Drivers of Change: Farmer Experiences and Perceptions of Subdivision

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Executive Summary

The research presented in this report explores the drivers for rural producers to engage, or in some case not to engage, in the subdivision of rural land for the particular purpose of supplying the market with rural residential 'lifestyle' sections. The subdivision of rural land for 'lifestyle' sections is an issue gathering increasing critical attention. Concerns centre on whether subdivisions are adversely affecting agricultural productivity through land fragmentation and the loss of high quality soils, changing the character of rural communities and landscapes, and creating the potential for an unsustainable extension of infrastructural services. There is a significant body of existing research which examines some of these questions in the New Zealand context, most notably the work carried out by John Fairweather at Lincoln University. This report is informed by this existing research, but we also seek to extend it empirically and methodologically by focusing on the narratives of rural producers and their decision-making around subdivision. To carry out this analysis, the researchers conducted a series of 26 in-depth interviews, each lasting between one and two hours, with rural producers located around Palmerston North.

In summary, the key high-level findings are as follows.

1. Raising capital for retirement and debt servicing are the two key drivers for farmer subdivision within the study area. Against the stereotype of the "greedy" or "irresponsible" subdividing farmer, however, research indicates that most farmers feel compelled to subdivide by external forces. For many interviewees, the decision to subdivide was made with reluctance.
2. The destabilisation of intergenerational succession norms is a major subdivision driver. In the absence of a family succession plan, most farmers within this study stated that they would consider residential subdivision to raise capital for retirement.
3. In other cases, however, subdivision can be understood as a form of pluriactivity: an alternative utilisation of farm assets to generate income. A number of farmers undertook subdivision in order to purchase more farm land, invest in farm infrastructure and to reduce debt. In these situations, subdivision was viewed as an extension of the farm business.
4. Those that subdivided around the early 2000s tended to relate success stories (i.e. they sold their blocks and attained their financial and personal objectives from subdivision). More recent subdivisions have a higher failure rate (i.e. subdividers gained consent but have been unable to sell their blocks, in some cases either putting the farm business in serious jeopardy, or "trapping" individuals in a property they do not want). In these latter cases, participants emphasized that they did not have a clear understanding of either the monetary cost or length of time involved when they initially decided to subdivide.

5. Notwithstanding the importance of external factors, subdivision is not a simple act of economic rationality. A host of non-economic values such as family, identity and ideas about "good farming" also figure significantly in landowners' decision-making about subdivision.
6. There is not always a direct connection between those that self-identify as farmers and the commercial productivity of their land. Many of the participants who strongly self-identified as farmers and were very strongly opposed to increasing rural-residential subdivision were not themselves running commercial enterprises.

Restrictions on Subdivision

7. There is a strong level of support for restrictions on subdivisions on high-quality soil, as well as restrictions on subdivisions which impact on aesthetic qualities like the "rural character" of a locale.
8. Most farmers believe increased residential development has impacted negatively on their quality of life. Although they identify community benefits (such as more money for schools, better roading, etc), on the whole they tend to describe rural-residential development as "out of control", and to argue that the negative impact on both productive agriculture and "country life" outweigh the tangible benefits that come with subdivision.
9. Although most farmers appear to welcome the prospect of tighter restrictions on residential development in order to protect rural productivity and the character of rural areas, they were also concerned that any potential regulations should be sufficiently flexible to allow for recognition of the specific physical characteristics, soil quality and commercial uses of their land. There is some tension between farmer support for prescriptive regulation to protect rural productivity and their call for case-by-case flexibility.

Lot Sizes

10. There is no overall consensus on the minimum size for a productive farm (the interviewees' estimations vary widely according to farm and soil type). Almost all participants agreed that 4ha is generally too small for a productive farm, although a number pointed to exceptions where motivated smallholders had established and maintained small niche businesses such as intensive horticulture. Moreover, many observed that, depending on the circumstances of the farm, lot sizes in excess of 4ha could not be guaranteed to be economically viable.
11. In contrast with uncertainty about what constituted the minimum size for a productive unit, famers generally agreed that lots no larger (and preferably smaller) than 2ha were an appropriate size for a rural-residential lifestyle block.

Intensification

12. Aside from the main known impacts on agriculture (reverse sensitivity and the loss of productive soil), there is also reason to believe that when subdivision leads to a loss in effective farm area this can result in intensification in order to maintain overall farm productivity, particularly on dairy farms. This is an overlooked economic and sustainability impact of subdivision. Although anecdotal evidence from the interviews suggests that subdivision can drive intensification, further research is required to substantiate this claim.

The key overall finding of this report is the importance of context in farmer decision-making. The research has identified a wide variety of experiences and values around subdivision. Most centrally, while economic drivers such as debt reduction and the need to raise retirement capital are important, they are part of a wider set of values that farmers constantly negotiate. The complexity of these values is evident in tensions between, on the one hand, a desire to protect rural ways of life and, on the other hand, a simultaneous desire for case-by-case flexibility in the pursuit of individual, generally economic goals. The majority of farmers interviewed believe that peri-urban lifestyle development is negatively impacting upon productive agriculture. However, the analysis of farmer motivations reveals that subdivision is often undertaken in order to either maintain farm productivity (by raising capital) or as a farm exit strategy.

In conclusion then, this report shows that subdivision is located within a complex moral economy in which farmers negotiate an array of often divergent values and objectives. Subdivision is seen as something that both protects and threatens the rural way of life. Farmers may subdivide in order to either keep farming or to exit from farming altogether. Subdivision is often undertaken for commercial reasons (notably debt reduction), but it is also widely seen as creating circumstances that make the productive operation of agricultural businesses more difficult. Farmers typically subdivide reluctantly – "good farmers" do not sell their land – but they nevertheless seek to be able to continue making such reluctant subdivisions. Although they recognise that the problems created by subdivision are widespread and support regulative moves to control such development, farmers also call for a case-by-case flexibility that is tailored to their individual circumstances. Rural-residential policy-makers thus need to appreciate the complexity of farmer decision-making about subdivision and, like the farmers themselves, to negotiate the countervailing drivers that animate this moral economy.

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1.1 Introduction

The immediate impetus for this report lies in the preparation by the Palmerston North City Council (PNCC) of a Rural-Residential Land Use Strategy (RRLUS) designed to help guide the long-term management of rural-residential growth within the City environs. Associated with this policy initiative has been a concern with the *ad hoc* and possibly adverse effects of rural-residential subdivision on rural productivity and the perceived need to therefore ensure where possible that PNCC's strategic planning framework enables the protection of this productive capacity. In its RRLUS, PNCC has identified an increasing demand for lifestyle blocks within the territorial area of the city, and consequently a need to carefully consider issues including: 1) how rural-residential subdivision is embedded in and has consequences for the surrounding rural landscape and existing rural activities such as productive agriculture, 2) the sustainable and affordable provision of infrastructure, and 3) the maintenance of rural identity and character.

The PNCC's concerns are not unique, either historically or geographically. An examination of the debates about urban growth suggest that planning authorities across New Zealand are facing growing pressures to respond to increasing subdivision for smallholding and lifestyle purposes, set alongside public disquiet about the associated loss of productive agricultural land. As Cook and Fairweather (2005) argue, increasing rural subdivision has been generally associated with the demand for a rural lifestyle by urban New Zealanders, enabled by local authority policy and supplied by rural producers for whom subdivision offers a potentially attractive way of raising capital from their properties. Recent work by Landcare Research has quantified the growth of lifestyle subdivisions across New Zealand and its implications for the allocation of high class soils. Using the national property valuation database, Andrew and Dymond (2012) identified approximately 175,000 lifestyle blocks across New Zealand covering 873,000ha, a substantial increase from around 100,000 blocks in 1998. They also found that these lifestyle blocks occupied approximately 10% of New Zealand's high class soils. PNCC has similarly identified a steady demand for such blocks, with rural-residential building consents averaging 35 per annum, approximately 12% of annual building consents (Palmerston North City Council, 2011). Such pressures are not confined to New Zealand; they have also been observed in Australia (Anstey, 2009), the United States (Ryan, 2006) and across Europe (Zasada, 2011). Nor are these pressures new. A number of reports dating back to the 1970s have commented on the implications of Palmerston North urban expansion for agricultural productivity (PNCC, 1971; Cowie, 1978, Cowie and Osborn, 1977).

1.2 Research brief

Framed by PNCC's immediate policy concerns and by wider debates about the tensions between agricultural productivity, urban growth and rural subdivision, this report provides a contextualised analysis of the socio-economic drivers for land-use transformation by rural producers in the Manawatu. More specifically, the research examines the complex intersection of macro- and micro-level drivers shaping the subdivision decisions made by rural producers, and in particular decisions to carve off land for rural-residential blocks. In distinction to most existing research, which has focused on smallholders or on "lifestylers" moving from towns to the countryside, this study concentrates on the farmers. Our aim is to provide a "thick description" of the complex drivers that motivate their subdivision decisions in the particular context of Palmerston North and its surrounding rural hinterland. Understanding these drivers will contribute to the fashioning of a nuanced land-use policy that is appropriate for its local setting.

1.3 Farming in the Manawatu

Using information from Statistics New Zealand (SNZ), the Ministry for Primary Industries (MPI) and Quotable Value (QV), this section provides a broad overview of farming around Palmerston North, including the general pattern of farm sizes and types, as well as some of the key trends and issues that have been identified. As has been widely acknowledged, agricultural land-use in New Zealand is closely related to the vicissitudes of international commodity markets. The data presented below reflects recent market shifts, particularly evident in the growing divergence of returns between dairying and sheep and beef farming and the resulting implications for land-use decisions. The data also suggests a set of deeper structural changes in relation to farm size and total farm numbers in the Manawatu and in New Zealand more widely.

1.3.1 Geography

The wider Manawatu is characterised by a moderate climate with regular and well distributed rainfall. Strong westerly and north-westerly winds can dry out soils, especially in late summer and early autumn. Moderate frosts occur during winter, but pastures can grow throughout the year (Cowie, 1978). A more significant determinant of agricultural activity is the distribution of soils across the region. There are three main classes of land around Palmerston North: river flats, dissected terraces and the high country of the Tararua Ranges. Within these broad classes of land there are a wide variety of soils. The most versatile are located to the west of Palmerston North on the flats associated with the Manawatu and Oroua Rivers. These soils are suitable for a wide range of farming activities including dairying, cropping and horticulture. River terrace land lies largely to the east of Palmerston North. The soils in this land category are largely characterised by their wetness during winter and spring, and there is the concomitant need for them to be systematically drained for agricultural use. Dairying does occur on these river terraces, but land-use tends to be dominated by sheep and beef production. The hill country of the Tararua Ranges lies to the east of

the river terrace lands. Soils here tend to be poor and liable to erosion. Consequently, farming activity tends to be limited to extensive sheep and beef breeding, as well as forestry.

1.3.2 Farm types

Farming in the Manawatu has traditionally been dominated by sheep, beef and dairying (MAF, 2008). The Farm Type by Territorial Authority figures given in Statistics New Zealand's (2007) Agricultural Census reveal that 15% of the 330 farms within PNCC boundaries are sheep farms, 24% beef cattle and 15% dairy cattle.[1] Numbers are similar for the Manawatu District Council (MDC), with sheep farms comprising 25% of the total 1458 farms, beef cattle 26% and dairy cattle 19%. Likewise, the Horowhenua District Council (HDC) returns show that of the total 651 farms 6% were sheep, 29% beef cattle and 19% dairy. This regional profile compares to a North Island average of 11% sheep farming, 24% beef cattle and 23% dairy cattle. In relation to the location of farming activities, the three main classes are distributed relatively evenly around Palmerston North, with a tendency for dairying to occur on the river terrace soils to the west of the city.

Alongside the three dominant farm types are numerous other enterprises, each comprising 1-3% of the total farms for PNCC, MDC and HDC. These include poultry, pig, horse and deer farming. Forestry comprises 4% of MDC farms, 9% of PNCC and 6% of HDC. The comparative North Island figure for forestry is 7%. Interestingly, both PNCC and HDC are well above the North Island average for the proportion of both plant nurseries (5% PNCC and 3% HDC cf. 2% for the North Island) and vegetable growing (5% PNCC and 10% HDC cf. 2% for the North Island). Within the boundaries of Palmerston North there is some clustering of these activities based in part on existing industry infrastructure, such as horse breeding near the Awapuni Racecourse, or on appropriate soils, notably the concentration of horticulture on the river flats to the north of Palmerston North along the Manawatu River, or forestry on the eastern hill country.

The 2007 figures are roughly comparable with those from Statistics New Zealand's earlier 2002 Agricultural Census. Although the proportions of various farm types have remained relatively stable, exceptions are the growth of beef cattle farming in PNCC (20% in 2002, 24% in 2007) and HDC (from 25% to 29%), as well as a decline in HDC dairying (from 25% to 19%). Perhaps more significant was the absolute decline in total farm numbers across all three territorial authorities. MDC dropped from 1500 farms in 2002 to 1458 in 2007, PNCC from 430 to 330, and HDC from 810 to 651. While part of the explanation for this decline lies in the conversion of farm land to other uses (such as rural-residential), another significant factor is the gradually increasing size of farms.

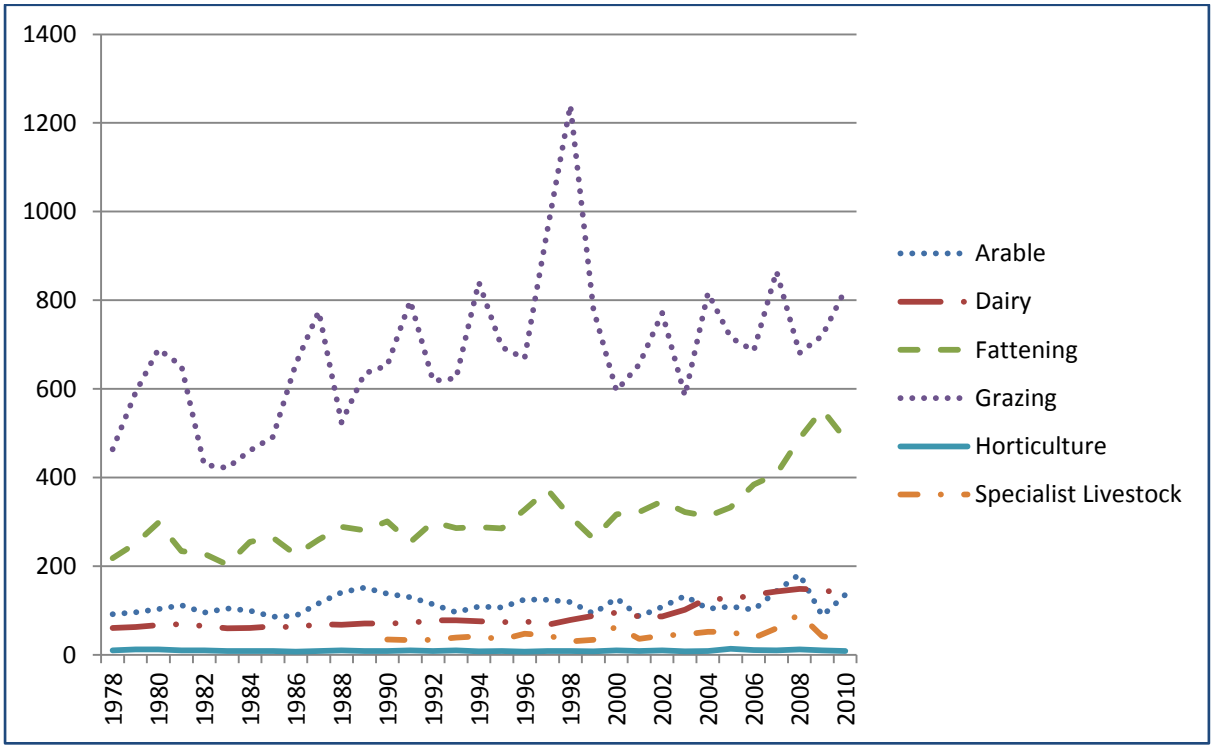
1.3.3 Farm size

An examination of 2002 and 2007 farm size statistics reveals some interesting patterns. Compared to the North Island as a whole, both PNCC and HDC have a larger proportion of smaller

[1] For the sake of comparison this section uses statistics for Palmerston North City Council and its two neighbouring territorial authorities on the western side of the Tararua Ranges, the Manawatu District Council and the Horowhenua District Council.

farms in the categories under 5ha, 5-10ha and 10-19ha. In contrast, MDC has a farm size pattern more like that of the South Island, with a higher proportion of larger farms, especially those over 100 hectares. Comparing the 2002 and 2007 figures provides an, albeit short-term, perspective on historical trends. The SNZ figures (see Table 1 below) indicate that farm sizes have remained relatively stable. However, the Rural Property Sales Statistics published by QV cover a much longer historical period and suggest a quite different story. QV collects sales information on a wide range of rural land-use categories as well as on different farm classes. The QV data for the sales of rural land by unit reveals a gradual increase in the average size of farm units being sold (see Figure 1). This is particularly the case in relation to those categories of rural land relevant to the mix of farm types in the Manawatu: dairying, grazing and fattening. For example, the average size of a sold fattening unit was 218ha in 1978, rising to 313ha in 2004 and then rising again even more steeply to a peak of 553ha in 2009. Dairying shows a similar trend, with the average size of sale farms rising from 63ha in 1978 to a peak of 147ha in 2009. Conversely, the average size of horticultural units remained consistent at around 10ha between 1978 and 2010.

