Multifunctional Rural Space

A Case Study of Rural Change and Planning within the Cromwell Basin

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Abstract

It is evident through the literature that rural areas are continually evolving and changing. From a New Zealand planning perspective it is important to understand the implications and factors driving this change in order to achieve the sustainable management of resources whilst enabling people and communities to provide for their social, economic and cultural well-being.

This thesis employs an interpretative, qualitative research approach to investigate how the rural areas around the Cromwell Basin have changed over the last 40 – 50 years and to understand the implications or effects of these changes. The Cromwell Basin was chosen as a case study location as it is an area which provides a very real insight into post-productivist and multifunctional rural land use changes. This research found the rural areas of the Cromwell Basin have undergone significant change as land has shifted from being utilised for small scale pastoral farming and mixed crop orchards to being utilised for the intensification and specialist niche foci on cherry and viticulture production. However, it was also acknowledged business owners have diversified the use of their land and rural areas are now being consumed by both tourists and permanent residents.

These findings suggest the Cromwell Basin has characteristics which represent both a productivist and post-productivist agriculture regime. Therefore a better way to conceptualise this emerging rural environment is through the notion of multifunctionality. From a planning perspective this presents a number of challenges as rural areas are no longer valued solely for the lands productive ability. Although the research found planning has been relatively conducive to the change that has occurred there is now the belief that planning has become reactionary and is not keeping pace with the growth. Five recommendations are presented which provide guidance for planning policy and the local community to better foster and manage planning for multifunctional rural areas.
There are a number of people who have been instrumental in supporting me over the course of the two year Master of Planning programme. The possibility of completing post-graduate studies was not on my radar when I first decided to return to University but with the support and encouragement of those around me it has turned out to be a very rewarding experience.

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<tr>
<td>LINZ</td>
<td>Land Information New Zealand</td>
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<td>RMA</td>
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Chapter One: Introduction

Rural areas have long been distinct from their urban counterparts, a reality which, historically, was reinforced by land use planning in rural areas characterised by policy controls which restricted non-agricultural development and protected farming (Gallent, Juntti, Kidd, & Shaw, 2008). However, more recently it has acknowledged rural areas are not static and that they undergo significant change due to shifts in the economy, space and society, particularly in more recent decades (Perkins, 2006). This presents implications for planning as the use of rural areas is becoming more contested due to population growth, increased mobilities and emerging rural land uses (Gallent et al., 2008).

Traditionally rural population change has been dominated by rural to urban migration (Woods, 2011b). However since the 1970’s the phenomenon of counterurbanisation has been at the forefront of rural population change research (Berry, 1976; Champion, 1998). A number of factors can explain these movement patterns including motivations such as the rural idyll and amenity migration, businesses relocating to rural areas for economic reasons, the movement of migrant workers due to the labour demands of agriculture and changes in technology which have increased the mobility of businesses and individuals (Halfacree, 2008). This change in population and associated new forms of development of rural areas can involve a re-creation of the rural which is directly influenced by land use planning (Abram, Murdoch, & Marsden, 1998).

The restructuring of rural areas has received increased attention over the years as it has become apparent rural areas are no longer characterised solely for their ability to support agriculture production (Wilson, 2001; Woods, 2011b). This has seen concepts such as post-productivism and multifunctionality arise to explain rural transition. Whilst the use of the term post-productivism is often contested within the literature it can characterised by agriculture no longer being the central focus, and thus represents a shift away from productivism (Wilson, 2001). Broadly speaking, this transition from productivism to post-productivism can be viewed as a shift from intensification to extensification,
concentration to dispersion and specialisation to diversification (Ilbery & Bowler, 1998; Woods, 2005). Multifunctionality, on the other hand, acknowledges that rather than a shift from productivism to post-productivism the two practices can coexist and therefore depicts a more multi-layered nature of rural change (Wilson, 2001). It has been suggested that multifunctionality, rather than post-productivism, is the leading driver of rural change in affluent societies as the concept encompasses the broad use of rural resources (Holmes, 2006).

Within New Zealand it is acknowledged that while rural areas are still dominated by farming they are no longer made of homogenous agriculture activities (Miller, 2017). Thus, there is now a complex inter-play of different actors and interests competing for the use of rural space. It is within this context that this particular study seeks to better understand the nature and implications of rural change in the Cromwell District of New Zealand, a predominantly rural area which is experiencing one of the most significant rural transformations in the country.

This chapter will introduce the scope of the research topic, introduce the case study location and outline the research aim and research questions. It will then provide an outline of the remaining chapters within this thesis.

1.1 Scope of the Research

The importance of rural areas is well documented within the literature, though, it is often thought that there is an urban bias amongst planners (Lapping, 2006). Traditional land use planning has aimed to protect environmental goals and the interests of farming, however it is argued this approach has failed to recognise that rural areas are transforming in ways unrelated to their traditional form (Gallent et al., 2008). Rural areas are now places of consumption, production and environmental protection, and thus, are recognised as multifunctional in their character and focus (Holmes, 2006). This is particularly evident in instances where farms become reliant on income derived from non-farm sources and there is increased attention placed on the protection of landscapes.

From a planning perspective operational challenges arise as competing interests attempt to coexist within rural areas (Woods, 2011b). Key issues include the changing nature of
the rural economy which has seen new activities and land uses emerge. Often it is thought that trade-offs will need to be made, as although the new activities may generate economic gains for a rural community it could simultaneously threaten environmental and traditional agricultural interests (Garrod, Wornell, & Youell, 2006). The changing economy has also seen shifts in the structure of rural communities (Gallent et al., 2008). Due to technological advancements and individuals having greater mobility, rural populations can now also be employed in urban-orientated work. For the same reasons, but in the opposite direction, this also creates further pressure for the rural resource, particularly as the demand for lifestyle/rural living increases. A key concern for New Zealand is the challenge of protecting high-class productive land and managing reverse sensitivity issues (Andrew & Dymond, 2013). That said, problems also arise as the demand for rural housing drives up land prices and effectively ‘locks out’ local, long-term residents (Gallent et al., 2008). Further challenges exist for planners as they seek to protect the landscape and rural character, which is often what drives the population and economic growth in the first instance (J. Tilt, Kearney, & Bradley, 2007). However, the changing nature of rural communities creates further challenges for planners. This is because planning has traditionally aimed to find a balance between ‘community good’ and private interests, although these changing communities makes the notion of ‘community good’ hard to define (Gallent et al., 2008).

1.1.1 Case Study Location

This research aims to understand how the rural areas within the Cromwell Basin have changed in order to understand what issues or implications there may be when planning for multifunctional rural space. The Cromwell Basin was chosen as a case study location to explore the changing nature of rural areas within New Zealand. It was identified as an area of interest due to its proximity to the popular tourist and lifestyle towns of Queenstown and Wanaka. However, the Cromwell Basin was also identified as an area with a strong rural economy, primarily due to the natural environment which make it attractive for horticulture and viticulture production.

As shown in Figure 1 and 2 the Cromwell Basin is located within Central Otago in the southern half of the South Island of New Zealand. Cromwell is positioned approximately 60 kilometres east of Queenstown and 50 kilometres south of Wanaka. The Cromwell
Basin comprises the township of Cromwell and a number of smaller towns including; Bannockburn, Lowburn, Pisa Moorings and Tarras (Cromwell Community, 2013). Given the complexity of defining rural areas (Halfacree, 1993) for the purposes of this study ‘rural areas’ consists of those areas defined as Rural Resource Area within the Central Otago District Plan Maps and attached as Appendix A (Central Otago District Council, 2008).

Cromwell was established in 1862 when gold was discovered (Cromwell Districts Promotion Group, 2018). However, by the 1950’s the focus has shifted from mining to using Cromwell’s natural water resource for energy production. This saw the construction of the Clyde Dam approximately 22 kilometres south-east of Cromwell which submerged the original retail and commercial hub, a number of residential houses and 1,405 hectares of productive land (Beecroft, 1983; Cromwell Districts Promotion Group, 2018). The Central Otago economy is driven by primary production which includes agriculture (pastoral farming, horticulture and fruit growing, viticulture and winemaking), aquaculture, services to agriculture, forestry and logging and mining (Central Otago District Council, 2013). The horticulture industry is dominated by stone fruit, in particular cherry and apricot production whilst pinot noir dominates the viticulture industry (Central Otago District Council, 2013). Statistics from the 2013 Census show Cromwell has been experiencing strong growth in terms of both the population and economy and this is predicated to continue (Stats NZ, 2013, 2018b). A recent labour survey undertaken in Central Otago of the Horticulture and Viticulture industries shows significantly more plantings, particularly of cherries are planned for the Cromwell Basin over the next five years (Druce & Anderson, 2018). However, tourism is also acknowledged as a growing industry and a number of new developments are assisting with this growth including the development of cycle and walking trails, wine tourism ventures and golf tourism (Central Otago District Council, 2013).
Figure 1: Map showing the Cromwell Basin
Base Map Source: (Land Information New Zealand, 2017a)
1.2 Research Outline

The overall aim of this study is to determine how the rural areas in the Cromwell Basin have changed over the past 40-50 years, with a specific focus on land use change. In order to address this aim five research questions have been developed:

1. What changes have occurred in the Cromwell Basin and what drives this demand for change in the rural areas?
2. How did the creation of Clyde Dam influence this change?
3. What are the key effects which the Cromwell Basin is experiencing due to growth within its rural areas and what are the associated planning challenges and implications?
4. How does the existing planning framework support and manage this growth and the changing use of rural land? Are there any issues with the current policies which may need to alter?
5. What challenges and opportunities are there moving forward as a result of this growth and change in the Cromwell Basin?

To address these research questions an interpretative, qualitative research approach was employed. This included obtaining secondary data through a review of relevant literature, an analysis of the planning framework and a documentary analysis. Primary data was derived through interviewing fifteen key informants, including community members, business owners, local government representatives and planning professionals. These interviews were recorded and typed into summaries to enable the data to be coded. This assisted in interpreting the data so it could be organised in a way which identified patterns, commonalities and relationships (Cope, 2010). Once these themes were identified they were amalgamated into a single file which was then utilised to draft the findings and results chapters.

1.3 Thesis Structure

Chapter One of this thesis has introduced the research topic and outlined the research aim and questions. Chapter Two reviews the existing literature on rural areas in order to
develop an understanding of the growth of rural areas and the planning issues that may arise due to the multifunctionality of rural space.

Chapter Three introduces the case study area of the Cromwell Basin. This begins with a brief review of the relevant history of rural New Zealand, followed by a specific overview of the history of the Cromwell Basin. Key facts regarding the population and economy of the wider Cromwell area are given to provide background information and set the context for this research.

Chapter Four outlines the research process and methods. A qualitative approach was adopted to obtain the research data, primarily utilising key informant interviews. An interpretive approach was also employed to understand the changes that have occurred within the rural areas of the Cromwell Basin.

Chapter Five reviews the policy and planning framework which governs the management of the rural areas around the Cromwell Basin. This provides an understanding of how the relevant planning policies support or hinder the growth and changing nature of the rural areas.

Chapters Six, Seven, Eight, Nine and Ten present the results and discuss the findings from the research. These align with the five research questions. Firstly, the changes that have been observed in the rural areas and the drivers of these changes are discussed in Chapter Six. In the next Chapter there is a discussion surrounding the impact that the Clyde Dam has had on the rural areas and Cromwell town. Chapter Eight reflects on the effects of the growth and change of the rural areas, particularly from a planning perspective. This is followed by Chapter Nine which addresses the fourth research question and assesses how the existing planning framework supports and manages this growth and evolving multifunctional nature of the rural areas of the District. Chapter Ten concludes the results and discussion chapters outlining the opportunities and challenges for the Cromwell District moving forward.

Lastly, Chapter Eleven concludes the research and provides a number of recommendations which potentially warrant further consideration.
2.1 Introduction

The purpose of this chapter is to review and analyse the literature regarding rural change in order to support the current study and to provide it with an appropriate theoretical framework. This chapter begins with an overview of rural areas which discusses the difficulties in defining rural and how rural may mean different things to different people. The next section discusses the drivers of rural population growth utilising counterurbanisation theory to provide a discussion of the explanations and impacts of this growth, although it is important to acknowledge population growth is not the only change affecting rural areas. Thus the concepts of post-productivism and multifunctional agricultural regimes are also examined to provide insight into changing rural land use. These changes are leading to emerging issues which planning systems must balance in order to achieve desirable economic, social and environmental outcomes for rural areas. Section 2.5 explores the role of rural planning in this context and is followed by section 2.6 which provides a discussion on key issues facing rural planning. These includes socio-economic factors, the complex debate of protecting high-class productive land, ensuring rural housing needs are met whilst simultaneously protecting rural character and landscapes, and managing changes to rural communities. Lastly, section 2.8 provides concluding remarks and summarises the literature.

2.2 Rural Areas

Rural areas have long been distinct from their urban counterparts. However, attempting to define what ‘rural’ means is somewhat challenging. This section will introduce the concept of rural and explore the different ways in which it is manifested within the literature. Definitions from Statistics New Zealand and the Central Otago District Plan will also be introduced to set the context for the current study.
2.2.1 Defining Rural

When studying rural areas it is important to recognise and appreciate what constitutes the concept of rural, as unique differences exist between the challenges facing rural areas compared to urban counterparts. The distinction between country and city, or rural and urban areas is one of the oldest geographical binaries (see for example Williams, 1973; Woods, 2011b). However, it is recognised that processes such as globalisation, urbanisation and ruralisation are increasingly blurring the boundaries between what is rural and what is urban (Cloke, Marsden, & Mooney, 2006). Further, there is an ongoing debate over the use of the term ‘rural’ in spatial planning as some believe space should be viewed in a holistic way (Gallent et al., 2008). Thus, there are those who believe we should see beyond the distinction between the rural and urban. Yet, the division between rural and urban areas continues within Western societies. Governments distinguish between urban and rural in order to administer different policies, for example the ‘urban policy’ and ‘rural policy’ in England (Woods, 2005). Over and above this, Woods (2005) believes the distinction between city and countryside is a cultural tradition and determines how we place order on the world around us.

Rural areas have many functions and this is reflected through the literature using a number of different methods to define what is ‘rural’, for example, identifying rural as areas of extensive agriculture land use (Perkins, 2006). However, rural areas are continuously undergoing change and shifts in terms of the economy, space and society (Perkins, 2006). Therefore, the traditional divisions such as viewing rural areas as those dominated by agriculture, have become contested. A number of theoretical approaches have been proposed in order to conceptualise the definition of rural (Cloke et al., 2006; Halfacree, 1993). It is not the aim of the current study to discuss the merits and weaknesses of these approaches, nor will it attempt to provide a definitive definition of rural. However, it can be concluded that the concept of rural is extremely difficult to define.

Statistics New Zealand (Stats NZ) (2004) provides classifications of Urban and Rural to assist with interpretation of Census data. Traditionally, a standard urban/rural classification was used which was based solely on population size. It is now recognised this is inadequate and a more detailed Urban/Rural Profile Classification is employed to
explore the diverse characteristics that exist. The challenge of defining urban and rural areas is also identified in the literature as the boundaries between the two are becoming increasingly blurred (Cloke et al., 2006). Stats NZ (2004) now defines rural areas by their degree of urban influence, through distinguishing between four categories of Rural, these being; Rural area with high urban influence; Rural area with moderate urban influence; Rural area with low urban influence and Highly rural/remote area. Broader literature discusses this blurring of boundaries through research on the emergence of peri-urban areas (Allen, 2003). However, what constitutes this peri-urban phenomenon is hard to define and again it is not the aim of the current study to try and define this. Yet, it is recognised rural and urban features are increasingly crossing over, and thus, peri-urban areas with a mixture of both rural and urban features exist between the two (Allen, 2003).

Stats NZ (2004) maps classify the rural areas around Cromwell township as either ‘rural area with low urban influence’, or ‘highly rural/remote area’. The current study will therefore not delve into literature on peri-urban areas. However, it should be acknowledged that rural areas are changing, sometimes rapidly, and the Stats NZ classification of the study area is derived from the 2001 Census of Population and Dwellings. Therefore this classification could change at some point in the future.

