THE EXTENT OF RURAL/ RESIDENTIAL DEVELOPMENT ON CLASS 1 AND 2 LAND

A CASE STUDY AT WESTMERE (2013)

(This report updates a study, of the same name, completed in 1994)

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1. INTRODUCTION

Productive land is an important commodity in terms of sustaining an agricultural sector that is the backbone of the Wanganui economy. A land capability classification system has been established which segregates land into classes of productive quality. This system uses eight main classes of which Class 1 comprise the highest quality soils and Class 8 is the poorest land.

In 1994 Council undertook a study of land use with a view to quantifying the pressure for urban sprawl onto Class 1 and 2 soils. This then enabled consideration of how best to manage any associated resource management issues through the District Plan.

Now in 2013, Council is reviewing the District Plan provisions in relation to the rural environment. It is timely to review the trends associated with residential and lifestyle block development in the District and consider how patterns may have altered since 1994.

1.1 Westmere Study Area

A large section of Class 1 and Class 2 land lies directly to the north of the Wanganui urban boundary, in the Westmere block. Westmere was identified as an area of urban hinterland most at risk of, and subject to, urban or peri urban development pressure. While this is not the only area comprising Class 1 and Class 2 land in the Wanganui District, it is the block that has had the most subdivision and consequent development.

As a result of this and the limits to resources, the original 1994 study focussed on the Westmere area. The study concluded that the loss of Class 1 and Class 2 soils within the Westmere study area was insignificant. The study recorded that:

> *"What has emerged from these results, is that there is a demand for large residential sections in the rural environment. Further this demand appears to be located along a corridor where the character is slowly changing from rural production to a semi- rural settlement (neither rural [n]or urban). While the impact on the loss of productive soil is minimal (these sections represent only 0.6% of total class 1 & class 2 land in the Wanganui District) the wider implications are more serious. The trend is increasing, suggesting that a peak in this type of subdivision will not occur for some time."[1]*

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[1] The Extent of Rural/Residential Development on Class 1 and 2 Land, Planning Services ,WDC 1994, page 10

The study went on to consider potential resource management implications:

"The trend toward a residential corridor appearing in the rural area clearly identifies a gap in policy. The trend raises several serious questions:

1. *Is this corridor an isolated occurrence or does it represent a signal that the urban boundary will expand into this region?*
2. *What infrastructural costs are likely to be generated from the present subdivisions and the probable pressure for more?*
3. *Does Council envisage an uncontrolled urban boundary, or does it wish to clearly define the urban and rural identity?*
4. *The level of investment on the dwelling, and the degree of fragmentation of the land holdings would make it difficult to return to a land based productive use in the future. Is it desirable to foreclose future options now?*
5. *The policy for managing rural subdivision is clearly not working and never envisaged this type of development. Should it be amended so that its original intent can be met?* [2]

These questions were answered outside the original report and changes made to the regulation of subdivision in the District Plan Rural Zone. At the time it was assumed that other urban hinterland areas would be at less risk of urban sprawl than the Westmere area. Today the area of Westmere is still dominant, as a focus of smallholding development pressure relative to the other hinterland, although areas such as Mosston Road and Longbeach Drive have established in the interim period. For this reason it made sense to update the 1994 using the same study area boundaries.