Figure 1: Rural Unit Land Sales, 1978-2010



Source: Quotable Value (2010)

Further confirmation of a trend for increasing farm size can be gathered from the monitoring reports regularly compiled by the Ministry of Primary Industries (MPI; formerly the Ministry of Agriculture and Forestry). These reports use of a range of farm type models tailored to different environments around New Zealand. Three monitoring models are of particular interest: the

Table 1: Farms by Size of Farm and Territorial Authority, 2002 and 2007

Territorial Authority and Year		Farm size (hectares)															
		Under 5	5–9	10–19	20–39	40–59	60–79	80–99	100–199	200–399	400–599	600–799	800–999	1,000–1,999	2,000–3,999	4,000 and over	Total
MDC	2007	210	129	150	162	126	72	66	228	183	69	33	12	15	-	-	1,458
		14%	9%	10%	11%	9%	5%	5%	16%	13%	5%	2%	1%	1%			
	2002	210	140	150	190	110	75	80	270	190	85	25	9	15	3	-	1,500
		14%	9%	10%	13%	7%	5%	5%	18%	13%	6%	2%	1%	1%	0%		
PNCC	2007	90	57	39	39	18	18	9	33	21	6	3	3	-	-	-	330
		27%	17%	12%	12%	5%	5%	3%	10%	6%	2%	1%	1%				
	2002	130	65	60	35	25	20	20	50	15	6	3	..S	3	-	-	430
		30%	15%	14%	8%	6%	5%	5%	12%	3%	1%	1%		1%			
HDC	2007	150	105	72	63	36	21	27	84	57	9	9	9	3	-	-	651
		23%	16%	11%	10%	6%	3%	4%	13%	9%	1%	1%	1%	0.5%			
	2002	180	140	80	90	50	35	35	120	55	20	6	6	3	3	-	810
		22%	17.3%	9.9%	11.1%	6.2%	4.3%	4.3%	14.8%	6.8%	2.5%	0.7%	0.7%	0.4%	0.4%		
TOTAL North Island	**2007**	**7,593**	**4,410**	**4,173**	**4,068**	**2,838**	**2,313**	**2,154**	**5,979**	**4,146**	**1,497**	**777**	**426**	**681**	**249**	**120**	**41,424**
		18%	**11%**	**10%**	**10%**	**7%**	**6%**	**5%**	**14%**	**10%**	**4%**	**2%**	**1%**	**2%**	**1%**	**0.3%**	
	2002	**8,700**	**5,100**	**4,700**	**4,700**	**3,500**	**3,000**	**2,500**	**6,400**	**4,300**	**1,700**	**740**	**400**	**670**	**220**	**120**	**46,000**
		17%	**10%**	**9%**	**9%**	**6%**	**5%**	**5%**	**13%**	**9%**	**3%**	**2%**	**1%**	**1%**	**1%**	**0%**	
TOTAL South Island	**2007**	**3,198**	**1,929**	**2,379**	**2,376**	**1,200**	**678**	**723**	**2,847**	**3,366**	**1,182**	**525**	**324**	**591**	**297**	**300**	**21,912**
		15%	**9%**	**11%**	**11%**	**5%**	**3%**	**3%**	**13%**	**15%**	**5%**	**2%**	**1%**	**3%**	**1%**	**1%**	
	2002	**3,200**	**2,200**	**2,500**	**2,700**	**1,300**	**820**	**760**	**3,300**	**3,500**	**1,200**	**540**	**300**	**550**	**310**	**300**	**23,000**
		14%	**10%**	**11%**	**12%**	**6%**	**4%**	**3%**	**14%**	**15%**	**5%**	**2%**	**1%**	**2%**	**1%**	**1%**	
TOTAL New Zealand	**2007**	**10794**	**6,342**	**6,549**	**6,444**	**4,038**	**2,991**	**2,874**	**8,826**	**7,509**	**2,682**	**1,302**	**747**	**1,272**	**546**	**417**	**63,336**
		17%	**10%**	**10%**	**10%**	**6%**	**5%**	**5%**	**14%**	**12%**	**4%**	**2%**	**1%**	**2%**	**1%**	**1%**	
	2002	**12,000**	**7,300**	**7,300**	**7,300**	**4,800**	**3,800**	**3,300**	**9,700**	**7,900**	**2,800**	**1,200**	**700**	**1,200**	**540**	**410**	**70,000**
		17%	**10%**	**10%**	**10%**	**7%**	**5%**	**5%**	**14%**	**11%**	**4%**	**2%**	**1%**	**2%**	**1%**	**1%**	

Source: Statistics New Zealand (2002, 2007)

Manawatu/Rangitikei Intensive (Sheep and Beef), the Western Lower North Island Intensive and the Lower North Island Dairy. Collectively, all three models point to the increasing size of farms in the wider Manawatu. For example, the Manawatu/Rangitikei Intensive model farm size rose from 346ha in 2001 to 393ha in 2006, while the Western Lower North Island Intensive model, which replaced the Manawatu/Rangitikei Intensive model in 2007, increased from 220ha to 368ha in 2010. The Lower North Island Dairy model also saw farm size increase from 80ha in 2001 to 135ha in 2010. Taken together, these figures broadly mirror the changes suggested by QV sales data for the grazing, fattening and dairy categories of rural land.

1.3.4 Farming trends

The MPI monitoring reports include snapshots of trends and issues for particular regions and in relation to specific business models. Taken over a period of time, these snapshots provide some qualitative corroboration of changes signalled by the quantitative farm model data. Between 2000 and 2010, the reports highlighted the cyclical character of farm profitability and the relative differences in returns between various land-uses, most notably the decline in profitability for meat and wool and the increasing returns for dairy. As the reports acknowledge, such trends have significant implications for land-use decisions, particularly for land that can be relatively easily converted between different types of farming, such as the Manawatu river terrace soils.

As in the figures from SNZ and QV, there is evidence in these snapshots of ongoing increases in the size of farm properties. Consequently, the monitoring reports from 2006 onwards also note the increasing levels of debt carried by those farms represented by the Manawatu/Rangitikei Intensive (Sheep and Beef) and the Western Lower North Island Intensive models. The accumulation of debt has been largely used to facilitate the purchase of additional land. Since 2006 the reports have also indicated a growing mismatch between property values and farm profitability. This mismatch puts pressure on farmers to find alternative, more profitable land-uses. It is also linked to increasing problems with succession planning. The growing difference between land's capital value and farming profitability makes it difficult to both provide for the retiring family and secure an equitable settlement for other family members involved in the property.

The 2007 Pastoral Monitoring Report identified the profitability of sheep and beef farms as a significant issue and pointed to the effect this was having on the relationship between farmers and their bankers. As the report notes, debt servicing demands have meant that off-farm income has become a normal and increasingly important part of the farm budget. While banks have continued to lend money, "there is usually a requirement on the farmers to consider the longer term position and realise assets, for example, by selling off a

lifestyle block or a spare house, or making other structural changes which will enable the debt servicing to be kept at a manageable level" (MAF, 2007, p.227). In general then, the monitor reports suggest an extended period of deleveraging, as farmers have sought to reduce debt levels, and an ongoing revaluation of existing land-use practices. Such pressures have significant implications for decision-making, particularly in locations where land can be readily converted to other uses.

1.3.5 Problems quantifying land-use change

In meeting the research brief for this study we investigated some of the available methods for quantifying rural-residential growth, and gathering information on the commercial and non-commercial agricultural practices of smallholders and lifestylers. In New Zealand there are currently a number of limitations in the available datasets relating to smallholder land-use. These limitations present challenges for any research aiming to describe such use or to quantify smallholding growth patterns s over time.

As Sanson *et al* observe, "there is currently no single database that would suffice as a complete frame of smallholders" (2005, p.41). In terms of publicly available information, individual subdivision consent applications (held on record by District and City Councils) could provide a means to track subdivision growth within a specific locale. However, beyond showing where subdivisions are taking place, consent documentation usually does not include any information on land-use or, if they are historic, any information in regards to the new property or the current owner. Consolidating consent documentation would also be highly labour intensive, given that a study's geographical scope may extend across multiple local city authorities, each with different subdivision rules and systems for archiving consent documents. Although local Councils must assess and record land-use when determining property rates, changes to the Local Government Rating Act in 2003 now mean it is illegal for them to provided bulk names and addresses from the valuation databases to third parties. Given this lack of publicly accessible information, researchers must turn to an increasing number of commercial providers that have appeared over the past two decades.

One of the largest commercially available datasets recording agricultural land-use is AgriBase™. AgriBase™ is a database compiled from a voluntary national farmer survey originally designed by MAF and now owned and developed by the SOE AsureQuality Ltd. The survey is undertaken primarily to provide core information for major animal health emergencies such as a foot-and-mouth outbreaks (Sanson, 2000). AgriBase™ provides general information on farm businesses, including total land area and predominant land-use, as well as more fine-grained farm-level data (numbers of animals by livestock class, amount of land devoted to pasture, horticulture, etc). However, AgriBase™ was designed to track commercial activity and although it has a high level of farm coverage nationally its coverage

of lifestyle or hobby farming remains partial up to recent years. Although AgriBase™ could be useful in providing a "snapshot" of lifestyle and smallholder populations, the database has limited capacity to quantify growth in rural-residential development over time.

The Valuation Roll is a national database of rateable properties. Since the privatisation of government valuation services, a number of commercial providers have arisen, the largest being Quotable Value (QV). QV provides a database updated from information sourced directly from local authorities and updated during district revaluations (QV, 2012). The database includes land-use information as well as historical sales information. The main determinant for categorising a property as a lifestyle block on the Valuation Roll is that the land-use is non-commercial and that the value of the land is higher than farm land with a similar productive capacity (LINZ 2010, p.60). This method of categorisation only gives a very broad account of the actual activities of smallholders. As Andrew and Dymond point out, "a highly productive, mixed-output smallholding could easily be classified as 'non-traditional'" (2012, p.5). Moreover, the Valuation Roll can provide little information on the activities of non-commercial lifestyle block owners. While acknowledging its limitations, Andrew and Dymond argue that property valuations are currently "the most robust dataset available for identifying lifestyle blocks in New Zealand" (2012, p.5). In regards to the brief for this project, one potential advantage of QV is that it can provide information on the current rural land use, value and sales data. The sales data is of particular relevance, given that it could potentially be used to reveal which kinds of farms are seeding subdivisions, and thus to track the impact of subdivision on different types of productive agriculture over time.

Given the partialities in each dataset, recent nationally-focused research on smallholders has involved integrating AgriBase™ with QV as well as extensive "ground truthing" through such means as postal surveys (see Sanson *et al*, 2005, p.5, 15). The need to integrate two (or more) large commercial datasets makes quantifying land-use change an expensive undertaking: the two reports cited above were centrally-funded CRI projects. However, future research on the Manawatu could involve some innovative integration of these databases in order to quantify land-use change or smallholder characteristics in strategically targeted areas.

1.4 The literature on rural producers and subdivision

There is a substantial research literature on rural subdivision in the context of a growing demand for lifestyle blocks. This literature has tended to concentrate on the perceptions and values of those people who have moved into rural landscapes in order to occupy such smallholdings. Here we provide a brief summary of this research.

Recent years have seen a proliferation of academic work examining the dynamics of smallholding and lifestyle blocks. A number of authors have identified a longstanding desire for rural living amongst New Zealanders, and the sense that the rural offers a better way of life (Edwards, 1992; Fairweather, 1993, 1996; Mears, 1974). Swaffield and Fairweather (1998) termed this desire for rural living the "Arcadian ideal" and many of its features, including the search for privacy and seclusion, have also been identified internationally (Anstey, 2009). Other research has noted, however, that this idealised vision of the rural lifestyle is often contradicted by the realities of rural production. In particular, issues such as noise, smell, spraying, access to water and overcrowding are likely to led to conflict between lifestylers and commercial farmers (Fairweather & Robertson, 2000; Hayes, 2002).

Rural subdivision has become a recent focus of concern but, as Moran (1997) points out, such subdivisions have a relatively long and cyclical history. Moran argues that the cycle of rural subdivision between the 1970s and 1990s largely occurred as part of a shift in farm type and was associated with an increase in intensive horticulture. Subdivision in this period aimed to create blocks of land appropriate for viable horticultural production, especially kiwifruit. A further wave of subdivision has followed from the 1990s onwards. This more recent cycle has been largely animated by the lifestyler search for an "Arcadian idyll" rather than changing production practices. Moran's work alerts us to both the long history and changing motivations of rural subdivision. In particular, he casts doubt on the assumption that subdivision automatically results in a decline in agricultural production.

National surveys of smallholders by Cook and Fairweather (2005) and by Lillis, Fairweather and Sanson (2005) provide some insight into the characteristics of those who own or operate smallholdings (defined in these studies as properties between 0.4ha and 30ha). Lillis *et al* (2005) identified five groups engaging in different types of production within the overall population of smallholders, namely: lifestylers, hobby farmers, small farmers, farmers and horticulturalist/growers. Lillis *et al* (2005) found a relationship between these groups and landholding size, with lifestyle and hobby farm blocks being generally smaller than the small farmers and horticultural blocks. This differentiation has also been identified internationally, with Holmes (2006) suggesting that the transition of land from agricultural to amenity uses tends to reduce land parcel sizes.

In terms of length of tenure, Lillis *et al* found that those who identified themselves as farmers tended to be on their properties for significantly longer periods of time than those who considered themselves lifestylers, hobby farmers or small farmers. While a significant proportion of the overall group of smallholders had previous farming experience, the opposite was found when it came to lifestylers. When asked about their motivations for owning small holdings, the responses from Lillis *et al* (2005) mirrored those of Hayes (2002)

and Fairweather and Robinson (2000), in terms of attraction to and satisfaction with rural living, but also in terms of recognising the disadvantages of rural living.

Contrary to common myths about the lack of production from smallholdings, the research suggests that such blocks were often still being used for agricultural production, but that in general the level of production was insufficient to support the household, historically a key criteria used to define farm units. Not surprisingly, then, 87% of respondents reported off-farm income. On the basis of such findings, Gill, Klepeis and Chisholm (2010) argue that the distinction between new rural landowners (who are commonly assumed to be focused on the consumption of rurality rather than on rural production) and more traditional agriculturally focused landowners glosses over both the productive activities of the former and the non-monetary activities of the latter. In the case of both categories, Gill *et al* (2010, p.331) argue, "they are influenced not only by their land use aspirations and values, but also by the nature and state of the land they buy, by their neighbours, and by their personal, financial and family circumstances". In terms of the broad spatial patterns fashioned from these complex motivations, international research has suggested that the neat distinction between urban and rural living along production lines has become increasingly blurred with the rise of multifunctional rural landscapes, particularly on the edges of cities where a complex set of heterogeneous land uses has emerged (Zasada, 2011). Zasada (2011, p. 646) describes a pattern of peri-urban farming that is characterised by "holdings with intensive and specialised production, high participation in diversification, and low-intensive hobby and lifestyle oriented farms".