The Central Otago District Plan identifies the location of various Resource Areas through its planning maps. The rural environments of the district are seen as distinct from urban areas due to their environmental character. These areas are recognised via the planning maps as the Rural Resource Area (Central Otago District Council, 2008). To provide clarification and a geographic boundary the current study will focus on these areas within the Rural Resource Area as defined by the Operative Central Otago District Plan.

Adding to the difficulty of conceptualising rural is the significant change and growth which is impacting on rural populations. The next section will introduce the phenomenon of rural growth utilising counterurbanisation as a framework to explore the different explanations for this growth.
2.3 Drivers of Rural Population Growth

Rural areas have long been undergoing change and transformation and thus, a significant amount of research and literature exists regarding rural change (Milbourne, 2007). The dominant global trend for rural population change has historically been rural to urban migration (Woods, 2011b). This still is the case for many rural areas, despite the attention more recently falling on urban to rural migration, or counterurbanisation, within the Global North. Whilst the growth of rural areas has gained more attention, it is important to recognise this growth is not consistent nor continuous (Woods, 2011b). Rural population growth may occur alongside rural decline within the same country or even the same region. Furthermore, rural communities may experience rural outmigration alongside counterurbanisation. In particular, the outmigration of younger people in search of excitement, education, employment or affordable housing can have significant impacts of the demographics of rural communities (Woods, 2011b).

The remainder of this section will explore the complexities of counterurbanisation and use counterurbanisation literature to discuss key drivers of rural population growth.

2.3.1 Counterurbanisation

Rapid population growth in non-metropolitan areas during the 1970’s challenged urbanisation, which is one of the most enduring theories of population and urban geography (Champion, 1998). Clark’s Law of Concentration theory argued that population concentrates, and thus, core areas with larger populations attract more residents (Vining & Pallone, 1982). However in the 1970’s a number of countries including Canada and the United States experienced a deconcentration of population within core areas (Vining & Pallone, 1982). Berry (1976, p. 17) originally defined this phenomenon as counterurbanisation “a process of population deconcentration; it implies a movement from a state of more concentration to state of less concentration”. Since this definition was first coined there have been ongoing definitional debates within the literature (Champion, 1998; Halfacree, 2008). These debates include the argument that it is difficult to geographically define areas in order to accurately measure counterurbanisation (Champion, 1998). In more recent years the term counterurbanisation has shifted from a primarily academic concept to one which is
clichéd and embedded within popular culture (Halfacree, 2008). Thus, interpretations of what constitutes counterurbanisation have become more varied and widespread.

Whilst the definition and causes of counterurbanisation continue to be debated Stockdale, Findlay and Short (p. 243) argue “all population statistics point to its continuation as the most significant factor accounting for the redistribution of population between and within areas at a variety of geographical scales”. Furthermore, it is evident from the research on counterurbanisation that the changes taking place in rural areas cannot be viewed in isolation (Stockdale et al., 2000). For example, when people choose to move into rural areas for reasons such as amenity migration and the rural idyll, they bring with them preconceived ideas about what the rural environment should be. Thus, the increase in population and development of rural areas involves a re-creation of the rural which is directly influenced by land use planning (Abram et al., 1998). Therefore, it is useful to understand the broader context of counterurbanisation when studying the growth and development of rural areas. Rather than applying a fixed or narrow understanding of counterurbanisation, the remainder of this section will adopt a flexible model and explore the key drivers of counterurbanisation. This will enable the development of a theoretical framework for studying rural change in the context of New Zealand.

### 2.3.2 Explanations and Impacts of the Counterurbanisation Phenomenon

Several authors recognise the main influences on the phenomenon of counterurbanisation are the economic restructuring of both urban and rural economies, environmental factors and social and technological changes (for example see Boyle & Halfacree, 1998). These factors will be discussed separately below.

#### 2.3.2.1 Socio-cultural

One driver of counterurbanisation is the notion of the rural idyll in which people perceive rural areas as good places to live, providing safe and community orientated environments. However, the rural idyll is a contested term. Woods (2005) likens the concept of the rural idyll to a myth, whilst other studies have questioned whether such an idyll is attainable (Shucksmith, 2018). Research by Cloke, Phillips and Thrift (1998) found that people invest themselves culturally and psychologically in rural areas and there was an
expectation that rural life was a way of escaping modern living. This can be seen through consumer behaviour with marketing campaigns utilising imagines of the rural landscape or rural products to promote the idea of the ‘good life’ (Short, 2006). Furthermore, opinion polls suggest people would prefer to live in the countryside if they were given a choice (Halfacree, 1994). Thus, whether or not one believes the rural idyll is feasibly attainable or not, it is a significant contributor to the processes influencing counterurbanisation.

Amenity migration is another phenomenon often linked with counterurbanisation (Boyle & Halfacree, 1998; Halfacree, 1994). The term amenity migration is the movement of people to rural places in search of better lifestyles and is often linked to the draw of natural and cultural amenities (Abrams, Gosnell, Gill, & Klepeis, 2012; Gosnell & Abrams, 2011). Again, this term is contested within the literature, particularly as the phrase amenity migration is not universally accepted (G. Curry, Koczberski, & Selwood, 2001). For example, in Australia the term “lifestylers” is often used to describe amenity migrants (G. Curry et al., 2001). However, a large body of research now exists to explore the causes of amenity-led rural change (Abrams et al., 2012; Gosnell & Abrams, 2011). The rural idyll is closely linked to amenity migration as it is seen as a motivating factor of migrants moving to rural areas. Further, when reviewing the literature on counterurbanisation it is apparent there is a strong focus on the middle class demographic (Halfacree, 2008). Therefore, counterurbanisation and amenity migration are often linked to wealthier people moving to rural areas, particularly in England (Halfacree, 2008). Within a New Zealand context the movement of retirees, second-home owners and tourists has also been influenced by the attractiveness of rural amenity areas (Hall, 2006). Research from New Zealand shows certain rural regions with high amenity values have experienced population growth which goes against the population decline evident in other rural areas (Hall, 2006). This growth has seen a number of policy issues emerge from both a social perspective as well as the implications for infrastructure and servicing (Hall, 2006).

One issue that arises from amenity migration are the conflicting opinions of newcomers with those of existing long-standing residents. For example, a study of the Rocky Mountain Front in Montana found highly differing opinions between long-standing residents and new comers (Yung, Freimund, & Belsky, 2003). These differences included
long-standing residents describing the area as productive agriculture land whilst newcomers focused on the wilderness and wildlife. Long-standing residents also welcomed unrestricted access to properties, whilst new residents wanted to restrict access (Yung et al., 2003). Amenity migrants may hold different values and expectations of rural areas, compared to long-standing residents, and therefore significantly alter the social context of the receiving community (Gosnell & Abrams, 2011). Other social effects include the provision of and access to housing which comes under pressure by increasing the numbers of both temporary and permanent residents (Hall, 2006). This has also been linked to rising house prices which may negatively impact on existing rural populations (Stockdale et al., 2000). Amenity migration is thus important to understand when considering rural growth and planning policy.

2.3.2.2 Economic

Research on counterurbanisation has been dominated by ‘people-led’ explanations, for example the preferences of ordinary people as discussed in the above section (Fielding, 1998; Halfacree, 2008). However, it is important not to neglect the economic factors which contribute to the phenomenon (Halfacree, 2008). Economic restructuring and the movement of firms and associated labour from large cities to smaller towns is one of the underlying factors of counterurbanisation (Fielding, 1998). As summarised by Fielding (1982, p. 32) when describing counterurbanisation trends in Western Europe “it is in continuing to do something that they have always done – i.e. make changes in what, how and where to produce goods and services in such a way as to remain profitable – that firms have acted as major agents of change in the distribution of population, i.e. as the prime generators of counterurbanisation”.

One of the most notable examples of this economic explanation is the movement patterns of migrant workers associated with the changing labour demands of agriculture. In these instances migrants move to where the work is and are not influenced by the rural idyll (Halfacree, 2004). That said, there is dispute over whether these migrant workers should be included in our understanding of counterurbanisation due to the often temporary nature of their presence (Halfacree, 2008). However challenges to this argument include the impact temporary workers have on the place they reside in. Albeit they may only reside in a rural area for a short period of time this can have a large impact on the
character of a place (Halfacree, 2008). Further, although they may be temporary the demands for equivalent labour makes the overall presence of such workers much more permanent (Halfacree, 2014).

The importance of economic factors influencing counterurbanisation processes can be seen in urban-rural shift of firms, particularly manufacturing employment. North recognises that the shift has been characterised by a move to flexible production systems which has allowed firms to position themselves in rural areas, with more competitive manufacturing costs. A number of other drivers associated with this shift include constraints over the quality and quantity of space available in urban areas, lower production costs in rural areas and advances in technology and production processes (North, 1998). It has also been argued that businesses, in particular start-up businesses, are attracted to rural areas because of the perceived superior quality of life on offer (Gould & Keeble, 1984). Thus these explanations recognise there is a varied mix of economic factors influencing counterurbanisation.

2.3.2.3 Technological Changes

It is acknowledged that technological changes have long influenced change experienced in rural economies such as agriculture, forestry, mining or manufacturing (Johnson, 2001). This has led to increased production and decreased labour through advancements in information, communication, robotics, genetic engineering and other technologies (Johnson, 2001). However, technological advancements have also influenced communities and individuals. People are now more mobile and have flexibility to live and work remotely due to advancements in transportation and information and communication technology (ICT) (Johnson, 2001). Goods and services may also now be located at a considerable distance from their markets due to advancements in ICT and the flexible mobility of people.

This section has introduced the drivers of rural population growth, discussing counterurbanisation, the rural idyll and amenity migration. However as mentioned briefly rural change cannot be viewed in isolation. Wider factors such as how rural land is used must also be understood. The next section will present a discussion on rural change from the perspective of changes in land use.
2.4 Rural Change

Rural areas are in the midst of significant change (Gosnell & Abrams, 2011). Traditionally, rural areas were primarily production based, meaning the social and economic focus was based around agriculture. A number of factors have contributed to the changing rural landscape and there is no longer a distinct boundary between rural and urban areas. Often referred to as ‘rural restructuring’ this section seeks to explain this change through a review of the literature on post-productivist and multifunctional landscapes.

2.4.1 Productivism

Before we discuss post-productivism it is useful to understand what is meant by productivism. When reviewing the literature it is evident there is no clear census that post-productivism has replaced productivism, rather the two may in fact exist together (Wilson, 2001). It is also necessary to note that a large majority of the literature on productivism and post-productivism is UK-centric (Wilson, 2001). Therefore, the majority of this discussion is derived from a UK perspective.

Productivism can be characterised by an emphasis on raising farm output and thus, increased production from traditional agricultural mainstays i.e. livestock and mass-consumed staples (Ilbery & Bowler, 1998). It is apparent the productivist agriculture regime has had a lasting impact on the developed world. Between 1961 and 1990 agriculture production increased by 62 percent in the developed world (Woods, 2005, p. 51) and between 1961 and 1981 total meat production in Europe, North America, Australia and New Zealand increased by 75 percent (Woods, 2011b p78). This meant the industry was producing more agricultural goods than what the market could absorb at profit.

During the productivist era it was believed that farmers were the best protectors of rural land and the main threat was urban and industrial development, not agriculture itself (Wilson, 2001). The productivist phase has been explained by commercialisation, commoditisation and industrialisation, which led to the intensification, concentration and specialisation of agriculture production (Ilbery & Bowler, 1998). As a result farmers
altered their behaviour to a more exploitative approach. This was supported by state controls from the 1940s which reduced the risk to productivist agriculture regimes (Ilbery & Bowler, 1998). Farmers had strong financial security and the state had little regulation over environmentally harmful practices. The shift in farmers behaviour is identified as one of the most important changes to occur during the productivist regime (Ilbery & Bowler, 1998).

2.4.2 Post-productivism

Whilst the literature has reached a consensus as to what constitutes productivism there appears to be controversy over the concept and use of the term post-productivism (Woods, 2011b). Different authors have used different characteristics to define the concept, therefore there is criticism that no clear framework exists for defining post-productivism (Woods, 2011b). However, the general understanding is post-productivism is characterised by agriculture no longer being the central focus, and thus represents a shift away from productivism (Wilson, 2001). However, a post-productive countryside does not represent a countryside in which agriculture no longer exists. Rather it represents a shift towards a more diverse rural economy, one where agriculture exists alongside other activities (Halfacree & Boyle, 1998). Post-productivism therefore goes beyond the issue of agriculture alone and must be understood in a wider context.

It is apparent that a number of factors have been influential in this shift towards post-productive rural areas. Policy reforms are recognised as a key factor in the move towards post-productivist regimes (Wilson, 2001; Woods, 2005). In New Zealand this came about in the form of a somewhat radical reform in the 1980’s which saw price supports and subsidies for farmers withdrawn or reduced. Whilst some believed this was a severe move, its supporters have argued it meant New Zealand agricultural exporters strengthened their position within the global market (Woods, 2005). The shift was considered less severe in the European Union and United States, however a series of gradual policy measures were implemented which contributed to the post-productivist transition (Woods, 2011b). For example, the European Union’s ‘set aside’ scheme whereby farmers received compensation for retiring at least 20 percent of their land from production for a minimum of five years (Woods, 2005).
Whilst there has been no universally accepted definition for post-productivism there does appear to be a general census, broadly speaking, that the transition from productivism to post-productivism can be viewed as a shift from intensification to extensification, concentration to dispersion and specialisation to diversification (Ilbery & Bowler, 1998; Woods, 2005). In England the typical post-productivist rural area displays areas of traditional rural space which are now utilised for non-agriculture uses, such as non-farm based tourism. There is also an increase in small-scale farms and a move towards more environmentally sustainable farming (Ilbery & Bowler, 1998; Wilson, 2001). This may be represented by production of niche products or production of small quantities of quality products.

Farm diversification has been identified as a significant contributor to the post-productivist shift. Originally farm diversification was separated into agriculture diversification and structural diversification (for example the development of farm-based tourism). However, there is now growing interest towards the concept of pluriactivity (Ilbery & Bowler, 1998). Ilbery and Bowler (1998, p. 75) have described the concept of pluriactivity as “the generation by farm household members, of income from on-farm and/or off-farm income in addition to income obtained from primary agriculture”. Thus, members from farming households may be working off-farm to generate an income whilst also diversifying on farm activities through tourism-based commodities. Pluriactivity has been recognised as significant for many farming households in both England and the United States (Woods, 2005). This engagement in pluriactivity has, without a doubt, bought about significant implications for rural areas. As Ilbery and Bowler (1998, p. 71) state “such diversification trends enable more diversified land use systems to be created, with associated implications for the landscape”. These implications will be discussed later in section 2.5.

One critique of the post-productivist concept is the use of ‘post’ suggests it occurs after productivism (Ilbery & Bowler, 1998). Therefore it is not necessarily the opposite of productivism. However, there is little acceptance that agriculture has shifted from productivism to post-productivism, but rather that they co-exist (Ilbery & Bowler, 1998). For example, high quality food is now being produced alongside high quantity food. Wilson (2001) suggests an alternative concept to better encapsulate this is the notion of
a ‘multifunctional agricultural regime’ which looks beyond agriculture. The multifunctional concept will be discussed further below.

2.4.3 Multifunctional Agriculture

The notion of a multifunctional agriculture regime or multifunctional rural transition is not a new concept, however it has received increased attention and support within the literature in recent years (Holmes, 2006; Marsden & Sonnino, 2008; Wilson, 2001; Woods, 2011b). It has been suggested that multifunctionality, rather than post-productivism, is the leading driver of rural change in affluent societies as the concept encompasses the broad use of rural resources (Holmes, 2006). As Potter and Burney (2002, p. 35) summarise “agriculture is multifunctional, producing not only food but also sustaining rural landscapes, protecting biodiversity, generating employment and contributing to the viability of rural areas”. Wilson (2001) introduces the concept as one which does not replace post-productivism but which follows on from the post-productivist transition. He further argues that multifunctionality better captures the diversity and spatial differences that are currently observed in agriculture practices and rural areas. As Wilson (2001, p. 95) summarises “the notion of a multifunctional agricultural regime allows for multidimensional coexistence of productivist and post-productivist action and thought and may, therefore, be a more accurate depiction of the multi-layered nature of rural an agricultural change.”