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[2] The Extent of Rural/Residential Development on Class 1 and 2 Land, Planning Services ,WDC 1994, page 10
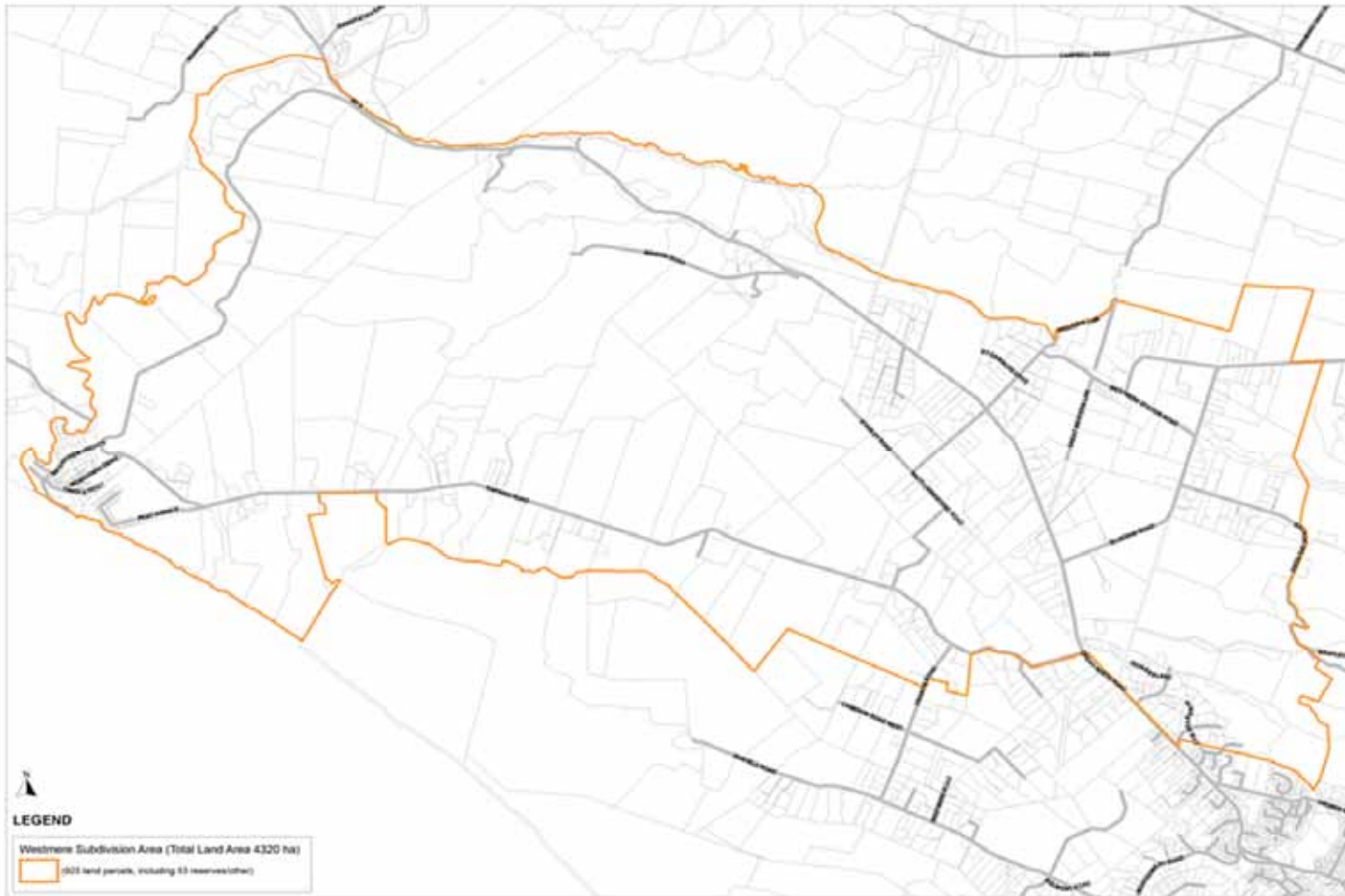
Figure 1   Westmere Study Area - Locality Map

1.2   Purpose

The purpose of this current study is to establish what changes have occurred within the Westmere area, and to what extent residential and lifestyle activities have established since the original report in 1994.

This study will inform the development of the District Plan Rural Review. A greater understanding of development trends and pressures that have evolved in this area will guide the District Plan review process when it considers how best to protect Class 1 and 2 soils for current and future generations. A review of, the effectiveness and efficiency of, the current regulation of site size will likely be required. Consideration may be given to amending minimum lot sizes within the Rural A zone to better protect the most versatile soils or to contain loss of the productive capacities of such land.

2.0   METHODOLOGY

A preliminary investigation was carried out to determine the extent of smallholdings. The assumption was that small holdings of less than 3 hectares were most likely to be used for a mix of residential and low-productive rural purposes.

The 2011 rural photography data was used to categorise each allotment. As with the 1994 report, lifestyle blocks were examined and split into two groups. Firstly those lots which have houses and accessory buildings, and secondly which were vacant.

The 875 properties in the Westmere study area were sorted according to lot size. Three groups were isolated.

> - Less than or equal to 1 hectare;
> - Greater than 1 hectare and less than, or equal to, 2 hectares;
> - Greater than 2 hectares and less than, or equal to, 3 hectares.

