zone residents, easing the transition from rural to urban.
60. I consider the transition can be further enhanced by the use of visually permeable fencing between the Te Kauwhata West Living Zone and the Country Living Zones where this does not compromise privacy. This could be managed by maintaining existing rural post and wire fencing at the boundary, and a recommendation within the Design Guides that privacy fencing is established closer to dwellings where necessary.

#### Proposed transport network

61. The establishment of a “permeable” road network through the structure planning process is crucial in terms of creating an efficient transport and pedestrian network that integrates with surrounding roads and destinations.
62. In my opinion, the implementation of the *Proposed Transport Network, illustrated in the Planning Map 25A Policy Showing Decisions on Roads* (Refer to **Map 12 at Tab B14 Agreed Bundle Vol 2**), would have the following adverse effects on permeability, the viability of neighbourhood blocks, and traffic safety.
  - (a) The proposed Collector Road, which connects Travers and Wayside Roads, has a somewhat convoluted alignment. As a consequence, it would not “read” as an obvious thoroughfare or allow for efficient transport.

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<sup>1</sup> A transect is a geographical cross section of a region used to reveal a sequence of environments. For human environments, this cross section can be used to identify a set of habitats that vary by their level and intensity of urban character, a continuum that ranges from rural to urban. In transect planning; this range of environments is the basis for organising the components of the built world.

- (b) The network, which includes both straight and curvilinear roads, will create some awkward shaped lots unsuitable to residential development. This will occur where roads intersect at acute angles or are in close proximity to the zone boundary.
  - (c) The service lane linking Travers and Te Kauwhata Roads will create a short cut through the Appeal Area (also known as a “Rat Run”), which will potentially introduce heavy traffic to a residential area, with associated amenity issues.
- 63. Because the road network patterns in turn influence residential block sizes and types, with implications for lot orientation, shape, and the provision of public and private space, it is critical that this aspect of Variation 13 be carefully considered.
- 64. In my opinion, the following amendments are required to rationalise connectivity and efficiency of the network:
  - (a) The alignment of the main collector road should be strengthened to reflect its function as the main thoroughfare. This should be further reinforced with strong avenue and median street tree planting.
  - (b) The network should be rationalising to create viable block shapes and eliminate “Rat runs”.
  - (c) Consideration should be given to future road connections with adjacent zones and the proposed bypass and interchange. Once the final alignment of the bypass and Interchange has been determined, consideration should also be given to the level of mitigation required to maintain the amenity of future residents within the Appeal Area.
- 65. I have prepared a revised road network plan (Refer to **Map 5 at Tab B15 Agreed Bundle Vol 2**) which demonstrates a permeable, modified grid pattern, responsive to the natural contours on the site. The design works on general block depth ranging between approximately 80m (40m deep lots back to back) and 140m (40 deep lot sizes with rear infill lot) with blocks shaped to maximise the number of road frontage lots and

66. minimise rear lot opportunities as required by the proposed plan change.

Walkable neighbourhoods and connectivity

67. In terms of creating walkable neighbourhoods, the intensification of Te Kauwhata within the proposed Te Kauwhata West Living Zone will result in a distinct shift in the centre of population density toward the west. Approximately one third of this development will be outside the recommended 10 minute walkable distance to the existing commercial centre. This is likely to make residents within the Appeal Area more dependent on vehicles to get to the commercial centre of Te Kauwhata.
68. While I accept that this occurs under the provisions of the existing Country Living Zone, development density potential is approximately a quarter of that under the Te Kauwhata West Living Zone. Under the Te Kauwhata West Living Zone it is likely that more people will want to access such amenities, potentially increasing traffic within the zone. It is also likely that these people will consider themselves as living within Te Kauwhata township, rather than on its fringe.
69. Current urban design “best practice” would suggest that consideration should be given for the provision of small scale retail activities, such as a dairy, within the zone. I recognise however that this is not desired by either Council or the Appellants. Furthermore, Variation 13 as notified did not make provision for a small scale retail activity in the proposed Te Kauwhata West Living Zone.

Visual integration

70. For Country Living Zone residents on the more distant, elevated land to the north of the Appeal Area, the transition between zones at the boundary is likely to be less important in terms of amenity than the overall visual character of subdivision within the Appeal Area. In order to reduce the likelihood of an inappropriate transition between zones and avoid homogenous development character from occurring, visual integration techniques should be adopted.
71. In my opinion, it is important for neighbouring Country Living Zone residents that the overriding visual character of the Appeal Area is not defined by a sea of roofs. Rather, subdivision should be designed to

include natural elements that break up views of dwellings and reflect a more rural flavour of residential development.

72. While street trees are not a prominent feature of the main residential district of Te Kauwhata (east of the Commercial Centre), their widespread use within the Appeal Area is considered appropriate in terms of enhancing the transition from urban to rural.
73. I consider that street trees should be planted within the road reserves at approximately 20m intervals to help break up views of built form and help new development to visually integrate with surrounding rural shelter planting (Refer to **Figures 17 to 20 at Tab B16 Agreed Bundle Vol 2**).
74. In my opinion it is also important that lots are of sufficient size to allow residents to plant large trees. At present building coverage of 35% will be permitted on lots as small as 650m<sup>2</sup> within the Appeal Area. If this maximum site coverage is realised on relatively small lots, it is unlikely that there would be sufficient room to establish large trees without causing adverse shading effects.

#### Percentage building coverage

75. In my opinion, one of the key factors that influence the amenity values of a subdivision at the street level is the ratio of building coverage to lot size (percentage building cover). Under Variation 13 the rules allow for a maximum 35% building coverage as a permitted activity.
76. As previously stated, the visual character of this level of building coverage is akin to that that has occurred in Merlot Place, where average cover is approximately 32% (Refer **Figure 2 at Tab B4 Agreed Bundle Vol 2**).
77. Other similarities affecting the characteristics of the subdivision include setback and fencing requirements. Side boundaries appear to adhere to the minimum side boundary setbacks of 1.5m, in order to accommodate large dwellings and leave sufficient space at the rear of the yard for a private outdoor living space. As a consequence 1.8m close boarded fences are typically used to provide privacy between dwellings, with as little as 3m separation. (Refer **Figure 3 at Tab B4 Agreed Bundle Vol 2**).

78. I consider that the visual character of a subdivision such as that at Merlot Place will evolve as planting establishes at the front of lots, softening the appearance of dwellings, this density of development creates a street frontage with little relief from built form.

#### Lot orientation

79. In order to meet living court location provisions (21A.11), lot orientation needs to be considered at the initial site planning stage. As previously mentioned, this is influenced by the design of the overall road network.

#### Distribution of lot sizes

80. The proposed allotment sizes will result in a grain of development, which is, on average, midway between that of the more established residential blocks in Te Kauwhata and more recent higher density subdivision, such as that on Blunt Road. Consequently, lot sizes are broadly consistent with the grain of existing residential development in Te Kauwhata. (Refer **Map 4 at Tab B11 Agreed Bundle Vol 2**)
81. I consider it important that control is maintained over the distribution of lots within the proposed zone, to discourage the clustering of small lots in one area, such as has occurred in Rata Street. I consider that the percentage mix of lots within the proposed zone should be apportioned on a block by block basis.

#### Rear Lots

82. In my opinion, clarification is required as to whether the 5% rear lot allowance identified in 21A.20 allowance applies at an overall application level or should be assessed on a block-by-block basis. If applicable at application level, this could potentially result in clusters of rear lots occurring within the large neighbourhood blocks.
83. In order to reduce the area within the zone apportioned to driveways (and consequently reduce the coverage of impervious surfaces) consideration should also be given to allowing two lots to share a driveway.

### Design guidelines

84. In my opinion, while the urban design guide incorporated in Variation 13 (decisions version) generally offers good direction in terms of factors to be considered, it does not provide any clear direction in terms of the weightings that should be applied to various design issues.
85. As such, potential exists for developers and council to place emphasis on different aspects of the guide, while both parties seek to be generally compliant with them.
86. I consider that the design guide needs to be redrafted to place key design considerations in a hierarchical format, which reflects the scale of their application and the influence that various design decisions have on overall urban form and amenity. Priority should be given to those guidelines that influence large scale, initial site planning matters, which in turn affect design elements more relevant at the small scale.
87. In my opinion, this will assist both developers and decision makers in the development and assessment of subdivision proposals within the zone.

### **LANDSCAPE, VISUAL, AND AMENITY EFFECTS ANALYSIS**

88. In this section of my evidence I will discuss the landscape, visual and amenity effects likely to arise from Variation 13.
89. I have used the “possible subdivision” model developed as part of my urban design analysis as the basis for my assessment of effects. (Refer **Map 3 at Tab B6 Agreed Bundle Vol 2**).

### Visual catchment

90. In my analysis I have used a combination of site investigation and GIS analysis to identify areas from where the subject site is potentially visible. (Refer **Maps 6 & 7 at Tab B21 and 22 Agreed Bundle Vol 2**).
91. The viewshed analysis maps indicated that development within the proposed zone will be predominantly visible from properties to the north on Travers Road and Moorfield Road. Limited views will be attainable from Te Kauwhata Township.

View locations and CGI images of the possible development scenario

92. As part of my original assessment I selected four representative view locations for analysis. These are identified in the insert on the possible discretionary subdivision map (Refer **Map 3 at Tab B6 Agreed Bundle Vol 2**).
93. From each of these locations I have prepared a computer generated image (CGI) of the “possible” subdivision model. (Refer to the figures at **Tab B16 to 20 Agreed Bundle Vol 2**). These represent one possible outcome of residential development within the Appeal Area. The modelled views depict three scenarios. These are:
- (a) Full development potential with no street trees (new subdivision);
  - (b) Full development potential with street tree planting as proposed in the Design Guides; and
  - (c) Full development potential with street trees at 20m centres (in order to illustrate the mitigating effect of different levels of tree planting).
94. Since preparing my original report I have also prepared CGI models, from the same locations that show:
- (a) Existing consented subdivision under the Country Living Zone provisions;
  - (b) Possible subdivision patterns under the Country Living Zone provisions.

Amenity effects from north of the site

95. In my opinion, the area most adversely affected by the proposed Te Kauwhata West Living Zone will be the area to the north of the proposed zone, where elevated views are afforded from Travers and Moorfield Roads. From these locations, subdivision within would result in a noticeable change in landscape character. The existing rural landscape, with its open spatial characteristics will be transformed into a highly developed urban neighbourhood. From elevated locations along

Travers Road between Wayside Road and Moorfield Road, the primary visual characteristic of a residential subdivision prior to street trees establishing, would be a broad expanse of roofs, broken only by the road network and green space associated with the proposed hill top reserve.

96. Recent subdivision on Blunt Road provides an example of a density in excess of that which is likely to occur within the Appeal Area. This development is seen at a comparable distance from locations north of the site (Travers Road), providing a useful illustration of the visual character of residential development at a somewhat higher density than is proposed under Variation 13.
97. In my opinion street trees will notably contribute to the visual integration of residential subdivision at the densities proposed under Variation 13. Not only will this planting break up views of dwellings, but it will be integrated with shelter planting surrounding the site and mitigate the loss of shelterbelts within the Appeal Area as residential development proceeds. (Refer to the **Figures at Tab B16 to 20 Agreed Bundle Vol 2**).
98. Because development within the Appeal Area is likely to occur gradually, the transition from rural land use to residential development may occur over some time.
99. By contrast, the Appeal Area can be developed under the existing Country Living subdivision provisions, and as previously identified, consent has already be granted for two developments
100. In my opinion, the existing subdivision consents, when implemented, would also affect existing character, resulting in development densities akin to those along Travers Road. This can be seen in the attached CGI images that show consented and possible development scenarios. (Refer to **Figures 9 to 12 at Tab B9 and Figures 17 to 33 at Tab B16 to 20 Agreed Bundle Vol 2**).

Amenity effects from locations east and west of the site

101. From established areas within Te Kauwhata (west of the railway line) the Appeal Area will not be highly visible and I do not consider that

subdivision within the Appeal Area will result in an unacceptable effect on visual amenity.

102. However, from along Travers Road (east) and Wayside Road (west), the change in landscape character will be more prominent. From dwellings on the western side of Travers Road (overlooking the Appeal Area), there will be a notable shift in landscape character as the residential development occurs. Over time, the existing largely open spatial character of the Appeal Area will change to sub-urban character, similar to the older parts of Te Kauwhata in apparent densities. Buildings styles and character will however more likely reflect a more contemporary design aesthetic. This type of change is also likely to occur under the existing Country Living provisions.
103. The existing shelter rows that partially obstruct views to the site from the southern part of Travers road are likely to be removed as subdivision occurs. This will further open up views into the site from these quarters, however this may only be brief with newly constructed dwellings and fences along the road boundary severing views into the broader Appeal Area.

#### **OVERALL FINDINGS**

104. From my analysis I have reached the conclusion that Variation 13 will result in a change in development patterns in Te Kauwhata West and this will affect the amenity of surrounding residents.
105. In my opinion Variation 13 (decisions version) will not deliver residential development with a notably rural flavour, beyond affording views to surrounding undeveloped rural land for some residents within the Appeal Area. For existing residents in the neighbouring Country Living Zone, residential development within the proposed Te Kauwhata West Living Zone will represent a considerable shift in landscape character, with adverse effects on amenity associated with the loss of pastoral rural views.
106. Further, I consider that a contradiction exists between the Objectives and Policies of Variation 13, which seek to achieve residential development that preserves rural amenity values (15A.2.2 (e)), and a

suite of rules that are likely to deliver residential development at densities similar to that of existing urban subdivision in Te Kauwhata (East). I recognise however that similar change (to a lesser degree) will likely occur under the existing Country Living provisions.

107. I do not consider that the proposed planning instruments adequately manage the transition from urban to rural that will accompany residential development within the proposed zone, or provide for sufficient mitigation. In my opinion, this needs to be addressed in order to help maintain the amenity of the neighbouring Country Living Zone and create a legible transect from urban to rural.
108. As it stands, Variation 13 (decisions version) will likely deliver a monoculture of residential development with no provision for other uses. Approximately one third of this development will be outside the 10 minute recommended walkable distance to the existing commercial centre, and this is likely to result in residents having to rely on vehicular transport to get to the commercial centre. This is contrary to current “best practice” in urban design, which encourages mixed use development, and walkable neighbourhoods.
109. Finally, I consider that important design issues need to be clarified for both developers and decision makers by reformatted Te Kauwhata Urban Design Guides into a hierarchical structure that make a distinction between the key urban design issues, which must be addressed, and those aspects of subdivision design which are desirable, but less critical.

## **RECOMMENDATIONS AND COUNCIL’S RESPONSE**

110. As part of my assessment, I made 22 recommendations to Council to amend certain provisions of Variation 13 in order to:
  - (a) Improve amenity within the Appeal Area through the application of urban design “best practice” techniques; and
  - (b) Reduce the unacceptable adverse effects of development within the Appeal Area on landscape character and visual amenity.