From these descriptions it can be concluded the concept of multifunctionality does not exclude productivist based agricultural regimes. Woods (2011b) emphasises the significance of productivist agricultural practices within multifunctional agriculture regimes. For example there may still be exploitation of the land through mass production of agricultural goods, however this must be supported by the free market. Furthermore the multifunctional regime allows for the inclusion of activities that add value and make farms economically viable, despite these activities not following the traditional productivist approach (Woods, 2011b). Therefore, multifunctionality may recognise both the value of farm-based tourism activities and specialisation in niche markets.

Whilst the literature on New Zealand-specific multifunctional agriculture regimes is sparse Holmes (2006) provides insight into the multifunctional rural transition in an
Australian context. Holmes (2006) believes this transition is characterised by a combination of production, consumption and protection orientated goals. This comes in the form of agricultural overcapacity supported by technological changes which has resulted in intensification in some areas and farm redundancy or extensification, pluriactivity and/or diversification in others (Holmes, 2006). The ‘consumption’ of rural space in parallel has emerged as tourists and residents search for the rural idyll and place higher value on amenity uses. In some instances this has led to farms becoming dependent on non-farm income (Holmes, 2006). Lastly, this transition is linked to changes in societal values such as an increasing awareness of sustainable resource management and the protection of landscapes.

This transition presents operational challenges for rural areas as competing interests coexist within rural spaces (Woods, 2011b). For example, through the competing interests of intensification and extensification activities, and the consumption of rural space alongside production-based activities. However, it can be concluded that multifunctionality represents a system which recognises and values the vast range of activities performed in rural spaces. Thus, production based outcomes are intertwined with consumption and protection orientated goals (Holmes, 2006).

In the context of the current study it is important to acknowledge how changes to the rural areas may have been influenced by the construction of a large dam. The following section will therefore provide a brief overview of the costs and benefits of dam construction and the changes this may bring for populations.

### 2.4.4 Impact of Large Dam Projects

A substantial amount of attention has been placed on the social costs of large-scale dam projects and, as a result the World Commission on Dams (WCD) was formed in 1998 to look into these issues (B. Tilt, Braun, & He, 2009). The report of the World Commission on Dams (2000) identifies the role dams play as instruments of development. Case studies highlighted by the WCD identify benefits such as the generation of electricity with supply to both urban and rural areas, flood protection, creation of jobs, both during construction and post-completion, and contribution to tourism. Dams can also provide irrigation water with the report highlighting an estimated 30 – 40 percent of irrigated lands worldwide
rely on dams (World Commission on Dams, 2000, p. 13). Furthermore it is estimated that large dams contribute directly to 12 – 16 percent of global food production (World Commission on Dams, 2000). Thus, the contribution of dams to economic development is irrefutable (Richter et al., 2010) and factors such as regional development and job creation are often cited as reasons for building large dams (World Commission on Dams, 2000). Although, it is often thought large dam projects are justified by the national benefits they can bring, the significant costs and impacts of the dam are however borne largely by local populations.

Within the literature there is a large focus on the negative impacts of large dams, particularly on local populations (for example Richter et al., 2010; Stone, 2011; B. Tilt et al., 2009). This includes the high financial cost and negative environmental, ecological and social impacts (World Commission on Dams, 2000). Environmental changes such as physically fragmenting rivers can result in adverse consequences for ecosystems (World Commission on Dams, 2000). In the case of the well-known Three Gorges Dam on the Yangtze River, despite years of planning, underestimated negative changes have included deteriorating water quality and significant erosion (Stone, 2011). Social impacts within case studies often focus on the physical displacement of individuals and communities living in the immediate area (Richter et al., 2010). However, attention has also been given to the negative impacts on human health (World Commission on Dams, 2000) and the impacts on populations who live downstream and often depend on river flows for their livelihoods and food supply (Richter et al., 2010).

Responding to and managing the changes occurring in rural areas is a key challenge facing the planning system. The next section will introduce planning as it relates to rural areas and identify the role of planning in the context of the current study.

### 2.5 Rural Planning

Whilst planning for urban areas is well documented, finding literature specific to rural planning is more difficult. This may be because planning for urban centres has traditionally dominated policy development, which is evident in both the UK and New Zealand (Lapping, 2006; Miller, 2017). However, this is not to say planning theorists have not taken an interest in the lives of rural people. Early planners such as Ebenezer
Howard and Raymond Unwin led the Garden City movement which sought to improve the lives of both urban and rural people (Lapping, 2006). In New Zealand rural areas have been included in the planning system since 1953 (Miller, 2017).

This section aims to introduce planning by setting the scene with a brief overview of the history of planning and an explanation of the role of planning in rural areas.

### 2.5.1 What is Planning?

There is vast literature which explores the history and concept of planning. Broadly speaking planning is an act of organisation as a response to the environment (Gallent et al., 2008). It is a conscious effort to shape the future generally to achieve better economic, social and environmental outcomes (Gallent et al., 2008). The history of planning within the United Kingdom and New Zealand provides a useful context to understand modern day planning. However, due to space limitations it is not considered necessary to recount an extensive review of the history for the current study. Thus, a condensed version has been provided below.

### 2.5.2 History of Planning

Taken from a UK-centric perspective it is agreed that planning initially emerged as a response to rapid urban growth during the industrialisation era (Gallent et al., 2008). Public health concerns over disease and unsanitary conditions led to the Public Health Act 1848 being enacted which sought to control standards in new developments (Gilg, 2005). As New Zealand was a relatively young country it is thought it was unrealistic to have the same public health fears as Britain (Miller, 2002). However, one argument is that public health concerns were used a form of propaganda to order to gain public acceptance for planning regulation in New Zealand. It is also thought that New Zealand introduced town planning simply because it was of concern in other countries (Miller, 2002).

Planning continued to evolve as it became apparent that common concerns were shared in terms of issues of land rights, housing and economic factors (Gallent et al., 2008). The focus shifted from solely being concerned with public health to the broader issues
associated with urban development, such as poor public transport and uncoordinated infrastructure. Between the early – mid 1900s a number of planning policies emerged in both the United Kingdom and New Zealand and by 1953 New Zealand had established the Town and Country Planning Act (Miller, 2017). This is significant as it was the first time *Country* had been included in the name of the Act. It is believed that this indicated the level of importance New Zealand placed on rural areas and acknowledged the effects of urban sprawl (Robinson, 1981).

Environmental issues began to come to the forefront in the 1980’s which saw communities adopting policies for sustainable development (Ericksen, Berke, Crawford, & Dixon, 2003). The Environment and Development Conference in Rio de Janeiro in 1992 and emergence of the Agenda 21 Charter further enhanced the sustainability focus globally. However, New Zealand had already adopted an environmental planning regime in the form of the Resource Management Act 1991 (RMA) which is still in effect today.

### 2.5.3 Modern-day Planning

Across the developed world there has been a shift towards spatial planning rather than the traditional land use focus. Whilst spatial planning has yet to be universally defined it has broadly been described as the coordination of a number of different partners and agencies to achieve varied objectives including community, environmental and economic objectives (Gallent et al., 2008, p. 18). Albrechts (2004, p. 747) suggests “spatial planning is a public-sector led socio-spatial process through which a vision, actions and means for implementation are produced, that shape and frame what a place is, and may become”. The term ‘spatial’ allows for the ‘where’ of different things to come into focus (Albrechts, 2010). Thus, the relationship between different activities within an area can be explored and more effective ways of integrating different agendas can be established (Albrechts, 2010).

### 2.5.4 The Role of Planning in Rural Areas

It is apparent that early land use planning in rural areas was characterised by policy controls which restricted development and protected farming (Gallent et al., 2008). In New Zealand this was evident under the Town and Country Planning Act 1977 which
made urban sprawl and the protection of productive soils matters of national importance (Miller, 2017). Critics believe this type of planning regime took a single dimension approach concerned primarily with controlling built developments (Gallent et al., 2008). Therefore land use planning had little influence over the landscape and land use change seen in some rural areas. It is also thought this approach hindered development as it aimed to protect environmental goals and the interests of farming. As summarised by Lapping (2006, p. 105) “though often neglected by the overwhelming urban orientation and bias amongst planners and policymakers many of the core and most seminal ideas about planning really sought to speak to the issues and problems facing rural people and rural places”. Thus, reinforcing the need, and importance, of appropriate planning policies specific to rural areas.

It is further argued this traditional land use planning approach has failed to recognise that rural areas are transforming in ways unrelated to the built form (Gallent et al., 2008). Recent literature has identified the concept of multifunctionality as being at the core of a new approach to rural planning. Multifunctionality means there are a number of interrelated challenges and issues which must be responded to through integrated policies (Gallent et al., 2008). Although, there is also a belief this ‘no development’ ethic is still embedded in modern rural policies (Gallent et al., 2008). This can be seen in recent land use policies in England which have principles that continue to restrict and discourage development in rural areas. However, as Curry (2001) critiques, if rural areas are to develop sustainable economies then housing and economic development policies need to be integrated in the planning of such areas.

From a New Zealand perspective it is recognised that the role of planning involves the challenging task of ensuring development does not come at an environmental cost, whilst also sustaining the rural community and fulfilling the requirements of the RMA (Miller, 2017). The remainder of this chapter will therefore seek to explain the key challenges and issues facing rural planning.

2.6 Key Issues for Rural Planning

As previous sections of this literature review have discussed rural areas have long been undergoing significant change. From a planning perspective it is clear rural areas are
vastly different from urban areas. As Miller (2017, p. 190) critiques “rural planning has often been the ‘poor cousin’ of planning” and thus rural planning has received limited attention. Furthermore, planning processes have been criticised as being reactionary to rural problems and it is often thought that there is a time-lag between the issues being identified and policy responses being implemented (Cloke & Park, 1985). This section aims to identify the key challenges that are unique to the rural areas and therefore establish support for and recognition of planning policies which are specific to rural areas.

2.6.1 Socio-economic Factors

As previously discussed, the changing economy of rural areas is not a new phenomenon and can be seen as a reoccurring feature for the last 300 years (Gallent et al., 2008). These changes have led to a number of scholars writing on the matter (Gallent et al., 2008; Marsden, 1998). However, a significant shift became apparent in England in the 1970’s whereby the rural economy moved from primarily production based to one which was also consumption-orientated (Halfacree, 1999). The rural environment and landscape therefore presents a complex phenomenon as rural areas are no longer recognised solely for their ability to provide for productive economic growth (Cloke, 1985). Greater appreciation is now given to the social values and environmental quality of rural resources.

The complexity of the change occurring within rural economies has increased the difficulty for policy and decision makers who have to address these challenges (Garrod et al., 2006). Often it is thought trade-offs will need to be made, as for example, one activity may be generate economic gains for a rural community but simultaneously could threaten environmental interests (Garrod et al., 2006). One argument is that the rural resource should be conceptualised as ‘countryside capital’, that is it should be regarded as an economic asset (Garrod et al., 2006). This concept recognises the economic value of the visual and cultural aspects of the rural area which are reflected in the notion of the rural idyll (Gallent et al., 2008).

As discussed earlier in section 2.3, factors such as counterurbanisation, the rural idyll and amenity migration have been associated with rising populations in some rural areas. The
case study undertaken by Curry et al. (2001) of the district of Denmark in Western Australia highlights a number of social and economic changes that have occurred in a region which has experienced strong population growth. In Denmark the economy has transformed from being primarily based on dairy farming to an economy represented by wineries and other farming activities associated with the rising tourism industry. This study found the change to the economy was often driven by the migrants themselves as when they move to Denmark they often have a desire to leave the formal economy. However in reality they become reliant on making an income in a conventional form, and thus, may contribute to the diversifying economy through establishing new tourism or agricultural initiatives (G. Curry et al., 2001). Furthermore, these lifestyle migrants assist in creating a distinct cultural capital, whereby the district’s rural space is seen as a commodified rurality. Changes in technology have also enabled white-collar professionals to relocate to Denmark and establish their urban-orientated work within the rural areas. These changing factors have contributed to Denmark’s rural areas restructuring and becoming increasingly differentiated and commodified (G. Curry et al., 2001). From a planning point of view this creates challenges as the diversification and multifunctional use of rural land often goes against existing land use policy and zoning regulations (G. Curry et al., 2001).

Within a New Zealand context rural areas are still dominated by farming, although they are no longer made up of homogenous agriculture activities. Therefore, there is a need for rural planning to be flexible and to facilitate these changes without taking up unnecessary time and financial costs (Miller, 2017). Case studies on Queenstown have focused on amenity migration and the development of rural tourism, which further drive the commodification of these areas (Cater & Smith, 2003; Woods, 2011a). Woods (2011a) highlights the complex inter-play of different actors and processes which have influenced the reconstruction of the rural areas, for example, the global processes that have seen traditional primary industries weaken, which in-turn assists in facilitating opportunities for amenity migration. Whereas Cater and Smith (2003) associate the growth of tourism in Queenstown’s rural locations with the loss of agricultural jobs due to the economic restructuring that took place in the 1990s. Cater and Smith further argue rural areas have become commodified through adventure tourism activities being located in rural areas with outstanding natural landscapes.
Implications of this economic shift include the diversification of the rural workforce and a growing middle class presence in rural areas. This has created new tensions and changed the structure of both rural communities and their economies (Gallent et al., 2008). Rural space has become more contested and often external economic processes have gained more power in rural land management and planning (Gallent et al., 2008). Furthermore urban areas tend to be the key source of employment for rural residents who live within commuting distance to urban centres (Gallent et al., 2008). Thus, having a number of implications such as increased commuting traffic.

The following section will discuss how these socio-economic changes are also impacting on the important issue of protecting high-class land for agriculture purposes.

2.6.2 Protecting High-class Productive Land

The debate over protecting high-class, productive land in New Zealand has been evident since 1916, however it does not appear that a resolution is close to being reached (Andrew & Dymond, 2013). A recent report released by the Ministry for the Environment (2018) highlights there has been a 10 percent increase in the area of urban areas between 1996 and 2012 and a 7 percent reduction in the area of land in agriculture production between 2002 and 2012. Further research indicates lifestyle blocks occupy 10 percent of New Zealand’s high-class land (Andrew & Dymond, 2013).

One significant change that occurred under the RMA was the removal of the explicit requirement to protect land that had food production potential, which has been attributed to leading to further loss of high-productivity land (Miller, 2017). However, Land Use Capability (LUC) ratings were invented which rank land from Class 1 to 8 based on the ability to sustain agriculture and other primary production (Miller, 2017). The move of the RMA to focus on the independent effects on the environment means it is difficult to protect high-class land (Miller, 2017). Although one argument employed under the RMA is non-renewable resources should be protected to achieve the sustainable management of resources for the unknown needs of future generations (Andrew & Dymond, 2013). It could also be argued we need to protect these non-renewable resources for sustainable management at a global level (Andrew & Dymond, 2013). Though it is noted protecting
high-class land does not necessarily mean it will be used productively and a range of other factors are also involved.

One key driver that is associated with this loss of productive land is the fragmentation caused by lifestyle blocks (Miller, 2017). Research from Otago shows that 29 percent of new urbanisation has occurred on high-class land between 1990 – 2008 whilst this figure peaked at 59 percent in Marlborough (Andrew & Dymond, 2013). A contributing factor to this loss of productivity is the rate at which this land is being used for consumptive purposes. As land is converted into lifestyle subdivisions the market value increases, thus the cost of the property no longer makes it economically viable to be purchased for production purposes (Andrew & Dymond, 2013). Additional factors including the impermanence syndrome and reverse sensitivity can also influence the productivity of rural land. Impermanence syndrome has been described as the increasing price of land as demand for lifestyle blocks increases, which leads to farmers reducing investment in productive uses as they anticipate converting the land to residential uses (Daniels, 1986). Reverse sensitivity is where an established use produces adverse effects and a new use is proposed for nearby land (Pardy & Kerr, 1999). Thus the adverse effects of the existing activity impact on the new activity and generate complaints. Under the RMA reverse sensitivity has been found as a legitimate concern to decline or restrict new developments (Pardy & Kerr, 1999). However there have also been cases where a farm’s productivity has declined as a result of reverse sensitivity issues (Andrew & Dymond, 2013). This can then result in a decision to subdivide the farm and thus, generate a demand for further subdivision (Andrew & Dymond, 2013).