The nationwide survey of smallholders conducted by Cook and Fairweather (2005) mirrored in many ways the findings of Lillis *et al* (2005). Cook and Fairweather (2005) found that there was some limited validity to the perception that lifestylers were not using their land for productive purposes, and that productive smallholdings tended to be characterised by a focus on horticulture or intensive livestock production. However, they also noted that the differences between the various groups of smallholders were small, and that there was no neat relationship between the categories of smallholders and the intensity of production (on this point also see Gill *et al*, 2010). Overall, Cook and Fairweather (2005) suggest that the growth in rural smallholdings may have had a negative effect on agricultural production and that this was likely to increase with further rural subdivision.

In terms of the potential environmental effects of rural subdivision, Cook and Fairweather (2005) found that while rural smallholders had a generally positive orientation towards sustainability there was a gap between them and rural producers when it came to actually participating in activities to ameliorate to the negative environmental effects of things such as the use of agricultural chemicals. This difference, reasoned Cook and

Fairweather (2005), was the result of a decreased emphasis on productive activities, and consequently less need to monitor and ameliorate the effects of production. They also found that incoming rural small holders were more likely to be involved in tree planting, with the potential long term effect of "greening" rural landscapes (see also Lillis *et al*, 2005). Gill *et al* (2010) suggest, however, that new rural landowners often engage relatively passively in environmental stewardship, what they call "benign neglect", and that their overall environmental impact may be little different from previous land-user regimes. Klepeis *et al* (2009) similarly argue, in the context of weed control, that rural, amenity landscapes require regulatory frameworks and active communities rather than passive land-users.

There is considerably more research on those who move onto subdivisions than there is of the individual or household motivations of the subdividers themselves. When such research is undertaken, subdivision is typically framed within the context of the agricultural restructuring embarked upon in New Zealand in the mid-1980s and the various adjustment strategies adopted by farming families in order to maintain viability (e.g. Johnson, 2004; Rhodes, 2003). Here subdivision tends to be seen as a fairly straightforward act of economic rationality. Farmers seek to maximise the utility of their land, and as long as they perceive an economic benefit (to raise capital for farm development, debt reduction or to exit the farm entirely) then subdivision will continue to increase. While subdivision is indeed a pragmatic and economic action, such a view tends to neglect the constraints and compulsions influencing farmer decision-making, as well as the significant role that "normative-affective" factors (values, emotions and familial or community attachments) play within even the most economically-rationalist decision making (Etzioni, 1993). In short, these explanations do not account for the complex relations between the family farm, individual actor, local context and broader social and market forces that are implicated in rural-residential development.

A significant exception to the dominant research pattern is Lee's (1999) exploration of farmer responses to subdivision in the Selwyn District of Canterbury, New Zealand (a district that has also been the subject of smallholder surveys; see Cook & Fairweather, 2005). Lee conducted qualitative interviews with a range of farmers who had either subdivided or were in the process of doing so. For most interviewees, subdivision was seen as a logical financial alternative to economically marginal farming. As Lee noted, however, it is one alternative amongst other options and not a given. Farmer decision-making was framed by a tension between the economic logic of subdivision and a sense of loyalty to both the idea of the family farm and to the emotional bonds that connected farming families to particular places. However, Lee also found that subdivision provided an exit strategy that, for her interviewees at least, seemed to take precedence over such local loyalties. Interestingly, Lee noted that, for those who had subdivided, subdivision had not stopped them continuing their day-to-day farming activities. However, the proximity of lifestylers had made some more

conscious of farming activities such as droving, spraying and burning that would otherwise have been simply taken for granted. Moreover, the interviewees expected that normal farming operations would become more problematic as lifestyle blocks increased.

Lee found that farmers displayed a diversity of opinions about the pros and cons of subdivision, with the lines of contention generally falling between those who had or had not subdivided. Those who had subdivided generally felt more positive than those who had not, though there was considerable divergence within these broad positions. Most farmers expected that subdivision would continue to be an option for them in the context of the planning regime established by the Selwyn District Council. This finding can be interpreted in the light of Fairweather and Mulet-Marquis' (2009) analysis of the increasing average age of New Zealand farmers, which suggests a greater willingness to continue farming into older ages but also the looming possibility of significant changes in rural landownership as retiring farmers eventually stop farming. Farmers did articulate an active role for councils in educating potential lifestylers about the possible downsides to rural living. Most favoured relatively small lots of only a few hectares as most appropriate for lifestylers. However, Lee notes that reducing the size of blocks is not without its disadvantages in terms of increasing the likelihood of cross-boundary disputes and decreasing the flexibility of land-use on neighbouring properties.

In summary, existing research provides valuable information on some of the broad patterns of change in rural landownership. It provides considerable insight into the activities and values of those who have moved onto rural subdivisions. However, with the exception of Lee (1999), this research does not extend very far in investigating the impetus for land-use transformation by farmers and the situational and socio-economic factors that drive their decisions about subdivision. Such factors include the characteristics of the farm household and enterprise, the actors' individual and collective values as well as the local context's biophysical, economic and cultural fabrics. It is these questions about these factors that frame the research contained in this report.

1.5 Report structure

The report is organised into the following parts. Part 2 outlines the methodology used to gather the information and Part 3 analyses the interview narratives that were produced by the administered questionnaire. Part 4 draws a conclusion to the research.

Part 2: Methodology

2.1 Introducing the project methodology

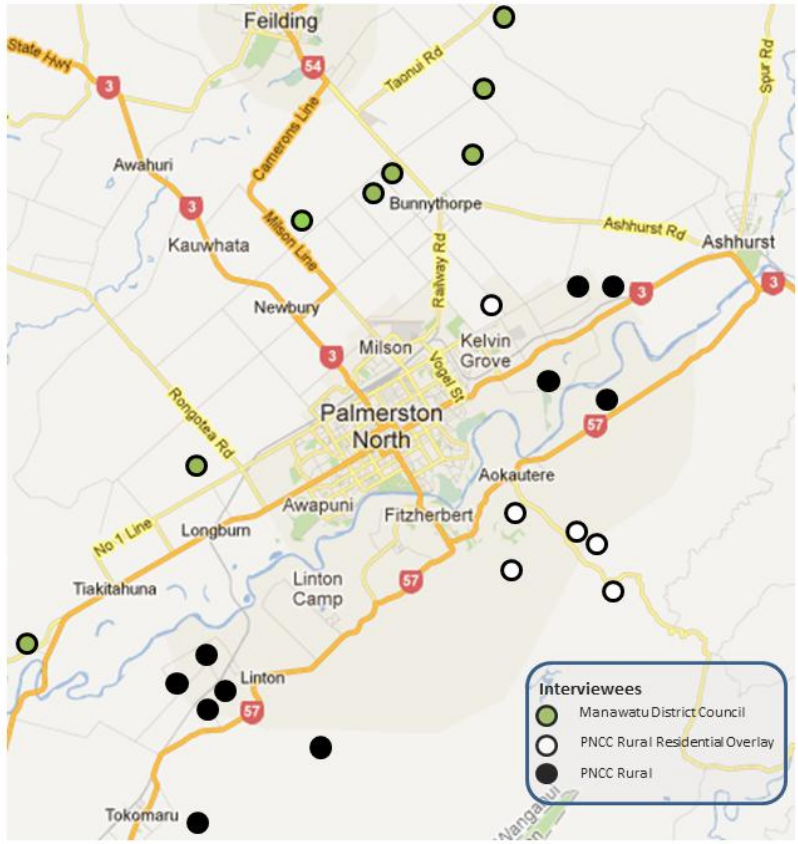
The central objective of this research is to discover the socio-economic drivers of land-use transformation in the Manawatu with a particular focus on the decisions taken by rural producers around the subdivision of farms. As argued above, there is very little research that examines rural producers and their experiences of subdivision. This lacuna is important given that "farmers are willingly deciding to make their farms available for subdivision" (Lee, 1999, p. 87). Quantitative analysis sheds light on general patterns but has limited capacity to shed light on the complex mix of subjective factors that underpin such "willing decisions". Consequently, this project has adopted a qualitative approach that can produce "thick descriptions" of the complex values and perceptions that frame decision-making about rural subdivision. In keeping with this approach, the core of this research project has been a series of semi-structured, in-depth interviews undertaken with rural producers around Palmerston North. The information gleaned from these interviews has also been triangulated against the extant national and international research literature.

2.2 Participants

The participants in the research were identified using a combination of sources. The primary source was applications for subdivision consents lodged with the Palmerston North City Council. This information was cross-referenced and supplemented with cadastral information gleaned from a property information application called QuickMap. QuickMap helped with specifying broad farm types and with identifying people who had recently subdivided or who farmed in places where significant subdivision had or was occurring.

Unlike Lee (1999), we were not concerned with obtaining a mix of subdividers and non-subdividers. Conceptually, given our focus on decision-making then the decision not to subdivide is as interesting as the decision to subdivide, particularly when situated in contexts where significant subdivision was occurring. The combination of subdivision consents and QuickMap helped the research team generate a list of approximately 100 priority contacts. These contacts were then approached via phone and invited to participate. Snowball sampling (in which participants are asked to suggest others who may be helpful to the study) was also employed once interviews were underway. In general, the research team received a positive response to our invitations, with a number of people welcoming the opportunity to talk at length about the issues and experiences of rural subdivision.

Figure 2: Location of Interviewees[2]



2.3 Interview design

Designing the interview template (Appendix 3) drew elements from some of the previous land-use survey research (Andrew, 1997; Fairweather & Robertson, 2000; Sanson *et al*, 2006), but overall the questionnaire required specific design to address the project's objectives. The interviews aimed to capture limited quantitative data (such as farm and farm systems information, household and demographic data) and to record the detail of decision-making processes around subdivision, as well as farmer narratives on the impacts of subdivision on farm operations and communities. The interview template thus employed a mixed-method combination of standardised, open-ended and Likert questions (see Turner, 2010; Trochim, 2006). This combination of qualitative and quantitative methods has the advantage of eliciting in-depth responses while retaining a degree of structure that allows the data to be readily organised, coded and analysed according to the emerging themes. Generating farmer narratives was seen as particularly important in order to capture often complex decision-making processes around subdivision. As Riessman (1993, p. 70) says,

[2] For the purposes of confidentiality these locations are approximate only. They also represent the main location of the interviewee's farm, rather than their residential address. In a number of cases, interviewees have multiple farm holdings across different territorial authorities.

narrative analysis "allows for systematic study of personal experience and meaning: how events have been constructed by active subjects". Narrative analysis thus focuses the researcher on the participant's own account of a phenomenon. Although a consequence of this approach is longer interviews and large amounts of data, it also provides "thick descriptions" and valuable insights into feelings, thoughts and world view.

2.4 Interview structure

Interviews were divided into five sections. The first two sections gathered relevant background information about the farm business and household, including basic data such as farm type, size, ownership, employment structure, age, marital status, primary income streams, future ownership intentions and succession plans. Section three focused on future land-use intentions and farmers' sense of the key pressures facing their businesses. The fourth section elicited information on the decision-making that led to subdivision. It covered basic subdivision facts such as such as parcel size and sell date, as well as identifying the core motivations and the criteria used to select a particular area of the farm to subdivide. Interviewees were also asked to retrospectively assess their subdivision, in terms of both how well it met their personal objectives and how it impacted on their own lifestyle and farm operation. The final section focused on the farmers' general attitudes towards subdivision, including impacts on agriculture and community costs and benefits, as well as their attitudes towards different policy options regarding future subdivisions.

2.5 Conducting interviews

Interviews were conducted between February 2011 and April 2011. In total 23 face-to-face interviews and 3 telephone interviews were conducted. All interviews were electronically recorded. The interviewer would typically travel to the farm homestead to conduct the interview, and interviews were approximately ninety minutes in duration. One interview lasted only thirty minutes, while several lasted more than two hours. Each interviewee was provided with a participant information sheet outlining the purpose of the research (Appendix 1) and a consent form (Appendix 2). Discussions often deviated from the format of the interview as participants were encouraged to elaborate freely on issues where they were pertinent to the topic. In general, the participants were enthusiastic in voicing their opinions on subdivision and in regards to the value of the research being undertaken.

2.6 Analysis of interviews

All interviews were electronically recorded and subsequently transcribed. The transcriptions were coded for analysis using the qualitative software package Nvivo 9. This analytical process involved a mix of predetermined codes and new codes that emerged

inductively from reading the interviews themselves. The predetermined codes were derived from the review of existing research, a survey of media coverage relating to rural-residential development, and through consultation with PNCC staff involved in the project. Further detail about the coding process is provided in the introduction to Part 3 below.

2.7 Methodological summary

While drawing on previous research relevant to our objectives, this project's methodology has been explicitly designed to address gaps identified in the work that has been undertaken to date. The project has sought to shed light on the complex values that frame farmer decision-making about rural residential subdivision. To this end, we have used a mixed methods approach that is in the main centred on a series of semi-structured and in-depth interviews with rural producers. This approach has the advantage of enabling interviewers to delve into and interrogate the situated decision-making of interviewees and to reveal the narratives they have created about these decisions. Conversely however, such a qualitative approach means that this research should be read with the caveat that its results are not designed to be statistically generalizable. The research provides a rich account of the complex drivers that animate subdivision decision-making by farmers. It highlights a series of common concerns and themes which we have triangulated where possible with information from other sources.

Part 3: Interview Results

3.1 Introducing the interviews

Participants were encouraged to tell "stories" about their own subdivision activity, as well as subdivision activity within their area, and we have employed narrative analysis in our investigation of the interview transcripts. Narratives are useful data because individuals often make sense of the world (and their place in it) through narrative form. People distil and reflect a particular understanding of social phenomena through narrative; the role of the researcher is to interpret the stories that people tell (Feldman *et al*, 2004). Most of the stories we tell describe "a journey from one situation to another" (Tomashevski, 1965, p.70), meaning that a story establishes a connection between temporally ordered events, relates a chronological sequencing of these events, and describes the story-teller's own perception of the relative consequence of each event in terms of a final outcome. In other words, narrative analysis firmly embeds the speaker's stories within the form of life in which they inhabit. Narrative analysis is thus well-suited to (re)situating farmers' land-use change within the farm, family and wider community context, and allows the researcher to capture the normative commitments and affective involvements that influence their decision-making.

There are many different ways of approaching the analysis of a narrative, such as a deconstructive approach, a holistic approach, a structural–linguistic approach, or a thematic approach. For this research project we have adopted a thematic approach. An initial list of core themes was developed, informed by early discussions with PNCC on the research brief, as well as a media scan and literature review undertaken by the research team. These themes were aggregated as nodes within the Nvivo 9 software program, and used to code interviews. As transcriptions were coded additional themes began to emerge and these were again added as nodes. Thus coding involved reading and re-reading transcripts, extracting "chunks" of text and organising them according to their relevant node(s). In total we used eleven primary nodes that related to eleven primary themes within the project, and these primary ("parent") nodes were themselves aggregated into various sub-nodes ("child" nodes). In total we coded interviews within 45 parent and child nodes. Figure 3 below gives an example of the sub-nodes connected to one or the core thematic nodes used for this project: subdivision influences and drivers.

In the sections below we provide an analysis of the farmer interviews. This section is organised around the five core project themes: 1.) economic and social pressures on farming; 2.) drivers of subdivision; 3.) impacts of subdivision; 4.) lot sizes; and 5.) policy solutions. Quotations are provided from the transcriptions and the views of farmers are discussed.