111. Council has now agreed to adopt 20 of the 22 recommendations I made, the latest being those made regarding staging. The recommendations are identified in the following table:

AMENDMENTS RESULTING FROM LANDSCAPE ASSESSMENT AND SOCIAL IMPACT ASSESSMENT			
MGLA Recommendation		Action	Council Response
<i>Rate of Development</i>			
a	That a staged approach to development within the Appeal Area should be identified (preferably in conjunction with affected landowners). Development stages should be identified on the structure plan.	Implemented	Draft staging plan produced in consultation with existing consent holders
b	That staging should take into account the connectivity requirements of the proposed road network.	Implemented	Draft staging plan produced in consultation with existing consent holders
<i>Transition from Peri-Urban to Rural Land</i>			
c	That larger lots be located along the zone boundary. This may be achieved by amending Policy 21A.19.1 to read:  <i>(iv) 80% of allotments bordering the Country Living Zone shall have an area of at least 900m<sup>2</sup>.</i>	Implemented	Add new (iv) to rule 21A.19.1
d	That visually permeable fencing or planting be required along the zone boundary. This may be achieved by the addition of the following to Policy 21A.8: <i>(b) Fences along the northern boundary of the Appeal Area adjacent to the Country Living Zone, between Wayside and Travers Roads, are typical rural post and wire.</i>	Implemented	Add new (b) to rule 21A.8.1
<i>Proposed Transport Network</i>			
e	That the proposed transport network plan be further developed and refined to take into account practicable neighbourhood block sizes and shapes, permeability, the reduction of through traffic in residential neighbourhoods (rat runs), safety.	Implemented	Amend indicative road layout. Consequential amendment delete rule 21A.26.1(b) as not required with new road layout.
<i>Connectivity and Walkable Neighbourhoods</i>			
f	That the creation of attractive street environments for walking with separation between footpaths and vehicle carriageways and the provision of street trees (as illustrated in the typical cross sections of Appendix A: traffic) is identified as a priority in the Design Guides.	Implemented	Design Guide reviewed
g	That pedestrian connections between roads be established within the proposed reserves (including a proposed wetland reserve) in an amended structure plan.	Implemented	Review walkway connections and amend if appropriate
h	That consideration should be given to the provision of a single small commercial node within the Appeal Area (to enable a corner store to establish). This type of activity should be a discretionary activity, with particular consideration placed on a 500m walking distance radius from the existing commercial centre of Te Kauwhata and proximity of other such activities. Development should be limited to one node (dairy/convenience store) within the Appeal Area.	Not implemented	Identification of a commercial node within this area has not been investigated or consulted on during the structure plan process.
<i>Immersive environments</i>			

i	That the use of open swales rather than curb and channel (as identified in the Variation 13 Urban Design Guide for Collector Roads (Oe3.5.1) is identified as a priority in the Design Guides;	Implemented	Design Guide reviewed
j	That extensive street tree planting occurs within the zone. This may be achieved by the addition of the following clause to Policy A23.1:  <i>Subdivision is a controlled activity if all roads in the subdivision are constructed (g) to provide street trees at an average of 20m intervals, with allowance made for lot driveways</i>	Implemented	Amendments made to Design Guide: Of3.5.1 Of3.5.2 Of3.5.3 Of3.5.4
k	That performance standard be included that requires all street trees to be at least 1.5m grade at the time of planting.	Implemented	Amendments made to Design Guide: Of3.5.1 Of3.5.2 Of3.5.3 Of3.5.4
l	That lots contain sufficient space for the establishment trees (see recommendations for percentage building coverage below).	Implemented	Refer to amendments under 'n' below.
m	That revegetation planting occurs within the flood protection reserves (to be shown on amended structure plan).	Not implemented	Existing rule (21A.16) controls planting in Environmental Protection Area.
<b>Building Coverage</b>			
n	Reduction of percentage building coverage on small lots. This may be achieved by making the following amendment to Item 21A.10:  <i>(ii) total building coverage on lots with a net size of between 650-700m<sup>2</sup> shall not exceed 25%</i>  <i>(iii) total building coverage on lots exceeding 700m<sup>2</sup> shall not exceed 35%.</i>	Implemented	Amendment to rule 21A.10. Consequential amendment to rule 21A.7.
o	Side setbacks are increased on larger lots in order to create the appearance of less dense development from the street. This may be achieved by making the following amendment to Item 21A.13:  <i>(c) On allotments greater than 800m<sup>2</sup> it is set back at least</i> <i>(i) 6m from the rear boundary</i> <i>(ii) 3m from any other boundary that is not a road boundary, and</i> <i>(iii) 1.5m from every vehicle access to another site</i>	Implemented	Add new (c) to rule 21A.13 and amend (b).
<b>Lot Orientation</b>			
p	That consideration of lot orientation takes place at the initial site planning stage of subdivision planning and this is reflected in the Design Guide (refer also to the recommendation relating to design guide hierarchical format which reflects the	Implemented	Design Guide reviewed

	importance of the initial site planning stage).		
<i>Distribution of Lot Sizes</i>			
q	<p>That the percentage mix of lots within the Appeal Area is apportioned on a block by block basis. This may be achieved by making the following amendment to Policy 21A.19.1:</p> <p><i>there is a combination of allotments within each <u>neighbourhood block</u> of which...</i></p> <p>In relation to this amendment, it is recommended that the following definition for neighbourhood block is added to the District Plan:</p> <p><i>Neighbourhood block – Means contiguous residential development bounded on all sides by an alternative land use, such as a road, or a zone boundary.</i></p> <p>In addition, it is noted that an amendment in the wording of the following rule may be required, as follows:</p> <p><i>21A.19.1 At least 50% are 800m<sup>2</sup> At least 25% are 900m<sup>2</sup></i></p>	Implemented	Amendment to rule 21A.19.1(iii) Consequential amendment new definition P53d: Neighbourhood block.
<i>Rear Lots</i>			
r	<p>That clarification of level at which rear lot provision is to be applied. This may be achieved by making the following amendment to Item 21A.20:</p> <p><i>(a) no more than 5% of allotments per neighbourhood block are rear allotments,</i></p>	Implemented	Amendment to rule 21A.20.1(a)
s	<p>That provision for shared driveways is provided. This may be achieved by making the following amendment to Item 21A.20:</p> <p><i>(d) all rear allotments are provided with vehicle access to a public road. Driveways may be shared by a maximum of two adjoining lots.</i></p>	Implemented	Add new (d) to rule 21A.20.1. Minor reword of (c) for consistency.
<i>Low Impact Stormwater Management</i>			
t	<p>That the use of LID are promoted in Variation 13 as not only a sustainable approach to urban design, but a means of enhancing the amenity of subdivision. This should also be reflected in the Design Guides.</p>	Implemented	Amendment made to Design Guide
<i>Urban Design Guide</i>			
u	<p>That the Urban Design Guides have a hierarchical format, based on the scale at which the guides are to be applied.</p>	Implemented	Design Guide review
v	<p>That the Urban Design Guide Assessment Criteria adopt a weighted system related to the Urban Design Guide hierarchy.</p>	Implemented	Design Guide review

112. With regard to recommendation h., as discussed previously in my evidence, current urban design “best practice” would suggest that consideration should be given for the provision of small scale retail activities to occur within the Te Kauwhata West Living zone. I recognise however that this is not desired by either Council or the Appellants.
113. The intent of recommendation m. was to require planting to be established within the environmental protection area regardless of the planning trigger mechanism. I accept however, that subdivision is the most likely trigger for the creation of a reserve, and therefore I consider Council’s response adequate.
114. With regards to recommendations u. and v., I have been engaged by Council to edit and reformat the Urban Design Guides as per my recommendations. This work is currently being undertaken and a draft copy of the work undertaken to date is at **Tab B24 Agreed Bundle Vol 2**. The document is substantially complete, but is yet to receive its final edit, be cross referenced with Variation 13 and finalised.
115. With the exception of recommendation h., I am satisfied that the response adopted by Council satisfies the recommendations made in my report in relation to the issues relating to urban design and future amenity, and will adequately mitigate the effects of rezoning on landscape and visual amenity to acceptable levels.

Dave Mansergh DipP&RM(Hons), BLA(Hons), MLA, ANZILA

8 December 2011

## APPENDIX 1: URBAN AMENITY ASSESSMENT FACTORS

Urban amenity is a function of the environment's visual expression; that is the elements that contribute to its appearance, and the use and circulation patterns which occur within it. The urban amenity of the site includes the degree of permeability, surrounding spatial variety, the legibility of the elements within the environment, the extent to which these elements provide for alternate uses, the human attributes or values applied as visual appropriateness, richness and personalisation. The use of the urban amenity assessment factors allows the assessment of urban amenity values associated with these attributes.

The following factors are used to identify attributes of the urban fabric which help to identify urban amenity values. They are not used to grade the particular environment but rather to identify the effect of a particular change on that environment. An increase in a particular attribute is considered to be an improvement, a decrease a degradation of a given environment.

1. *Permeability*: the number of alternative ways through an environment; the ability to pass through an environment with greatest number of options. A distinction is made between public and private routes, and between vehicle and pedestrian routes.
2. *Spatial Variety*: The number of different experiences in an environment; the different uses provided by a development, the different spaces they provide.
3. *Legibility*: The ease of understanding of the layout of a place; the extent to which routes and their junctions are differentiated from one another and how easily people can understand the opportunities they offer.
4. *Robustness*: The number of potential uses and activities possible in an environment; The extent to which the development's spatial and constructional organisation is suitable for the widest possible range of likely activities and future uses, both in the short and long term.
5. *Visual Appropriateness*: The extent to which the appearance of the development reflects the choices offered by the development. How the detailed appearance of the place makes people aware of the choices. This is distinct from, but related to, the visual appearance of the development. It considers what information is being conveyed by the development rather than how much of the development is seen from particular locations.
6. *Richness*: The extent to which an environment offers a choice of sensory experience both visually and non visually.
7. *Personalisation*: The extent to which people can put their own stamp on a place. While an environment should encourage it, it should be tempered by the public utility of the environment.

The order of these criteria is not a reflection on their importance but does reflect an element of scale in their application in as much as the earlier factors are more applicable to large scale aspects of a place, while the latter are more relevant at the small scale or personal level. Whilst these criteria are separated out for clarity they are inter-related in the effect they have. Thus the permeability of a place has implications on the legibility of a site. The legibility in turn has implications for visual appropriateness which also affects and may be affected by personalisation.

For example while a site may allow for a number of routes through (permeability), the ability to recognise those routes (legibility) may be influenced by the layout of the site and/or the extent to which the appearance of entrances and routes are differentiated in their treatment (visual appropriateness). This may be further enhanced or confounded by changes introduced by individuals (personalisation) when they modify aspects of a building, entrance or route to accommodate a personal interest. This may be seen to occur with the addition of plants in tubs, or tables and chairs to a thoroughfare, or obscuring visual cues through signage or change of colour.

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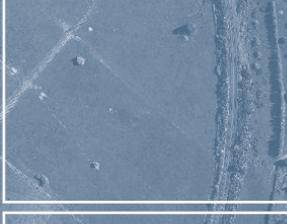
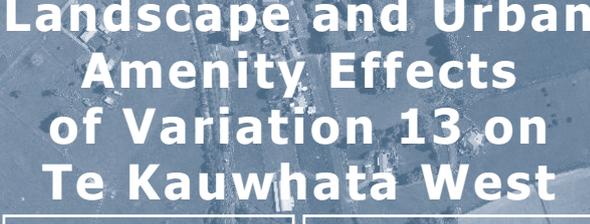
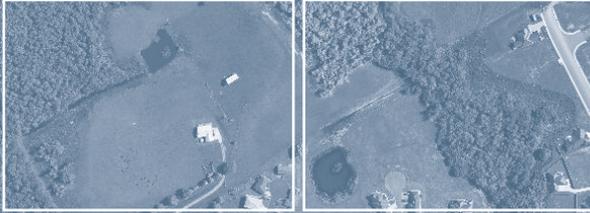
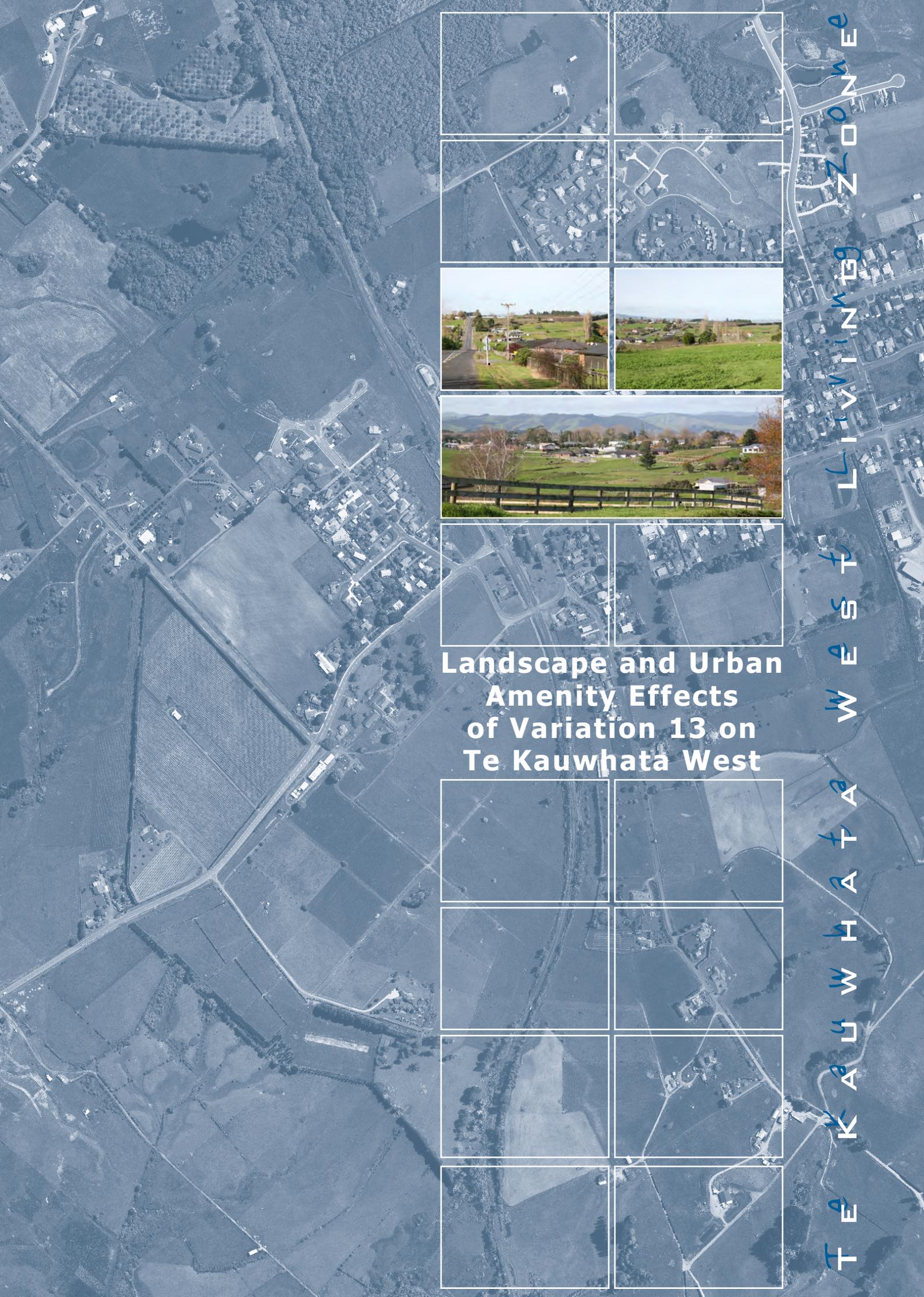
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**Landscape and Urban  
Amenity Effects  
of Variation 13 on  
Te Kauwhata West**

TE KAUWHATA WEST LIVING ZONE

This report (Landscape and Urban Amenity Effects of Variation 13 on Te Kauwhata West) has been prepared by Mansergh Graham Landscape Architects Ltd, for Waikato District Council, in response to an appeal to the Proposed Waikato District Plan.