The desire to protect high-class land often conflicts with the need to provide housing for growing populations. The following section will therefore introduce the key challenge of managing rural housing demands.

2.6.3 Rural Housing

Addressing housing needs is at the forefront of government policy in England, New Zealand and many other developed countries. However, the contestation of utilising rural land for housing has long been debated. Professor Dennison from the University College London argued in 1942 the ‘no development’ ethic for quality agriculture land was not
justified if there was a better economic or amenity use for that land. Further stating “I can conceive of no more proper way to use the land in the national interest than it should be used for the new construction necessary to provide better living conditions for the people – and their children after them – now living in our congested town” in (N. Curry & Owen, 2009, p. 592). Evans’ (1991) work in the late 1980’s also questioned the restriction of housing developments, claiming the supply of land for housing had been restricted by planning controls and “as a result land has been used with increased intensity with infill, ‘town cramming’ and smaller houses on less land – ‘rabbit hutches on postage stamps’; a destruction of the urban environment of the many to preserve a rural environment for a few” (Evans, 1991, p. 853). Whilst Curry and Owen (2009, p. 585) later claimed “If national housing policy does not allow housing developments in rural areas then it becomes impossible to develop a sustainable economy in those rural areas.”

Housing in rural areas has experienced increasing demand globally, and in the case of New Zealand this is particularly evident in respect of rural-residential subdivisions (Miller, 2017). This demand is driven by a range of motivations, including retirees, commuters who are driven out of urban areas in search of a better quality of life and new migrant workers (Gallent et al., 2008). Rural-residential subdivisions bring a number of challenges for planners and conflict often exists between rural communities and competing environmental and economic interests (Gallent et al., 2008). These competing interests can include the associated impacts on the landscape and natural environments from new housing and the conflicting opinions of permanent and migrant residents (Gkartzos & Scott, 2013).

The planning system is often seen to be at the centre of these competing interests (Gallent et al., 2008) and within New Zealand a range of approaches have been developed to address these challenges (Miller, 2017). One approach is imposing minimum lot sizes. However, this can create lots which are too large for owners to maintain leading to poor management of the land (Miller, 2017). Another method is the requirement of each block of land to be a viable economic unit. Though, this approach has also been criticised as monitoring compliance is seen as unfeasible (Miller, 2017). Creating rural-residential zones is another method which has been employed to ensure the specific needs of the zone are met whilst also addressing the issue of reverse sensitivity. Clustering housing developments around a shared access road and sometimes around communally-owned
reserve land has also been utilised as a way to produce smaller rural-residential sites (Miller, 2017). Although, over time these types of developments may create demand for additional urban services.

A further concern for rural housing is the fact that rural employment is generally represented by low skilled and low paid jobs due to the seasonal and part-time nature of agriculture and tourism employment (Gallent et al., 2008). When combined with the increasing numbers of often middle-class amenity migrants, rising land prices and limited supply this creates a complex social problem in which some low-skilled or long-term local residents are effectively ‘locked out’ of the housing market. Thus, as Gallent et al. (2008) suggest a key challenge for rural planning is how to increase housing supply and access whilst protecting the rural environment. The next section will discuss further the issue of protecting rural landscapes.

### 2.6.4 Protecting Rural Character and Rural Landscapes

As already discussed, the change taking place in rural areas presents the outcome of conflicting economic, social and environmental factors. The ‘rurality’ or scenic values of an area are often attributed as drivers of the population and economic growth, however this presents challenges for planners as they seek to protect the rural character or particular rural landscape (J. Tilt et al., 2007). As summarised by Miller (2017, p. 191) “landscape protection…has become a battle ground for competing interests.”

Determining what the rural character is can be particularly difficult due to the different interpretations and perceptions of what constitutes rural. This is because individuals hold different belief systems about rural land and associated landscapes which therefore influence how they evaluate the effects of different land use changes. (Anderson, Ford, & Williams, 2017). From a planning perspective it is vital these different beliefs and meanings are identified and provided for. As Anderson (2017, p. 86) concludes “land use planning that recognises and incorporates different meanings attributed to the rural landscape is likely to be evaluated more positively than policies and planning that assumes a dominant production focused representations of the rural landscape.”
The importance of landscapes can be summarised by the critical role they play in enhancing our social, economic and ecological well-being (Peart, 2004). Within a New Zealand context they help to define what is unique about the country and underpin part of the New Zealand ‘brand’ (Peart, 2004). This emphasis on landscape has seen a number of tools emerge to assess and identify the character of landscapes (Swanwick, 2004). In England this includes the use of Landscape Character Assessment (LCA) as a framework to carry out assessments from a local level to a regional level (Swanwick, 2004). When LCA first emerged it was seen as a tool for professionals, however there is now recognition a wider range of stakeholders should be involved in the assessment (Swanwick, 2004). Within New Zealand, landscape research has highlighted the importance of classifications for landscape management as it provides a frame of reference (Brabyn, 2009). Brabyn (2009) argues a national landscape inventory is needed so planners can assess local landscapes within a national context. This needs to include information which contains both public opinions and specific heritage, cultural and Māori interpretations of landscape.

A report published by the Environmental Defence Society in 2004 undertook a number of case studies looking at the pressures facing areas with outstanding landscapes in New Zealand, including the Wakatipu Basin (Peart, 2004). Whilst the report states the findings cannot be utilised to generalise to issues facing the country as a whole, it does provide useful insights on the pressures placed on important landscapes. The key concern identified is pressure from residential development, particularly in the form of lifestyle properties (Peart, 2004). The report also highlighted how lifestyle subdivisions have become more appealing to farmers as a means of succession planning, given opportunities for intergenerational transfer of viable farming operations has increased in difficulty. Further challenges exist for planners who must determine the impact of buildings on outstanding or important landscapes. From the case studies undertaken it is evident that particular difficulties exist in assessing cumulative effects, although these are often seen as the greatest threat to important landscapes. This is caused by a lack of information on consented activities and difficulty in establishing an environmental bottom line (Peart, 2004). The report also found the decision making of such impacts on landscapes is highly discretionary and dependent on the individual decision makers within the local council. Information on the full impacts of these decisions may also be unknown due to limited monitoring being regularly carried out. Further issues were
identified with New Zealand landscape protection systems such as problems with landscape assessment practices which often do not incorporate public views or cultural and historic values and the poor identification of important landscapes in policies and plans (Peart, 2004).

### 2.6.5 Changes to Rural Communities

Rural communities were traditionally seen as stable and homogenous, however in reality they are dynamic and continually evolving (Woods, 2011b). The changes described in section 2.3 have seen a new social structure emerge which brings difficulties for planning (Gallent et al., 2008). This is because planning has traditionally aimed to find a balance between ‘community good’ and private interests, although the complexity of these changing communities makes the notion of ‘community good’ hard to define (Gallent et al., 2008).

One change often referred to within the literature is that of rural gentrification. Studies in England and America have found ex-urbanites, with increased mobility and often from a white, middle class demographic are key agents in the rural gentrification process (Ghose, 2004). These in-migrants may be motivated by the rural idyll and therefore bring with them preconceived ideas about what rural living will be like (Ghose, 2004). On one hand the urbanites want to protect the natural features of an area and limit population growth but they also are accustomed to a certain level of urban amenities (Gallent et al., 2008; Ghose, 2004). Therefore, ‘new’ residents may display a NIMBY (Not In My Back Yard) judgement towards new developments whilst simultaneously desiring different resources and services to the ‘old’ residents. This could contribute to conflicting views between the two groups (Gallent et al., 2008). From a planning perspective the challenge is to ensure these sometimes contrasting opinions are represented in decision making (Spain, 1993). It is acknowledged that planners are often agents for change and therefore play an important role in fostering conflict negotiations within communities (Spain, 1993).

As discussed in earlier sections, Woods (2011b) highlights the association between increased mobility and counterurbanisation processes, particularly in the Global North. This has a number of implications for rural communities as populations become more
mobile and can commute for work or leisure activities. It allows employees to move between rural properties, or be employed on a temporary and part-time basis. On a global level the increases in low-level agricultural jobs have seen a number of trans-national movements of migrant labour forces emerge. Woods (2011b) further argues this has increased the spatial expression of rural communities.

Increased mobility has been linked to a change in the demand and supply of local services. For example, seasonal residents may reduce the demand for schools and essential services, whilst residents who commute outside of the area may have a reduced need for local shopping services (Gallent et al., 2008). This has implications for both communities and planning. Some town centres which traditionally acted as a central hub for both town and rural residents are suffering from decline due to retail competition from nearby larger urban areas (Thomas & Bromley, 2002). However, these town centres represent more than just a retail area and are often seen as the social foci of communities (Thomas & Bromley, 2002). This is due to the interactions that occur in physical spaces such as shops and community halls which assist in maintaining and enhancing social connections (Liepins, 2000). As planning’s focus moves towards supporting and providing for community well-being (Gallent et al., 2008) it is important to acknowledge the changing nature of rural communities due to increased mobilities.

2.7 Literature on Rural New Zealand

The majority of literature regarding rural change and rural planning has taken a UK-centric perspective, however it is important to recognise the literature specific to New Zealand’s rural areas. This section will provide a brief overview of literature regarding rural New Zealand with a focus on population change and amenity migration.

Research has shown the distribution of population in New Zealand no longer follows the classic ‘urbanisation’ theory (Lee & McDermott, 1998). There was once a ‘northward drift’ which saw population growth centring around the city of Auckland in the upper North Island. As the study by Lee and McDermott (1998) shows this northward drift of population actually reversed between 1991 and 1996 and the South Island received a greater number of internal migrants compared to the North Island. However, overseas
immigration was comparatively higher for the North Island then it was for the South Island.

Lee and McDermott (1998) present different categories which characterise the major patterns of population change in New Zealand which they believe will continue to be significant factors effecting the population distribution of New Zealand in the 21st century. This includes a category know as ‘Sunbelt’ areas, defined as areas near the coast or large lakes with relatively high sunshine hours. A number of contributing factors are recognised for this increase in population in sunbelt regions including reduced commuting costs, preferences for amenity and lifestyle factors combined with a desire to escape urban living, greater spatial and temporal flexibility of some jobs and the growth of our retirement population (Lee & McDermott, 1998).

The study by Lee and McDermott (1998) focused primarily on urban planning, however it does acknowledge planning issues that are relevant to the sunbelt regions, and thus, could have some significance to planning for rural areas. These issues can be summarised as pressure on sensitive physical environments, limited local resources (both social and physical infrastructure), resistance from existing, long-established residents and transportation concerns. Lee and McDermott (1998) call for a planning system which provides for the new emerging environments and populations that are developing throughout New Zealand. “We suggest that what is needed is a greater sophistication in both land use and economic development planning... Local authorities perhaps should aim less to pursue the footloose factory, and more to enhance the local quality of life, as understood by current and incoming residents. This will require research.” (Lee & McDermott, 1998, p. 103).

As already discussed in section 2.3.2 a study by Hall (2006) focused on the impact of amenity migration in the Central Otago and Queenstown Lakes district. This study highlighted the potential conflict that may occur in rural areas through competing land uses by amenity migrants and those of agriculture and viticulture industries (Hall, 2006). However, a later study by Perkins, Mackay and Espiner (2015) investigated vineyard development as a means of stimulating rural change through amenity migration in the Cromwell District. This research found there was relatively little conflict over the changes in the Cromwell District that have come about through the emergence of
viticulture in comparison to other studies looking at similar amenity migration and rural change in areas such as Queenstown. Perkins et al. (2015, p. 95) state “our interpretation of why this dramatic transformation of the District was essentially peaceable was that the actors saw the arrival of grapes, vineyards, wine-making and allied real estate development as culturally acceptable form of ‘productive’ land use”. Although the study did acknowledge some tensions exist regarding the specific vineyard operations, such as the use of gas guns for bird scaring and wind machines for frost fighting, and social tensions between longstanding farming residents and new residents involved in the viticulture industry. Perkins et al. (2015) conclude that amenity is indeed a key factor in stimulating regional in-migration and this has a compounding effect as more amenity migrants come into the area and stimulate further growth. This includes the growth of new services and activities which cater for the growing number of amenity migrants. They further conclude that the introduction of viticulture has assisted in changing the character of the natural environment of the Cromwell District and rural production is differentiating in ways that favour higher value products. This has resulted in a “multifunctional landscape incorporating elements of production, consumption and protection” (Perkins et al., 2015, p. 97).

Further studies have been done looking at the commodification of adventure tourism and how this interacts with New Zealand’s natural, or rural areas (Cloke & Perkins, 2002). Woods (2011a) undertook case study of the Queenstown Lakes District in respect of boosterism and the emergent global countryside highlighting the intense pressure facing rural land use. Whilst a more recent study focused on the reterritorialisation of Central Otago through the development of the council’s ‘A World of Difference’ branding (Rosin, Dwiartama, Grant, & Hopkins, 2013). This study highlighted the shift of the Central Otago landscape from one embedded in pastoral farming to rural areas which are now consumed by tourists. Additional work has investigated the notion of the rural idyll within New Zealand rural subdivisions (Swaffield & Fairweather, 1998) and the role of spatial planning amidst the changing nature of the urban-rural interface (Swaffield, 2012).
2.8 Conclusion

In summary, this chapter has reviewed and analysed the literature regarding rural change and rural planning which is relevant to the current study. Rural areas are difficult to conceptualise due to the various methods which have been utilised to define ‘rural’. Furthermore, rapid changes to both urban and rural areas has seen the geographic boundaries of these areas become blurred. The notions of counterurbanisation and multifunctional agriculture regimes have emerged as key factors driving the change seen in some rural areas. Thus, rural areas are no longer dominated by agriculture and populations are no longer employed solely by traditional agriculture industries. Rural areas encompass landspaces which can both produce food and be consumed by tourists and residents (Holmes, 2006). However, there is also now recognition given to protection-orientated goals, in terms of sustainable management (Potter & Burney, 2002).

Through this review a number of key themes and issues have been identified which are of importance to this research. Planning in rural areas has traditionally restricted development and protected the interests of farming (Gallent et al., 2008). However, drivers such as counterurbanisation have seen a complex environment emerge whereby competing interests seek to exist within the same rural environment. This has created difficulties for policy makers attempting to address these challenges (Garrod et al., 2006). Further, rural land management has become more contested as external economic processes have gained more power in planning processes (Gallent et al., 2008).

There is a need for rural planning to be flexible and facilitate these changes (Miller, 2017). However, often these diversifying uses of the land go against existing policy and zoning regulations (G. Curry et al., 2001). Further challenges exist as the diversifying use of land and growing demand for housing within rural areas creates contests between protecting high-class soils, managing reverse sensitivity issues and protecting important landscapes.

The reconstructing of rural space has also seen different social structures emerge with often conflicting opinions held by ‘old’ and ‘new’ residents within rural areas (Gallent et al., 2008). This presents difficulties for policy makers as they attempt to ensure these
contrasting opinions are represented in decision making (Spain, 1993). However, there are also opportunities for planning to support and provide for community well-being within these changing environments (Gallent et al., 2008).

These key factors and issues identified through the literature review have informed the research questions. The next chapter will introduce the context for the Cromwell Basin case study and provide an overview of the planning framework.
Chapter Three: Context

The previous chapter has provided an overview of the literature relevant to rural areas, both within New Zealand and globally. The purpose of this chapter is to introduce the context of the case study location; the Cromwell Basin. Firstly a brief overview of the relevant history of rural New Zealand is provided. This provides a general understanding of changes that have affected rural areas in a national context. Section 3.2 considers the Cromwell setting providing statistics on the population growth and an overview of the economy. Lastly, section 3.3 concludes this chapter.