Property within each group was inspected via aerial photography. The properties were individually assessed by land use and sorted into three categories; Residential, Lifestyle Blocks and Pure Horticulture or Other. These are defined in section 2.1 below.

The principle method of assessment was visual, either by site visit or review of Google maps. The results are indicated in Table 1.

The properties in the three groups identified were then collated and their site areas calculated. The results are indicated in Tables 2 below, which highlight changes that have occurred between the 1994 (adjusted) and the 2013 study.

2.1   Definitions

For the purposes of this updated investigation we have adopted the following definitions:

Residential: Properties of 1ha or less, where a site inspection identified two basic criteria; Firstly the grass was mown (rather than grazed) and secondly if the property was landscaped. Activities are generally consistent with those provided for within the Wanganui District Plan Residential zone.

Lifestyle: Properties of 3ha or less, where signs of livestock or horticultural activity were evident on-site inspection. Properties are used for a mix of low productive rural purposes, with primary income/s generated beyond the site e.g the urban area. The 'pure horticulture and 'others' categories were easily identified and therefore did not require any visual assessment criteria. Activities are generally consistent with activities provided for within the Wanganui District Plan Rural B zone, although this area is zoned Rural A.

Smallholding: Properties of 3ha or less within the study area; and includes all properties defined as residential and lifestyle.

Pure Horticulture and Others: Properties where obvious signs of horticulture, other agriculture, commercial or industrial

2.2   Correction of 1994 Data

After re-creating the 1994 study area map for Westmere, we identified an inconsistency between the total study area indicated in 1994 and the data for 2013. The study areas were traced to ensure the boundaries were accurate and identical. It appears the 1994 report, contains an error where it stated that the total study area was 5,379.9ha. It has been confirmed that the total area of land within the study area is in fact 4,320 hectares. A column called '1994 adjusted' has been added to the table below, to correct the percentage data in relation to land use for the period. This will enable a meaningful comparison between the two time periods.

Therefore the information in this report is an indicator only of the numbers and extent of smallholdings in the Westmere area.

3.0   KEY OBSERVATIONS

3.1   Number of Properties by Landuse

Westmere Study Area	1994		2013		Change 1994 - 2013	
	Total No. of Properties		Total No. of Properties			
	399		875		476	
	No. of properties	% of total properties	No. of properties	% of total properties	No. new properties	Change (of total)
Developed Residential	33	8.8	153	17.5	120	Tripled (25%)
Lifestyle (Improved)	107	26.8	214	24.5	107	Doubled
Lifestyle (Vacant)	31	7.7	36	4.1	5	
Total Lifestyle Blocks	138	34.5	250	28.5	112	Doubled (23.5%)
Pure Horticultural / Other	228	57.0	471	53.8	243	Doubled (51%)
Total		100		100		

Table 1   Change in Number of Properties by Land use

Westmere Study Area	1994		1994 (adjusted)		2013	
	Total Area (ha)		Total Area(ha)		Total Area(ha)	
	5,379.9		4,320		4,320	
	By area (ha)	% of total area	By area (ha)	% of total area	By area (ha)	% of total area
Developed Residential	11.21	0.2	11.21	0.25	31.3	0.7
Lifestyle (Improved)	466.38	8.6	466.38	10.8	289	6.7
Lifestyle (Vacant)	195.9	3.6	195.9	4.5	39.5	0.9
Total Lifestyle Blocks	662.3	12.2	662.3	15.3	327.3	7.5
Total Smallholdings			673.51	15.5	358.6	8.2

Table 2   Areas of Residential and Lifestyle Block Land-use

3.2   Subdivision and Development Since 1994

While there are arguments for and against the effect of lifestyle blocks on productivity, the real concern was for the potential loss of the long term loss of productive capability of Class 1 and Class 2 land.

Table 1 indicates an additional 476 properties have been created within the study area, more than double the 399 properties that existed in 1994. This equates to an average of 26 new properties being created each year of the intervening 19 year period. The number of residential properties tripled, whereas lifestyle blocks and other activities more or less doubled over the same period. This has resulted in a more equal balance between numbers of properties occupied for lifestyle and residential activities in the area.

Table 1 also indicates that of those 476 new properties created within the study area, that approximately 50% were residential or lifestyle properties used for low productive rural purposes and comprising less than 3 hectares site area.   The balance was made up of rural or other properties comprising more than 3 hectares site area.