July 2011

Report Version: R1

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## EXECUTIVE SUMMARY

Te Kauwhata is a small rural Waikato town, with a population of around 1200, located approximately midway between Auckland and Hamilton. The township is surrounded by rolling farmland and is nestled between the Whangamarino Wetland to the north and Lake Waikare to the south.

Te Kauwhata is expected to grow significantly over the next 50 years. The sub-regional growth strategy (Future Proof) anticipates a population of 7,800 by 2061. Variation 13: Te Kauwhata Structure Plan outlines provisions for the management of population growth within the structure plan area. This report reviews the likely effects of Variation 13 on existing development potential and amenity values.

Through the appeal process, concern has been raised over the potential effects on landscape and urban amenity values within the Te Kauwhata West Living Zone. To address this concern, analysis of the effects of the potential outcome of development within the Te Kauwhata West Living Zone study area was undertaken.

The approach combined the development of a possible subdivision plan for the study area under the proposed planning regime, followed by an analysis of the potential effects predicted to occur. The development scenario modelled for the study area represents the maximum density of development considered likely to attain resource consent under the proposed planning mechanisms. The model has been analysed in order to identify potential effects on urban function and amenity, and landscape and visual amenity values.

Potential effects have been identified and considered within the context of current “best practice” in both urban design and landscape architecture and a number of recommendations made. These include recommendations to amend the proposed planning mechanisms in order to:

- a. Manage the subdivision development in a manner that preserves the open spatial and rural characteristics of the surrounding landscape as long as possible.
- b. Manage the transition from the dense urban grain of the study area to the adjacent larger lot country living zone.
- c. Create a permeable road configuration, which will promote an integrated transport network and create viable neighbourhood blocks.
- d. Create an environment within the study area, which will encourage walking.
- e. Aid subdivision within the study area to be consistent with an appropriate transect from urban to rural.
- f. Create the impression of a less dense subdivision, which is more characteristic of a peri-urban area.
- g. Encourage lot orientation to be considered at the initial site planning stage.
- h. Discourage the creation of higher intensity enclaves within the study area.
- i. Reduce unnecessary vehicle crossings and reduce potential clustering of rear lots.
- j. Create better consistency between the Urban Design Guide and Councils Low Impact Design (LID) policy for storm water design.
- k. Reorder the urban design guide in a hierarchical manner to provide clarification to developers and decision makers regarding what the most important design considerations are at the initial stages of subdivision planning and design.

## INTRODUCTION

This report has been prepared by Mansergh Graham Landscape Architects (MGLA) in response to a request by Bloxam Burnett and Olliver, on behalf of Waikato District Council to review the likely effects of Variation 13: Te Kauwhata Structure Plan on existing development potential and amenity, and to make recommendations as to how these may be avoided, remedied or mitigated. The study area is limited to the Living Zone (Te Kauwhata West), bounded by Te Kauwhata, Travers, and Wayside Roads.<sup>1</sup>

Te Kauwhata is expected to grow significantly over the next 50 years in response to employment opportunities in the Northern Waikato and South Auckland. Variation 13 outlines provisions to manage this population growth appropriately within the Kauwhata Structure Plan Area (Refer appendix 2 for proposed zoning).

Variation 13 has been reviewed within the context of current “best practice” in urban design and landscape architecture and against the backdrop of the existing Te Kauwhata Township. Effects on amenity have been assessed with regards to existing residents of Te Kauwhata and future residents within the study area. Particular regard has been given to effects on residents of the Country Living Zone adjoining the study area.

MGLA has created an analytical model of a possible subdivision scenario within the study area, within the context of the objectives, policies and rules of Variation 13<sup>2</sup>. The subdivision scenario considered within this study would require consent as a discretionary activity due to minor non-compliances associated with building on slopes. This is considered to be a likely scenario, as the planning mechanisms contained within the variation make it difficult to achieve controlled or restricted discretionary status. The modelled subdivision is conceptual only and its economic feasibility has not been assessed. It represents one possible scenario of development and is intended to illustrate the general distribution and density of lots likely to arise under the application of Variation 13. In combination with field investigation the model has assisted in assessing the effects on Variation 13 on visual and landscape amenity.

## METHODOLOGICAL APPROACH

Consideration is given to urban design interventions which will improve the amenity of the study area, both from surrounding locations and for future residents within the site. Recommendations are provided for modifications to Variation 13, in order to help maintain the existing village characteristics of Te Kauwhata, reinforce the rural ambience of the village, and ensure that ecological landscape and recreational values are optimised.

A possible development scenario for the study area under variation 13 has been modelled in accordance with a discretionary activity status. This represents the maximum density of development considered likely to attain resource consent under the proposed planning mechanisms. The model has been analysed in order to identify potential effects on urban function and amenity, and landscape and visual amenity values.

It is noted that these aspirations are consistent with national guidance policies contained in the New Zealand Urban Design Protocol, released by the Ministry for the Environment. Of particular relevance to this development are those aspects relating to the context and connection. In particular, that quality urban design has a strong spatial dimension and optimises relationships between buildings, places, spaces, activities and networks<sup>3</sup>). Further it responds by creating the following:

*...good connections between activities and with careful placement of facilities benefit from reduced travel times and lower environmental impacts. Where physical layouts and activity patterns are easily understood, residents and visitors can navigate around....easily<sup>4</sup>.*

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<sup>1</sup> Refer appendix 1

<sup>2</sup> Refer appendix 3

<sup>3</sup> New Zealand Urban Design Protocol, March 2005: P18

<sup>4</sup> New Zealand Urban Design Protocol, March 2005: P21

In evaluating the effect of the proposed development a number of urban design factors were considered<sup>5</sup>. Of primary concern are those factors that consider how subdivision development integrates with the adjacent *Country Living Zone* and responds to the existing urban form of the township.

Consideration was given to appropriateness in scale, form and distribution of the lots within the study area with respect to the surrounding context. In addition, consideration was also given to the role and format of the Design Guides, so that they can most effectively promote good design rather than just ensuring that subdivision design adheres to minimum technical standards.

## **WIDER URBAN, COUNTRY LIVING AND RURAL CONTEXT**

Te Kauwhata is a small rural Waikato town, with a population of approximately 1200, located approximately midway between Auckland and Hamilton. The township is surrounded by rolling farmland and is nestled between the Whangamarino Wetland to the north and Lake Waikare to the south.

The commercial service centre of Te Kauwhata consists of a short strip of shops and community facilities on Main Street. Immediately to the west, the main trunk line (three tracks wide) severs Te Kauwhata from development to the west and forces a deviation in the alignment of Te Kauwhata Rd, the only entrance to the town from this direction.

The majority of the existing residential development in Te Kauwhata is concentrated along the ridge east of the commercial centre with the urban fabric generally conforming to a grid configuration. This is manifest in the neighbourhood blocks bounded by Waerenga Rd, Mahi Road, Rata Street, and Roto Street and produces a road network with good connectivity and legible way finding.

The urban grain is characterised by pockets of subdivision from different eras of development over the last 50 or so years<sup>6</sup>. Each is noticeably different in visual character due to variations in section sizes, building footprint, setbacks, architectural style, the extent and height of fencing and vegetation, and the width and configuration of roads and footpaths (see examples of existing residential development development). Collectively, this mixture characterises the township as a whole.

Aparangi Village, a large retirement complex to the north of Waerenga Rd, differs significantly in character from the balance of the town. By contrast, the internal roading network is curvilinear in nature, often terminating in cul de sacs. Clusters of small residential dwellings are distributed throughout the site with a blurring of the public/private space boundaries. This is typical of retirement villages.

West of Aparangi Village, a recent subdivision is being developed on Blunt Road and Ribbonwood Close. A feature of this subdivision is the use of timber retaining walls to create flat building platforms and sections.

West of the railway line, a small cluster of residential development has occurred within the *Living* and *New Residential Zones* around Eccles Ave and Totara Place. Residential development further west consists of larger lot development within the *Country Living Zone* concentrated around Travers, Orchard, Wayside and Moorfield Roads. A small commercial node previously occupied the corner of Te Kauwhata and Wayside roads; however currently there does not appear to be any operating retail businesses. SH1 forms a north to south boundary 2km west of central Te Kauwhata

Recreational green space in Te Kauwhata is provided to the north of Waerenga Road in the form of the Waikare Golf Club, while the Te Kauwhata memorial domain forms part of the southern boundary of the township.

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<sup>5</sup> Refer appendix 2

<sup>6</sup> Refer appendix 4

## THE STUDY AREA

The area subject to this study is limited to the *Living Zone (Te Kauwhata West)* bounded by Te Kauwhata, Travers, and Wayside Roads. Whilst other land within the plan change area has the same proposed zoning, it is not subject to this assessment.

Land within the study area is currently characterised by a mix of rural land uses with sparse residential development. It has a quiet, country character despite being in relative close proximity to SH1.

The gently undulating land adjacent to Te Kauwhata Road is predominantly in grapevines, while the balance of the study area consists largely of pastoral land with some residential development adjacent to the Travers and Wayside roads.

A conical high point is centrally located within the study area, on the north side of which pastoral land slopes to a stream on the northern boundary of the site which feeds the Whangamarino Wetland. Shelter planting lines the eastern boundary of the study area on Travers road. Internally, shelterbelts are predominantly contained in the northern part of the study area delineating the pastoral land.

A series of photos from locations surrounding the study area, which illustrate existing landscape character, are provided in the Visual and Landscape Amenity Effects section of this report.

## SUBDIVISION POTENTIAL UNDER VARIATION 13

Realisation of the subdivision potential of the study area, through an application of the relevant objectives, policies and rules contained within Variation 13, would result in an obvious change in existing land use patterns. Existing dispersed development patterns would give way to sub-urban and urban development patterns that more closely resemble the densities found in the existing township than the adjacent *Country Living Zone*.

While it is important to note that the study area has not yet reached its development potential under the existing Country Living zoning, the proposed structure plan would see a change in the type of subdivision pattern likely to evolve under each zone.

Approximately 115 lots could be developed under the existing *Country Living Zone* subdivision provisions (minimum lot size 5000m<sup>2</sup>), which would see the existing pattern of large lot lifestyle subdivision, evident on Travers Road, between Wayside and Moorhouse Roads, spread over the study area.

Under Variation 13, approximately 410 to 420 lots could be created (dependant on final road network configuration). Review of the rules suggest that it will be very difficult to meet all the requirements for a controlled activity without compromising efficiency, yield or the recommendations of the urban design guidelines. It is considered likely that developers will adopt a maximise yield approach through discretionary applications that can be argued to be in keeping with the general direction and intent of the objectives and policies, and generally comply with the urban design guidelines.

## COMPARISON OF EXISTING SUBDIVISION AND ITS RELATIONSHIP TO DENSITIES ACHIEVABLE UNDER VARIATION 13

Perceptions relating to subdivision density in Te Kauwhata are influenced by a combination of lot size and building coverage.

In order to determine if the planning mechanism proposed in Variation 13 would produce subdivision patterns consistent with what has already occurred within Te Kauwhata, development patterns within representative blocks were analysed.

Analysis of the ratio of building coverage to lot size indicates that:

- a. the average building coverage for older subdivisions (under previous planning regimes) is approximately 13%; whereas
- b. more recent development under the Operative District Plan has an average building coverage of around 31%.

This is shown in Appendix 4 and illustrated in the following examples:

### Example A: Older Residential development in Te Kauwhata



**Figure 1: Waerenga Road**

Residential development on Waerenga Road, between Wira and Amo Streets, is characterised by relatively large narrow sections (900m<sup>2</sup>) with the majority of private space located at the back of lots. Percentage building coverage is typically 15% (average) of the lot size. Wide grass verges mean that dwellings have a generous set back from the carriageway. Garages are typically at the side or rear of the section, which makes them visually recessive to the dwelling. Footpaths are provided on the northern side of the road only, with separation between the Road and footpath provided by a grass verge. While there are some large trees on private lots, the general absence of street tree planting, combined with the wide carriageway means that Waerenga Road has a largely open spatial character.

## Example B: More Recent Residential Development



**Figure 2: Merlot Place**

Merlot Place is a recent residential subdivision with an average lot size of 850m<sup>2</sup> and building coverage averaging around 32% of the total lot. These relatively large building footprints and a generous setback from the carriageway, means that private space within lots is relatively compact. Each lot boundary is defined by a 1.8m close boarded fencing, typically used at the side and rear of lots to provide privacy. Double or triple garages are typically located at the front of dwellings. Where garages face the street, they form a dominant visual element, which the main entrance to the dwelling becomes secondary to.

A footpath is provided on the southern side of the road only, with separation between the road and footpath provided by a grass verge. There are no street trees on Merlot Place and given the recent nature of development within this subdivision, planting on lots is just beginning to establish. Large building footprints, concrete driveways and turning circles, concrete footpaths, and a broad carriageway mean that the subdivision is dominated by impervious surfaces.

Review of the planning regime proposed under Variation 13 indicates that the type of subdivision more likely to occur (within the study area) will more likely conform to example B. (above).

## RATE OF DEVELOPMENT

Effects of subdivision within the study area on the amenity values of existing residents of Te Kauwhata will be strongly influenced by the rate and pattern of development. This will be largely determined by the rate of population growth in Te Kauwhata. As stated in the introduction to Variation 13:

*...Te Kauwhata is expected to grow significantly over the next 50 years in response to employment opportunities in the Northern Waikato and South Auckland, its proximity to the Waikato Expressway and the town's attractive setting. The sub-regional growth strategy (Future proof) anticipates a population of 7,800 by 2061...*

How rapidly that population growth occurs will influence how development within the study area proceeds. While under current economic conditions it is unlikely that large blocks of subdivision will develop quickly, it is difficult to predict when conditions will create demand for more rapid growth. However, this may arise due to the following factors:

- (a) New industry within Te Kauwhata or the surrounding area (potentially associated with the construction of the proposed interchange and bypass).
- (b) Increased demand for housing within a commutable distance of Auckland or Hamilton.

Plausible scenarios of how this growth may take place include the following:

- a. Subdivision will grow slowly with demand. A small cluster of lots will gradually expand. The Road network will expand in line with this development.
- b. The entire road network will be developed initially and stages of development will be constructed in line with demand.
- c. Small pockets of development will occur within the study area and will accelerate/decelerate with changing economic conditions.

The nature of effects on amenity will differ under these scenarios. Gradual development, on a lot by lot basis, which occurs over a relatively long time, will enable existing residents to gradually adapt to the change in landscape patterning in the study area. In addition, both street trees and planting within lots will have time to mature as development proceeds, softening views of subdivision as it expands.