3.1 Relevant History of Rural New Zealand

Statistics New Zealand (Stats NZ) (2004) suggest the rural population has increased very little since the early twentieth century. However, the social makeup of rural New Zealand has changed considerably. The 1980’s saw major changes for farmers with the rapid removal of subsidies, forcing farming into a more market approach. Farmers responded in a number of ways including diversification, improving efficiency and in some cases subdividing land (Stats NZ, 2004). Other changes in recent times include improved access to services and transportation which have seen remote areas become accessible. There has also been growth in rural lifestyle blocks and the development of peri-urban areas. Stats NZ (2004) states -

The proliferation of lifestyle blocks has led to a blurring of boundaries between rural and urban New Zealand, while the development of electronic media and communication has helped to reduce the effects of physical isolation. Rural New Zealand in 2001 is very different from rural New Zealand in 1881

In more recent years the Tenure Review process under the Crown Pastoral Land Act 1998 has also generated changes to the rural areas. Tenure Review is a process whereby pastoral lessees have the opportunity to buy some of their leasehold land. The rest of the land is then returned to Crown ownership, usually for conservation purposes (Land
Information New Zealand, 2017b). Land Information New Zealand (2017b) outlines a number of benefits of the Tenure Review process including gains for conservation, public access, recreation and the protection of rare ecosystems as well as enabling farmers to fully utilise the land for economic use. This includes contributing to conservation parks and areas such as the Pisa Conservation Area which overlooks the Upper Clutha basin.

3.2 Cromwell Basin

Central Otago is located within the southern half of the South Island of New Zealand (Central Otago District Council, 2018b). The wider Central Otago region is well known for its unique landscapes, distinctive seasons, strong communities and iconic history (Tourism Central Otago, 2018). The Cromwell Basin, also referred to as the Cromwell Ward, as shown in Figure 2, represents the Western Gateway of Central Otago (Tourism Central Otago, 2018). Cromwell is positioned approximately 60 kilometres east of Queenstown and 50 kilometres south of Wanaka. The Cromwell Basin comprises the township of Cromwell and a number of smaller towns including; Bannockburn, Lowburn, Pisa Moorings and Tarras (Cromwell Community, 2013). Lake Dunstan runs up the middle of the Basin and is fed by the Clutha River to the North and Kawarau River to the West. The area is surrounded by mountain ranges including the Sugar Loaf, Pisa Range and Dunstan Range (Cromwell Community, 2013).
3.2.1 History

Cromwell was established in 1862 by two miners when gold was recovered about a mile below the junction of the Clutha and Kawarau Rivers (Cromwell Districts Promotion Group, 2018). The town was originally known as ‘the Junction’ due to its location being the meeting point of these two rivers, however the name was changed to Cromwell after Oliver Cromwell who served as Lord Protector of England, Scotland and Ireland. The area grew rapidly in the late 1800’s due to the gold rush which dominated the wider Central Otago area and it is believed the population of Cromwell exceeded 2,000 people at this time (Cromwell Community, 2013). This included an influx of Chinese miners in 1866, after the Otago Provincial Council invited Chinese miners to rework the goldfields (Cromwell Districts Promotion Group, 2018).
The discovery of gold resulted in the development of the sluicing technique and the construction of many miles of water races (Cromwell Districts Promotion Group, 2018). As the attention shifted from gold a group of entrepreneurial men and women stayed on and developed the orchards, farms and business ventures which secured the town’s future. This included the conversion of water races in 1870 to be used for horticulture purposes (Cromwell Districts Promotion Group, 2018). The extension of the railway in 1919 further helped to establish the town as a significant service centre for the surrounding areas.

3.2.2 Recent History: Clyde Dam

By the 1950’s the focus had shifted from mining to using Cromwell’s natural water resource for energy production. In 1965 the Otago Daily Times announced Cromwell would be flooded as part of a hydro-electric development (Cromwell Districts Promotion Group, 2018). This was part of the Upper Clutha Development Project, led by the Ministry of Works and Development, which initially proposed five hydro powered dams within 35 kilometres of Cromwell. Cromwell was chosen to be the administration centre of the development works, which resulted in a new suburb of 450 homes to house the workers (Cromwell Districts Promotion Group, 2018).

The largest structure under this scheme was the million cubic metre Clyde Dam approximately 22 kilometres south-east of Cromwell. The construction of the Dam led to the iconic Cromwell Gorge being filled in 1992-93 and creating what is now known as Lake Dunstan (Cromwell Districts Promotion Group, 2018). The creation of the 26 kilometre squared lake resulted in a large portion of the district becoming submerged. This included 1,405 hectares of productive land, of which 605 hectares were recognised as having high potential to produce export quality horticultural crops (Beecroft, 1983). The original retail and commercial hub and residential houses were also submerged (Cromwell Districts Promotion Group, 2018).

The creation of the Dam saw significant redevelopments take place including the relocation and restoration of some of the main street’s original buildings. A large industrial estate was developed, which continues to support a number of service industries (Cromwell Districts Promotion Group, 2018). Further investment into
infrastructure was granted, including the purpose built mall and Anderson Park sporting complex. However, a further lasting impact was the central government driven programme which assessed the district in terms of feasibility for the construction of the dam and classified land which would be affected by the development of Lake Dunstan (Beecroft, 1983). This included work on climate data, soil fertility, microclimate and viticulture. Furthermore, the creation of Lake Dunstan has provided opportunities for irrigation (Perkins et al., 2015).

3.2.3 Population

As at the 2013 Census there were 17,895 residents living within the greater Central Otago Region, an increase of 7.5 percent since the 2006 Census. Although caution must be used when comparing these figures due to the gap between the 2006 and 2013 Census being a 7 year period instead of the regular 5 year period (Stats NZ, 2013). Table 1 shows the population change between 2001 – 2013 in Central Otago, Cromwell and the Cromwell Ward. These changes show as a whole the Central Otago District has been experiencing a significant period of prolonged growth, however it is clear that Cromwell and the Cromwell Ward have absorbed a significant portion of this growth.

Table 1 Population change within Central Otago, Cromwell and Cromwell Ward

<table>
<thead>
<tr>
<th>Population change within the Central Otago District, Cromwell and Dunstan: 2001, 2006 and 2013 Census</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>2001</strong></td>
</tr>
<tr>
<td><strong>2006</strong></td>
</tr>
<tr>
<td><strong>2013</strong></td>
</tr>
</tbody>
</table>

Source: (Stats NZ, 2013)

The current 2018 Stats NZ population projection of Cromwell is 5,100 persons, which shows an 18 percent increase since 2013. Further projections show this growth is set to continue with the 2028 Cromwell population estimated to be 5,560 persons and the 2043 population estimated as 5,910 persons (Stats NZ, 2018b).
3.2.4 Economy

The Cromwell economy is showing strong growth. Results from the 2013 Census reveal there was a 20.4 percent increase in the number of business operations, whilst the number of paid employees in Cromwell increased by 27.4 percent from the year ended 2006 (Stats NZ, 2013). The top industry by employee count is agriculture, forestry and fisheries which accounts for 23.3 percent of total employee count. Recent data from the horticulture and viticulture industries reveals the Central Otago horticulture industry employed 4965 workers in the 2017/18 year whilst the viticulture industry employed 1427 in the same period (Druce & Anderson, 2018). Backpackers comprise 64 percent and 32 percent of these workers respectively. Retail trade, construction, manufacturing and accommodation and food services make up the second to fifth top industries respectively (Stats NZ, 2013). Whilst the unemployment rate is 3.6 percent for persons aged 15 years and over, 1 percent higher than the overall rate for the Central Otago District (Stats NZ, 2013).

3.2.5 Primary Production

Central Otago’s economy is driven by primary production which includes agriculture (pastoral farming, horticulture and fruit growing, viticulture and winemaking), aquaculture, services to agriculture, forestry and logging and mining (Central Otago District Council, 2013). Primary production is the largest contributor to the Central Otago economy which accounted for 31 percent of employment and 31 percent of GDP in 2012. The horticulture industry is dominated by stone fruit, in particular cherry and apricot production whilst pinot noir dominates the viticulture industry (Central Otago District Council, 2013). A key concern for the industry is the seasonal nature of the activities which impacts on the financial viability of businesses and also raises issues in terms of labour supply and demand (Central Otago District Council, 2013).

Stats NZ (2018a) provides agriculture production data which shows changes in production between 2012 and 2017 by region. Interestingly, these statistics show the Otago Region has seen a 25.6 percent decrease in the number of hectares planted in wine grapes from 1,580 hectares in 2012 to 1,170 hectares in 2017. Apple production has also decreased from 460 hectares in 2012 to 430 hectares in 2017. Agricultural livestock
changes for the Otago Region between 2012 and 2017 also show mostly decreases as shown in Table 2 below:

Table 2 Change in Livestock Numbers between 2012 to 2017 in the Otago Region

<table>
<thead>
<tr>
<th></th>
<th>As At June 2012</th>
<th>As At June 2017</th>
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<tbody>
<tr>
<td>Total Beef Cattle</td>
<td>290,398</td>
<td>262,823</td>
</tr>
<tr>
<td>Total Dairy Cattle</td>
<td>336,278</td>
<td>333,850</td>
</tr>
<tr>
<td>Total Sheep</td>
<td>5,342,846</td>
<td>4,586,781</td>
</tr>
<tr>
<td>Total Deer</td>
<td>153,244</td>
<td>115,730</td>
</tr>
<tr>
<td>Total Pigs</td>
<td>11,041</td>
<td>11,576</td>
</tr>
</tbody>
</table>

Source: (Stats NZ, 2018a)

The New Zealand Horticulture Export Authority (2014) reports 93 percent of all cherries grown in New Zealand are produced in Central Otago, of which 55 percent are exported. Stats NZ (2018a) data reports cherry plantings within the Otago region have increased from 500 hectares in 2012 to 580 hectares in 2017. However, a recent labour survey undertaken in Central Otago of the horticulture and viticulture industries shows significantly more plantings, primarily in the Cromwell Basin. This survey recorded 826 hectares planted in cherries in the whole of Central Otago in 2017/18 compared with 548 hectares in 2014/15 (Druce & Anderson, 2018). Projections show 465 additional hectares will be planted in cherries by 2021/22. This represents a 56 percent increase. However, the majority of these new plantings (411 hectares) are to occur in the Cromwell Basin (including the areas of Bannockburn, Tarras and the Lindis). This represents a 69 percent increase in planted hectares for Cromwell Basin over the next five years to 2021/22. Furthermore, this survey found feasibility studies are currently being undertaken for an additional 495 hectares of land to be planted in cherries, predominantly in the Cromwell region. Interestingly, the findings from this survey indicate the decline in the number of grape plantings in the Otago Region seen in the Stats NZ figures does not represent the current trend in Central Otago. The survey results show planted hectares have increased from 1901 hectares in 2014/15 to 1991 hectares in 2017/18. This is projected to increase by a further 14.2 percent from 2017/18 to 2021/22 (Druce & Anderson, 2018). The majority of these plantings are planned for the Cromwell and Bendigo sub-regions.
3.2.6 Tourism

Tourism is acknowledged as an important contributor to the Central Otago economy, however it is recognised tourism plays a more pivotal role than statistics currently suggest (Central Otago District Council, 2013). The difficulty lies in the definition applied to tourism business establishments. For example, many businesses are providing tourism facilities alongside their main business, such as farmers providing bed and breakfasts (Central Otago District Council, 2013). However, recent figures from a report published by BERL show Tourism accounted for 5.1 percent of employment in the Central Otago district and 3.1 percent of GDP (Cox & Dixon, 2016). The Central Otago District also has a significant number of unoccupied dwellings. As at the 2013 Census 22.5 percent of dwellings were unoccupied, compared to the national statistic of 10.5 percent of dwellings being unoccupied (Stats NZ, 2013). This suggests the district is also popular as an area for holiday makers who own second homes.

Between 2008 – 2011 Central Otago experienced a decline of expenditure within the tourism sector. This was largely attributed to the Christchurch earthquakes which disrupted travel from Christchurch and Canterbury, and due to the 2008 Global Financial Crisis (Central Otago District Council, 2013). However, statistics are showing the district is recovering and predictions are for tourism numbers to continue to grow. A number of factors are assisting, this including the development of new tourist attractions such as cycle and walking trails, the Highlands Motorsport Park, wine tourism ventures and golf tourism (Central Otago District Council, 2013).

The impact of the Highland’s Motorsport Park which opened in 2013 has already been a significant contributor to the Central Otago economy. Due to the motorsport park opening the same year as the last census, this contribution is not reflected in the above statistics. However, a survey carried out in 2014 at a one day event reported total expenditure was over $1.5 million whilst directly, and indirectly, the event created the equivalent of 26 full time jobs (O’Neill, 2015).
3.2.6.1 Queenstown Airport

The growth in the tourism sector for Cromwell and the wider Central Otago region is supported by the close proximity of Queenstown International Airport. Statistics show 1.89 million passenger movements occurred at Queenstown Airport between 1 July 2016 – 30 June 2017, an increase of 15 percent on the previous year. These movements were serviced by 14,000 aircraft movements (Queenstown Airport Corporation Ltd, 2018). Current demand forecasts suggest that by 2025 this will increase to 3.2 million passenger movements and 25,000 aircraft movements, whilst by 2045 potential demand could see 7.1 million passenger movements and 55,000 aircraft movements (Note: Passenger movements include both arrivals and departures therefore 1 passenger may count for 2 movements) (Queenstown Airport Corporation Ltd, 2018).

3.2.7 Other Economic Drivers

Cromwell has long been recognised as the ‘central’ hub, located between the larger towns of Alexandra, Wanaka and Queenstown and surrounded by a network of major transportation routes. Its central position has ensured its place as the service centre for the surrounding rural hinterland (Cromwell Districts Promotion Group, 2018). The Central Otago District Council has also invested in telecommunication infrastructure in the form of ultra-fast broadband, which has further supported the districts growth. Building consents within the wider Central Otago continue to be buoyant with 1,038 consents issued in 2016/17 valued at $197.5 million (Jones, 2018b). It is believed Cromwell will be further impacted by increases in the building sector as a recent report by Infometrics identifies Cromwell as a desirable, more affordable alternative to both Queenstown or Wanaka (Kiernan, 2016). This is supported by the approval of new subdivisions within Cromwell Township. Strong growth is predicted to continue as new employment opportunities emerge due to the growing horticulture, viticulture and tourism industries. It is also recognised that additional economic drivers are the increasing number of retirees relocating to the area and the expansion of educational facilities (Kiernan, 2016).
3.3 Conclusion

This chapter has introduced the Cromwell Basin and provided the context for the study area. The Cromwell District has historically been an area of rapid population change with the discovery of gold in the 1800’s. More recent change to the town and rural areas was seen through the construction of the Clyde Dam which submerged the original town and a significant amount of productive land (Cromwell Districts Promotion Group, 2018). However, the Clyde Dam also saw investment granted for a number of infrastructure projects which left a legacy for the wider district. Central Otago’s economy is driven by primary production and it is identified the Cromwell economy in particular is showing strong growth (Central Otago District Council, 2013). A key crop for the wider Central Otago district is cherry production with the New Zealand Horticulture Export Authority (2014) reporting 93 percent of all cherries grown in New Zealand are produced in Central Otago. Although, recent survey results indicate the majority of new cherry plantings are planned for the Cromwell Basin. Therefore demonstrating the significance of cherry production for the rural areas within the Cromwell Basin. However, this chapter has also acknowledged other economic drivers for the Cromwell District including the tourism industry and the proximity of Cromwell as a central ‘hub’ to the larger centres of Alexandra, Queenstown and Wanaka.

This chapter has provided a contextual overview of the case study location. The following chapter will now introduce the research approach and discuss the research methods employed in order to answer the research aim and questions.
Chapter Four: Methodology

Chapter two discussed the literature relevant to this research, introducing concepts which are pertinent to the change and growth of rural areas. This chapter will introduce the research design and methodology used in order to answer the research questions outlined in Chapter One. This chapter begins with an explanation of the chosen research design followed by an outline of the secondary and primary research methods used. These methods included a literature review, policy analysis and key informant interviews. Details of the data analysis methods are discussed followed by an outline of ethical considerations and limitations of the research.