Firstly however, we provide an outline of the household characteristics and the business and management structures of the farms included in this study.

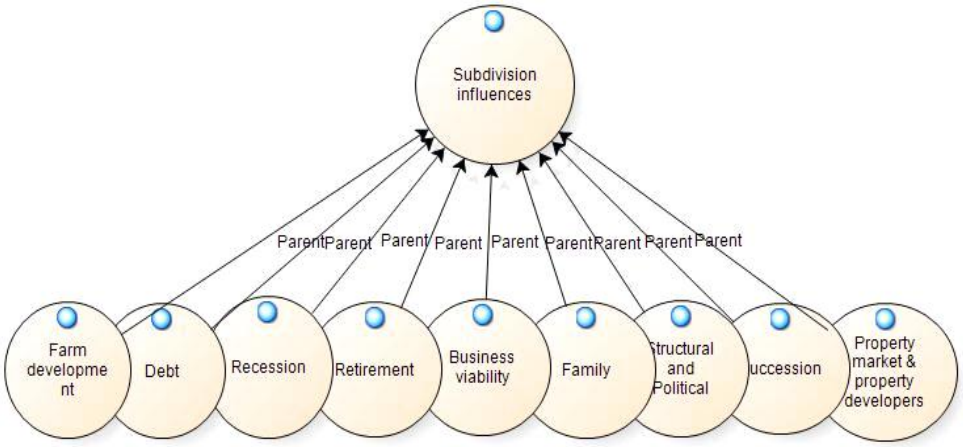


Figure 3: Subdivision influences - thematic nodes and sub-nodes

3.2 The characteristics of the participants

A total of 26 interviews have been completed for this study. Of these 26, 18 were either subdividers or attempted subdividers (i.e. those who had either a consent application denied, or a consent application in process), two were property developers who specialising in lifestyle sections (both of whom were previously farmers), and six were non-subdividers who resided in areas with a high concentration of lifestyle or smallholder residents. All interviewees had their main farm either close to Palmerston North's city boundaries, or else within the city's immediate commuter zone. While the sample is obviously not large enough to be representative of the total farm population over the entire region, the findings do provide a valuable insight into a number of farms within Palmerston North's urban/rural fringe, and are indicative of how farmers within this area are operating.

Four interviews were conducted with both husband and wife present, and in one case with the farmer's eldest son present – meaning that a total of 30 individuals have been interviewed. Excluding the two developers, all participants self-identified as farmers. Of those 23 self-described farmers, all except two were engaged in commercial production, a smallholder who described their forestry business as "a serious hobby" (Interview - Male smallholder), and another retired sheep and beef farmer who resided on a semi-productive smallholding. Thus, in the attributions used below, "farmer" refers to rural producer, "smallholder" refers to non-commercial landowners, and "developer" refers to property developers who own rural land.

3.2.1 The farm households

Of the 30 participants, 26 were male and only one female owner-operator was interviewed. In total, 95% (25) of those interviewed were married and living with their spouse or partner. 83% of participants were over 50 years of age (47% were over 60, 36% between 50 and 60). Given that the average age of the New Zealand farmer is currently 58 (*Stuff*, January 2012), it could be argued that the results of this study are slightly skewed towards the most senior farmers. Clearly however, the average age of farmers today, combined with the destabilisation of traditional succession scenarios (see below) means that succession itself is a major subdivision driver which is likely to intensify as older farmers continue to plan for their retirement from the land.

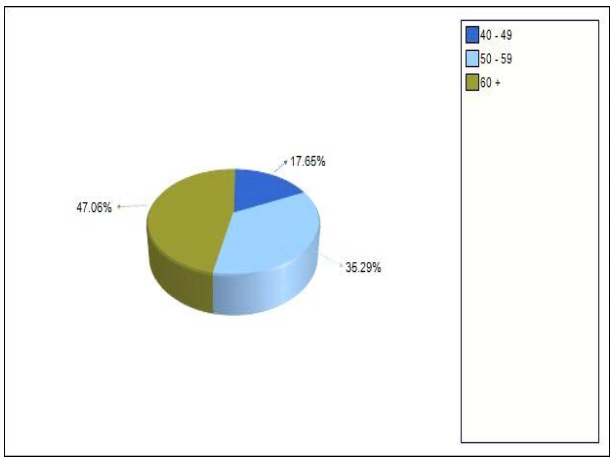


Figure 4: Participant age-groups

Most farmers interviewed had been long-term residents in the area. The average length of time participants had been farming their current block of land was 14 years (the longest being 49 years, the shortest 2 years), and almost all participants reported they had generational ties stretching back at least one generation to farming within the Manawatu-Whanganui region. In total, 75% of participants reported intergenerational transfer of their farm – meaning they either inherited or purchased from a family member.

Only eight individuals (35%) of the 23 self-described farmers reported that they derived 100% per cent of their income from their farm operations. Of the remaining 15 farmers, seven noted that they received under 50% of their total income on-farm, and cited either off-farm business interests or their spouse or partner's employment as constituting the remainder of their income. Half of the interviewees (14/26) reported that their partner was involved in full-time off-farm employment, and 20% (5/26) reported that their partner was involved in both part-time off-farm employment as well as on-farm unpaid labour. Only two of the twenty-six participants reported that they co-managed their farm business with their spouse or partner. Although 30% of participants reported that their spouses are involved in the day-to-day running of the business, only three reported that other members of their immediate family (sons, daughters) were currently employed on their farm.

Given the proximity of most of the participants' farms to Palmerston North's peri-urban boundary, our sample obviously displays much stronger urban economic ties than would be observed in households within the rural "heartland". However, increased

pluriactivity (the diversification of both on- and off-farm income sources) is recognised as one of the key industry and farm-level outcomes of the agricultural policies and wider macro-economic reforms affecting New Zealand's farm sector since the 1980s (see Fairweather, 1992; Wilson, 1994; Johnson, 2004). Originally a response to the "rural downturn" of the 1980s, there is evidence to suggest that – along with other transformations in farm composition and practice – pluriactivity has become a normalised feature of the "new family farm" because it has proved a means to maintain household-level financial stability within a sector highly sensitive to the vicissitudes of international commodity markets (Johnson, 2004: 423-425). Another key component of these changes has been the large-scale re-entry of women into the paid workforce. Women's income became essential not just to supplement declining farm income but also to maintain farm viability (Ponter, 1996). In some areas where debt levels among farmers were particularly high, it has been reported that up to 82% of women in off-farm employment stated their off-farm income was essential to meet household costs (Taylor & McCrostie Little, 1995: 83). These longer-term changes in the composition of farm households are certainly observable within our sample, which is characterised by both high levels of labour market participation by the head female within the household, and also high levels of debt (see below).

3.2.2 The farm businesses

Diverse farm types are included in this study, with the two largest categories being dairy (28%) and sheep farming (24%). Also included are beef, deer, equestrian, cropping and forestry farms (see Figure 5). It should be emphasised that a farm's predominant commercial land-use does not provide any information on the farm's actual business structure. For example, the owner of one 230ha dairy farm devoted 150 ha. to dairy, 20 ha. to mixed cropping, 30 ha to specialised breeding, and also collected rent from a wind farm located on his property (Interviews – Male Farmer). Although this is an extreme case of rural multifunctionality, only 35% of participants reported that over 80% of their effective farming area was used for a single commercial activity.

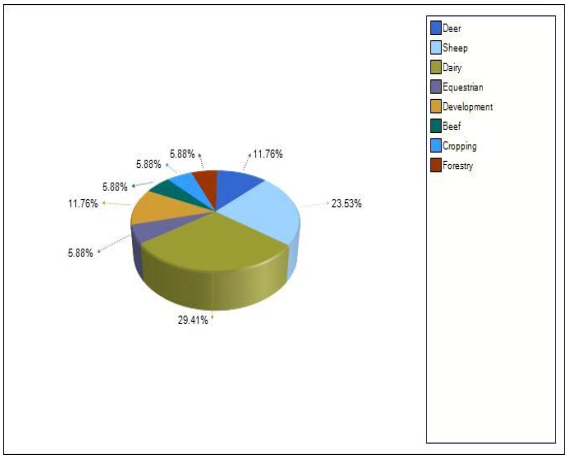


Figure 5: Primary commercial land-use

The two largest farms included were 5000 and 2700ha in total land area (both dairy), while the two smallest were 10 and 24ha (cropping and sheep respectively). The average farm size within this sample is 628ha; however this figure is skewed by the two largest farms, which were significantly larger than the next largest farm included in the sample

(550ha). As can be seen in Figure 6, the majority of farms fell within the 50-200ha range. Although there is limited scope to make regional generalisations, our sample does appear to reflect a polarisation of scale, the "disappearing middle", evident in farm structure in New Zealand – an increase in both the smallest and largest properties, and a decrease in the proportion of mid-range properties (see Mulet-Marquis & Fairweather, 2008: p.7).

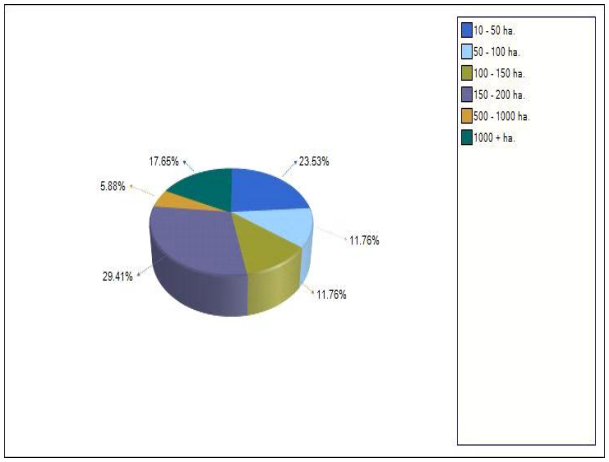


Figure 6: Participant total farm area

Almost half of the surveyed farms (45%) reported that they were owned and operated via a corporate structure. The remaining 55% were owned individually, jointly owned with a family member or spouse, or held in a family trust. Interestingly, almost all participants (90%) tended to describe their business as a "family farm" – this was the case even where a farm was officially owned by a corporate entity. This was a somewhat surprising finding, given the low levels farm labour participation by either the females or children within households. In describing the farms as "family farms", many participants were expressing their definition of the *purpose* of their farm (to provide both an economic base and a positive lifestyle for their family) rather than the farm's objective business structure. The majority of farmers had inherited or purchased land from their family, and also expressed an ideal desire to see their farm transferred to one of their children. Thus, when describing their business as a "family farm", a number of farmers were describing the personal values that they attached to their farm, which were to some degree in contradistinction to their farm's actual business structure.

Early research on farm adjustment tended to assume that as agricultural production became increasingly globalised, the family farm unit would become progressively less viable (e.g. see de Janvery, 1998). Although its future in New Zealand remains open to debate, researchers have had to acknowledge that the family farm, although impacted dramatically, has been able to persist within these new conditions. This has prompted some commentators to argue that rather than destroying the institution, deregulation actually served to strengthen the ethic of family farming in New Zealand (Fairweather, 1992). Others have argued that the characteristics of the family farm, such as the intergenerational transfer of land and the non-commodification of farm labour, may in some cases make them more resilient and adaptable than corporate structures (see Johnson, 2003). As is elaborated

further below, there was evidence of such resilience in the narratives of a number of farmers included in this study.

3.3 Economic pressures on farming

Comments from participants tended to paint a rather gloomy picture of the economic condition of rural New Zealand, with farming families facing significant challenges within their farm businesses. Farmers were asked to rate their farm's current economic performance (Figure 7). In general, they rated their farm's performance as average or above average. The average score for the group as a whole is 2.6. When asked to elaborate however, these rankings were often followed by qualifying statements, such as "I guess I'd be better than most – the bank manager doesn't run when he sees me coming, so I guess that means I'm doing OK [laughs]" (Interviews – Male farmer). Often farmers would rate their performance based on the most recent season's production, noting high levels of uncertainty around future earnings. As one owner of a small sheep and cropping operation said, "I can say average at the moment, but that's only because of prices … ask me again in six months and God knows". Others indicated that their level of debt meant that it was normal for them to operate "on the edge of average", such as one owner of a 2700 ha. dairy farm:

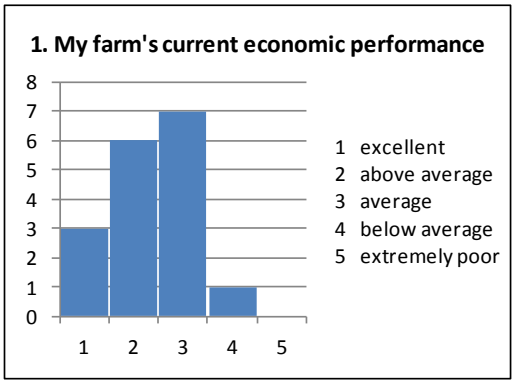


Figure 7: Economic performance

> *On one hand if you are a young farmer trying to get into farming, prices are so high it's impossible. And if you're an old guy like me just trying to hold onto what he's got, rising value is a problem as well. You have to constantly worry about balancing your asset/equity ratio (Interviews – Male farmer).*

The farmers were asked to rate the importance of 13 issues for their farming over the next ten years (Figure 8). A ten-year horizon indicates the extent to which these issues figure as drivers in their strategic thinking and decision-making. On average, the farmers prioritise

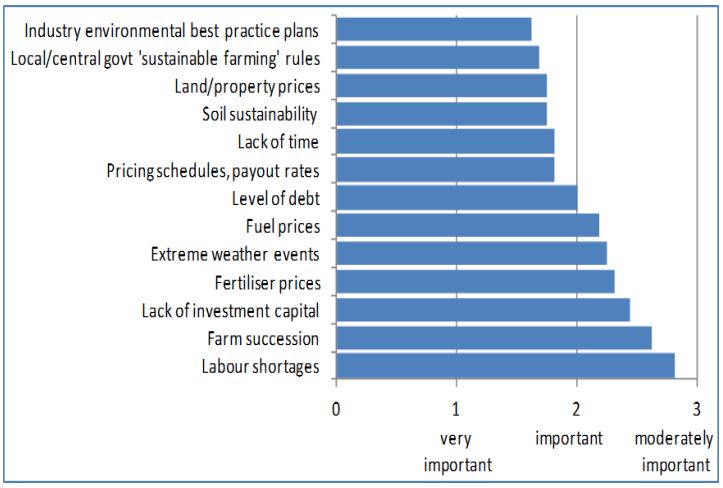


Figure 8: Major business challenges

sustainability issues. Industry's environmental "best practice" expectations and governmental regulations for "sustainable farming", particularly new water quality regulations within Horizons Regional Council's One Plan, loom large in their strategic thinking. So too do concerns for the soil. Equally emphasised are the economic concerns of farmers as price-takers (the price of land, payout rates, the lack of time, debt). Labour shortages are judged to be less strategically important by this group of farmers. Although succession was certainly an important issue for most farmers interviewed, as mentioned above only three individuals reported intergenerational succession plans, thus investing in succession did not register as a business priority on the Likert scale instrument.

In discussion, some farmers talked of successfully diversifying their land-use and increasing off-farm income to address decreased profitability, such as one owner of a 102ha beef, cropping and deer farm, who drew 50% of his income from an off-farm contracting business:

> *I was a fourth generation dairy farmer, I hated it, and I've got no regrets for changing the farm. I could see how difficult it would be to improve, the costs involved are horrendous. Dairy farmers are in debt up to their eyeballs, most of them are technically insolvent ... If I was to gauge on straight out, net-profit per hectare, I would be extremely below average. Because the mortgage on this farm is non-existent, I don't need to farm my guts out and work from dawn to dusk, and that's the way I like it ... I'm excellent within my own household, I'm paying all my bills, I have a small mortgage, I have a very valuable property, now I'm 95% equity in it (Interviews - Male farmer).*

For others, increasing farming costs and low economic returns from a small unit were cited as reasons why farmers were not receiving high financial returns. Owners of two of the smallest units included in the sample talked of uncertainty regarding the future of their businesses. As the owner of a 24ha cropping farm put it:

> *That's the thing. I suppose, I'm at that crossroads at the moment, it just depends. The viability of growing commercial veges over the years you know... it's been pretty tough going. The costs all around you rise but you can't pass your costs on. And that's been part of the reason I've been growing more contract maize - at least you know what you're going to get. You grow the stuff, you know what the contract price is going to be for the year; at least you've got some security. With veges - you grow them all year round and you end up creating a bill for yourself. Well, you don't get out of bed to do that. So obviously it just depends on what the future does. If the prices remain reasonably OK I don't mind doing this, but obviously if things change, you're going to change with it. You don't want to be going backwards (Interviews – Male Farmer).*

The owner of a 10ha sheep and cropping unit talked about the pressure of balancing his farm business with town-based employment, saying that he was unable the justify the time investment required to make his land viable:

Interviewer: Do you feel torn between the farm and the business?