Establishing the road network over the entire site at the early stages of development will enable street tree planting to take place as soon as possible. This will have benefits in terms of enhancing the natural character of the study area. However, if subdivision development then occurs at a relatively slow rate, the study area could potentially have a deserted appearance, but which also no longer retains its rural character. Potentially, this could lead to the site having an unkempt appearance if regular maintenance of road verges/and or swales is not undertaken.

If small pockets of subdivision develop at varying rates within the study area, there is the potential that subdivision could result in a disconnected pattern of settlement, which does not allow for connectivity between new areas of development and existing surrounding development.

## ANALYSIS OF THE URBAN DESIGN AND AMENITY EFFECTS POTENTIALLY ARISING FROM VARIATION 13

The following section identifies and discusses key provisions of Variation 13 that potentially affect urban function and amenity.

### Urban Integration

Integration between Te Kauwhata township (existing) and development within the study area is dependent on a number of factors. These include:

- a. Consistency in the general road network pattern, road reserve width and road reserve treatment between old and new areas;
- b. Consistency in the general design and size of development;
- c. Similarity in site coverage;
- d. Similarly in curtilage patterns;
- e. Either achieving general consistency in lot size and shape or achieving appropriate lots sizes in relation to a continuum from urban (smaller) and rural (larger) lots;

The following factors are considered in terms of their effects on the amenity of existing residents of Te Kauwhata and future residents within the study area. Some design interventions will have noticeable implications on either amenity from surrounding locations (e.g. managing the transition from rural to urban), or from within the study area (e.g. lot orientation). Other interventions, such as the provision of street trees will have clear benefits for those both within and surrounding the study area.

### Transition from Peri-Urban to Rural Land

The average lot size within the study area (875m<sup>2</sup>) is considerably smaller than that within the adjoining Country Living Zone. At present, Variation 13 does not address the distribution of lot sizes within the study area or manage the transition from urban to rural. As it stands, there is likely to be an abrupt transition from a relatively dense urban grain within the study area to large lots in the neighbouring *Country Living Zone*. This is contrary to good urban design practice which identifies transects<sup>7</sup> that gradually transition from greater to lesser density toward the *Rural Zone*.

It is important that both the transition between the study area and adjoining *Country Living Zone*, and the overall character of the study area are considered to avoid an abrupt clash of rural and urban elements.

Establishing larger lots on the boundary between the study area and adjoining *Country Living Zone* land is one way of managing this transition. This will have the most noticeable effect on those properties in the *Country Living Zone*, immediately adjacent to the study area. By increasing the lot sizes along the zone boundary, a property within the *Country Living Zone* could border two 900m<sup>2</sup> sections rather than three dwellings on 650m<sup>2</sup> sections. This would noticeably reduce the urban edge and apparent density effects experienced by Country Living Zone residents, easing the transition for rural to urban.

It is noted that if a road is located on the boundary between these zones (as currently required by the structure plan), then a local purpose (amenity) reserve with a minimum width of 5m<sup>8</sup> would be created between the zones. While this would assist in providing a buffer between the zone boundary and the edge of housing, it is not efficient use of road frontage as the costs of infrastructure development associated with the road and reserve is spread over fewer lots.

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<sup>7</sup> A transect is a geographical cross section of a region used to reveal a sequence of environments. For human environments, this cross section can be used to identify a set of habitats that vary by their level and intensity of urban character, a continuum that ranges from rural to urban. In transect planning; this range of environments is the basis for organising the components of the built world.

<sup>8</sup> Refer Rule 21A.26.1

The transition can be further enhanced by the use of visually permeable fencing between the living and rural zones where appropriate (if this does not compromise privacy). This could be managed by maintaining existing rural post and wire fencing at the boundary, and a recommendation within the Design Guides that privacy fencing is established closer to dwellings where necessary.

In addition, the identified flood area along the northern most boundary of the study area could function as a reserve buffer, providing a transition between the zones. A flood plain reserve with naturalistic riparian planting could also include a walkway to provide variety and a “natural” counterpoint to the walking experience of pedestrians within the study area. It is noted that the Design Guide makes reference to the Te Kauwhata Natural Character Plan, which also identifies the opportunity of creating an ecological corridor in this location.

### Proposed Transport Network

Establishing a permeable road configuration within the study area is crucial in terms of creating an efficient transport and pedestrian network that integrates with surrounding roads and destinations. In addition, it will determine residential block sizes and types, with implications in terms of lot orientation, shape, and the provision of public and private space.

The existing structure plan includes a Proposed Transport Network, illustrated in the *Planning Map 25A Policy Showing Decisions on Roads*. The implementation of this road network would have the following adverse effects on permeability, the viability of neighbourhood blocks, and traffic safety.

- (a) The proposed Collector Road, which connects Travers and Wayside Roads, has a somewhat convoluted alignment. As a consequence, it would not visually “read” as an obvious thoroughfare or allow for efficient transport.
- (b) The proposed road network, which includes both straight and curvilinear streets, will create some awkward shaped lots unsuitable to residential development, in particular where roads intersect at acute angles or are in close proximity to the study area boundary.
- (c) The service lane linking Travers and Te Kauwhata Roads will create a short cut through the study area (also known as a “Rat Run”), which will potentially introduce heavy traffic to a residential area, with associated safety issues.

As such, it is considered that the proposed road network in the structure plan will require amendments to rationalise connectivity and efficiency<sup>9</sup>. Firstly, the alignment of the main collector road requires strengthening to reflect its function as the main thoroughfare. This should be further reinforced with strong avenue and median street tree planting<sup>10</sup>. Further, the road network will require rationalising to create viable block shapes as sizes and eliminate “Rat runs”.

Consideration should also be given to future road connections to adjacent zones, the proposed Bypass and Interchange when determining the suitability of the road network within the study area. In addition, once the final alignment of the bypass and Interchange has been determined, consideration should be given to the level of mitigation required to maintain the amenity of future residents within the study area.

The possible subdivision model prepared by MGLA illustrates a highly permeable, modified grid pattern which responds to natural contours on the site<sup>11</sup>. While this network is conceptual only, and would require review by a transport engineer, it illustrates a number of the above desired outcomes. The design works on general block depth ranging between approximately 80m (40m deep lots back to back) and 140m (40 deep lot sizes with rear infill lot). Blocks have been shaped to maximise the number of road frontage lots and minimise rear lot opportunities as required by the proposed plan change.

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<sup>9</sup> Refer appendix 5

<sup>10</sup> Refer Oe3.5.1 of the Design Guides

<sup>11</sup> Refer appendix 3

## Connectivity and Walkable Neighbourhoods

The intensification of Te Kauwhata within the study area will result in a distinct shift of the population density toward the west. Approximately one third of this development will be outside the 10 minute recommended walkable distance to the existing commercial centre. This is likely to make residents within the study area dependant on vehicular transport to get to the commercial centre of Te Kauwhata.

Ideally, residential developments should support walking and physical activity to promote healthy communities. Interdisciplinary research has determined that communities with a mix of uses and good connectivity, block structure, public spaces, and transit proximity have residents who are more likely to walk, are less likely to be overweight and have greater social and community interactions<sup>12</sup>. As discussed in the Variation 13 Design Guides, the creation of a street network with a high degree of connectivity, which reduces travel distances, and pedestrian links to natural features and reserves is crucial to encouraging walking and cycling.

Quality urban design which encourages walking, includes the creation of safe, attractive and secure pathways and links between centres landmarks and neighbourhoods, green networks that link with public and private open space, improved accessibility to public services and facilities, and the treatment of streets as positive spaces with multiple functions<sup>13</sup>.

It is noted that objective 15A2.10 seeks the following:

*Diverse living and working environments in Te Kauwhata create a positive sense of place and neighbourhood amenity.*

Policy 15A.2.13 states that medium density housing should:

*(b) be in close proximity to public transport nodes and the town centre.*

It is considered that where large scale residential development (as is proposed in Te Kauwhata West) is to occur beyond typical walkable distance to the commercial centre, consideration should be given to the provision of small scale retail activities to occur within these residential areas.

Section 21A.25 deems that the location of off-road walk ways shall be in general accordance with, but not limited to, the walkway route shown in the structure plan route. It is considered that pedestrians will largely use footpaths associated with the road network, which integrate with walkways within reserves. As such, it is recommended that walkway routes are designed to integrate with an amended version of the study area road layout, with allowances made for connections to reserves.

It is noted that the walkway through a residential block in the subdivision design used in this study adheres to the Design Guidelines safety recommendation that pedestrian-only walkways are straight and relatively short to enable people to see along the entire route.

## Immersive Environments

For *Country Living Zone* residents on the more distant, elevated land to the north of the study area, the transition between zones at the boundary is less important in terms of amenity than the overall visual character of subdivision within the study area.

One of the key concepts of transect planning is the idea of creating *immersive environments*. Successive immersive environments along a transect are defined by the selection and arrangement of all the components that together comprise a particular type of environment. Each environment (or transect zone)

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<sup>12</sup> University of Miami School of Medicine, 2009.

<sup>13</sup> MOE, 2005

is comprised of elements that *keep it true to its locational character*<sup>14</sup>. In this case it is important that for neighbouring *Country Living Zone* residents that the overriding visual character of the study area is not defined by a sea of roofs. Rather, subdivision should be designed to include natural elements that break up views of dwellings and reflect a more rural flavour of residential development.

It is considered that the use of street trees on all types of roads within the study area will break up views of built form and visually integrate with surrounding rural shelter planting. Further street trees, will eventually mitigate the removal of existing vegetation on the site as required for residential development<sup>15</sup>. To enable street tree planting to have a positive impact on the amenity values as soon as possible following planting, performance standards could be employed to ensure that only large grade specimens are used.

It is considered that the recommendation of the Design Guides that street tree planting occurs at every second property boundary will lead to too a sparse a cover of trees and irregularities in their distribution due the range of lot sizes and shapes. As such it is proposed that street tree planting is undertaken on all road types at approximately 20m intervals, with allowances made for lot entrances.

It is also important that there is sufficient space within lots for residents to establish trees. At present building coverage of 35% will be permitted on lots as small as 650m<sup>2</sup> within the study area. If this maximum site coverage is realised on relatively small lots, it is unlikely that there would be sufficient room to establish trees (allowing for setbacks) without causing adverse shading effects. The inclusion of swales, rather than kerb and channel drains and the establishment of planting within reserves will aid, in a small way, development within the zone to visually integrate with the surrounding rural residential development.

While street trees are not a prominent feature of the main residential district of Te Kauwhata (east of the Commercial Centre), their widespread use within the study area would be appropriate in terms of enhancing the transition from urban to rural.

#### Percentage Building Coverage

One of the key factors that will influence the amenity values of a subdivision at the street level is the ratio of building coverage to lot size (percentage building cover). Under variation 13 the rules allow for a maximum 35% building coverage as a permitted activity. The visual character of this level of building coverage is illustrated in Merlot Place where average cover is approximately 32%. In this regard, this relatively recent subdivision, the development that has occurred has adhered to comparable planning criteria as that being proposed by variation 13.

Other similarities affecting the characteristics of the subdivision include setback and fencing requirements. Side boundaries appear to adhere to the minimum side boundary setbacks of 1.5m, in order to accommodate large dwellings and leave sufficient space at the rear of the yard for a private outdoor living space. As a consequence 1.8m close boarded fences are typically used alongside boundaries to provide privacy between dwellings, which can be as little as 3m apart (see Fig 3).

While it is acknowledged that the visual character of a subdivision such as that at Merlot Place will evolve as planting establishes at the front of lots, softening the appearance of dwellings, this density of development creates a street frontage with little relief from built form.

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<sup>14</sup> Smartcode, 2005

<sup>15</sup> Where possible, existing mature trees of good health and form within the study area should be retained.



Figure 3: Building Setbacks on Merlot Place

### Lot Orientation

Landuse rules within Variation 13 state that the construction of a dwelling is a permitted activity *if an outdoor living court is provided that is located between 45 degrees north east through north to 90 degrees west of the dwelling measured from the southern most part of the dwelling (21A.11)*. The orientation of living courts is largely influenced by the alignment of the road network. As such, lot orientation needs to be considered at the initial site planning stage and linked to the lot orientation design guidelines.

### Distribution Of Lot Sizes

Allotment sizes proposed under rule 21A.19.1 will result in a grain of development, which is, on average, midway between that of the more established residential blocks in Te Kauwhata and more recent higher density subdivision, such as that on Blunt Road. As such, lot sizes are broadly consistent with the existing grain of residential development in Te Kauwhata.

It is considered important, however, that there is control over the distribution of lots within the study area, to ensure that clusters of small lots in one part of the study area are discouraged. Enclaves of 650m<sup>2</sup> lots could potentially result in a localised intensity of development similar to that of recent subdivision on Rata Street, which would be contrary to the peri-urban character of the study area. As such, it is recommended that the percentage mix of lots within the study area is apportioned on a block by block basis.

### Rear Lots

Item 21A.20 of the subdivision rules identifies that subdivision is a controlled activity if:

- (a) *no more than 5% of allotments created by the subdivision are rear allotments, and*
- (b) *accesses to rear allotments do not abut more than one side boundary of a front allotment, and*
- (c) *all rear allotments are provided with separate vehicle access to a public road.*

It is considered that clarification is required as to whether the 5% allowance applies at an overall application level or should be assessed on a block-by-block basis. If applicable at application level, this could potentially result in clusters of rear lots occurring within the large neighbourhood blocks.

In order to reduce the area within the zone apportioned to driveways (and consequently reduce the coverage of impervious surfaces) consideration should be given to allowing two lots to share a driveway.

#### Low Impact Stormwater Management

As addressed in the Amendments to Chapter 29 (Attachment 5 of Variation 13). Council has adopted Low Impact Design (LID) principles, which promote the use of natural drainage features in the landscape rather than piped systems for stormwater management. It is considered that there is a synergy between the adoption of LIUDD elements (such as the use of natural stormwater detention devices such as swales and rain gardens) and the creation of subdivisions with a rural flavour (i.e. the use of swales rather than kerb and channel as is typical of rural environments).

## DESIGN GUIDELINES

An Urban Design Guide is appended to Variation 13, which provides direction over controlled and restricted discretionary activities. The guidelines outline a number of design issues that are to be considered during the resource consent process. Desired outcomes, with examples, are provided for various aspects of subdivision planning and design. An assessment criteria section summarises the key issues.

While it is considered that the design guide generally offers good direction, it is recommended that it is presented in a hierarchical format, which reflects the scale of their application and the influence that various design decisions have on overall urban form and amenity. Priority should be given to those guidelines that influence large scale, initial site planning matters, which in turn affect design elements more relevant at the small scale.

Control with regards to various aspects of subdivision planning and design is reserved over compliance with Appendix Oe (Urban design Guide). However, at present there is no guidance on the relative importance of the various aspects of the guides. As such, potential exists for developers and council to place emphasis on different aspects of the guide, while both parties seek to be generally compliant with them. It is considered that by removing any ambiguity around what aspects of subdivision design are most important will provide clear direction for both developers and decision makers.