Table 2 indicates that significantly less land is occupied by lifestyle blocks compared to 1994, with a tripling of land area developed for residential purposes.

However, the percentage of land area occupied by residential activities has only marginally increased, whereas the percentage of land occupied by lifestyle blocks of 3 hectares or less has halved, despite the total number of such properties almost doubling from 138 to 250 properties in the same period.   This indicates several things:

1. An increase in density of both residential and lifestyle block development has occurred, with section sizes likely to be reduced on average compared to 1994.
2. The total number of households has significantly increased and this may have implication for demand for social services such as schools, mail delivery and Council infrastructure services such as rubbish collection.

While the number of smallholdings is relatively high this is offset by the relatively small percentage of land taken up by smallholdings.

3.3   Section Size Trends Since 1994

This section looks in more detail at how the new properties created since 1994 have been subdivided, and looks to establish any trends relating to sections size for semi-rural or peri-urban development.

Properties (Westmere)	1994		2013	
	399		875	
	Number	% of total properties	Number	% of total properties
Group 1 (less than or equal to 1 ha)	53	13.3	435	49.7
Group 2 (greater than 1 ha, less or equal to 2 ha)	33	8.3	151	17.2
Group 3 (greater than 2 ha, less or equal to 3 ha)	24	6.0	75	8.6
Total Smallholdings (properties less than or equal to 3ha)	110	27.6	661	75.5
Total Rural or Other properties	289	72.4	214	24.5

Table 3   Smallholdings by Property Size

Table 3 indicates that today almost 50 percent of the properties are 1hectare or less, whereas in 1994 such properties only made up 13 percent of the smallholdings. Importantly properties with land area greater than 3 hectares represent only 25 percent of the properties in the study area. A significant shift to smaller more dense smallholding development has occurred.

Total Area (ha) Westmere	1994		1994 (adjusted)		2013	
	5,379.9		4,320		4,320	
	Area	% of total	Area	% of total	Area	% of total
Group 1 (less than or equal to 1 ha)	16.5	0.31	16.5	0.38	151	3.5
Group 2 (greater than 1 ha, less or equal to 2 ha)	44.8	0.83	44.8	1.04	192	4.4
Group 3 (greater than 2 ha, less or equal to 3 ha)	57	1.06	57	1.32	174.5	4.0
Total Smallholdings			118.3	2.7	518	12.0
Rural and Other land uses			4202	97.0	3802	88.0

Table 4   Smallholdings by Area

Approximately three quarters of the total number of new properties created, between 1994 – 2013 in the Westmere Study area, were smallholdings of 3ha or less. The total land area occupied by smallholdings is 12 percent of the total land within the Westmere Study area. Fifty percent of the properties created in that period were 1 ha or less in area.

	1994				1994 Area (Adjusted)		2013			
	No.	%	Area (ha)	%	Area (ha)	%	No.	%	Area (ha)	%
Group 1 (< than or = 1 ha)										
Residential	30	7.5	7.71	0.14	7.71	0.18				
Lifestyle	9	2.3	4.8	0.09	4.8	0.11				
Other uses	14	3.5%	3.98	0.08	3.98ha	0.09				
Totals	53	13.3	16.51	0.31	16.49	0.38	435	49.7	151.6	3.5
Group 2 (>1 ha but <than or =2 ha)										
Residential	3	0.75	3.5	0.07	3.5	0.08				
Lifestyle	23	5.8	31.2	0.58	31.2	0.72				
Other uses	7	1.8	10.1	0.18	10.1	0.23				
Totals	33	8.3	44.8	0.81	44.8	1.04	151	17.2	192.1	4.4
Group 3 (>2 ha but < than or =3 ha)										
Residential	0	0	0	0	0	0				
Lifestyle	18	4.5	42.5	0.79	42.5	0.98				
Horticulture	2	0.5	5.1	0.1	5.1	0.12				
Other uses	4	1.0	9.3	0.17	9.3	0.21				
Totals	24	6.0	57.0	1.06	56.9	1.31	75	8.6	174.59	4
Totals	110	27.6	118.3	2.2	118.3	2.7	661	75.5	518.29	12

Table 5   Summary of changes in land use

The total number of small-holding lots within the Westmere study area has increased dramatically from 399 in 1994 to 875 in 2013. Within this area there has been a four-fold increase in the number of residential development. This type of development within the rural zone, particularly on Class 1 and 2 land, fragments and restricts the future versatility and options for productive use of the land.