4.1 Research Design

The aim of the current study was to determine how the rural areas around the Cromwell basin have changed over the last 40-50 years. The research topic was chosen due to the researcher’s personal interest in the rural growth around Cromwell and the wider Central Otago District and the very real insight such a study would provide into post-productivist and multifunctional rural changes in New Zealand. This were seen as essential components as it was critical the researcher maintained a sustained interest in the project (Davies, Hoggart, & Lees, 2003). The topic was also selected as it was perceived that the research would be of interest to local stakeholders, and thus would generate interest and involvement in the study (Davies et al., 2003). The research aim, objectives and questions were designed first as one must understand what is being studied before it is determined how it will be studied (Schwartz-Shea & Yanow, 2011). Research methods were then selected for their ability to answer the research questions as shown below:

1. What changes have occurred in the Cromwell Basin and what drives this demand for change in the rural areas?
2. How did the creation of Clyde Dam influence this change?
3. What are the key effects which the Cromwell Basin is experiencing due to growth within its rural areas and what are the associated planning challenges and implications?
4. How does the existing planning framework support and manage this growth and the changing use of rural land? Are there any issues with the current policies which may need to alter?

5. What challenges and opportunities are there moving forward as a result of this growth and change in the Cromwell Basin?

This research employed an interpretive approach as it sought to understand and interpret the wider impacts and implications of changes in the rural areas around the Cromwell Basin. Interpretative research requires more flexibility than other forms of research as the researcher continues to discover new ideas and acquires new knowledge (Schwartz-Shea & Yanow, 2011). Thus, the research design provided for the iterative and adaptive character of interpretive research.

A qualitative, case study approach was adopted to obtain the research data. Qualitative research is increasingly being used to explain human environments and individual experiences based on personal interpretations and responses (Winchester & Rofe, 2010). Therefore, the qualitative focus was considered appropriate given the research aim and questions seek to understand and explore the effects of rural change on the wider community. Single unit case studies are often utilised to explore and understand a phenomenon (Baxter, 2010). In this instance the Cromwell Basin was selected as it represents a highly modified landscape. It also portrayed an ideal location to understand the impacts of rural change and investigate what other factors or implications are at play due to its close proximity to the world renowned tourism destination of Queenstown.

Triangulation was also undertaken by employing a mixed-methods approach. This meant research from different sources was utilised in a complementary manner. This allowed for different perspectives on the research phenomenon to be considered. As a result a deeper insight into the research aim was gained which enhanced the validity of the conclusions reached (Davies et al., 2003).

4.2 Secondary Research

Secondary research methods were undertaken to provide a conceptual framework of the study, by identifying the current knowledge available on the subject. Whilst primary data
is often portrayed as more advantageous it has been recognised secondary research provides a fundamental understanding of the wider issues of the current study (Davies et al., 2003). As Hakim (1982, p. 16) states “One of the advantages of secondary analysis is that it forces the researcher to think more closely about the theoretical aims and substantive issues of the study rather than the practical and methodological problems of collating new data”. Therefore, secondary research was undertaken in the form of a comprehensive literature review, a review of the legislation and planning context and a document analysis.

### 4.2.1 Comprehensive Literature Review

A literature review enables the researcher to critically evaluate the current research on their study area and broader contextual material which helps explain observed patterns and processes (Matthews & Ross, 2010). It was vital to undertake a comprehensive review of the existing literature before embarking on the primary data collection. This enabled the researcher to gain a general overview of the existing body of research on rural change whilst placing the current research within a larger context (Knopf, 2006). Data was collected from a wide of sources, covering both national and international literature. This was predominantly in the form of published books and journal articles taken from geography, planning and resource management databases. The literature review identified four broad themes which informed the research questions. This specifically investigated rural population growth, rural change, rural planning and the main implications for rural planning. The key themes that were established in the literature review were then utilised in the interpretation and analysis of the primary data and inform the recommendations derived from this thesis.

### 4.2.2 Review of Policy and Planning Framework

A review of the policy and planning framework was undertaken to understand both the statutory and non-statutory documents that are important to the rural areas. This enabled the researchers to have gain in-depth understanding of the planning framework that manages rural change and development. The following documents were reviewed:

- Resource Management Act 1991
• Local Government Act 2002
• Regional Policy Statement for Otago
• Regional Plan: Water for Otago
• Central Otago District Plan
• Central Otago District Plan: Review Discussion Document and public submissions
• Cromwell ‘Eye to the Future’ Masterplan
• Ministry for Primary Industries – Rural Proofing

4.2.3 Document Analysis

Additional secondary documents were reviewed to identify key themes which supported the primary research. A review of newspaper articles relevant to the Cromwell Basin was undertaken to identify key arguments which show the change within the rural areas. Additional government reports were also reviewed including the South Island High Country Access Report produced by the NZ Walking Access Commission. This assisted in supporting and strengthening the findings of the primary research.

4.3 Primary Research

4.3.1 Key Informant Interviews

Primary data was collected in the form of key informant interviews. Interviews were utilised for their ability to fill gaps in knowledge and to gain access to information about opinions and experiences (Dunn, 2010). Opinions and experiences can vary immensely between individuals, thus, interviews were considered a useful method to explore how the Cromwell Basin has changed and what the implications of these changes are. Key informant interviews are also recognised for their strength in being able to collect diverse insights as informants use their own words, whilst also revealing consensus on some issues (Dunn, 2010). They also allow the researcher to get closer to the lived experiences which are useful for exploring implications of the researched processes and activities (Davies et al., 2003).
Key informants were selected through a mixture of purposive and snowball sampling. Initial key contacts were selected for their involvement within the rural areas, either through being identified as a rural business owner or someone with professional expertise. Additional key informants were recruited through recommendations from the initial key contacts. This provided additional interviews with key community members who have had a long association with Cromwell and the rural areas. In total fifteen key informants were interviewed during fourteen separate interviews. These key informants included rural business owners, such as farmers and orchardists, a real estate agent and community members with long associations to the wider Cromwell area. Professional stakeholders involved with planning or the development of the rural areas were also interviewed including two representatives from Central Otago District Council. A summary of the key informants interviewed is provided in Table 3 below.

**Table 3 Description of key informants interviewed**

<table>
<thead>
<tr>
<th>Key Informant</th>
<th>Description of participant</th>
</tr>
</thead>
<tbody>
<tr>
<td>One</td>
<td>Business owner</td>
</tr>
<tr>
<td>Two</td>
<td>Community stakeholder</td>
</tr>
<tr>
<td>Three</td>
<td>Business owner</td>
</tr>
<tr>
<td>Four</td>
<td>Community stakeholder</td>
</tr>
<tr>
<td>Five</td>
<td>Community stakeholder</td>
</tr>
<tr>
<td>Six</td>
<td>Professional stakeholder - Environmental organisation</td>
</tr>
<tr>
<td>Seven</td>
<td>Professional stakeholder - Central Otago District Council</td>
</tr>
<tr>
<td>Eight</td>
<td>Community stakeholder</td>
</tr>
<tr>
<td>Nine</td>
<td>Community stakeholder</td>
</tr>
<tr>
<td>Ten</td>
<td>Professional stakeholder - Real estate agent</td>
</tr>
<tr>
<td>Eleven</td>
<td>Business owner</td>
</tr>
<tr>
<td>Twelve</td>
<td>Business owner</td>
</tr>
<tr>
<td>Thirteen</td>
<td>Business owner</td>
</tr>
<tr>
<td>Fourteen</td>
<td>Professional stakeholder - Planning</td>
</tr>
<tr>
<td>Fifteen</td>
<td>Professional stakeholder - Central Otago District Council</td>
</tr>
</tbody>
</table>

The interviews took a semi-structured format. This allowed the interviews to follow an ordered style of questioning with flexibility for the interview to be redirected (Dunn, 2010). The use of audio recording also allowed the interviews to follow a natural, conversational style discussion (Dunn, 2010). An interview schedule (provided as Appendix B) was employed which consisted of a number of guiding questions. In most cases this was emailed in advance to the key informant so they understood what direction the interview would take. Throughout the interviews the researcher needed to act as an active listener and be conscious of the material being gathered (Davies et al., 2003).
However, it was also necessary to encourage the interviewee to discover their views on the research topic, whilst keeping interventions to a minimum (Davies et al., 2003).

4.4 Data Analysis

4.4.1 Analysis of Key Informant Interviews

After the interviews took place the recordings were typed into summaries at the earliest possible time. Whilst full transcriptions have benefits it was recognised this would be very time-consuming and resource intensive (Dunn, 2010). It was considered full transcripts would not add value to the data analysis given the nature of the research aim. Once the interviews were summarised into a typed format coding was employed to identify common themes. This assisted in interpreting the data so it could be organised in a way which identified patterns, commonalities and relationships (Cope, 2010). These themes were then amalgamated into a single file which was utilised when producing the results and discussion chapters.

These broad themes were:

- Rural change
- Business change/existing activities
- Council/ planning/managing change
- Clyde Dam
- Queenstown/Wanaka
- Impacts
- Opportunities

4.4.2 Analysis of Documentary Sources

A similar method was employed to analyse the documentary sources. Once the documents had been summarised into a written format key themes were identified. This allowed for commonalities and discrepancies between the primary data and secondary data sources to be identified. These themes were then triangulated with the primary research findings in the discussion chapters of this thesis.
4.5 Ethical Considerations

All research methods involve ethical considerations that must be considered (Dowling, 2010). The University of Otago Human Ethics Committee granted ethical approval prior to the primary research collection taking place. A number of ethical considerations were raised through the ethics application process. Due to the nature of the research asking for personal insights and opinions, the privacy of individuals was given utmost consideration. Key informants were advised that their identity would remain anonymous and they would only be identified through their generic role as either a business owner, community representative and so forth. However, given some snowball sampling took place there is a possibility some key informants may be identifiable due to being recommended from another key informant.

Participants were provided with detailed information about the research prior to the interviews taking place (attached as Appendix C). In the few instances where the interviewee did not wish to be contacted via email a verbal overview of the research was provided initially and a hard copy of the information was offered at the time of the interview. This allowed the key informants to grant their informed consent and identify that they were happy for the interview to be recorded. Consideration was also given to ensure the research did not expose either the researcher or informant to harm (Dowling, 2010). Prior to the research taking place a Health and Safety Plan was devised and accepted by the University of Otago.

4.6 Limitations and Positionality of the Researcher

As with all research, there are limitations with this study. Time constraints of both the key informants and of the researcher limited research options (Davies et al., 2003). For example, there were some key informants who were unable to participate due to limited available time and conflicting schedules. This also meant that the number of key informants represents a small sample size. The majority of the fieldwork took place at the same time as a significant Plan Change (Plan Change 13) was notified for submissions and also whilst the Cromwell Masterplan was undertaking public consultation. This caused some limitations in ensuring the interviews remained focused on the change in
the rural areas, rather than on issues surrounding Cromwell township. It also could have acted as a limitation due to the perceived interpretation of the ‘proposed’ plan change and misinformation regarding this.

A further limitation is that of the researcher’s personal research experience. As Davies (2003, p. 107) states “researchers need to be honest with themselves about their capabilities and limitations”. In this instance the researcher has relatively limited experience undertaking independent research of this kind. The positionality of the researcher is also important to note. The agriculture and farming industry is widely recognised as a male-dominated field (Chiswell & Wheeler, 2016). Therefore, as a young female there is the potential for my positionality to shape the nature and outcome of the research process through undertaking research within this specific cultural context (Chiswell & Wheeler, 2016). Furthermore, I have personal affiliations with the rural area and a desire to one day purchase land in a rural zone. It was important that I acted impartially and objectively in the research process and also when considering the results and drafting the recommendations of this research.

4.7 Conclusion

This chapter has provided an overview and justification of the methods that were employed for this research. These methods included both secondary and primary data in the form of a comprehensive literature review, review of the relative policy and planning documents and key informant interviews. These methods are considered appropriate for the current study as they allowed the researcher to evaluate the rural change that is taking place and investigate what implications this may have. As with any research, thought has been given to ethical considerations and limitations have also been reflected on. The following chapter will now analyse the policy and planning framework.
Chapter Five: Review of Policy and Planning Framework

This chapter will provide an overview of the policy and planning framework which governs the management of rural areas within New Zealand, and specifically the Cromwell Basin. It is important to have an understanding of the policy and planning framework as this guides the use and management of rural land. This chapter begins by describing the planning framework. It discusses key provisions within the Resource Management Act, the Local Government Act, the Regional Policy Statement for Otago and the Central Otago District Plan that are relevant to the current study. This is followed by a brief overview of the Cromwell ‘Eye to the Future’ Masterplan and acknowledgement of a number of other Acts, policies and organisations whom have an interest in rural areas.

5.1 Resource Management Act 1991

The Resource Management Act 1991 (RMA or the “Act”) is the principal piece of legislation used by New Zealand to promote sustainable management of the country’s natural and physical resources. Part 2, Section 5, of the RMA (Ministry for the Environment, 1991) states the purpose and principles of the Act -

(2) In this Act, sustainable management means managing the use, development, and protection of natural and physical resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural well-being and for their health and safety while —

(a) sustaining the potential of natural and physical resources (excluding minerals) to meet the reasonably foreseeable needs of future generations; and
(b) safeguarding the life-supporting capacity of air, water, soil, and ecosystems; and

(c) avoiding, remedying, or mitigating any adverse effects of activities on the environment.

The purpose and principles of the RMA are highly relevant to the current study as it highlights the importance and complexity of sustainable management of the rural resource. Particularly as the RMA aims to enable people and communities to provide for their social, economic and culture well-being whilst sustaining the potential of natural and physical resources to provide for future generations. The purpose of the RMA highlights the complexity of managing the use of rural areas within the Cromwell Basin. It suggests the competing interests which are at play between promoting economic growth whilst simultaneously protecting the environment and the need to balance these interests to achieve sustainable management.

Section 6 of the RMA further outlines matters of national importance that shall be recognised and provided for -

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

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

(c) the protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna:

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

(e) the relationship of Maori and their culture and traditions with their ancestral lands, water, sites, waahi tapu, and other taonga:
(f) the protection of historic heritage from inappropriate subdivision, use, and development:

(g) the protection of protected customary rights:

(h) the management of significant risks from natural hazards.

It is apparent a number of matters of national importance relate directly to the Cromwell Basin. In particular section 6 (b), (c) and (d) which detail the preservation or protection of areas which are often found within a rural setting. This includes the identification of outstanding natural features and landscapes.

Within the RMA there are a number of other provisions which are considered relevant to the rural areas and the current study. Furthermore the RMA is particularly relevant as it sets up a statutory framework under which Regional and District Plans are developed. However, it is not considered useful to provide an extensive review of the RMA, other to acknowledge the underlying purpose of the Act as detailed above.

5.2 Local Government Act 2002

The Local Government Act 2002 (LGA) (amended in 2012) is also relevant to the current study. The LGA sets out the purpose of local government and provides a framework and powers for local authorities to decide which activities they undertake and the manner in which they will undertake them. Part 2, section 10 (Department of Internal Affairs, 2002) states the purpose of local government as follows -

(1) The purpose of local government is—

(a) to enable democratic local decision-making and action by, and on behalf of, communities; and

(b) to meet the current and future needs of communities for good-quality local infrastructure, local public services, and performance of
regulatory functions in a way that is most cost-effective for households and businesses.

(2) In this Act, *good-quality*, in relation to local infrastructure, local public services, and performance of regulatory functions, means infrastructure, services, and performance that are—

(a) efficient; and

(b) effective; and

(c) appropriate to present and anticipated future circumstances.

The LGA is particularly important for the current study as it details the requirement of local government to consider community views and to enable democratic local decision-making. It also outlines the requirement of local government to provide good quality infrastructure to meet the current and future needs of communities. This is particularly important to the Cromwell Basin as the growth and expansion of the rural areas puts added pressure on infrastructure provisions. Furthermore, as the rural areas become multifunctional the anticipated future circumstances of the Cromwell Basin will change. Thus, the LGA sets out the requirement for local government to take this into consideration when planning for communities infrastructure needs.

5.3 Regional Policy Statement for Otago

The Otago Regional Council (ORC) is responsible for managing Otago’s land, air and water resources. This includes producing the Regional Policy Statement for Otago 1998 (the ‘RPS’) which considers all of Otago’s significant regional resource management issues (Otago Regional Council, 1998). The Operative RPS is currently under review as the Proposed RPS was publicly notified in 2015. The purpose of the RPS is to promote the sustainable management of natural and physical resources. The RPS contains no rules, however it does establish the framework for Otago's regional and district plans through outlining specific objectives and methods to manage Otago's natural and physical
resources (Otago Regional Council, 1998). This includes objectives and policies relevant to the current study that are associated with the use of land -

5.4 Objectives

5.4.1 To promote the sustainable management of Otago’s land resources in order:

(a) To maintain and enhance the primary productive capacity and life supporting capacity of land resources; and

(b) To meet the present and reasonably foreseeable needs of Otago’s people and communities.