Male Farmer: Yes a little bit. You end up doing things half-pie. If you're running sheep, it's a weekly thing - you can quite easily end up at 50-60 hours a week. And then you have 2 or 3 weeks where if you have to do fencing it's 15-20, and really it doesn't justify. If I could devote the time and money to getting it in shape it'd be more profitable. Right now it's crap.

Interviewer: So if you had capital and less time constraints, ideally you'd be spending more time out here?

Male Farmer: Absolutely, yes. I didn't buy this place because I thought I would be making piles of cash; I bought it because I want to farm. I'm from a farming family, I've farmed all my life, and I like living here. Ideally I'd be getting about a third of my income off this property - right now it's probably around 10% (Interviews – Male Farmer).

At the outset of agricultural reform, many farm enterprises generated experienced reduced income, and thus a lesser percentage of revenue was spent on household consumption (Campbell 1994). One couple who had been farming in the area since the late 1980s attributed their long-term financial stability to the fact that they had bought their land when rural land prices were comparatively low. They also highlighted their ability to manage consumption and debt – to "go without" – an ethic they argue is lacking in newer farmers:

Male farmer: The biggest thing is the land values have been pushed up enough by the subdivisions and the land values are nothing to do with the productive income of the farms. This is the big thing: the so called value of the farm. When we first bought this farm, the original 200 acres was $80,000. So you could make enough out of it from cattle to pay the 3% interest.

Female Farmer: It's a changing trend. Farmers haven't been living within their income and they've been borrowing against the increase in land value, and there's a heap of farmers who've been doing that. Our generation or back, where you always lived within your means, you wouldn't have thought to get a bigger mortgage because your land value's gone up. These days people won't go without so they're mortgaged up, so those farms at the end of their time will be gone. Because their mortgage is as much as the land is worth, so the family won't have an asset to share either.

In summary, farms within the sample vividly reflect the major forces that have transformed New Zealand agriculture following deregulation in the 1980s and 1990s. Businesses are characterised by a polarisation in scale, diversification of land-uses, a normalisation of indebtedness and an increase in market awareness. Households are characterised by high levels of pluriactivity and the circumvention of traditional succession patterns. The fact that many farmers remain on their land despite their lack of profitability is not easily explained by traditional understandings of economic and rationally self-interested behaviour. Such persistence draws attention to the influence a landowner's personal values and sense of identity play in shaping land-use decisions.

3.4 Drivers of subdivision

Of the 26 farmers surveyed, 18 had prior subdivision experience. These 18 were asked to evaluate a series of reasons why they decided to sell off farmland for residential purposes (Figure 9). The responses indicate the relative importance of different drivers to subdivide. On average the most significant prompt, by a considerable margin, was deciding to subdivide in order to reduce farm debt. A cluster of other economic considerations are also identified (raising capital for re-investing in farming and to cover household costs). Prompts from outside the household, such as approaches by neighbours or property dealers, were judged to have little bearing upon the decision to subdivide. Although it does not register on the Likert scales as an immediate economic concern, 70% of farmers (18/26) stated that they were likely to consider subdividing at the end of their farming careers. For many senior farmers, particularly pastoral farmers for whom farming has been the primary income stream over their life course, subdivision is seen as the only exit strategy that can provide them with a return comparable to their current level of investment. In the words of the owner of a medium-sized dairy farm who is approaching retirement:

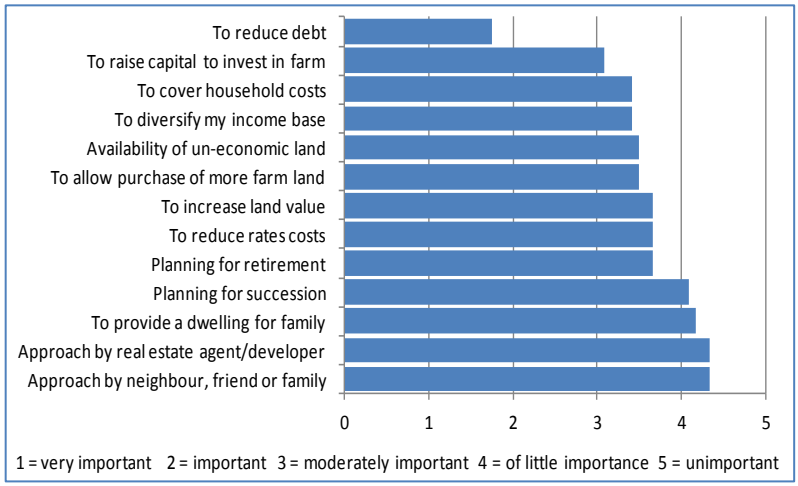


Figure 9: Subdivision objectives

Interviewer: Do you feel kind of like you've earned the right to subdivide?

Male Farmer: I do a bit, yes. I mean, it will be a tragedy if this land gets all chopped up after I'm gone. But I've been running this farm for twenty-odd years now… I still have some debt

but my mortgage is all paid up. I'm proud of my business. I count myself lucky to be operating on a sustainable level of debt, and it's not like I have a big pile of savings to fall back on. I'd like to think I'd get to sell the farm as a farm, but it really all depends on what the property market is like when I'm ready to move on frankly (Interviews – Male Farmer).

Concern over their farms being "chopped up" was a common sentiment among older farmers considering subdivision as an exit strategy. One owner of a 24ha sheep farm stated that he was "resigned" to the fact he would eventually sell his land to a developer.

Male farmer: There's been neighbours wanting to buy the place, yes. There have been land agents wanting to put it on the market because they say they've got interested parties, but that's as far as it's gone. I'd sort of stored this up as background knowledge that maybe I'll use sometime down the track.

Interview: Have you been tempted to carve off a little something?

Male farmer: No. I use the land and I like my space.

Interviewer: So you haven't subdivided because you want to keep your farm and your lifestyle?

Male farmer: Yes. Having said that, when we get off, we'll try get off the best way possible … I'm sort of resigned to it happening really (Interviews – Male Farmer).

The idea that subdivision is both a right and a "tragedy" was a recurring sentiment among farmers interviewed for this study. A central consequence of increased economic pressures on farming identified in the literature on agricultural change has been the erosion of intrinsic and personal values attached to the farm work (such as self-fulfilment, personal growth and a sense of identity and place), and an increasing focus on purely instrumental goals (Gasson and Errington, 1993). As Gasson and Errington note:

Economic pressures … may mean that in order to survive, farmers will have to approach ever closer to strict economic rationality in their business decisions, with some loss of job satisfaction. The alternative is to divorce farming from its economic rationale and to farm as a hobby, enjoying the lifestyle but depending on another source of livelihood (1993, cited in Johnson, 2004: p.425).

Within this sample, farmers did express sentimentality about their land, and this sentimentality was uncomfortably couched alongside a forceful economic pragmatism. For many farmers, undertaking subdivision addresses financial objectives, but it is not easily reconciled with their sense of identity. As an owner of a 181 ha dairy farm commented:

Interviewer: Could you generalise about why farmers in your area subdivide? What are their main motivations?

Male Farmer: Close to retirement and cashing in. Looking to get out of the farming enterprise and thinking, "Well, town is coming out so I will cash in on it" ... I know two [farmers] who are looking at that side of it. Both of them at retirement age and they see that as an out. They don't have much family – whether that has anything to do with it I don't know – but they have no family to carry on what they have, so that may have influenced them as far as I understand it.

Interviewer: So around here it is mostly those at the end of their farming careers?

Male Farmer: I have only been here three years, and it is an older sector of farmers here than where I came from. There are a lot more on retirement age. Also it is becoming a problem staffing a farm, reliable staff, so they're looking at a way out of it.

Interviewer: Is it your sense that they regret subdividing off productive land?

Male Farmer: I think it is. I think most of them don't like doing it, but they think if they sell to someone else and they do a big cash in, why shouldn't they get the benefit of that, rather than someone who has only owned it for 2 minutes? They may have the attitude of, "If someone else is going to do it, why not me?" Why give it to someone else to develop and make all the money, when they've possibly had it for years? (Interviews – Male Farmer).

It is worth noting that the farmer cited in the above passage was both the youngest farmer in our sample and was also running the youngest business venture. Neighbouring farms had subdivided and he expressed pride at running a successful dairy business, commenting that if he ever did subdivide, it would be to raise capital to enlarge his productive farming area. Given the economic and demographic structure of farming today, for many producers with small and medium scale operations it is probable that subdivision only becomes economically viable in the later stages of their life-cycle. Generally, younger farmers enter farming with large amounts of debt, whereas as farmers age their equity in property tends to increase (ANZ, 2010). As another non-subdividing sheep and deer farmer commented:

Older farmers are more likely to subdivide than younger farmers as they're still in the mode of wanting a big farm. They're under so much financial pressure that they'll hack of their farm to pay their way, or to pay their way out. It's not easy to subdivide land. They've got the capital to do it. It's not like I'm going to subdivide my land today and tomorrow I'm going to have the money (Interviews – Male Farmer).

Most farmers with subdividable land, even if they have not subdivided in the past, spoke of the future option to subdivide as a possible exit strategy. Excluding the two interviewees who stated their land was physically unsuitable for subdivision, no farmer when asked would rule out the possibility of subdivision at some point in the future, whether carried out by themselves or by a family member who had inherited their land. In the words of a 200ha dairy and cropping farm owner who had already subdivided and sold six parcels:

> *Interviewer: Do you think you would do any more subdivision?*
>
> *Male Farmer: Not really, it depends what happens. If the opportunity arose - like you asked me what I would do in 10 years time – well if Palmerston was all lifestyle blocks, if my nephew didn't want to farm, then getting my money out would be the best thing to do. The option is there. It's always nice to have lots of options [chuckles] (Interviews – Male Farmer).*

One farmer stated that he was considering subdivision only because neither of his sons was interested in taking over the farm. As he said:

> *It's our [farmers'] own fault really. We tell our kids that there's no money in farming, we sent them off to uni, and then we get upset when they don't want to come back again. I did kind of think that I'd be able to retire here with my kids working the land. Not going to happen [laughs]" (Interviews – Male Farmer).*

As Figures 10 and 11 below show, more than 50% of participants indicated they were either unsure what they would do with the farm at the end of their farming career, or else had the intention of selling the farm on the open market. Almost 60% of participants indicated they had no succession plan.

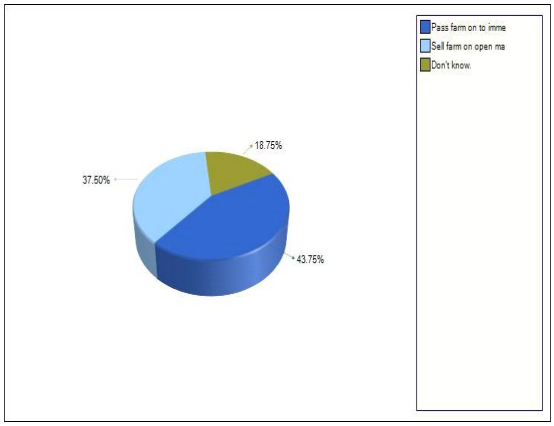


Figure 10: Future ownership intention

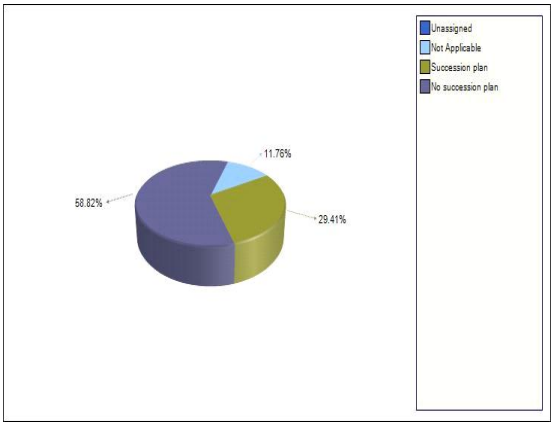


Figure 11: Succession planning

Given that almost all participants resided in close proximity to Palmerston North's peri-urban fringe, it is probable that the option of subdivision will loom-large in their future decision-making regarding farm exit. Some farmers who did have succession plans spoke of

uncertainty over whether their ideal scenario would be realised, such as this owner a number of large-scale dairy farms:

> *I'm actually trying to make that decision [to subdivide] at the moment. I've given my kids 400 days' notice to take a long-term interest in the farm, or else we'll be majorly scaling down. I've got two girls and two boys. One boy is at Otago – he's 20 and really figuring out what he wants to do. The other has just become a very successful manager of one of my dairy farms, so I've got some hope (Interviews – Male Farmer).*

Other farmers indicated their children would probably not run the land productively, such as a married farming couple who co-manage a 100ha beef and equestrian operation:

> *Female farmer: At this stage it's in the family trust, so it should pass to our children when we die, but they'll probably sell it and grab the money and run, who knows! [laughs] They'd be silly if they do, you just don't get a second chance at owning land these days.*
>
> *Interviewer: So you're trying to counsel them against that?*
>
> *Female farmer: We've basically subdivided it into 4 lots, and my son's already planted his house on what he said is his 150 acres, and our daughter is building next to the other farm, and one daughter is already living on that farm, so I guess they'll subdivide that in half as the titles already are.*
>
> *Interviewer: You can't really see them turning them into commercial units though?*
>
> *Female farmer: I think they should farm it together. But they've got to get along to do that, and as their families grow and their kids grow, who knows?*
>
> *Male farmer (husband): If they decided to split it up they could lease it out as a dairy unit and use the income.*
>
> *Interviewer: So you reckon they'd try to lease it out as parcels?*
>
> *Female farmer: I'd say that's about as likely as them selling them as lifestyle blocks. Who knows what they'll try and do when we're not around to growl them for it! [laughs]*

This same couple made the point that the destabilisation of traditional succession norms has occurred very rapidly, and that when many farmers began their farming careers these norms would have been deeply entrenched:

> *Female farmer: Farmers around here don't sell their farms, farmers around here sit on their farms. On Paihaka Road, all but one of the farmers have been there nearly 100 years. They sit on it and they give to their kids.*

Interviewer: But the kids don't want it?

Female Farmer: Well that's what's happening now, this generation.

Male farmer: This has just started. Up until this generation, before that it went from father to son. Now, the kids ...

Female farmer: [Our neighbours] are in the same boat, because their kids don't want to farm. They've been there up to 100 years, and the next generation don't want it.

In other cases, farmers subdivided specifically in order to purchase more farm land, invest in farm infrastructure or to reduce debt. In these situations, subdivision was viewed as an extension of the farm business although, again, one undertaken regretfully in many cases. This was exemplified in the comment by one large-scale dairy farmer:

Farmer: Well, my objective [in subdividing] was to pass the attitude test for the bank. In the eyes of the credit holders, I had to pass the attitude test. The reason I call it an attitude test is because they wanted to make sure my attitude was right. That meant providing a business plan, paying off some other debt, balancing the books. That's what I did it for; and it worked. So I achieved my objective in that sense.

Interviewer: So really, you were compelled to do it to satisfy the bank manager? You didn't want to sell farm land.

Farmer: That's right.