It is considered that a hierarchical approach should broadly conform to the *Urban Amenity Methodology* contained in appendix 8 of this report. The methodology identifies that *permeability*, largely a function of the road and pedestrian/cycle network is of primary concern. This reflects the importance of establishing a framework, which will not only have good outcomes in terms of transport, but will also influence residential block sizes and types, with implications in terms of lot orientation and the provision of public and private space. The importance of subdivision road patterning is acknowledged in the introduction to the Urban Design Guidelines, as follows;

*.... The future character of neighbourhoods is largely determined by the street pattern, section sizes and shapes and relationship to open spaces/community facilities...*

In addition to establishing a hierarchical structure within the Design Guides, it is important that associated assessment criteria are weighted to reflect this hierarchy. This will reinforce the priority given to those design issues with the greatest influence on amenity.

## VISUAL AND LANDSCAPE AMENITY EFFECTS

### Visual Catchment

The visual catchment of the site was determined following a combination of field investigation of the surrounding area and GIS viewshed analysis. View shed analysis was based on 0.5m contours for the study and surrounding landscape. It did not take into account vegetation or buildings in the surrounding area that could potentially screen the study area from view<sup>16</sup>.

The view shed analysis maps appended to this report illustrate the visibility of both the ground plane within the study area and residential development based on maximum permitted building height (7.5m) from surrounding locations<sup>17</sup>. Site inspection, in combination with Zone of Theoretical Visibility (ZTV) analysis, has identified that the subject area's primary visual catchment will be from locations immediately north of the site, which afford elevated, broad views of the study area.

The viewshed analysis based on maximum building height illustrates that buildings within the study area will also be potentially visible from a number of existing residential areas of Te Kauwhata, including parts of Eccles Ave and Totara Place, areas on the ridgeline east of the commercial centre, and the Aparangi Village Retirement Centre. It is noted however, that from these locations intervening vegetation and development will provide considerable screening, particularly from locations south of Waerenga Rd, where views are largely screened by existing residential development.

From south of the study area, on Te Kauwhata Road, between Wayside and Travers Roads, broad views of the southern extent of the study area are available.

From the west, glimpsed views beyond the existing lifestyle development and shelter vegetation in the foreground will be afforded from Wayside Road. The study area is not visible from nearby locations on SH1.

It is noted that hedgerow and shelterbelt vegetation, both on the site boundary and internally, currently sever views of the site from peripheral locations. As this vegetation is removed to accommodate residential development, a greater extent of the site will be visible from surrounding locations.

### Visual Absorption Capability

One of the main factors that will influence a developments' visual effect, is the visual absorption capability of the surrounding landscape. This is the ability of the landscape to integrate a development, or feature, into its existing visual character without significant change.

Factors considered in determining the sites VAC rating include:

- a. The degree to which the development is visible;
- b. Visual and physical links with other similar elements or activities in the landscape;
- c. The level of modification to the surrounding landscape (short and long term);
- d. Appropriateness of scale;
- e. Distance;
- f. Backdrop; and
- g. Atmospheric conditions.

It is considered that the sites ability to visually absorb the change associated with residential development varies markedly from surrounding locations. VAC is generally *good*<sup>18</sup> east of the study area due to intervening topography and/or vegetation, which prevents clear views of the study area. From locations within the Country Living Zone immediately to the north of the site the VAC of subdivision within the study area would be *poor* due to the close proximity of the development, the abrupt transition from rural to

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<sup>16</sup> Refer to appendix 6 &7

<sup>17</sup> Dark purple areas indicate locations where the development will be theoretically most visible.

<sup>18</sup> Refer appendix 8 for definitions.

urban landuse, and the large scale and intensity of development compared with the existing site. The slope and northerly aspect of the study area will mean that dwellings will be particularly prominent from locations north of the site.

#### View Locations and Images of the Possible Development Scenario

Four representative view locations surrounding the study area were selected for review within this report, on the basis of existing views, viewing frequency, viewer types, and the availability of the view from public or private property, viewer distance and the viewing time and framework available at the time of study.

All selected view locations are identified on the proposed subdivision plan in appendix 3 of this report. In addition to the view location photos, computer generated images (CGI) of the “possible” subdivision are provided. These are used to provide an impression of one possible outcome of residential development within the study area. The modelled views depict three scenarios. These are:

- a. Full development potential with no street trees (new subdivision);
- b. Full development potential with the level of street tree planting proposed within the Design Guides; and
- c. Full development potential with street trees at 20m centres (in order to illustrate the mitigating effect of different levels of tree planting).

#### Amenity Effects From North Of The Site

Views of the study area from north of the site are afforded from Travers and Moorfield Roads. From these locations, any subdivision within the study area would result in a noticeable change in landscape character, from the existing rural pastoral landscape with largely open spatial characteristics to a highly developed urban neighbourhood. From elevated locations along the section of Travers Road between Wayside Road and Moorfield Road, the primary visual characteristic of a residential subdivision prior to street trees establishing, would be a broad expanse of roofs, broken only by the road network and green space associated with the proposed hill top reserve.

Recent subdivision on Blunt Road provides an example of a density in excess of that which is likely to occur within the study area. This development is seen at a comparable distance from locations north of the site (Travers Road) providing a useful illustration of the visual character of residential development at a somewhat higher density than is proposed under Variation 13.

As shown in the CGI image below, street trees will notably contribute to the visual integration of residential subdivision at the densities proposed under Variation 13. Not only will this planting break up views of dwellings, but it will be integrated with shelter planting surrounding the site and mitigate the loss of shelterbelts within the study area as residential development proceeds.

It should be noted that development within the study area is likely to occur gradually<sup>19</sup>. As such, the transition from rural landuse to residential development may occur over some time. In addition, while the outlook from dwellings to the north of the study area is primarily characterised by a pastoral rural outlook, interspersed with some low density residential development, there are also views of the northern outskirts of Residential Te Kauwhata from some locations, which provides some context of higher density residential development.

It should also be noted that, under the current planning regime, the study area could be subdivided into 5000m<sup>2</sup> lifestyle blocks. This would also affect exiting character, resulting in development densities akin to those along Travers Road.

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<sup>19</sup> Refer section on rate of development



Figure 4: VL1, view from North of the Study Area on Travers Road



Figure 5: GIS terrain model image, illustrating the possible subdivision without street trees, from VL1.



Figure 6: GIS terrain model image, illustrating the possible subdivision with street trees as per the design guidelines, from VL1.



Figure 7: GIS terrain model image, illustrating the possible subdivision with street trees at 20m intervals, from VL1.



Figure 8; View of the Blunt Road Subdivision from Travers Road.

#### Amenity Effects From Locations South Of The Site

From Te Kauwhata Road, residential development within the study area, will notably contrast with the largely open character of the undulating southern portion of the site, which is currently in grape vines. Residential development on the more northerly slopes of the site will not be visible from this direction. As development occurs on the boundary of the study area views to the broader site will be severed by newly constructed dwellings and boundary fencing. The subtle undulations of the existing vineyards will be replaced by residential development and the associated establishment of flat building platforms.



Figure 9: VL2, view from South of the Study Area on Te Kauwhata Road.

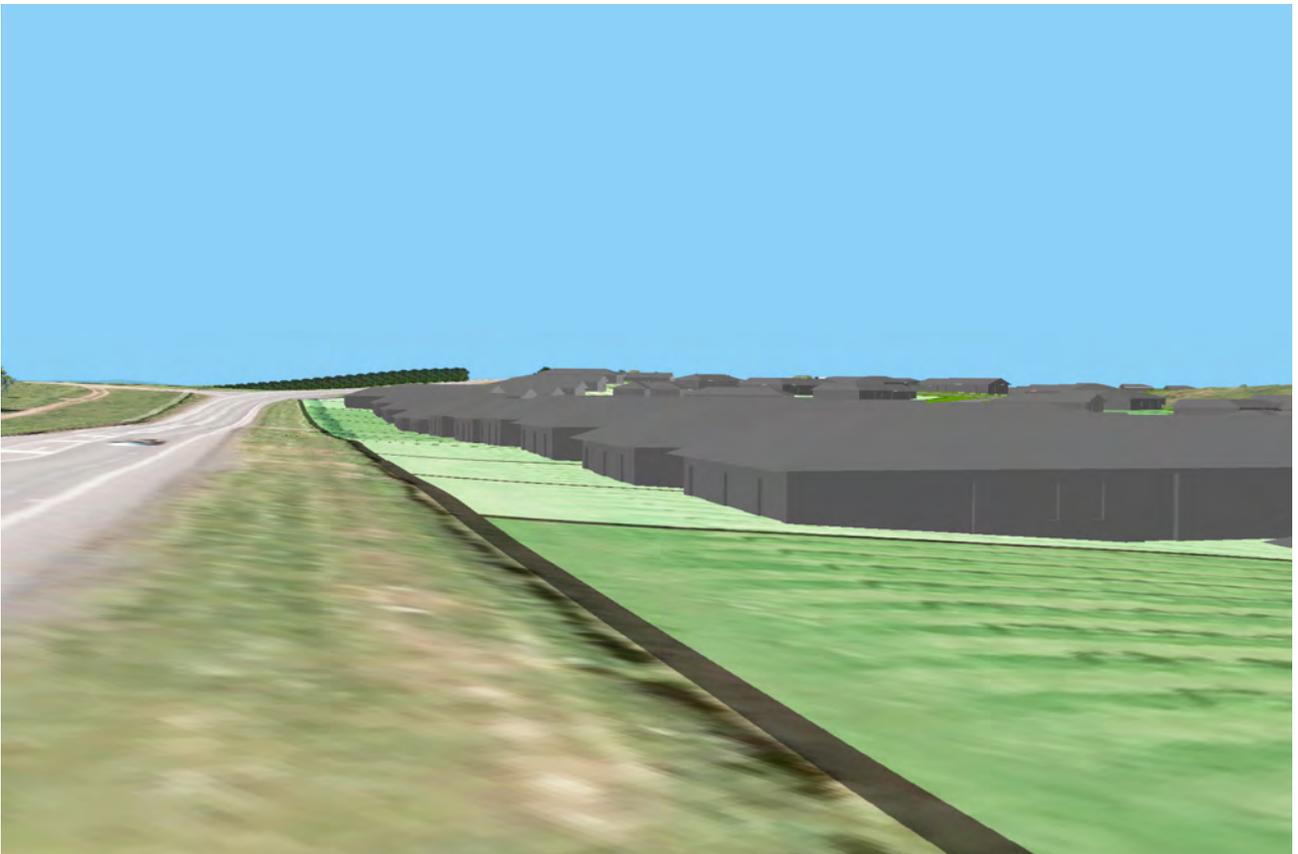


Figure 10: GIS terrain model image, illustrating the possible subdivision without street trees, from VL2.

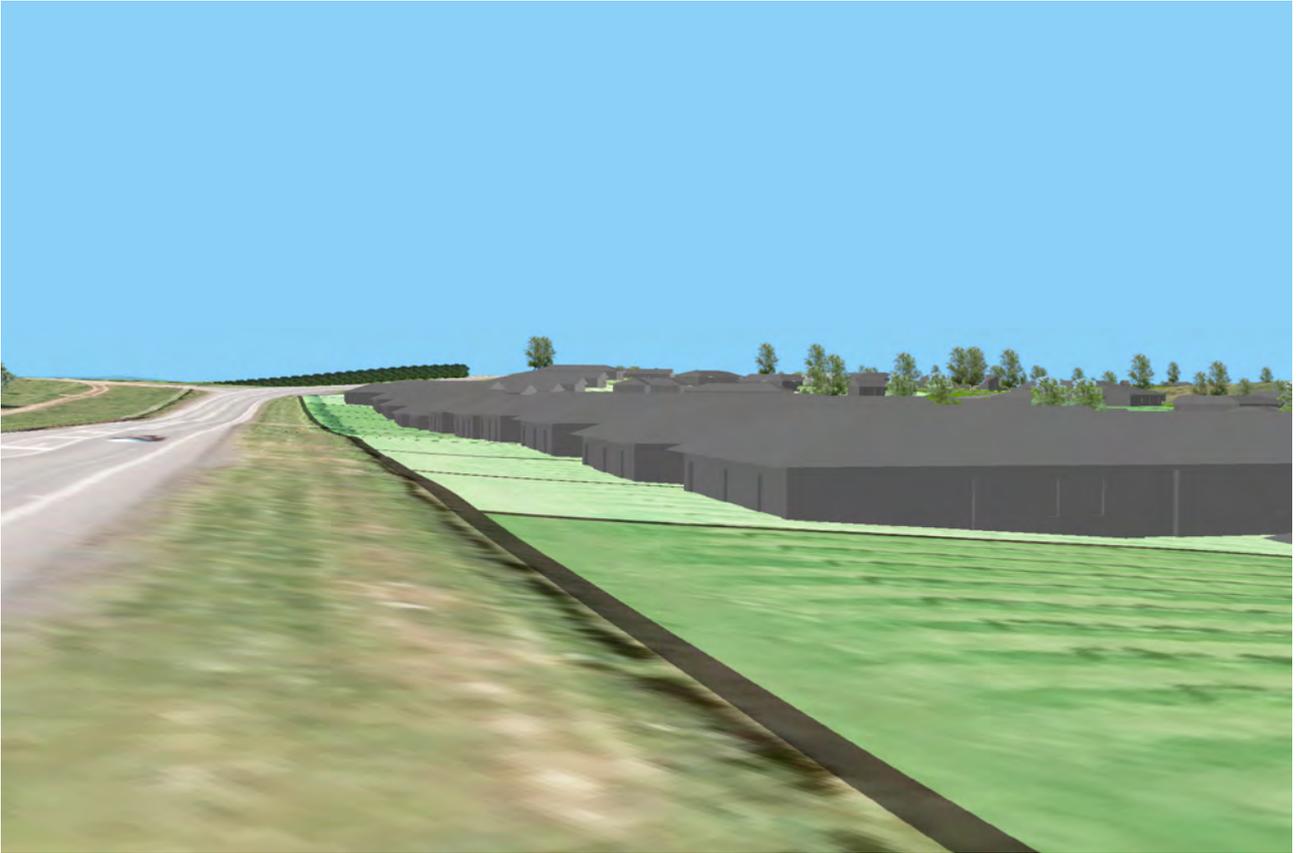


Figure 11: GIS terrain model image, illustrating the possible subdivision with street trees as per the design guidelines, from VL2.