5.4.2 To avoid, remedy or mitigate degradation of Otago’s natural and physical resources resulting from activities utilising the land resource.

5.4.3 To protect Otago’s outstanding natural features and landscapes from inappropriate subdivision, use and development.

5.4.4 To ensure that public access opportunities exist in respect of activities utilising Otago’s natural and physical land features.

5.5 Policies

5.5.4 To promote the diversification and use of Otago’s land resource to achieve sustainable land use and management systems for future generations.

These objectives highlight the importance of protecting the district’s land resource so it can be utilised for primary production and support the present and future needs of Otago’s people. However, the objectives also indicate the primary goal is to protect the district’s land resources from inappropriate development. That said, the inclusion of policy 5.5.4 indicates the RPS does acknowledge the multifunctional use of the rural areas, and therefore supports and provides for multifunctionalism within the Cromwell Basin. The RPS also outlines objectives and policies related to water, air, the built environment,
biota and natural hazards which all have relevance to the current study however it is not considered useful to list all of these.

5.4 Regional Plans

The ORC has a number of responsibilities to manage Otago’s land, air and water resources. One significant plan for the rural areas is the Regional Plan: Water for Otago (‘the Water Plan’) (Otago Regional Council, 2018). The Water Plan provides objectives, policies, rules in relation to the use and taking of the district’s water. The Water Plan also recognises the natural and human use values of water and the critical role water has played in the development of Otago.

The ORC is currently developing a Plan Change to the Water Plan to manage the amount of water in the Clutha River/Mata-au, including its lakes and two main upper catchment tributaries, the Kawarau and Hawea Rivers. Some of these proposed changes include setting minimum flows and allocation limits for the Clutha River/Mata-au and allocation limits for the districts lakes including Lake Dunstan.

Another significant plan for the Cromwell Basin is the Regional Plan: Air for Otago (‘the Air Plan’). The Air Plan is particularly relevant to the Cromwell Basin as it sets out objectives, policies and rules which could impact the use of rural land (Otago Regional Council, 2009). What is interesting to note is under section 17.2.1.2 the Air Plan specifically identifies the specific issues arising through multifunctional use of rural land states –

The Otago Regional Council will encourage Otago’s city and district councils to control the adverse effects on air quality from land use activities and in particular those involving dust, agrichemical application or potentially odorous discharges through district plans, land use consents or education and information by:

(1) Achieving physical separation of incompatible land uses through buffer zones or shelter belts;

(2) Recognising existing use rights and reverse sensitivity; and
(3) Encouraging people undertaking land use activities to manage the effects of their activities through following codes of practice or environmental management systems where appropriate.

However, this section falls under Part V of the Air Plan titled ‘Methods Other Than Rules’. Thus, the requirement to consider reserve sensitivity and establish buffer zones is not a rule within the Air Plan. The ORC will take a non-regulatory approach and ‘encourage’ district councils to consider the management of these adverse effects. Therefore, in the context of the Cromwell Basin the Air Plan does not require the CODC to address reverse sensitivity concerns but rather supports them in doing so.

The RPS and Regional Plans are important to the Cromwell Basin as the primary rural land use within this area relies heavily on the natural resource, particularly the water resource. Any change to these plans could have a significant implication in either restricting or enabling rural development and therefore the multifunctional use of rural land.

5.5 Central Otago District Plan

The current Central Otago District Plan (CODP) is the first district plan for the Central Otago District prepared under the RMA which became operative on the 1st of April 2008 (Central Otago District Council, 2008). The COCP provides the framework for managing the effects of development within the Central Otago district.

There is a statutory obligation for the Council to undertake a full review of the District Plan commencing no later than ten years after the CODP became operative. The CODC has therefore been giving consideration to a review of the CODP releasing a discussion document in 2014. Although, a decision was announced in August 2018 to delay the process pending changes to national legislation, including the introduction of National Planning Standards which will provide a template for district plans (Central Otago District Council, 2018e). However, since the first district plan became operative there have been a number of plan changes. This includes Plan Change 5A – 5W which were the result of a Rural Study undertaken in 2005 to address rural development issues.
As was outlined in Chapter One and Chapter Two the current study has focused on areas identified by CODC as within the Rural Resource Area. For clarity this includes the Rural Residential and Rural Resource Area (3), as shown on the maps and the associated legend attached as Appendix A. The CODP includes a number of chapters relevant to the current study. Of particular relevance is Section 2: The Resource and Significant Resource Management Issues of the District, Section 4: Rural Resource Area, Section 12: District Wide Rules and Performance Standards and Section 16: Subdivision. A review of the key sections and objectives and policies is provided below.

5.5.1 Section 2: The Resource and Significant Resource Management Issues of the District

This section of the CODP recognises the district’s unique rural landscape resource which has been affected by developments that in some cases adversely affect the rural landscapes value as a resource. Certain rural landscapes have been identified and classified as Outstanding Natural Features (ONF), Outstanding Natural Landscapes (ONL) and Significant Amenity Landscapes (SAL) (Central Otago District Council, 2008, p. 2:7). Thus, acknowledging the cultural, historical and visual value placed on certain areas and landscapes. Within the Cromwell Basin areas classified as ONF, ONL or SAL include -

- Sugar Loaf and Bendigo (above Loop Road) glacial river terraces (ONF)
- Pisa Range and Dunstan Mountains (ONL)
- Cromwell Gorge (ONL)
- Elevated areas providing visual backdrop to Lake Dunstan near Bendigo (ONL)
- Lowburn and Bendigo Terraces (SAL)

Section 2 of the District Plan outlines Council’s responsibility to recognise and provide for the protection of outstanding natural features and outstanding natural landscapes from inappropriate subdivision, use and development as a matter of national importance. However, section 2.3 of the District Plan (2008) also explicitly states -

Significant Issue - Outstanding Natural Landscapes and Outstanding Natural Features
The District contains a number of outstanding natural landscapes and outstanding natural features that require identification and protection from inappropriate subdivision, use and development. In determining what is inappropriate subdivision, use and development in these landscapes it must be recognised that these landscapes are often utilised by people and communities to provide for their social, economic and cultural wellbeing.

Further detailing a significant issue of Central Otago’s unique and distinctive landscape under section 2.3 (Central Otago District Council, 2008) -

The Central Otago District contains many unique and distinctive landscapes. While those landscapes are constantly evolving through natural processes, farming and other land use activities the semi-arid, rocky nature of the landscape means it can be vulnerable to visual effects of new structures (including telecommunication masts, wind farms, transmission line pylons, and other large structures), cultivation of tussock grasslands, large scale earthworks, new roads, residential built development on elevated land, establishing woodlots, production forestry or shelter belts on elevated land and wilding tree spread. Subdivision is often the precursor of land use activities such as those listed above. The District’s built heritage, particularly in the form of cottages and ruins, and remnants of the early goldmining era, has also made a significant contribution to the landscape values of Central Otago.

Thus, it appears the District Plan provisions are concerned primarily with the impact that built structures associated with residential activities have on these outstanding natural features and landscapes. There is little reference to the impact that productive uses may have on these natural features and landscapes and consideration is given to the landscapes ability to provide for people and communities social, economic and cultural wellbeing.

Section 2 of the CODP also outlines how the land resource is the basis of the social, economic and cultural well-being of Central Otago’s people and communities. An
overview of the prominent land uses is provided. This includes sheep farming, horticulture, beef production, dairy production, deer farming, viticulture, recreation, tourism and conservation. The importance of the land resource is emphasised within section 2.3.4 (Central Otago District Council, 2008) and is summarised by the following abstract -

The land resource is essential to the social, economic and cultural well being of the Central Otago community, and must therefore be managed in a way that provides for such well being. Management of the use, development and protection of natural and physical resources must recognise community needs and be flexible enough to accommodate market changes. This is particularly important given the potential trends in land use. Future land uses anticipated in the District include new horticulture and tree crop developments, increased viticulture, increasing diversification and participation in recreation and tourist orientated activities, and an upsurge in mining due to advances in technology that enables more efficient extraction of minerals with less adverse environmental effects.

Therefore the CODP appears to acknowledge the changing nature of the rural land resource and move towards multifunctionalism. The CODP explicitly states the need for flexibility to accommodate these changes and thus seems to encourage multifunctionalism.

This section of the CODP also details the importance of the water resource and provides an overview of the main use of water resources. This includes recreation and consumptive uses. Section 2.4.4 (Central Otago District Council, 2008) details public access to the lakes and rivers as a significant issue -

Public access to and along the margins of the District’s lakes and rivers is important to existing and future residents and visitors to the District. Riparian access is not always available for public health and safety or operational reasons and is capable of being obstructed by development adjacent to lakes and rivers.
Lastly, section 2.8 of the CODP outlines demographic information as this provides insight into the demand for natural and physical resources. The significant issue of increasing visitor numbers is identified and the opportunities that this provides for the district in terms of economic and social benefits is highlighted. Section 2.8.5 acknowledges that new attractions are developing, specifically mentioning the development of vineyards as a tourism attraction within the Cromwell area (Central Otago District Council, 2008). Thus suggesting the development of multifunctional land uses is positive for the district.

Overall, section 2 of the CODP appears to have significant regard for the complex, often competing interests seen within the rural areas. This section has recognised the importance of Outstanding Natural Landscapes and Outstanding Natural Features within the District, however the CODP also acknowledges these landscapes are utilised by people to provide for their social, economic and cultural wellbeing. It is further evident section 2 acknowledges the multifunctionality of rural land within the District stating prominent land uses include sheep farming, horticulture, beef production, dairy production, deer farming, viticulture, recreation, tourism and conservation.

### 5.5.2 Section 4: Rural Resource Area

This section of the CODP focuses on the rural environment of the District. The CODP states this area is distinct from the urban areas on the basis of its environmental character. Furthermore, the CODP recognise landscape values can be enhanced by human made elements such as orchards and vineyards. Section 4.1 recognises the following reasons for activities to be located within the rural environment (Central Otago District Council, 2008).

(i) They are reliant upon the resources of the rural area. For example, farming activities need large areas of open land, while horticulture and viticulture activities need particular soil types in combination with a number of other factors, particularly climatic conditions and irrigation.
(ii) They need to be close to an activity that is reliant upon the resources of the area. For example, a pack house or a juice factory needs to locate near the fruit source and a winery/wine making facility needs to locate near the grape source.

(iii) They need a large open space where they can generate effects without significantly affecting more sensitive activities. For example, an abattoir which generates discharges (including odour) or a transport yard which generates high levels of traffic.

(iv) Persons wish to enjoy the lifestyle opportunities offered by its open space, landscape and natural character amenity values.

(v) They need to locate directly adjacent to the resource. For example, mineral extraction and related activities do not have the ability to locate anywhere other than directly adjacent to where the deposit occurs.

A number of objectives and associated policies are outlined within section 4, however it is not considered useful to the current study to provide a full account of these. A summary of the most relevant objectives is provided below -

4.3.1 Objective - Needs of the District’s People and Communities

To recognise that communities need to provide for their social, economic and cultural wellbeing, and for their health and safety at the same time as ensuring environmental quality is maintained and enhanced.

4.3.2 Objective – Outstanding Natural Landscapes and Outstanding Natural Features, and Land in the Upper Manorburn/Lake Onslow Landscape Management Area

To protect the Districts outstanding natural landscapes and outstanding natural features, and land in the Upper Manorburn/Lake
Onslow Landscape Management Area (including landforms) from the adverse effects of inappropriate subdivision, use and development.

4.3.3 Objective - Landscape and Amenity Values

To maintain and where practicable enhance rural amenity values created by the open space, landscape, natural character and built environment values of the District’s rural environment, and to maintain the open natural character of the hills and ranges.

4.3.5 Objective - Water Resources

To maintain and enhance the quality of the District’s water resources by avoiding, remedying or mitigating the adverse effects of land use activities adjacent to water bodies.

4.4.10 Policy – Rural Subdivision and Development

To ensure that the subdivision and use of land in the Rural Resource Area avoids, remedies or mitigates adverse effects on:

(a) The open space, landscape and natural character amenity values of the rural environment in particular the hills and ranges,

(b) The natural character and values of the District’s wetlands, lakes, rivers and their margins,

(c) The production and amenity values of neighbouring properties,

(d) The safety and efficiency of the roading network,

(e) The loss of soils with special qualities,

(f) The ecological values of significant indigenous vegetation and significant habitats of indigenous fauna,
(g) The heritage and cultural values of the District,

(h) The water quality of the District’s surface and groundwater resources, and

(i) Public access to or along the rivers and lakes of the District, particularly through the use of minimum (and average) allotment sizes.

The rules of the Rural Resource Area provide for certain restrictions around residential activities. Most rural activities are permitted, providing they comply with certain standards such as noise or specific conditions related to audible bird deterrent devices and wind machines. Exclusions also apply, as shown below, for structures associated with rural activities -

4.7.6 Standards

D. Visual Effect of Buildings and Structures

(b) All buildings and structures (excluding post and wire fences, bird netting and support structures, wind machines, pivot irrigators and sprinklers and other equipment and fixtures incidental to agriculture, horticulture and viticulture) shall not protrude onto a skyline or above a terrace edge when viewed from a public road or other public place at a distance not exceeding 2 kilometres from the building or structure.

Provision is specifically made for other activities ancillary to rural productive uses. This includes off licence wineries which are a controlled activity providing they are ancillary to the production of grapes or wine on the site. Retail activities for wineries including the sale of food in a restaurant type setting are classified as a discretionary activity. However, certain retail activities are also listed as a controlled activity, including those ancillary to the growing of produce on site, the making of art and craft products produced in Central Otago. Specific areas within the rural zones also provide for accommodation facilities as a controlled or restricted discretionary activity, providing they do not exceed 6 people and meet relevant standards. Whilst seasonal workers accommodation to accommodate
up to 60 workers is classified as a restricted discretionary activity, and over and above 60 workers is a discretionary activity.

It appears section 4 of the CODP provides some flexibility for non-farming activities within the Rural Resource Area, however the focus and objectives for this area are aimed towards farming and productive uses. There is little mention of the ability of the Rural Resource Area to provide for tourism activities unrelated to farming operations, however it does acknowledge the value associated with recreational opportunities within the rural areas. Furthermore, there is no specific policy regarding the diversification of rural activities or to encourage other, revenue producing uses land uses. This could be seen as discouraging alternative uses, and thus the multifunctional use of the rural resource.

5.5.3 Section 16: Subdivision

Section 16 of the District Plan sets out the overarching objectives, policies and rules regarding subdivision within the Central Otago District. Key issues associated with intensified development include pressure placed on infrastructure and public services, a reduction in environmental quality, particularly in terms of the landscape and amenity values, and issues with public access to the District’s water resources and other public areas. Relative objectives particularly for the rural areas include -

16.3.1 Objective - Adverse Effects on the Roading Network

To ensure that subdivision avoids, remedies or mitigates adverse effects on the safe and efficient operation of the District’s roading network.

16.3.4 Objective - Amenity Values

To ensure, where appropriate, that amenity values of the District created by the open space, landscape and natural character values, and areas of significant indigenous vegetation, significant habitat of statutorily managed sports fish and game are not adversely affected by subdivision.

16.3.5 Objective - Water and Soil Resources
To ensure that subdivision does not facilitate development that may compromise the life-supporting capacity of the District’s water and soil resources.

Whilst Objective 16.3.5 relates specially to the life-supporting capacity of the Districts soil resources the related policy (16.4.4) is concerned with the disposal of effluent effecting the life-supporting capacity of soil resources. Policy 4.4.10 (Rural Subdivision and Development), which is outlined in the above section, does state the loss of soils with special qualities should be avoided, remedied or mitigated. However, there is no specific reference to the cumulative effects of subdivision on productive land/soil resources.