Another large-scale dairy farmer stated that he had subdivided 13ha into four titles in order to service debt. Although he expressed dissatisfaction at this loss of productive farmland, nonetheless he said would engage further subdivision if market conditions were favourable and if his financial situation required it:

Interviewer: Given you didn't really like doing it the first time, would you do it again?

Male farmer: Not at the moment. If we ever need to decrease our Linton property, then we could easily subdivide. If we need to retire debt, we could easily carve that off. There's no incentive to do that at the moment – there's a huge oversupply of lifestyle blocks on the market at the moment. In five or ten years, the price of a dairy farm might go through a boom. By the time you spend all the money on the consent, your per-acre rate isn't going to be more than selling the farm.

Pluriactivity has been defined as "the diversification of farming work and business into alternative fields including employment and business development off the farm and the

diversification of farming into new endeavours like tourism" (Gray and Lawrence, 2001: p.ix). In this sense, subdivision can be understood as an extension of pluriactivity: an alternative utilisation of farm assets to generate income. Two smaller farmers stated that they wanted to subdivide the smallest possible blocks off their farm in order to repay debt and maintain farm productivity. One cropping farmer explained that he wanted to subdivide a surplus homestead to address financing issues. He said that, in an historical consent application, his subdivision was deemed too small by council authorities:

Interviewer: So you just want to create the one parcel?

Farmer: Yes just down by the house there. I just wanted to create a parcel and I don't want to lose any more land than I have to.

Interviewer: What's the size?

Farmer: About 1,200 square metres I think.

Interviewer: And you thought that might be too small?

Farmer: Well … I thought the less I had to carve off my land the better really, so I can use my land more productively. If I had to carve off an acre, it just becomes a useless piece of land to the people who buy it. What production are they going to get out of that 1 acre? Nothing! Whereas if I leave that extra acre for me, I can grow more, and that's where I'm coming from. Council, they don't understand, they just think one rule will fit everybody, it's got to be 4ha or 2ha or whatever and everybody has to comply with that. In my situation I think, "Well I'm cropping that!" Why don't you just carve off the house, which is redundant as far as I'm concerned – I'm only getting a bit of rent off it now. But if you leave the maximum amount of land for me then I can still use it in a productive manner as opposed to having to carve off 1 acre, just so these people can buy a house then they have a useless little paddock that only grows grass! That's the way I see it.

Subdividing farmers thus have tangible objectives, whether exiting the farm, repaying debt, raising capital or a combination of such purposes, which they attempt to address through subdivision. Only two participants, retired sheep farmers who currently live on an 18ha smallholding, can be described as "accidental subdividers". They explained that although making their farm profitable was a "struggle" they had not contemplated subdividing until a hopeful buyer approached them. During the consenting process, their surveyor recommended that they create three more parcels, which were all purchased in quick succession. These people were able to retire on the funds from their subdivisions, along with lease payments they receive from their 18ha of remaining farmland.

Although such success stories can be found, the interviews also revealed that for those farmers who had subdivided the experience was often uneven. Those that had subdivided around the national property boom of the early 2000s were more likely to relate subdivision success stories (i.e. they sold their blocks and attained their financial and personal objectives). More recent subdivisions, however, have a higher failure rate, owing in part to the changed economic environment, with for example subdividers gaining consent but being unable to sell their blocks, and in some cases either putting the farm business in serious jeopardy, or "trapping" individuals in a property they no longer want. In these latter cases, the interviewees stated that they had underestimated the monetary cost or length of time involved in the consenting process when they initially deciding to subdivide. The retiring owner of a 50ha equestrian operation relayed such an experience of being trapped by a subdivision gone awry:

Female farmer: Originally I created 21 parcels, but by the time we got consent in late 2009 the bottom had dropped out of the market and so we didn't actively try and sell. We had discussions [with real estate professionals] but frankly we were told that there was no point. I have recently re-subdivided and there is now 5, so they are all much bigger. We made them approximately 1 hectare except for one up the back of the farm, which is quite steep, and was bigger.

Interviewer: What are the sizes of the re-subdivided parcels?

Female farmer: The smallest one is two and a half hectares, and we have two of four hectares, one of thirteen hectares, and the rest are one hectare each.

Interviewer: Would you have subdivided if you had known they would take this long to sell?

Female farmer: Absolutely not. But we have a mortgage and we're stuck here until it sells.

3.5 Subdivision impacts

Farmer dissatisfactions with rural-residential subdivision centre on the loss of productive soil and negative impacts on "country living". All farmers commented that the increase in rural-residential development had negative consequences for them in some form. While acknowledging tangible benefits, when prompted to take an overall position the farmers were prone to indicate that the negative impacts outweighed any positive benefits. Although subdividing farmers were generally more likely to highlight the community benefits of subdivision over community costs, all farmers expressed concern over the loss of high class soil. Some comments that exemplify farmer concern over the issue of a diminishing agricultural land-base are as follows:

To see good productive farms cut up... well it really is sacrilege (Interviews - Male Farmer).

It's sad and frustrating. Sad because we see all that productive land going to waste and frustrating because you know probably nothing's going to happen about it (Interviews – Female Farmer).

All this airy-fairy talk about the right to live out in the country – it's all very well if you ignore the commercial practicalities. But as a nation, you have to accept that some of the things that are in the nation's interests really do come in front of the interests of individuals (Interviews - Male farmer).

Once that land's gone, we'll never get it back. It's our greatest resource, really our only significant natural resource… and I wonder about the future of this country. We're all about the short-term gain. As long as we're happy and our kids gets to have a pony and the Dad gets a ride on mower, we don't need to think whether future generations will have food or jobs. It's a bloody tragedy actually (Interviews – Male Farmer).

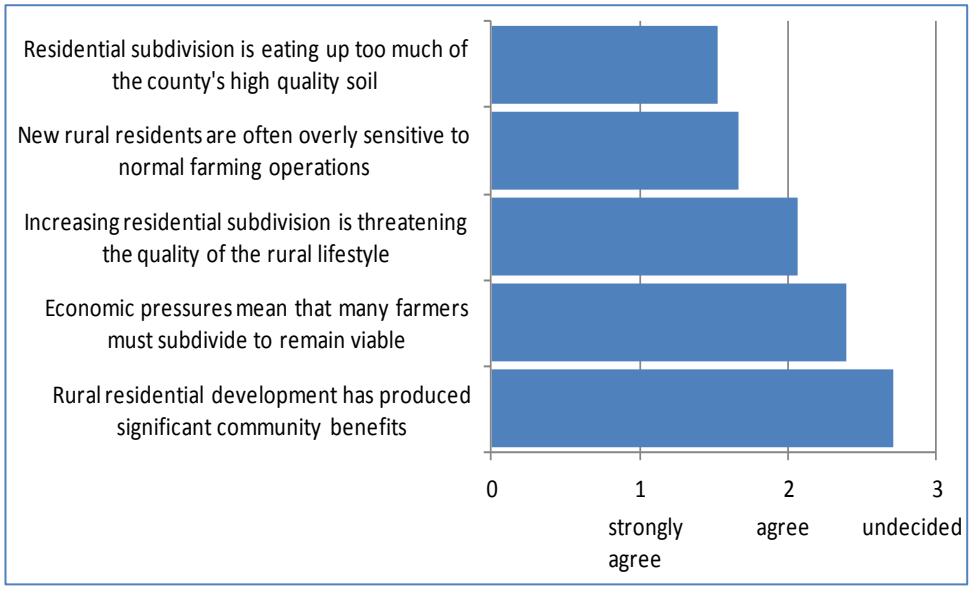


Figure 12: Impacts of rural-residential development

Along with this general concern over the loss of productive soil, a number of participants talked of direct impacts on their own farm businesses. There was some evidence to suggest that, when under financial pressure, farmers are compelled to sacrifice the overall productivity of their farm in order to make a subdivision more attractive to a prospective buyer. As the owner of a medium-scale sheep and beef farm commented in relation to a historic subdivision of his own:

I really didn't want to carve off that piece down there – it's good grazing land down there. But it was a choice of either that, or else another one way up the back, which doesn't have a

view, and whoever lived there would have to drive right up into the main farm to get there every day and everything else. I was stressing about losing any land at all, but I was mainly thinking, "What's going to sell, what's going to sell quickly!" [laughs] (Interviews – Male Farmer).

Similarly, the owner of multiple large dairy farms commented that he had sacrificed grazing land to subdivision:

I'd say that's only been the case in the Linton scenario. I've got 15 acres or so of good grazing land out there, and I've probably lost half of it. So I'm farming it more intensively than I used to, which is not ideal (Interviews – Male Farmer).

The possibility that intensification is an unintended consequence of subdivision was given some support by anecdotal evidence cited in other interviews, however further research among productive subdividers would be required to substantiate this claim. The majority of interviewees indicated that their subdivisions were on previously un-economic land and that the reduction in their overall farm size had not negatively impacted on productivity.

Farmers presented wide-ranging criticisms of the negative influence that residential subdivision is having on the quality of rural living. These included increased population density, increased volumes of traffic, roaming dogs attacking livestock, lifestyler complaints about noise or odours generated from normal farm activity, and the impact of new development on the rural character of a locale. The overwhelmingly negative view that rural producers have of lifestylers is supported by previous research. Talbot's (1996) attitude survey found that farmers considered 29% of impacts to be positive, whereas 69% were perceived as negative (cited in Lee, 1999: 19). When talking of the community benefits of increased residential development, interviewees tended to cite those things which benefitted themselves directly, such as improved roading or more resources for the local school. When citing disbenefits, however, interviewees tended to have strong opinions irrespective of whether or not they had been directly affected. Thus, almost every interviewee listed "agree" or "strongly agree" for the Likert questions regarding reverse sensitivity impacts, yet only two interviewees could cite cases where their production had been directly constrained by the actions of lifestyler residents. The following is a selection of comments regarding general tensions between productive and residential landowners:

They [lifestylers] don't see a boundary fence in the country as they see a boundary fence in town, so the dogs are let out to roam around. Which is quite interesting: they don't see it as the same; they see the country as free run. They don't see the damage that they do to stock for one, and the soil, because the cattle just go nuts in the paddock. They just think it is funny that the dog is chasing the cattle. That hasn't happened to me, but it is a significant thing in the

country, and I don't see why they think a boundary is different from in town. There is a big clash of cultures, a town culture and a country culture (Interviews – Male Farmer).

I have just had an altercation with a neighbour over the road there who wanted me to cut down our boundary trees because they made a mess on his lawn. He's a townie you see [laughs] (Interviews – Female Farmer).

We have certainly experienced [reverse sensitivity] here. Like, across the road on the farm there is high density housing right along one boundary. Aerial spraying is prohibited basically because of concern for spray drift. We don't grow cereal crops there, or contemplate burning off the stubble because of smoke. So you become quite restricted in what you can do (Interview – Male farmer).

There is a certain irony in farmers subdividing to lifestylers whom they dislike having for neighbours. One farmer, who had done extensive subdivision on his own farm, talked jokingly of being able to "get rid of" a neighbour who had purchased one of his subdivisions, on the grounds he thought the man did not fit in well with the local community ("He was an accountant") (Interviews – Male Farmer). As Smith (2005) argues in his anthropological study of "Cockies and Blockies" in Lower Northland, in many ways contemporary farmers have come to frame their sense of rural identity against the "Otherness" of lifestylers, and this process of "othering" increases as both the economic pressures of farming and the economic incentives to subdivide intensifies. For many farmers, the growing presence of "townies" is the tangible embodiment of a host of more nebulous concerns, ranging from macro- economic pressures to the perceived declining cultural status of agriculture in New Zealand. It was interesting to note that the two study participants who were not commercially farming their land expressed quite forceful opposition to subdivision, and were vehement in asserting the negative impact surrounding lifestylers have had on their own quality of life. One of these participants mistakenly used the term "reverse sensitivity" to refer to the impact on his lifestyle:

Smallholder: My biggest disappointment is that I thought I would be living here in perpetuity surrounded by country. That unfortunately has changed. To be a bit rude about it I guess, I can't go for a piss in the middle of that paddock [pointing out window] like I used to be able to. There's something they're got in the [PNCC Draft Rural-Residential Strategy] about reverse sensitivity. I'm feeling that. I knew it was going to come once they re-zoned us into the city, that was years ago. I figured they had their eyes on it.

Interviewer: You feel like you're being forced out of your home by out of control residential development?

Smallholder: Yes. It's happened. No matter what we've said about it, it's happening.

This interviewee said the impact on his quality of life had been significant enough that he was now considering selling his unit to a developer. Other interviewees talked of the cultural and political impacts of population change, such as a shifting balance of power on local councils and authorities. One deer farmer, for example, commented that lifestyle residents are "like a cancer. They get on the councils, they get on the committees, they get on the boards that are meaningful to them. Farmers are too busy, and next minute they are outvoted on everything" (Interviews – Male Farmer).

The two lifestyle block developers interviewed for this study expressed very different views on the impact of lifestyle development. While acknowledging the negative impact rural subdivisions can have on farms and the natural landscape, both developers believed these impacts were more likely to be associated with "poorly planned" or "*ad hoc*" subdivisions undertaken by individual farmers. They argued that large-scale or "hamlet"-type developments are more likely to be well-located and better integrated into the surrounding landscape, and have a lower property turnover rate. Both developers emphasised that many lifestylers and smallholders do produce some food for their own consumption, engage in tree-planting and other forms of activity which have broader social and sustainability benefits. The large-scale developer commented that:

I take issue with the idea that the productivity of rural land is immediately lost. It's one dimensional. There's an awful lot of tree-planting going on. And depending on the size of the piece of land, the residential rural lifestyler gets a lot of productivity off that land in terms of vegetable growing and fruit trees – so it's a different form of production. It's not five sheep and it's not one cattle beast, but it might be a productive vegetable garden. And if you're growing half your household's veges and fruit off one hectare or half a hectare, then how can you argue that's not production?

Despite the widespread sentiment among farmers that rural-residential development is damaging the rural way of life, it is established lifestylers themselves who are often the most effective opponents of further development. Conflict with smallholder neighbours was a recurring complaint from landholders who had attempted their own subdivisions, as in the following example:

Female farmer: Actually it is quite interesting the conflicts we had with our adjoining properties.

Interviewer: Is that before you decided to subdivide?

Female farmer: No that was when I went to see them to get consent so I had already done it all. They are all smallholders.

Interviewer: They are not commercial farms?

Female farmer: No, there are two that are commercial farms and neither of those objected. But the people in the small properties next door, about 4 hectare blocks, they didn't want anyone there, which is interesting isn't it?

Interviewer: So it wasn't a case of conflict with other farmers, it was conflict with other lifestylers?

Female farmer: Yes conflict with other lifestylers, which I thought was a bit rich frankly … I went to go see them individually and they were all fine, and then five of them got together and they absolutely attacked me … The first three I went to see, they said, "Well we don't really want anyone next door, but we can't see a major conflict", but then one by one they changed their minds. I said it was going to be a beautiful place because … people can come and ride through the forest, and they said, "No, all the people who will be living there will all have four wheel drives, and their kids will be screaming up and down soon it will get around to all the kids with bikes" … For heaven's sake! They didn't want the noise. And the other thing they didn't want: they thought they would be getting reflections from peoples' roofs!

3.6 Policy solutions/Lot sizes

A number of specific themes concerning rural-residential policy emerged from the accounts of rural producers.