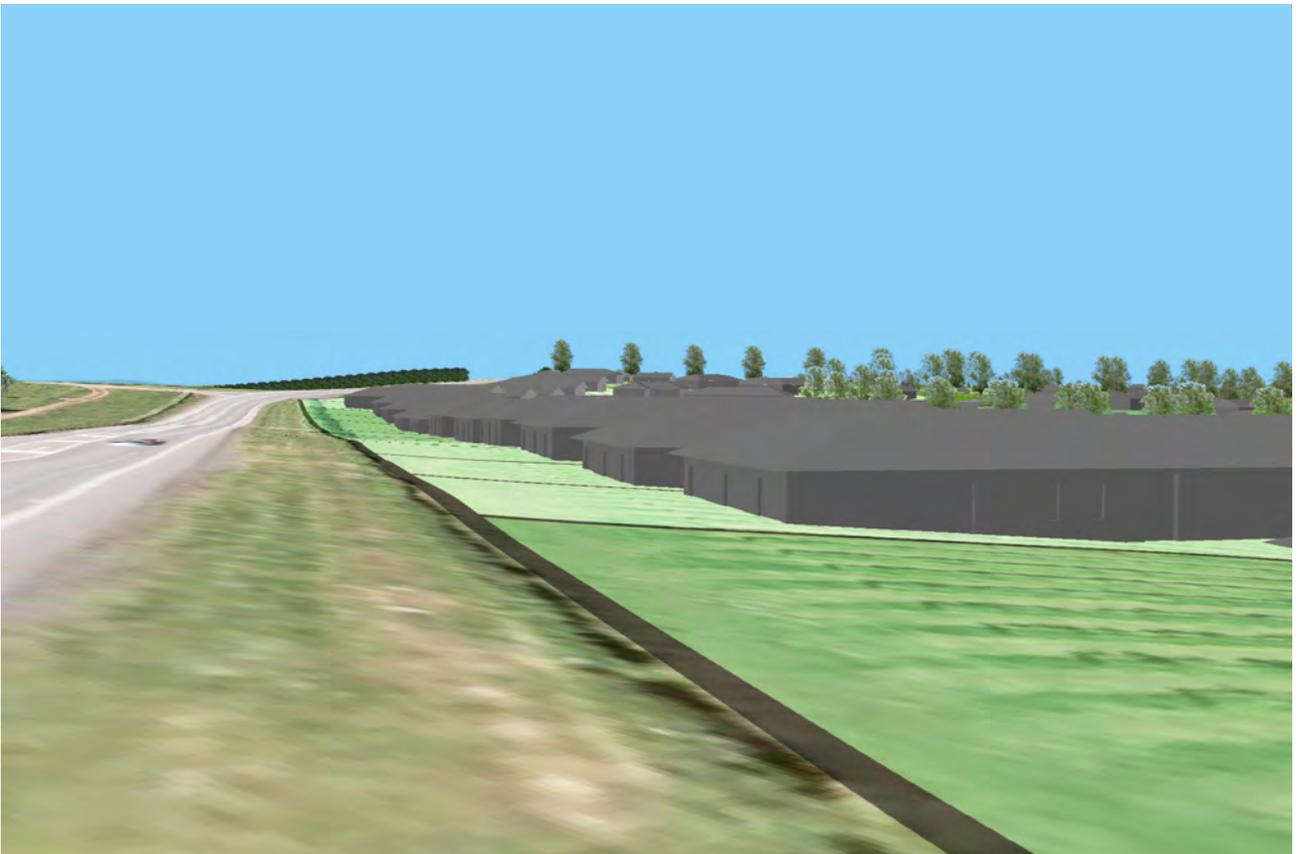


Figure 12: GIS terrain model image, illustrating the possible subdivision with street trees at 20m intervals, from VL2.

### Amenity Effects From Locations East And West Of The Site

From established areas within Te Kauwhata (west of the railway line) the study area will not be highly visible. As such, subdivision within the study area will not detract from existing amenity derived from views to the surrounding rural environment from these existing residential areas.

However, from closer proximity locations along Travers Road (east) and Wayside Road (west), the change in landscape character will be highly prominent. From dwellings on the western side of Travers Road, which overlook a broad extent of the study area, there will be a notable shift in landscape character as the residential development will form a broader extent of the view, contrasting markedly with the existing largely open spatial character of the study area.

Shelter planting within the site partially obstructs views to the southern parts of the site. Residential development would likely result in the removal of this planting, further “opening” views to the site prior to street tree establishing. Newly constructed dwellings and fences along the Travers Road boundary would sever views of the broader study area from locations adjacent to the site.

From locations west of the site on Wayside Road, effects will vary depending on the extent of intervening vegetation; however, effects are likely to be considerable from elevated locations which afford broad views of the study area.



Figure 13: VL3, Travers Road, northeast of the Study Area.

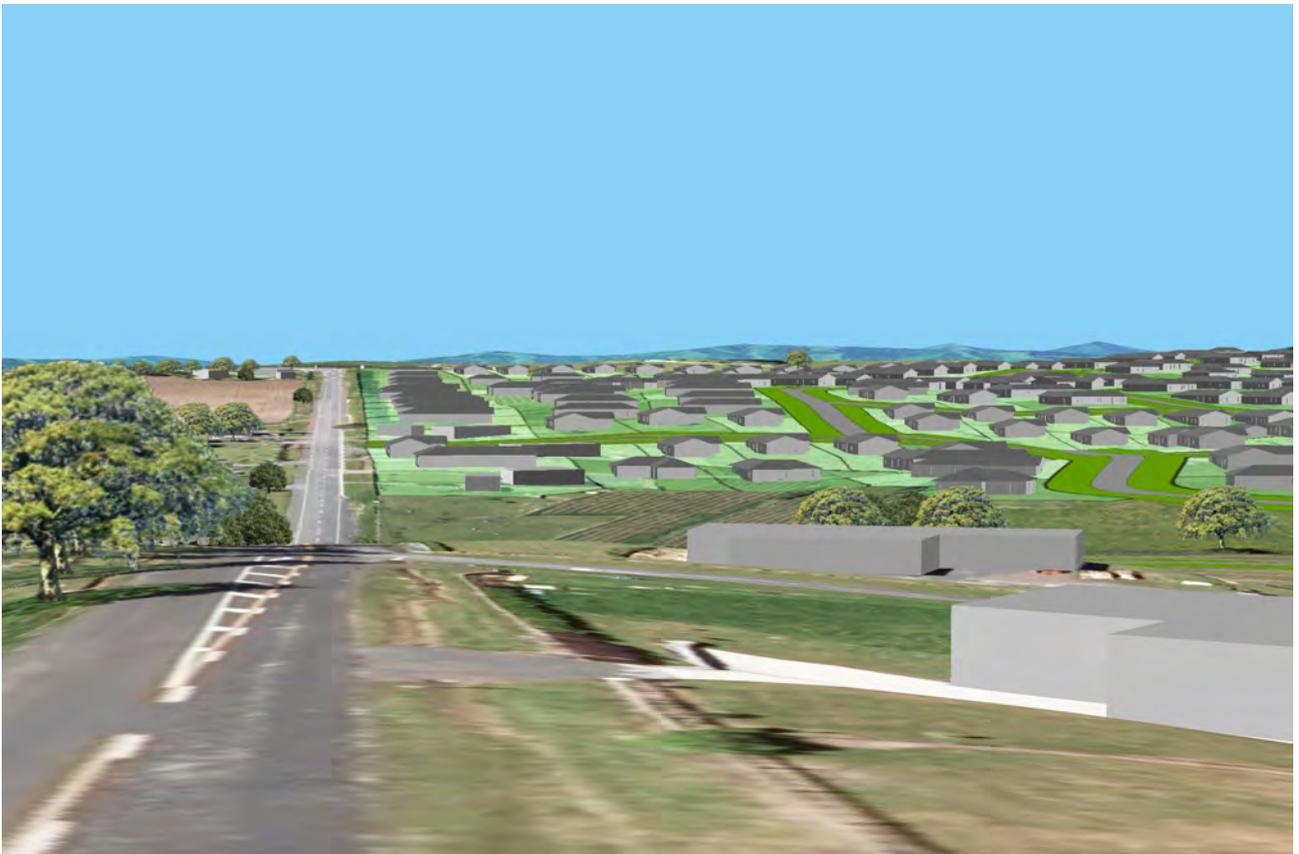


Figure 14: GIS terrain model image, illustrating the possible subdivision without street trees, from VL3.

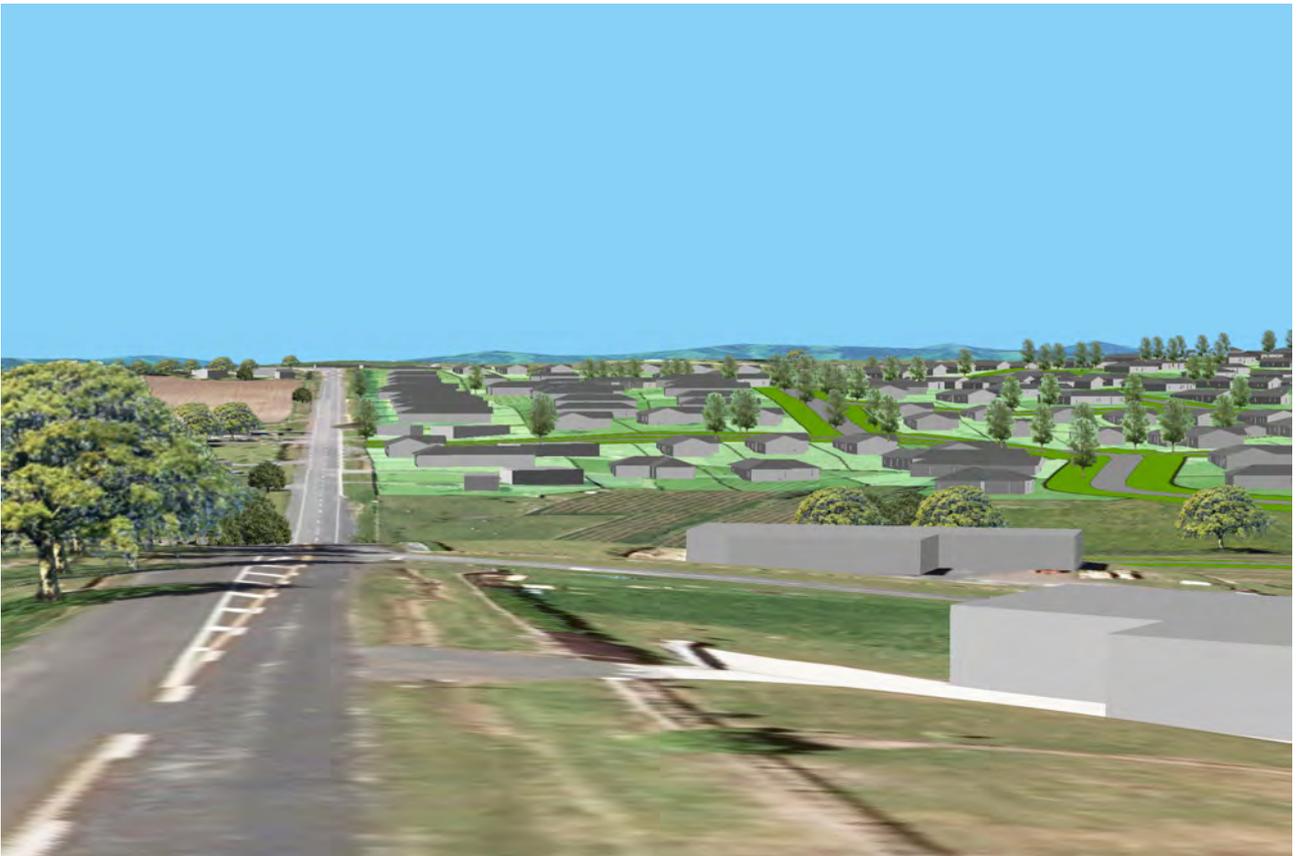


Figure 15: GIS terrain model image, illustrating the possible subdivision with street trees as per the design guidelines, from VL3.



Figure 16: GIS terrain model image, illustrating the possible subdivision with street trees at 20m intervals, from VL3.



Figure 17: VL4, view from West of the Study Area on Wayside Road



Figure 18: GIS terrain model image, illustrating the possible subdivision without street trees, from VL4.



Figure 19: GIS terrain model image, illustrating the possible subdivision with street trees as per the design guidelines, from VL4.



Figure 20: GIS terrain model image, illustrating the possible subdivision with street trees at 20m intervals, from VL4.

## ANIMATION

A computer generated animation, which shows an aerial view of the possible subdivision, is attached to the back of this report.

## FINDINGS

The adoption of Variation 13 will result in a change in land management and development patterns in Te Kauwhata West. This will affect the amenity of existing residents of Te Kauwhata and future residents within the study area

Analysis of Variation 13, within the context of current “best practice” in good urban design and landscape architecture and against the backdrop of the existing Te Kauwhata Township, indicates that there is a degree of contradiction between the Objectives and Policies of Variation 13, which seek to achieve residential development within the study area that has *a strong association with rural amenity values* (15A.2.2 (e)), and a suite of rules that are likely to deliver residential development at densities similar to that of existing subdivision in Te Kauwhata (East). This reflects an inherent tension within Variation 13 between a desire to maintain a degree of *ruralness*, whilst providing for the projected population growth of Te Kauwhata.

As it stands, the rules within Variation 13 will not deliver residential development with a notably rural flavour, beyond affording views to surrounding undeveloped rural land for some residents within the study area. For existing residents in the neighbouring Country Living Zone, residential development within the study area will represent a considerable shift in landscape character, with adverse effects on amenity associated with the loss of pastoral rural views.

The objective, policies and rules of Variation 13 do not sufficiently address issues related to mitigating these adverse effects or managing the transition from urban to rural that will accompany residential development within the study area. It is considered that this needs to be addressed in order to help maintain the amenity of residents within the neighbouring larger lot *country living zone* and create a legible transect from urban to rural.

As it stands, Variation 13 will deliver a *monoculture* of residential development with no provision for other uses, such as a corner shop. Given that approximately one third of this development will be outside the 10 minute recommended walkable distance to the existing commercial centre, this will result in future residents within the study area being reliant on vehicular transport to the existing commercial centre rather than being encouraged to walk. This is contrary to current “best practice” in urban design, which encourages mixed use development, and walkable neighbourhoods.

Finally, greater clarity of the important design issues is required for both developers and decision makers. In order to achieve this it is important that the Design Guides that accompany Variation 13 are reformatted into a hierarchical structure that make a distinction between the “big issues”, such as the establishment of a viable road network with high permeability, which must be addressed, and those aspects of subdivision design which are desirable, but not critical.

However, many of the above mentioned issues are easily addressed through relatively minor amendments to the wording of the planning mechanisms. Suggested amendments are contained in the following section.

## RECOMMENDATIONS

The following recommendations for amendments to Variation 13 are intended to address those aspects of subdivision planning and design which will most efficiently and constructively enable the integration of subdivision with the surrounding context of Te Kauwhata.

Some of the recommendations will have noticeable effects on amenity from surrounding locations (such as managing the transition from rural to urban), while other will have more noticeable effects from within the study area (lot orientation). Other interventions, such as the provision of street trees will have clear benefits for those both within and surrounding the study area.

In general, the recommendations seek to invest the subdivision with the study area with a degree of responsiveness to the context in which it is to be located. They are not exhaustive but are intended to give some direction for further consideration.

### Rate of Development

- a. That a staged approach to development within the study area should be identified (preferably in conjunction with affected landowners). Development stages should be identified on the structure plan.
- b. That staging should take into account the connectivity requirements of the proposed road network.

The above recommendations are intended to manage the subdivision development in a manner that preserves the open spatial and rural characteristics of the surrounding landscape as long a possible.

However, it is acknowledged that managing a staged approach will be difficult given the underlying country living zoning and the requirement to coordinate with multiple landowners.