The total number of small-holdings comprising less than one hectare has increased by 382 since the 1994 study was conducted. An extra 135.11 ha of Class 1 and 2 land has been developed and used for residential development. Once land is subdivided down to this scale and developed it is unlikely to ever be available as an economic unit for rural production in future.

The total number of improved lifestyle properties has doubled, as indicated in Table 1.

Six hundred and sixty one small holdings exist in the Westmere area. This is the dominant land use with 75 percent of properties being used for residential or low productive lifestyle activities. Together they occupy 518ha or 12 percent of the land in the study area. Whilst the area of land lost to small holdings is still not huge in terms of total area, it is significant to observe that an increase of some 8 percent of the total land area is no longer available for productive rural activities. The implications of this are potentially significant if this trend continues at the same rate over the next 10 – 20 years. This is a significant increase in small holdings from the total of 118.3ha which represented just 2.7 percent (adjusted) of the total study area in 1994.

The 1994 data breakdown of sites by land use as shown in Table 5, confirms that:

1. properties of 1ha or less were most likely to be used for residential activities only;
2. properties of between 1 and 3 hectare site area were most likely to be used as lifestyle blocks with low rural productivity and semi-rural character.

In summary the study indicates that, there has been:

1. Almost a nine fold increase in the number of properties comprising 1ha or less. In 1994, 53 such properties existed but by 2013 there were 435. An increase of 382 properties or an average of an additional 20 residential properties per year.
    This increase indicates a significant shift to a residential density of development within this rural zoned area
2. A five-fold increase of properties of between 1 – 2 ha site area. Thirty three properties existed in 1994 and this rose to 151 by 2013. An average of 6 new properties per year.
3. Three-fold increase from 24 properties of between 2 and 3 hectares site area in 1994 to 75 properties in 2013. This equates to an average increase of three new properties per year.
4. An average of 29 smallholding properties, were created each year for the 19 year period 1994 – 2013. This is significant given that the

average new sections created in the urban area each year for that period was roughly 80.

4.0   CONCLUSIONS AND RECOMMENDATIONS

1. The trend towards lifestyle blocks and residential development in the Westmere area, observed in the years leading to the 1994 land use study, have continued at an exponential rate through to 2013.

   Anecdotally the area continues to be attractive for residential and lifestyle development, which suggests that demand for this land use trend will continue over the next 10 years.

   The character and rural ambience of the study area has evolved, with distinct areas now clearly identifiable as having a 'peri- urban or lifestyle block' ambience rather than one of a productive rural sector. The distinction between rural and peri urban ambience varies throughout the study area. A clear pattern of dense small holdings follows State Highway 3 and side roads including Blueskin Road, Western Line and Simpson Road.

2. The total area of rural productive land lost to residential or lifestyle blocks has steadily increased over the period to 2013. It now comprises 12% of the total study area compared to 2% in 1994.