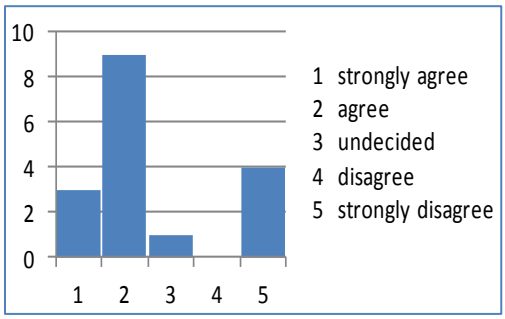


Figure 13: Support for 2ha size restrictions on rural-residential subdivisions

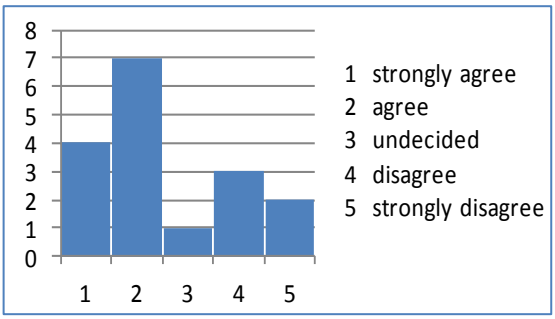


Figure 14: Support for subdivision restrictions on high quality soil

Farmer concerns included dissatisfaction with a perceived lack of clear and coherent planning by councils in terms of where rural subdivision should be concentrated, anxiety over the pace of rural-residential development, and a concern over lot sizes. In general, participants expressed support for tighter restrictions on subdivision in areas where productive farmland may be under threat (see Figures 13 and 14). Where residential

development is taking place, respondents were generally in favour of the smallest possible subdivisions, with the overwhelming majority arguing between 1 and 2 hectares is ample land to meet the needs of the average lifestyler family. Although farmers were supportive of stricter controls on the size and location of rural subdivisions, there was a concern that council policy should be flexible enough to be tailored to different farm-level contexts.

Many farmers expressed concern regarding the pace of residential development in their areas. Some representative comments are as follows:

It really is out of control (Interviews - Female farmer).

The pace of it is frightening frankly (Interviews – Female farmer).

It almost looks like they've given up trying to control it. It's actually quite frightening (Interviews – Male Farmer).

It scares me (Interview – Male farmer).

It's happening. No matter what we've said about it, it's happening (Interviews – Male Smallholder).

There was a generally expressed view that productive land should be protected from residential development, not only areas with high class soil but any soil suitable for commercial agriculture. In fact, the farmers who declined to support restrictions on high quality soil (see Figure 14) disagreed on the grounds that they thought medium and low-class soils should be protected as well, so long as it had some productive capacity. Similarly, those farming respondents who declined to support a 2ha restriction on lifestyle blocks (see Figure 13) disagreed on the grounds that two hectares was too *big* for a lifestyle section. A number of farmers made this comment, arguing that as lifestylers almost never engage in significant productive land-use a property between half and one hectare is sufficient to meet their needs. A number of farmers stated that around ten hectares was the minimum requirement for a productive unit, and were able to point to such smallholders who had successfully used their land for productive purposes:

Interviewer: How big should a lifestyle block be?

Farmer: Smaller the better. As small as you can get away with.

Interviewer: At the moment it is 4 hectares. If they reduce it to smaller than at present …

Farmer: Around here it's only 1 hectare. You either have to go big, like 10 hectare, so people can actually do something with it, or go down to where you have your nice large garden.

Interviewer: Do you know any lifestylers who live on 10 ha blocks and produce something?

Farmer: The 30 acre block up here - she's done something. She has some horses, nice paddocks and probably making quite good money off it actually. But everybody else around here: we run the sheep and they eat their grass for them. It keeps us in lamb and beef, they have a couple of acres, they're not producing anything. One hectare is big enough for a pony, and one or one and a half acres is enough to have a rural life.

And in the words of another subdividing farmer:

This whole area was subdivided. It was one huge farm. And I have a neighbour diagonally up there who has I think 60 acres and she… she, farms alpaca and she does a great job. She has improved the soil incredibly and grass growth is marvellous, and she has just made so many improvements. So you know it can be done but she has got a large parcel so it was worthwhile, but I think that people who get five acres or ten acres… well it's too much for one thing, and they don't really farm it … I think now you have got these people who come out from town because they want to live like lord of the manor. They don't do anything with it but that's good quality farming country (Interviews – Male Farmer)

Stories of smallholders running commercial businesses were in the minority. Farmers generally argued that lifestylers were not using their land for any significant form of production. As noted above, the two developers interviewed thought otherwise, but both were also comfortable with the idea of restricting the size of residential subdivisons, because they said this would meet the needs of their clients. As a small-scale, entrepreneurial developer commented:

We have a 1 hectare section size here. I wouldn't like to see it go up any more; I would like to see it go down because I feel some people that come out to the country only want a house in the country. They don't want the land, because they find it a hassle. I think 1 hectare is plenty big enough … Why not bring it down to half a hectare then everybody's winning? The farmer gets to keep more land, and the town people get to have their lifestyle. When you're selling sections, it's about the house site. It's not about how much land you have with it – although when you get into bigger areas that does come into play. It's all about being able to put a house on a section, having a house site, a driveway, an effluent area and a backyard. A lot of townies who have no idea about farming, all they want is to be able to put a chook house in the corner, maybe have a pet lamb for the kids to take to school and you can do that on half a hectare. Other people obviously will want more, but if you give people the option of having a small block in that situation then you are meeting a need in the market and helping everybody out basically (Interviews – Male Farmer).

The issue of property turnover was a recurring theme, with a number of farmers stating that lifestylers would often purchase larger smallholdings while raising a young family, which would then became a burden in later stages of their life-cycle. As one large-scale farmer asserted:

Farmer: I would be inclined to say a 1 hectare is enough.

Interviewer: A lot of people have said that.

Farmer: My interpretation is that a large section of the population that is looking for a rural lifestyle really want to have an environment that they can control with a ride-on mower, not have neighbours breathing down their necks, possibly a place for their children to have a pony or some chickens. But the original subdivision of four hectares was far too big, particularly when the children left home and, for Mum and Dad, who may have been professional people, trying to look after ten acres was a pain in the butt. Down the way here I actually leased three little blocks of land just because they adjourn each other… But two of them are doctors and one of them is a retired person and they want their land looked after, and they want me to come and pay their rates and that's basically it. But when their children were young it was quite important that they had their ponies and all the rest of it. Their houses are there and established in nice grounds, but the rest of the farmland is wasted really. So 1 hectare would be sufficient I think (Interviews – Male Farmer).

The one farmer who disagreed with the concept of size restrictions did so on the grounds that this would result in smaller and more concentrated subdivision developments which he believed would intensify the detrimental impact on the natural landscape:

It's just self-defeating; there would just be more 2 ha sections. I strongly disagree with this. It's ridiculous; it would mean twice as many people on the same amount of land (Interviews – Male Farmer).

Despite support for planning authorities exercising further controls over rural subdivision development, there was a widespread desire that whatever rules are implemented they should avoid a "one fits all" approach. Farmers insisted that rules should be sufficiently flexible to accommodate individual situations and their specific farm businesses. This argument was typically made in the context of people who were planning subdivisions of their own, and wanted to subdivide in such a way as to maintain the productive capacity of their farms. In the words of the owner of a 24ha cropping farm on high-class soil:

Farmer: I reckon even less than 2 hectares. In my scenario the less the better! In my case I'm an existing grower/farmer here and all I want to do is get rid of the house, and the less grounds that go with it the better so I can maintain viability here. But the council says 2 hectares has to

go with it and I think, is it even worthwhile to subdivide in the first place? I'll just carry on renting the house and keep the land. In my situation, less than 1 hectare is good, but in other situations 2 hectares might be fine or even 4 hectares or 10 hectares. It all depends on what they're doing with the land, and what the land is like.

Interviewer: In the sense that you wouldn't have a sweeping set of size restrictions, but you want the council to come down here and judge your case on its merits?

Farmer: Yes that would be good. I mean, it's not good to lose high quality soil. For me, the more I retain high quality soil, it would be better as opposed to lopping off some just to go with the house. If the next-door-neighbour can use it more viably than the person who's going to buy it, they should give some thought to that. Because that guy is still farming that, they should say "We'll let him get away with doing a minimal subdivision so I can maintain high use of that land".

And in the words of another small-scale producer attempting his own subdivison:

Interviewer: Do you feel that subdivision is hurting agriculture?

Farmer: In relation to here, or....?

Interviewer: Here or nationally.

Farmer: In some areas I agree with that, but here and in adjourning areas I disagree with it.

Interviewer: Why is that?

Farmer: I can see how people are worried about the big economic farms being split up. But from here and up to Bunnythorpe and on this side through to Palmerston North, you've already got the commercial coming out, it is all commercial right up to Bunnythorpe I think.

Interviewer: So you think consent criteria should be a bit more situational and contextual?

Farmer: Yes. Relating to us I disagree (laughs). All blocks need to be looked at individually really. If they come through and tested the soil here at the back, and the front... if you go over here [points to adjoining property]… that's already rural too because they've identified the limestone's too close to the top, and we're straight through on the other side. They've never re-zoned ours. So a lot of the blocks need to be looked at individually. At the MDC at the moment, you're Rural 1 and that's it … I do see both people's point of view, I just think, if we do go to PNCC, there needs to be some balance… there should be a series of criteria, not just the size of them.

Interviewer: So you'd like to see them look at all stuff that is relevant to your subdivision, such as soil quality, the farming you're doing, the amount of land you will lose, the actual impact on production – those kind of factors taken into consideration?

Farmer: Yes, that's right. From my own point of view from this block I could say disagree [with a 2ha restriction] but it's more complicated than that (Interviews – Male Farmer).

3.7 Summarising the interviews

Part 3 of the report has used narrative analysis to interrogate the interviews that were conducted. What has become immediately apparent in these narratives is that no stories are the same. Each of the interviewees articulated a complex set of contextual values and economic rationalities in relation to the issue of rural subdivision. Beyond this insight, however, a number of commonalities did emerge from the analysis. Most significantly there was widespread concern about the encroachment of urban development onto productive farmland. It is significant to note the fact that for almost all the interviewees, subdivision represented either an activity that they had undertaken or one that could be contemplated in the future. For those who had subdivided, economic factors such as debt reduction was important, but subdivision was undertaken reluctantly and with a view to maintaining the productivity of the farm itself. An issue that is often noted in wider discussions about farming in New Zealand is the increasing age of farmers. Significantly, notwithstanding the age of the interviewees, there was little in the way of succession planning among the farmers interviewed. Rather, for many it was assumed that subdivision would provide one final means of extracting value from their land. Such thinking perhaps goes someway to understanding the tension that was clearly evident in the interviews between, on the one hand, a general desire for regulation to help preserve productive rural farm land and, on the other hand, a concern that regulation should take into account the contextual complexities their farming businesses.

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Part 4: Conclusion

4.1 Concluding observations

The focus on the research in this report has been on the drivers shaping farmer decision-making around the subdivision of rural land for rural-residential purposes. This research has been conducted in a context shaped by a series of ongoing public and academic debates about the economic, social and environmental impacts of rural-residential subdivision, debates that have not been confined to New Zealand. A strong thread which has been woven through these debates has been a concern about the encroachment of rural-residential subdivision onto areas of high class soils and the implications of this for agricultural productivity. Other concerns have included issues of reserve sensitivity which again also has implications for traditional farming activities, the impacts on rural communities of the inwards migration of formerly urban populations, and the sustainability of what is in essence very low density suburban living.

In New Zealand, and internationally, a growing body of literature has examined these issues from a variety of perspectives. Much of this literature has been concerned with quantifying the extent of rural-residential encroachment, and with examining the values, attitudes and activities of new rural landowners. The research reported here has begun to address a significant gap in this research effort. To date, relatively little scholarly attention has been devoted to the values and decision-making of existing rural landowners, and in particular farmers, around rural-residential subdivision. This report addresses that gap and in so doing hopes to provide PNCC with empirically rich insights into the subdividing practices of farmers around Palmerston North.

The core of the report's research revolved around a series of semi-structured in-depth interviews with 26 farmers. These interviews generated narrative accounts of farmer values and decision-making, providing an opportunity to discern a series of farmer-specific and locally situated concerns about rural-residential subdivision. Across the interviews, raising capital for retirement and debt servicing emerged as the two key drivers for farmer subdivision with the study area. However, against the stereotype of the "greedy" or "irresponsible" subdividing property-owner, the farmer narratives indicated that most feel compelled to subdivide by external forces. For most of the interviewees, the decision to subdivide was made reluctantly. Farmer reluctance makes sense when contextualised in the complex array of non-economic values associated with land and their own definitions of rurality. The idea that decisions about subdivision, and indeed farming, are a complex amalgam of economic and non-economic values can also be seen in the fact that many of

interview participants who most strongly self-identified as farmers and who opposed further rural-residential development where themselves not running commercial enterprises.

The interviews also highlight that for those farmers who had subdivided the experience was uneven. Those that subdivided around the early 2000s tended to relate subdivision success stories in which the blocks were sold and farmer objectives realised. More recent subdivisions have a higher failure rate, owing in part to the changed economic environment. Stories have been told of farmers gaining subdivision consents but then finding themselves unable to sell their blocks, and in some cases either putting the farm business in serious jeopardy or "trapping" individuals in a property they no longer want. In these latter cases, participants emphasised that they did not have a clear understanding of either the monetary cost or length of time involved when they initially decided to subdivide.

Farmer views on rural-residential policy generally favour the restriction of developments on agriculturally productive soil, and likewise restrictions on developments that would impact aesthetic qualities like the "rural character" of a locale. When asked about the impacts of rural-residential development on them personally, most of the farmers interviewed believed that the consequences of subdivision for their quality of life were negative. Although they identified community benefits (such as more money for schools and better roads), on the whole they saw rural-residential development as "out of control", and argued that ultimately negative impacts outweighed visible benefits. Despite such critical views, farmers were concerned to preserve their ability to subdivide. It figures as an important consideration in their thinking about both farm economic development and their personal futures, especially regarding retirement and exit from farming. Thus although most farmers appeared to welcome the prospect of tighter restrictions on rural-residential development, there was a pronounced level of concern that any potential regulations should be sufficiently flexible to accommodate the specific physical characteristics, soil quality and mode of commercial farming on their own and neighbouring land.

4.2 An end to the ten-acre dream?

Many commentators have noted the force of an "arcadian" ideal in New Zealand culture, an ideal that has fuelled the migration of urban people into the countryside in search of a better way of life. The "ten-acre block" is an established motif in the New Zealand imaginary, but has the time come to realise its shortcomings and move towards a more sustainable form of rural-residential development? The farmers interviewed for this study certainly believe that this is the case.

The farmers did not return a consensus point of view regarding the appropriate minimum size for a productive farm. Instead, they argued that farm productivity depends on

a wide variety of personal and geographical characteristics. Almost all participants agreed that 4ha is generally too small for a productive farm, although a number were able to point to exceptions where motivated smallholders had established and maintained small niche businesses, notably with regard to horticulture but not limited to such commercial land-use. Just as a minimum productive size could not be defined in abstraction, the farmers also insisted that the economic viability of farms above a certain size, say 4ha, could also not be guaranteed. The farmers were, however, much more certain about the appropriate sizes for lifestyle blocks. In general, they agreed that lots between 1ha and 2ha were most suitable for such forms of land-use. According to them, the time for the ten-acre block has passed.

4.3 Topics for further research

The research strategy adopted in this project has revealed the contextual complexity of farmer decision-making about subdivision. Two topics in particular have emerged from the interviews conducted that we believe would merit more attention than we have been able to give them here. First, the interviews revealed the significance of subdivision as a farm exit strategy in the face of considerable uncertainty surrounding the succession planning of farmers. Given the average age of New Zealand farmers, the link between subdivision and farm succession is a topic that should be addressed by future research. Secondly, there is reason to believe that when subdivision leads to a loss in effective farm area this can result in an intensification of farm production in order to maintain overall economic performance, particularly on dairy farms. Such intensification may be an overlooked economic corollary of subdivision that has significant implications for sustainable land-use in New Zealand.

Appendices

Appendix 1: Participant Information Sheet

Project Title: Rural-Residential Transformation: Drivers of Change in the Manawatu

Dear Farmer or Rural Landowner,

Our names are Matt Henry and Brennon Wood, and we are the principle researchers on a research project supported by Massey University's Strategic Innovation Fund and the Palmerston North City Council. The aim of this research is to identify the social and economic drivers of increasing levels of 'lifestyle block' development within the greater Manawatu region. We would like to invite you to participate in this research by taking part in an interview of approximately one hour in length, in which you will be able to share your knowledge and experience relating to rural-residential development in the Manawatu.