### Transition from Peri-Urban to Rural Land

- c. That larger lots be located along the zone boundary. This may be achieved by amending Policy 21A.19.1 to read:

*(iv) 80% of allotments bordering the Country Living Zone shall have an area of at least 900m<sup>2</sup>.*

- d. That visually permeable fencing or planting be required along the zone boundary. This may be achieved by the addition of the following to Policy 21A.8: *(b) Fences along the northern boundary of the study area adjacent to the Country Living Zone, between Wayside and Travers Roads, are typical rural post and wire.*

The above recommendations are intended to manage the transition from the dense urban grain of the study area to the adjacent larger lot country living zone.

### Proposed Transport Network

- e. That the proposed transport network plan be further developed and refined to take into account practicable neighbourhood block sizes and shapes, permeability, the reduction of through traffic in residential neighbourhoods (rat runs), safety.

The above recommendations are intended to create a permeable road configuration, which will promote an integrated transport network and create viable neighbourhood blocks.

### Connectivity and Walkable Neighbourhoods.

- f. That the creation of attractive street environments for walking with separation between footpaths and vehicle carriageways and the provision of street trees (as illustrated in the typical cross sections of Appendix A: traffic) is identified as a priority in the Design Guides.
- g. That pedestrian connections between roads be established within the proposed reserves (including a proposed wetland reserve) in an amended structure plan,
- h. That consideration should be given to the provision of a single small commercial node within the study area (to enable a corner store to establish). This type of activity should be a discretionary activity, with particular consideration placed on a 500m walking distance radius from the existing commercial centre of Te Kauwhata and proximity of other such activities. Development should be limited to one node (dairy/convenience store) within the study area.

The above recommendations are intended to create an environment within the study area, which will encourage walking.

### Immersive environments

- i. That the use of open swales rather than curb and channel (as identified in the Variation 13 Urban Design Guide for Collector Roads (Oe3.5.1) is identified as a priority in the Design Guides;
- j. That extensive street tree planting occurs within the zone. This may be achieved by the addition of the following clause to Policy A23.1:

*Subdivision is a controlled activity if all roads in the subdivision are constructed (g) to provide street trees at an average of 20m intervals, with allowance made for lot driveways*

- k. That performance standard be included that requires all street trees to be at least 1.5m grade at the time of planting.
- l. That lots contain sufficient space for the establishment trees (see recommendations for percentage building coverage below).
- m. That revegetation planting occurs within the flood protection reserves (to be shown on amended structure plan).

The above design elements will aid subdivision within the study area to be consistent with an appropriate transect from urban to rural.

### Building Coverage

- n. Reduction of percentage building coverage on small lots. This may be achieved by making the following amendment to Item 21A.10:

*(ii) total building coverage on lots with a net size of between 650-700m<sup>2</sup> shall not exceed 25%  
(iii) total building coverage on lots exceeding 700m<sup>2</sup> shall not exceed 35%.*

- o. Side setbacks are increased on larger lots in order to create the appearance of less dense development from the street. This may be achieved by making the following amendment to Item 21A.13:

*(c) On allotments greater than 800m<sup>2</sup> it is set back at least  
(i) 6m from the rear boundary  
(ii) 3m from any other boundary that is not a road boundary, and  
(iii) 1.5m from every vehicle access to another site*

The above recommendations are intended to create the impression of a less dense subdivision, more characteristic of a peri-urban area.

#### Lot Orientation

- p. That consideration of lot orientation takes place at the initial site planning stage of subdivision planning and this is reflected in the Design Guide (refer also to the recommendation relating to design guide hierarchical format which reflects the importance of the initial site planning stage).

The above recommendation is made to encourage lot orientation to be considered at the initial site planning stage.

#### Distribution of Lot Sizes

- q. That the percentage mix of lots within the study area is apportioned on a block by block basis. This may be achieved by making the following amendment to Policy 21A.19.1:

*there is a combination of allotments within each neighbourhood block of which...*

In relation to this amendment, it is recommended that the following definition for neighbourhood block is added to the District Plan:

*Neighbourhood block – Means contiguous residential development bounded on all sides by an alternative land use, such as a road, or a zone boundary.*

In addition, it is noted that an amendment in the wording of the following rule may be required, as follows:

*21A.19.1*

*At least 50% are 800m<sup>2</sup>*

*At least 25% are 900m<sup>2</sup>*

The above recommendations are made to discourage the creation of higher intensity enclaves within the study area.

#### Rear Lots

- r. That clarification of level at which rear lot provision is to be applied. This may be achieved by making the following amendment to Item 21A.20:

*(a) no more than 5% of allotments per neighbourhood block are rear allotments,*

- s. That provision for shared driveways is provided. This may be achieved by making the following amendment to Item 21A.20:

*(d) all rear allotments are provided with vehicle access to a public road. Driveways may be shared by a maximum of two adjoining lots.*

The above recommendation is made to reduce unnecessary vehicle crossings and reduce potential clustering's of rear lots.

### Low Impact Stormwater Management

- t. That the use of LID are promoted in Variation 13 as not only a sustainable approach to urban design, but a means of enhancing the amenity of subdivision. This should also be reflected in the Design Guides.

The above recommendation is made to create better consistency between the Urban Design Guide and Councils LID policy for storm water design.

### Urban Design Guide

- u. That the Urban Design Guides have a hierarchical format, based on the scale at which the guides are to be applied.
- v. That the Urban Design Guide Assessment Criteria adopt a weighted system related to the Urban Design Guide hierarchy.

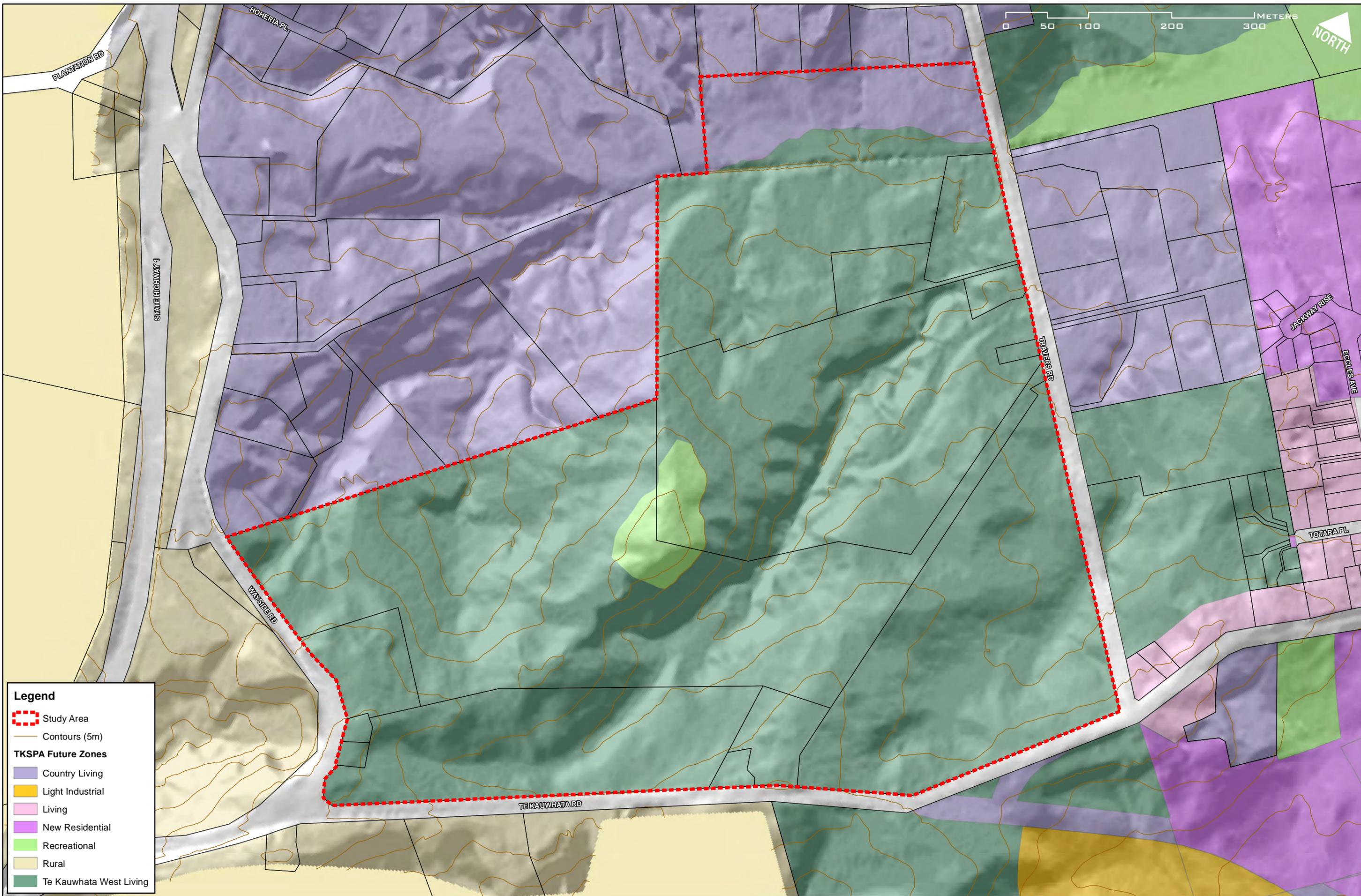
The above recommendation is made to provide clarification to developers and decision makers regarding the most important design considerations at the initial stages of subdivision planning and design. At present there is no indication of the relative importance of the various aspects of the guides. As such, potential exists for developers and council to place emphasis on different aspects of the guides, rather than both parties addressing the critical issues, such as the establishment of a viable road network with high permeability. It is considered that removing any ambiguity around what aspects of subdivision design are most important will provide clearer direction for both developers and decision makers.

**Appendix 1: Study Area**



**Legend**  
Study Area

**Appendix 2: Proposed Zoning**

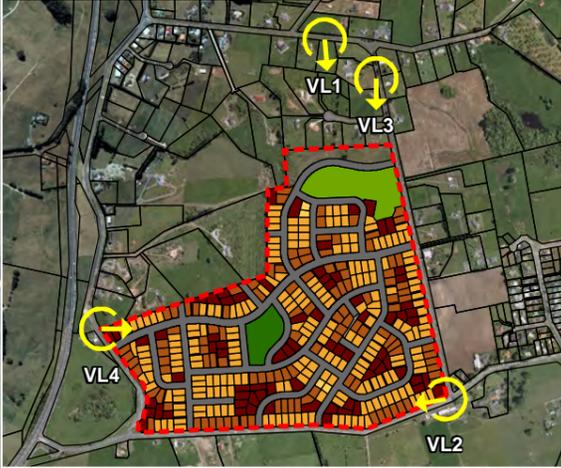


**Legend**

- Study Area
- Contours (5m)
- TKSPA Future Zones**
- Country Living
- Light Industrial
- Living
- New Residential
- Recreational
- Rural
- Te Kauwhata West Living

**Appendix 3: Possible Discretionary Subdivision**

View Location Insert Map



**Legend**

- Study Area
- Possible Subdivision Road Reserve
- Possible Hill Top Reserve
- Possible Wetland Reserve
- Possible Walkway

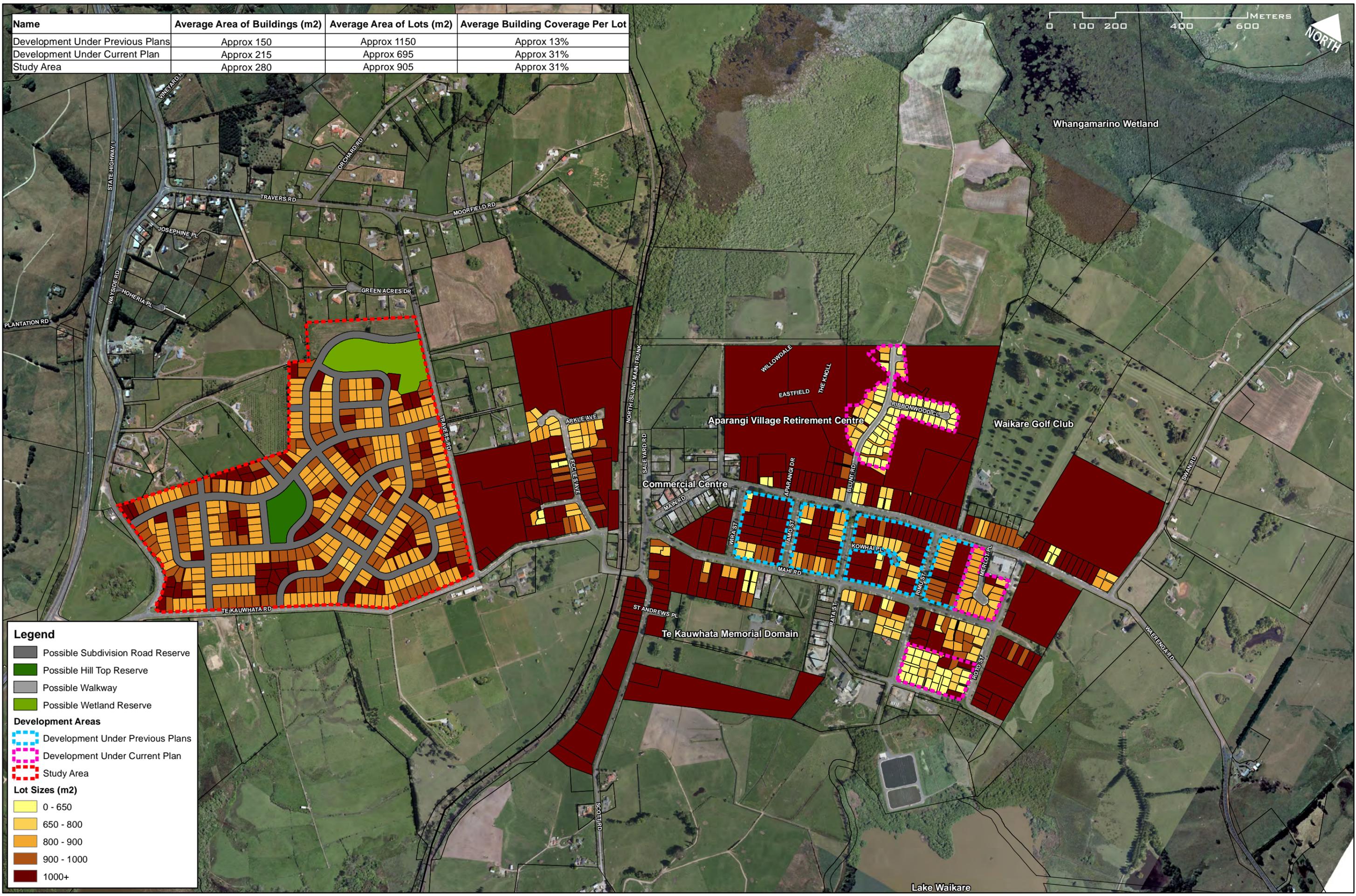
**Lot Sizes (m2)**

- 650 - 800
- 800 - 900
- 900 - 1000
- 1000+



**Appendix 4: Lot Size and Building Coverage Overview Plan**

Name	Average Area of Buildings (m2)	Average Area of Lots (m2)	Average Building Coverage Per Lot
Development Under Previous Plans	Approx 150	Approx 1150	Approx 13%
Development Under Current Plan	Approx 215	Approx 695	Approx 31%
Study Area	Approx 280	Approx 905	Approx 31%