   The question is should we be concerned about this loss of productive land and is this significant within the District wide or national context.
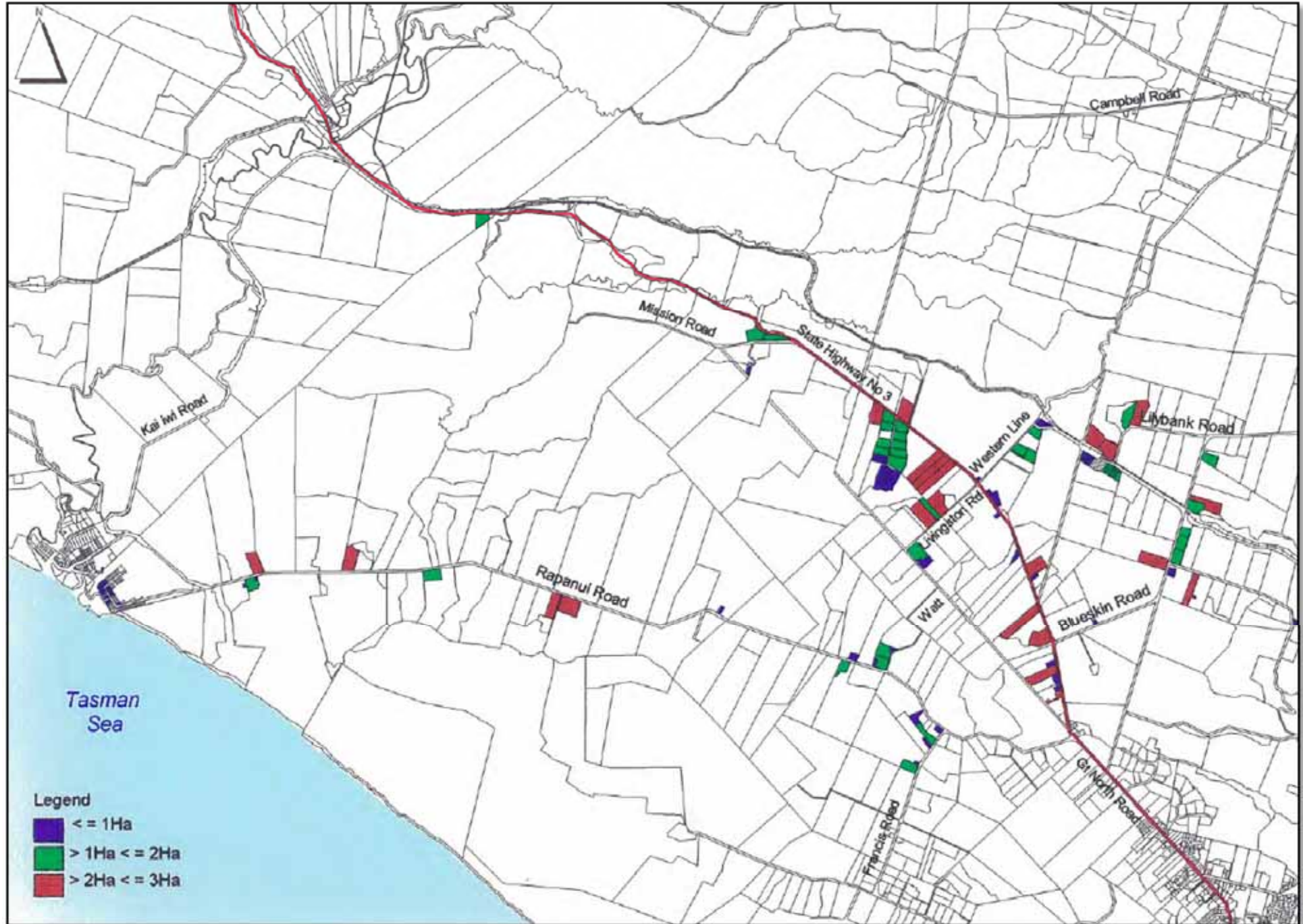
Recommendations

It is recommended that:

1. Consideration be given to the implications of continued growth of this area as a peri urban settlement. That the questions at the completion of the 1994 study be revisited including:

- What pressures might there be for Urban services - 3 waters, rubbish collection, streetscape expectations?

- What risk exists for urban expansion of development beyond the study area?

- To what extent is this Westmere area a contained and unique case? Can and should this area be identified and regulated as a unique environment?

2. Consideration be given to regulating that part of the Westmere area where demand for smallholdings is strongest. The objective would be to limit sprawl of such development beyond the existing areas and perhaps encourage more intensive use of this area, within the limits of independent waste management. More intensive development would potentially reduce pressure on other rural productive areas.

1994 Map

Legend
- ■ <= 1Ha
- ■ > 1Ha <= 2Ha
- ■ > 2Ha <= 3Ha

Tasman Sea

Campbell Road
Kai Iwi Road
Mission Road
State Highway No 3
Western Line
Lilybank Road
Livingston Rd
Rapanui Road
Watt
Blueskin Road
Francis Road
Gt North Road

2013 Map

LEGEND

1 ha and less (Total 135 ha)
(486 land parcels, including 39 reserves/other)

1 ha Less 2 ha (Total 223 ha)
(172 land parcels, including 2 reserves/other)

2 ha Less 3 ha (Total 146 ha)
(61 land parcels, including 2 reserves/other)

Westmere Subdivision Area (Total Land Area 4320 ha)
(925 land parcels, including 53 reserves/other)