What is the purpose of this research?

The overall goal of this research is to quantify and explain increasing levels of residential development in the Manawatu region. An important phase of the project is talking to farmers and rural landholders about their own experiences and perspectives related to increasing residential development in agricultural areas. We are particularly interested in the following: farmers' and rural land-holders own motivations to subdivide; farmers' and rural landholders experiences relating to the subdivision process; how the decision to subdivide may fit into farmers' main business operation; general attitudes towards rural subdivision, including community costs and benefits; and retrospective views about the decision to subdivide.

Why have I been contacted about this research?

You have been identified as either a rural landholder who has subdivided a portion of their land for residential development in the past, or a rural landholder who resides in an area with a high occurrence of residential subdivision. You do not need to have subdivided to participate in this research; however we are looking for participants who either hold legal title to their land, or else have an influence over major land-use decisions on their land.

How will this research benefit me?

This research will have direct relevance to policy makers both nationally and regionally and your participation will both improve the policy making process, as well as help to ensure that farmers and rural landholders have a 'voice' in the future direction of rural-residential development. . We will send all participants a summary copy of the final research report, and the full report will be made available should you wish to view it.

What will happen to the information I provide for this research?

We assure you that any written or electronically recorded material made during the interview will remain confidential and will only be seen by members of the research team. If you choose to participate in this research, you will have the right to choose which questions you do or do not wish to answer, and you can withdraw from the study at any time. The information that appears in the final report may be used for academic articles, policy reports, conference presentations and teaching purposes.

We hope you will accept this invitation to participate in this research as we would really value the input you could bring to the project. If you have any questions about this research project, please contact either of us directly.

Thank you very much for your assistance.

Yours sincerely,

Matt Henry (Ph.D.)

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Appendix 2: Consent Form

THIS FORM WILL BE HELD FOR A PERIOD OF SIX YEARS

Project title: Rural-Residential Transformation: Drivers of Change in the Manawatu

Names of Researchers: Dr Matt Henry and Dr Brennon Wood

I have read the Participant Information Sheet made available to me, and I understand the nature of the research and why I have been selected. I have had the opportunity to ask questions and have them answered to my satisfaction.

I agree to take part in this research.

I understand that I am free to withdraw participation at any time, and to withdraw any data traceable to me up to two months after the interview.

I agree / do not agree to be audio taped.

I wish/do not wish to have a copy of any tape recording relating to my interview.

I understand that I will be approached for written permission for specific attributed quotes.

I wish / do not wish to receive the summary of findings.

I understand that data and information from the interview and the Consent Form will be kept for six years, after which they will be destroyed.

Name _____
Signature _____ Date _____

This project has been evaluated by peer review and judged to be low risk. Consequently, it has not been reviewed by one of the University's Human Ethics Committees. The individuals named above are responsible for the ethical conduct of this research. If you have any concerns about the conduct of this research that you wish to raise with someone other than the researchers, please contact Professor Sylvia Rumball, Assistant to the Vice-Chancellor (Research Ethics), telephone 06 350 5249, email humanethics@massey.ac.nz.

Appendix 3: Drivers of Land-Use Change Interview Schedule

1.) **Name of interviewee:**
2.) **Address of interviewee:**
3.) **Interviewer:**
4.) **Date:**

Preamble: Brief outline of the project. This is a MU/PNCC partnership – looking to understand the views and experiences of famers who have subdivided their land for sale as smaller lifestyle blocks within a 40k distance of PN. We want to understand some of the key land use transformations within this area over the past 10-20 years. Particularly interested in farmers' own reasons for subdividing, how it fits in to their business operation, and their retrospective views about the decision to subdivide. About one third of this questionnaire is based on gathering information about your farming operation to get some generalising power when we want to explain the motivations for subdivision regionally. The rest is on subdivision. All participants remain confidential and nothing you say will be attributed to you in the final research report. If you don't want to answer any of the questions just say so and we will move on.

This is an administered survey, meaning it's a mix of short answer questions, multiple choice and open ended questions. For some of these questions I'll read out a series of potential answers and you can either pick one or tell me if none of them apply to you. We also have a few questions where I'm going to give you a piece of paper and ask you to rank a series of statements in terms of their importance or relevance to you. We've done our best to research these questions – if they don't make sense tell me. We're learning as we go!

Hopefully this will take an hour – if we run out of time perhaps I can come back?

Precheck: Consent form (signed), digital recorder (on), interviewee has pen

1. Current Farm Situation

1.1 Which of the following best describes your situation? Tick all that apply.
⌈___⌉ I own and manage my farm
⌈___⌉ I own and have employed a manager to run my farm
⌈___⌉ I manage the family farm
⌈___⌉ I am an employed manager
⌈___⌉ This property is owned by a corporate entity
⌈___⌉ Other (please specify)

1.2 What is the total land area of your farm(s)?
(**Prompt to include leaseholds and run-offs, and their location and size relative to the main farm)**
_____ **ha**

1.3 What are the current commercial uses for this land? Tick all that apply and indicate approximate number of hectares per use.
⌈___⌉ sheep . . . . . **ha =** _____
⌈___⌉ beef . . . . . **ha =** _____
⌈___⌉ dairy . . . . . **ha =** _____
⌈___⌉ cropping . . . . . **ha =** _____
⌈___⌉ orchard . . . . . **ha =** _____
⌈___⌉ other (please specify) _____ . . . . . **ha =** _____

1.4 Do you have any regular paid employees working on the farm for or with you?
[___] NO
[___] YES
If YES, specify (role, number, part-time or full-time; note possible dairy variations).

1.5 How long (many years) have you been farming on this land? _____ years

1.6 Out of the following options, which best describes how you obtained your farm?
[___] inherited from family
[___] purchased from family
[___] purchased from non-family
[___] leased from family
[___] leased from non-family
[___] other (please specify)

2. Farm Household Situation

2.1 Out of the following options, can you please state the age range you fall into?
[___] 20 - 29
[___] 30 - 39
[___] 40 - 49
[___] 50 - 59
[___] 60 and above

2.2 Do you have a wife or partner living with you?
[___] NO
[___] YES

2.3 Do you have any dependent children living with you?
[___] NO
[___] YES

If YES, specify (number & age & gender)

2.4 Are either yourself or your partner involved in regular off-farm paid employment?
[___] NO
[___] YES
If NO go to SECTION 3; if YES go to 2.5. Make sure below it is clear who is doing the work.

2.5 What is the nature of your/your partner's off-farm employment? (e.g. manager or administrator/professional/trades worker/service or sales worker).
2.6 What is the city, town or rural location in which you/your partner's off farm employment is based?
2.7 We would like to assess how significant your annual off-farm income is for your household. Can you estimate a percentage figure for your household's annual off-farm income compared to your annual total on-farm income?
(e.g. 25% off-farm income, 75% on-farm income).

3. Sense of Present and Future Possibilities

3.1 Approximately how long to you intend to continue farming on this land? (get a number of years estimate if possible ... or indefinitely).

3.2 Out of the following options, can you tell me what you think you'll do with the farm at the end of your farming career?
[___] pass the farm on to an immediate family member
[___] sell the farm on the open market

⌈___⌉ don't know
⌈___⌉ other (specify)

3.3 When you end farming, what kind of property would you like to move to?
⌈___⌉ remain in the farm homestead
⌈___⌉ a residential section in a town or city
⌈___⌉ a small rural residential section (> 1 ha)
⌈___⌉ a rural smallholding (1-4 ha)
⌈___⌉ a medium or large smallholding (4 – 20 ha)
⌈___⌉ a house on the coast
⌈___⌉ other (specify)

HAND INTERVIEWEE THE FOLLOWING SHEET

To get a quick sense of your views on your farm's performance and what challenges you face over the next ten years, we'd like you to identify and to rank issues on a scale from 1-5.

3.4 All things considered, how do you rate your farm business' current level of economic performance? Please circle the number between 1 and 5 that best represents your view.

1	2	3	4	5
excellent	above average	Average	below average	extremely poor

3.5 What do you see as the most important issues facing your farming **over the next ten years**? For each issue, please put a cross in the box that represents your view.

ISSUE	**1 Very Important**	**2 Important**	**3 Moderately Important**	**4 Of Little Importance**	**5 Unimportant**
Pricing schedules, payout rates					
Lack of investment capital					
Level of debt					
Lack of time					
Extreme weather events (floods, droughts, etc)					
Planning farm succession within the family					
Soil sustainability (e.g. erosion, low fertility)					
'Sustainable farming' requirements from local or central government					
Environmental 'best practice' expectations from industry					

Labour shortages					
Fuel prices					
Fertiliser prices					
Land/property prices					

Are we missing anything in the above list of issues? If so, what do you think should be added? And how important do you judge this issue 1-5?

TAKE BACK SHEET

4. Subdivision Experience

Collect information on your experiences with land subdivision.

4.1 Can you please tell me the approximate date(s) you were granted consents for your subdivision(s)?

4.2 How many subdivided parcels have you created and what size (ha) is each of them? *Make sure both aspects of this question are answered.*

4.3 Have you sold all of your blocks?
[___] NO
[___] YES
If NO, how many blocks are currently unsold? Of what size?

4.4 Do you intend to subdivide further?
[___] NO
[___] YES
If YES, how many parcels to you intend to create? Of what size?

4.5 Did you employ any paid consultants, experts or development professionals to assist you through the consenting and development process?
[___] NO
[___] YES
If YES, who was this, and what was the nature of their work for you?

HAND INTERVIEWEE THE FOLLOWING SHEET – REASONS QUESTION

4.6 We're interested in learning about how you selected which bits of your farm to subdivide. On a scale of 1-5, please put a cross/tick in the box that best represents the importance of the reasons when you were deciding on which land to subdivide.

REASONS FOR CHOOSING WHICH LAND TO SUBDIVIDE	**1 Very Important**	**2 Important**	**3 Moderately Important**	**4 Of Little Importance**	**5 Unimportant**
Physical accessibility					
Cost/viability of providing infrastructure					

Land generally uneconomic					
Avoidance of conflicts between residential dwellings and farming or other rural activities on adjoining properties					
Providing privacy for residential dwellings					
Aesthetic qualities (e.g. views, spaciousness, "rural character")					
Retention of main farm productivity					
Advice from real estate agent/development professional					
Neighbour/local farmer interest					

Are we missing anything in the above list of reasons for choosing which bit of land to subdivide? If so, what do you think should be added? And how important do you judge this reason 1-5?

TAKE BACK SHEET

4.7 That last question was about how you decided which bit of the farm you chose to subdivide. We're also interested in how you decided on the number and size of the parcels/blocks that you decided to carve off.

4.8 We're interested in whether the reduction in overall farm size through subdivision causes farmers to alter their farming operations. We're wondering if subdivision is linked to farmers changing the way they farm. For example, to change stock rotation patterns, reduce their stock count, intensify production, start something new. Or maybe to use subdivision to raise money to buy more land and increase the scale of the business.

Since subdividing, have you made any significant changes from the way you farmed your land previously?

To round off the picture, we'd like to ask you about the reasons that prompted you to subdivide in the first place. And we'd also like to ask you about what you now think of the whole experience with the advantage of hindsight.

HAND INTERVIEWEE THE FOLLOWING SHEET – MOTIVATIONS QUESTION

4.9 We're interested in what your motivations were in the beginning, when you first decided to subdivide your farm. For each of the possible reasons listed below, please put a cross/tick in the box that best represents your view.

REASONS FOR SUBDIVIDING	**1 Very Important**	**2 Important**	**3 Moderately Important**	**4 Of Little Importance**	**5 Unimportant**
Planning for succession					

Planning for retirement					
Diversification of income base					
Raising capital to invest in farm production					
To allow purchase of more farm land					
Reducing debt					
To reduce rates costs					
To cover household costs (children's education, health costs etc).					
To increase land value					
To provide a dwelling for family/extended family					
Availability of un-economic land					
Approached by neighbour, friend or family member					
Approached by real estate agent or land development professional					

Are we missing anything in the above list of motivations? If so, what do you think should be added? And how important do you judge this motivation 1-5?

TAKE BACK SHEET

PICK THE TWO OR THREE MOST IMPORTANT REASONS FOR SUBDIVIDING IDENTIFIED BY RESPONDENT ABOVE. ASK THE QUESTION:

4.7 I see you have identified these (READ OUT) factors as the most important reasons for subdividing. In retrospect, how successful would you say the subdivisions you made were in meeting these objectives?

THIS IS AN IMPORTANT OPEN-ENDED QUESTION (RECORDED) AND IT IS IMPORTANT TO DWELL ON AND DEVELOP THEIR EVALUATION OF HOW IT WENT.

PROMPTS INCLUDE:
What worked and why?
What didn't work and why?
Were there unexpected problems/disadvantages with the subdivision?
Were there unexpected gains/advantages with the subdivision?

4.8 If you were starting at the beginning again, would you have subdivided in the same way or (with the advantage now of hindsight) would you do anything different?

5. Concluding Issues

Home track now – a few last big picture questions.

HAND INTERVIEWEE THE FOLLOWING SHEET – VIEWPOINT QUESTION

5.1 Recently the media has been focusing on some of the perceived negative consequences of subdivision. We're interested in gathering farmers' perspectives on some of these issues.

Please put a cross/tick in the box that best represents what it is your level of agreement or disagreement with the following statements:

SOME VIEWS ON SUBDIVISION	**1 Strongly Agree**	**2 Agree**	**3 Undecided**	**4 Disagree**	**5 Strongly Disagree**
Increasing residential subdivision is threatening the quality of the rural lifestyle.					
Increasing residential subdivision is eating up too much of the county's high quality soil.					
The economic pressures of farming today means that for many farmers subdivision is necessary to maintain viability.					
New rural residents are often overly sensitive to normal farming operations such as the use of sprayed chemicals and odours from farming operations.					
Beyond the remuneration for individual farmers generated by subdividing, significant community benefits have come with increased rural residential development.					

TAKE BACK SHEET

5.2 SEEK SOME QUALITATIVE ELABORATION AT THIS POINT.

PICK ALL THE STRONGLY HELD VIEWS (1 & 5) AND ASK WHAT THEIR THINKING IS BEHIND THEIR VIEWPOINT IN EACH CASE.

HAND INTERVIEWEE THE FOLLOWING SHEET – POLICY QUESTION

5.3 Local councils are increasingly looking toward reforming policy around rural subdivision. We're interested in gathering farmers' perspectives on some of the potential options that have been circulating in the media recently.

Please put a cross/tick in the box that best represents what it is your level of agreement or disagreement with the following policy statements:

SOME POLICY STATEMENTS	**1 Strongly Agree**	**2 Agree**	**3 Undecided**	**4 Disagree**	**5 Strongly Disagree**
A 2 hectare size restriction on new subdivisions would be a good way to accommodate the needs of lifestylers while keeping more agricultural land in production.					
If any further size restrictions on subdivisions are enacted, they should be targeted at agricultural areas with high soil quality only.					
There is no need for local government to put any further restrictions on the level of residential development in rural areas.					
The benefits of further restricting the size or location of rural subdivisions are outweighed by the negative consequences this would have for farming businesses and communities.					

TAKE BACK SHEET

5.4 SEEK SOME QUALITATIVE ELABORATION AT THIS POINT.

PICK ALL THE STRONGLY HELD VIEWS (1 & 5) AND ASK WHAT THEIR THINKING IS BEHIND THEIR VIEWPOINT IN EACH CASE.

5.5 The last question is completely open-ended. We've asked a lot of questions, but is there something you'd like to say in conclusion (last chance) about farming and the issue of subdivision, either in general or in terms of your own experiences in particular?

FINAL THANKS.

Invitation to get in touch with us directly if you have any further questions. Ask snowball question. Is there any other farmer(s) with subdivision experience that you think it would be good for us to talk to and would it be ok to say that we got their name from you?

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