**Legend**

- Possible Subdivision Road Reserve
- Possible Hill Top Reserve
- Possible Walkway
- Possible Wetland Reserve

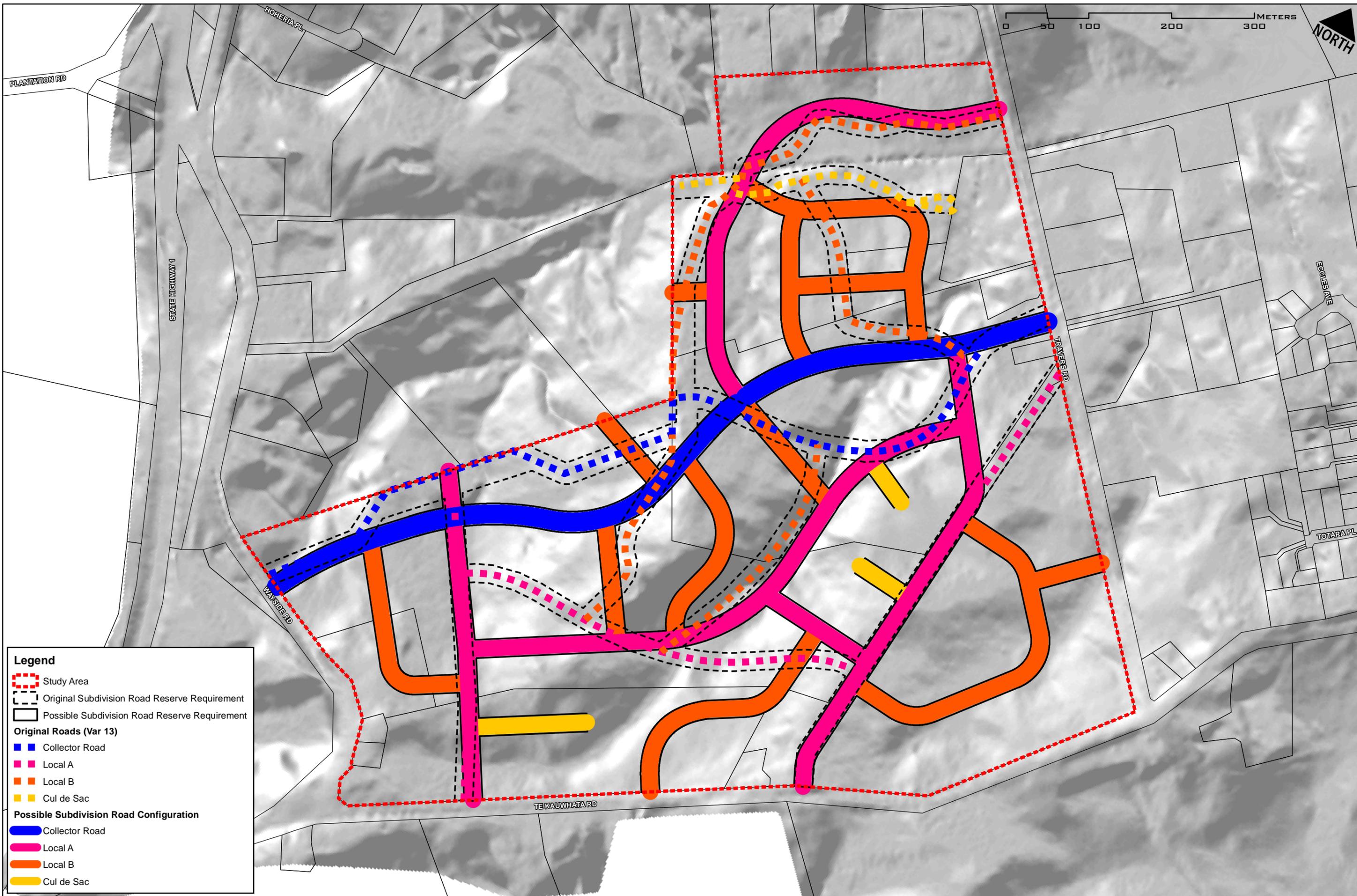
**Development Areas**

- Development Under Previous Plans
- Development Under Current Plan
- Study Area

**Lot Sizes (m2)**

- 0 - 650
- 650 - 800
- 800 - 900
- 900 - 1000
- 1000+

**Appendix 5: Possible Amendments to the Structure Plan Roads**



**Legend**

- Study Area
- Original Subdivision Road Reserve Requirement
- Possible Subdivision Road Reserve Requirement

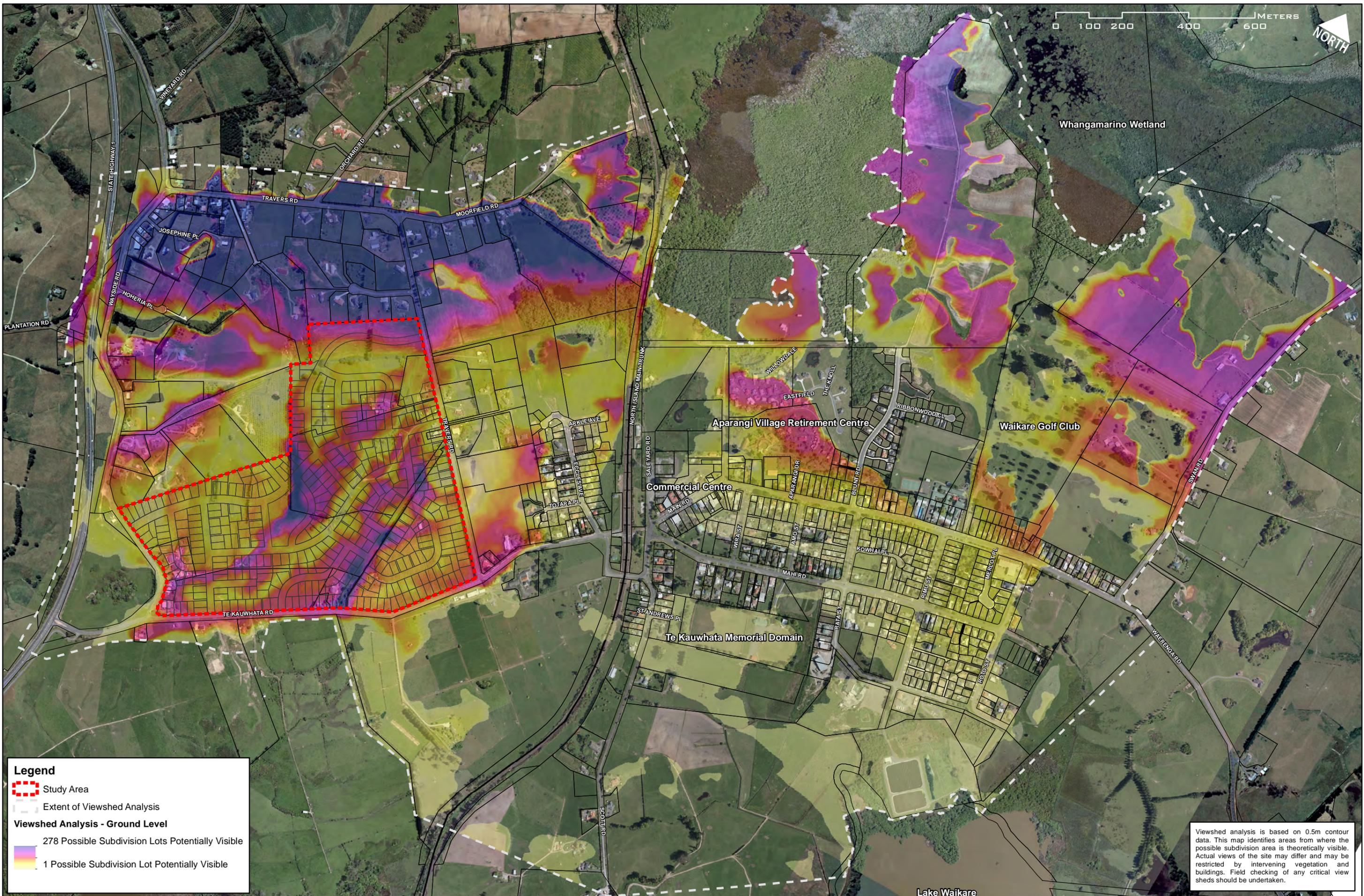
**Original Roads (Var 13)**

- Collector Road
- Local A
- Local B
- Cul de Sac

**Possible Subdivision Road Configuration**

- Collector Road
- Local A
- Local B
- Cul de Sac

**Appendix 6: Viewshed Analysis – Ground Level**



**Legend**

- Study Area
- Extent of Viewshed Analysis

**Viewshed Analysis - Ground Level**

- 278 Possible Subdivision Lots Potentially Visible
- 1 Possible Subdivision Lot Potentially Visible

Viewshed analysis is based on 0.5m contour data. This map identifies areas from where the possible subdivision area is theoretically visible. Actual views of the site may differ and may be restricted by intervening vegetation and buildings. Field checking of any critical view sheds should be undertaken.

**Appendix 7: Viewshed Analysis – Maximum Building Height (7.5m)**



**Legend**

- Study Area
- Extent of Viewshed Analysis

**Viewshed Analysis - Maximum Build Height (7.5m)**

- 417 Possible Subdivision Lots Potentially Visible
- 1 Possible Subdivision Lot Potentially Visible

Viewshed analysis is based on 0.5m contour data. This map identifies areas from where the possible subdivision area is theoretically visible. Actual views of the site may differ and may be restricted by intervening vegetation and buildings. Field checking of any critical view sheds should be undertaken.

## Appendix 8: Visual Absorption Capability Rating Definition

The Visual Absorption Capability rating (VAC) is an indicator of a landscape’s ability to absorb visual change, i.e. how well a landscape can either screen or hide a development or how well a development integrates with the surrounding landscape without changing its essential character and qualities.

VAC ratings are not effect laden. This means that a *very poor* rating does not necessarily correspond with an *extreme adverse effect*.

Visual Absorption Capability Definition Ratings	
VAC Rating	Use
<b>Very Good</b>	<ul style="list-style-type: none"> <li>The proposed development/activity would be completely screened, almost completely screened or completely absorbed by existing landscape features. Any views of the development would be either unidentifiable or at a great distance, and/or;</li> <li>The development/activity would not affect the existing character of the surrounding landscape or view in which it is seen, and/or;</li> <li>The development/activity would introduce a visual element into the landscape or view which may be viewed very frequently or continuously in that or similar landscape types.</li> </ul>
<b>Good</b>	<ul style="list-style-type: none"> <li>The proposed development/activity would be mostly screened or visually absorbed by existing landscape features, but still be identifiable. The development/activity may act as a tertiary focal attraction within the landscape or view in which it is seen, and/or;</li> <li>The development/activity would not affect the existing character of the surrounding landscape or view in which it is seen, and/or;</li> <li>The development/activity may introduce a visual element into the landscape or view which may be viewed frequently in that or similar landscape types.</li> </ul>
<b>Neutral</b>	<ul style="list-style-type: none"> <li>The proposed development/activity would neither be screened nor become a visual intrusion or focal attraction within the landscape or view in which it is seen. The proposed development/activity may act as a minor focal attraction from some locations, and/or;</li> <li>The development/activity would alter the existing character of the surrounding landscape or view in which it is seen, and/or;</li> <li>The development/activity would introduce a visual element into the landscape or view which may be viewed occasionally in that or similar landscape types.</li> </ul>
<b>Poor</b>	<ul style="list-style-type: none"> <li>The proposed development/activity would be clearly visible but would not act as a primary focal attraction, and/or;</li> <li>It would be expected that the proposed development/activity would alter the existing character of the surrounding landscape or view in which it is seen, and/or;</li> <li>The development/activity may introduce a new visual element into the landscape or view. The development/activity may be viewed infrequently in that or similar landscape types.</li> </ul>
<b>Very Poor</b>	<ul style="list-style-type: none"> <li>The proposed development/activity will be highly visible and may act as a primary focal attraction or feature. It would also be expected that the proposed development/activity will significantly alter the existing character of the surrounding landscape or view in which it is seen, and/or;</li> <li>The development/activity will introduce a new visual element into the landscape or view, which will be significantly different in appearance, or scale from the landscape elements surrounding it, and/or;</li> <li>The development/activity would be found very rarely in that or similar landscape types.</li> </ul>

## Appendix 9: Urban Amenity Assessment Factors

Urban amenity is a function of the environment's visual expression; that is the elements that contribute to its appearance, and the use and circulation patterns which occur within it. The urban amenity of the site includes the degree of permeability, surrounding spatial variety, the legibility of the elements within the environment, the extent to which these elements provide for alternate uses, the human attributes or values applied as visual appropriateness, richness and personalisation. The use of the urban amenity assessment factors allows the assessment of urban amenity values associated with these attributes.

The following factors are used to identify attributes of the urban fabric which help to identify urban amenity values. They are not used to grade the particular environment but rather to identify the effect of a particular change on that environment. An increase in a particular attribute is considered to be an improvement, a decrease a degradation of a given environment.

1. ***Permeability***: the number of alternative ways through an environment; the ability to pass through an environment with greatest number of options. A distinction is made between public and private routes, and between vehicle and pedestrian routes.
2. ***Spatial Variety***: The number of different experiences in an environment; the different uses provided by a development, the different spaces they provide.
3. ***Legibility***: The ease of understanding of the layout of a place; the extent to which routes and their junctions are differentiated from one another and how easily people can understand the opportunities they offer.
4. ***Robustness***: The number of potential uses and activities possible in an environment; The extent to which the development's spatial and constructional organisation is suitable for the widest possible range of likely activities and future uses, both in the short and long term.
5. ***Visual Appropriateness***: The extent to which the appearance of the development reflects the choices offered by the development. How the detailed appearance of the place makes people aware of the choices. This is distinct from, but related to, the visual appearance of the development. It considers what information is being conveyed by the development rather than how much of the development is seen from particular locations.
6. ***Richness***: The extent to which an environment offers a choice of sensory experience both visually and non visually.
7. ***Personalisation***: The extent to which people can put their own stamp on a place. While an environment should encourage it, it should be tempered by the public utility of the environment.

The order of these criteria is not a reflection on their importance but does reflect an element of scale in their application in as much as the earlier factors are more applicable to large scale aspects of a place, while the latter are more relevant at the small scale or personal level. Whilst these criteria are separated out for clarity they are inter-related in the effect they have. Thus the permeability of a place has implications on the legibility of a site. The legibility in turn has implications for visual appropriateness which also affects and may be affected by personalisation.

For example while a site may allow for a number of routes through (permeability), the ability to recognise those routes (legibility) may be influenced by the layout of the site and/or the extent to which the appearance of entrances and routes are differentiated in their treatment (visual appropriateness). This may be further enhanced or confounded by changes introduced by individuals (personalisation) when they modify aspects of a building, entrance or route to accommodate a personal interest. This may be seen to occur with the addition of plants in tubs, or tables and chairs to a thoroughfare, or obscuring visual cues through signage or change of colour.

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