The subdivision rules specified in section 4.7 outline minimum allotment sizes (4.7.2(ii)(a)(i)) and indicates subdivision shall be a controlled activity providing it meets these standards. This includes an average allotment size of no less than 2 hectares in the Rural-Residential area and in the Rural Resource Area (1) a minimum allotment size of 10 hectares provided that the average area is 25 hectares. There is also a restriction on the maximum number of allotments for residential activities (4.7.2(ii)(a)(iv)). However, rule 4.7.2(iii) provides for subdivision as a discretionary activity for areas not identified on the planning maps as Rural-Residential, Rural Resource Area (1) or Rural Resource Area (2) or Rural Resource Area (3) providing it creates allotments with an average allotment area of no less than 8 hectares and a minimum allotment area of no less than 2 hectares. Interestingly, the Rural Study undertaken in 2005 concluded there was a general consensus that allowing subdivision down to 8 hectares as of right was not appropriate (Central Otago District Council, 2005). There was also some support for the idea of clustering lots in some areas and a desire for greater flexibility for development to be more sensitive to the individual landscape/area. It was acknowledged that some areas may be able to absorb smaller lot sizes whereas in other locations larger lot sizes would be more appropriate.

Although section 16 does not refer to cumulative effects section 4 sets out matters which will be given particular consideration when assessing a resource consent subdivision application. This includes the effects of subdivision and future development on the sustainable use of the productive land and soil resource, reverse sensitivity effects and methods to address such effects, including the use of separation distances and yards.
Clustering lots is also to be given particular consideration to determine if this is beneficial in terms of avoiding or mitigating adverse effects.

Overall, the subdivision provisions appear to continue to support further subdivision of the Rural Resource Area. However, the rules provide for subdivisions to meet certain standards. This includes restricting lot sizes and the number of residential dwellings. Although when assessing individual applications consideration will be given to factors such as the clustering of lots and protecting the sustainable use of the productive land and soil, the minimum lot size requirements may deter applicants from considering a development which breaches this in the first instance. This may mean opportunities which enable more effective use of the land, for example in terms of protecting productive soil, could be lost. Furthermore, the directive ‘will be given particular consideration’ indicates these matters are to be assessed at the discretion of the processing planner(s). If applications are not publicly notified it may prevent the Council from gaining a full understanding of the effects of these matters which must be given particular consideration.

To summarise, the CODP provides for a diverse range of activities to occur within the Rural Resource Area. Farming, agriculture, horticultural and viticulture activities have minimal restrictions. However, the policies and rules tend to restrict non-farming activities which could provide for the economic, social and culture well-being of people whilst protecting the rural areas and outstanding landscapes. Thus, potentially discouraging the development of activities not related to farming, and therefore discouraging the multifunctional use of rural areas.

5.6 Central Otago District Plan: Review Discussion Document

This document was released by the CODC in 2014 to discuss potential changes to the provisions of the CODP (Central Otago District Council, 2014). The CODC also called for submissions in response to this discussion document, however has mentioned above the district plan review has been placed on hold. Although the discussion document does provide an overview of suggested potential changes to the Rural Areas. This includes retaining the current zoning structure of the CODP and retaining the tripartite landscape classification which was introduced through Plan Changes 5A and 5R (as a result of the
Rural Study). It is also proposed to retain a greater emphasis on sustaining the productive land resource in the context of subdivision, however consideration for more intensive subdivision of land is suggested for land subject to the Rural Residential notation. The review document does mention rural land use change, however it states “in terms of landscape effects it is noted that rural land use intensification tends to occur at lower elevations and not on landscapes categorised as Outstanding Natural Landscapes” (Central Otago District Council, 2014, p. 7). Whilst the changing land use from increased fruit and viticulture production is mentioned the focus appears to be on the effects of dairy farming. Furthermore, the discussion document considers that the ORC is best suited to addressing the issues associated with rural land use intensification. The review document also acknowledges reverse sensitivity concerns, however it is suggested those who choose to live in the Rural Resource Area must recognise and accept the effects of rural activities and minimal changes to the district plan provisions are proposed.

The review document indicates minimal changes are proposed for the rural areas. The emphasis appears to be on sustaining the productive use of the land resource however little consideration has been given to changing the status quo regarding minimum lot sizes. The management of intensified land use makes the presumption that rural land use intensification occurs at lower elevations and does not appear to take into consideration that there is potential for intensified development within areas of Outstanding Natural Landscapes. Furthermore, it is suggested the ORC is best equipped to address issues arising from intensified land use. Therefore, minimal consideration appears to be given to the protection of landscape through intensified land use.

### 5.7 Cromwell ‘Eye to the Future’ Masterplan

The Cromwell Community Board supported a recommendation in March 2018 to establish a Cromwell ‘Eye to the Future’ Masterplan (Central Otago District Council, 2018c). The Masterplan is a non-statutory document although it is envisioned this plan will feed into the Annual Plan, District Plan and Council’s Infrastructure Strategy. At the time of the current study the consultation / community engagement process was underway. It is anticipated a draft Masterplan business case will be delivered to Council in December 2019.
The Masterplan has identified a geographic scope boundary (as shown in Figure 3) which does not include most of the Rural Resource Areas within the Cromwell Basin. However, this area of scope does include rural areas, such as Ripponvale, with established rural activities to the town centre and vineyards in Bannockburn. The key areas to be explored during the Masterplan process include -

- A spatial framework to guide the District Plan zoning, sequencing of development, and strategic planning of infrastructure and projects in the town
- The purpose, form and function of Cromwell's Town Centre and the Cromwell Heritage Precinct
- Civic facilities
- Cromwell Memorial Hall

It is considered that the Masterplan process is of relevance to the current study given the close proximity of the town centre to a number of rural activities. The spatial framework will assist in identifying how different activities fit together and could therefore support the integration of the district's rural activities with the growth of the Cromwell township. Furthermore, the Masterplan process could have a significant impact for zoning, and thus the provision of housing within Cromwell. Therefore, the outcomes of the Masterplan process will likely be influential, either in a direct or indirect way, towards activities within the Rural Resource Area.
Figure 3: Map showing the Cromwell Masterplan geographical scope boundary
Source: (Central Otago District Council, 2018c)
5.8 Other Relevant Legislation and Stakeholders

A number of other Acts or agencies are involved in the management and legislation of rural land or resources within New Zealand. The Central Otago District Council has also produced a number of plans and strategies which have some relevance to the rural resource areas. Whilst, it is not considered necessary for the current study to provide a full summary of these it is useful to be aware of these. The below list gives a summary of other relevant legislation, strategies and stakeholders:

- Conservation Act 1987
- Environment Act 1986
- Reserves Act 1977
- Department of Conservation
- Otago Fish and Game Council
- Land Information New Zealand
- Walking Access Act 2008 and Walking Access Commission Ara Hīkoi Aotearoa
- Federated Farmers
- Central Otago District Council 10-Year Plan and Annual Plan
- Clutha River/Mata-au Plan
- Towards Better Tourism Outcomes for Central Otago 2014-2019
- Central Otago Economic and Business Development Strategy 2013-2016
- Central Otago Outdoor Recreation Strategy 2012-2022
- Cromwell Community Plan

5.8.1 Ministry for Primary Industries

The Ministry for Primary Industries (MPI) (2018) is responsible for administering legislation for a range of primary industries. It is considered important to the current study to understand MPI’s function due to the relationship between primary industries and rural land. Furthermore, MPI carries out various research and implements policies which are highly relevant to the current study. This includes providing guidance on ‘Rural Proofing’ which helps policy makers to address and recognise the unique challenges and opportunities that rural communities face. Ministry for Primary Industries
(2017) also carried out a study in 2008 and again in 2017 to investigate New Zealander’s views of the primary sector. The results of this study are highly relevant to the current study and a brief overview of the results is provided below in Table 4.

*Table 4 Abstract from MPI’s study on New Zealanders' views of the primary sector*

<table>
<thead>
<tr>
<th>Summary of New Zealanders' views of the primary sector</th>
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<tr>
<td>69 percent of rural respondents in 2017 up 11 percent (from 2008) and 66 percent of urban respondents up 6 percent (from 2008) held positive views about the horticulture industry.</td>
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<tr>
<td>The most significant change since 2008 was a doubling in the percentage of both urban and rural respondents who now see water pollution and quality as the most significant environmental issue facing New Zealand.</td>
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<tr>
<td>Increasing concern about the ‘corporatisation’ of primary production in New Zealand.</td>
</tr>
<tr>
<td>(‘Corporatisation’ was in many cases used to indicate foreign ownership and this was linked to intensification and negative impacts on the environment)</td>
</tr>
<tr>
<td>The study suggests that the ‘divide’ between urban and rural populations may not be as big as some media reports indicate, instead showing few differences between urban and rural attitudes and views.</td>
</tr>
<tr>
<td>In the qualitative research, participants viewed growth as a focus on adding more value and becoming more efficient – as opposed to straight volume.</td>
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</tbody>
</table>
Concern that the economics of farming was starting to put traditional land ownership out of reach for many New Zealanders.

More urban respondents (26 percent) would consider moving to rural New Zealand, than rural respondents (9 percent) would consider moving to urban New Zealand.

Urban and rural respondents declared ‘lack of infrastructure’ as the main bad thing about living in rural NZ.

Source: (Ministry for Primary Industries, 2017)

The findings from MPI’s study on New Zealanders’ views of the primary sector show a number of issues or concerns related to the growth and changing nature of rural areas. These findings will be compared and contrasted to the findings from the current study which are discussed in the following chapters.

5.9 Conclusion

This chapter has provided a brief review of the planning and policy framework which regulates the use of rural areas within New Zealand, and more specifically the Cromwell Basin. The RMA acknowledges the importance and complexity of sustainable management. Matters of national importance include the protection of outstanding natural features and landscapes from inappropriate subdivision, use and development. The RMA is particularly relevant to the current study as it sets up a statutory framework under which Regional and District Plans are developed. The CODP sets out the framework for managing the effects of development within the Central Otago District (Central Otago District Council, 2008). From this review of the CODP it is evident the planning framework acknowledges the multifunctionality of the Rural Resource Area. Prominent land uses of the rural resource are described as including traditional farming as well as tourism, recreation and conservation. However, the focus appears to be on farming-related productive activities. There is little to suggest diversification of the rural
land resource is encouraged and specific provisions appear to be heavily focused on restricting built form. The objectivities, policies and rules regarding subdivision of rural land appear to be relatively enabling. However, the restriction on lot sizes and maximum number of dwellings could discourage applicants from proposing developments which may achieve better use of the land resource. Whilst the development of the Masterplan is still ongoing it is considered the results will be particularly relevant to the current study given the close proximity of the town centre to a number of rural activities.

The following chapter will now address the first research question and discuss the changes that have occurred within the Cromwell Basin.
Chapter Six: What changes have occurred in the Cromwell Basin and what drives this demand for change in the rural areas?

Rural areas in many parts of the world have long been undergoing change and transformations (Milbourne, 2007) and the Cromwell Basin is no exception. From the key informant interviews it is evident the rural areas around the Cromwell Basin have experienced some significant changes. The purpose of this chapter is to address the first research question, to identify the changes that have occurred and the drivers of this change in the rural areas.

The first section of this chapter outlines the key changes that the key informants described. This is followed by a discussion on how this relates to the literature on productivist and post-productivist agriculture regimes. The next section discusses the changes that can be seen from a business perspective and how this may suggest the rural areas are becoming multifunctional. Section 6.3 follows with a discussion regarding the drivers for this rural change. The findings from the primary research suggest the overall population growth and unique climate are the key drivers. However, the growth of Queenstown and Wanaka was also acknowledged as being an important driver and these factors are discussed in section 6.4. Lastly, section 6.5 concludes this chapter.

6.1 What changes have occurred in the rural areas of the Cromwell Basin?

The key changes identified by the current study include intensification of primary production and a shift away from basic farming and mixed crop orchards towards specialisation. Although the volume of production and the total area of land planted has increased the key change appears to be the new monopoly or specialist niche focus on cherries and viticulture. Further down the Cromwell Basin it has been noted there has been an increased demand for intensification of dairy farming, however a number of key
informants believed this land would continue to change and possibly diversify to another productive use.

As Key Informant Five, who is a long term resident of the district, stated -

“Rural areas have changed enormously... you travel from here to Wanaka and you’d never see a thing like a cherry tree or grape vine, you’d see sheep and cattle... [now] its vineyards and cherries” KI 5

Many of the key informants were able to describe how the use of the land has been transformed from mixed crop orchards, particularly around Bannockburn and Lowburn with bare paddocks or small scale pastoral farming to land which is now utilised for intensive cherry production and some intensification of cattle or dairy farming. A summary of the key informants thoughts on this are provided below -

<table>
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<th>“There’s been some pretty substantial changes, you know certainly in the last 10 – 15 years, the landscapes really changed significantly” KI 6</th>
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<tr>
<td>“What we’ve seen up and down here across the road from us was just bare paddocks...now it’s full of orchards, its full of cherry trees... the orchards up and down this road on this side were all mixed orchards, the odd cherry tree but not many... and then the rest of it further down they’ve put cherries on now, [it] was just farming country, it had sheep on it” KI 5</td>
</tr>
<tr>
<td>“...intensified development and certainly if you look at the Clutha corridor from Wanaka say down to Tarras I suppose and a wee bit downstream or two thirds to Cromwell there’s been a lot of intensification cattle farming or dairying, winter grazing, there’s been a lot of development of paddocks, irrigation demands and the likes” KI 6</td>
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</table>
“There was a lot of land that I remember particularly along Pisa kind of area, it was very arid land when I was growing up you’d see a couple of sheep on it, it looked like a desert. Now its covered in nets and cherries and grapes and that type of thing” KI 2

“It was largely pastoral farming with a bit of horticulture then the viticulture industry came along, um, which changed things a lot, bought a lot of new people in, changed a lot of what was formally worthless land into high value expensive land, a lot of development there, since then market factors have changed and now cherries are the flavour of the month” KI 14

“Vineyard and cherry industry has been the backbone of the growth” KI 9

Business owners also identified the scale of the change that has occurred around them. As Key Informant One stated -

“far more orchard plantings have gone on, we thought we were coming into the industry late but there’s a lot more plantings taken place and there’s still more land on the street that could be designated for it” KI 1 [this business owner bought their land in 2001]

The statistics presented within Chapter Three of this thesis further support these findings in regard to the growth of the cherry industry. A recent survey undertaken in Central Otago recorded 826 hectares planted in cherries in the whole of Central Otago in 2017/18 compared with 548 hectares in 2014/15 (Druce & Anderson, 2018). This survey indicated the majority of new grape plantings in Central Otago over the next five years are planned for the Cromwell and Bendigo sub-regions, both of which are within the study area of the Cromwell Basin. Statistics New Zealand also provides agriculture production data for the whole of the Otago Region. It is difficult to determine if these statistics reflect the change that has specifically occurred within the Cromwell Basin however they do show a significant reduction in the number of sheep between 2012 to 2017 for the whole Otago Region and only a small decline in the number of dairy and beef cattle (Stats NZ, 2018a).
These changes identified by the key informants show similarities to what the literature defines as productivism. Productivism has been characterised by the intensification and specialisation of agriculture (Ilbery & Bowler, 1998). Thus, in the context of the current study it is evident the intensification of dairy and cattle farming and the specialisation of cherry and viticulture production could show characteristics of productivism. However, it is argued cherry production within the Cromwell Basin represents a more intense and sophisticated productivist landscape as it is not a mass-consumed, staple food product. Given the controversy over the use of the term post-productivism it is difficult to conceptualise whether the Cromwell Basin has started to shift towards a post-productivist era. The majority of the key informants acknowledged the change that occurred when vines were first planted within the Cromwell Basin. One key informant described how they thought the first people to plant vines ‘were mad’ as it was quite a drastic change away from traditional farming. This indicates that the planting of grapes may have initially represented a niche industry and suggested a shift towards a post-productivist era. Interestingly, most of the key informants did not explicitly acknowledge the rural areas as places of consumption as well as production. Although this is a key change identified within the literature for rural areas which are transitioning towards a post-productivist era. However, when speaking with business owners it became apparent there have been changes to business activities which could indicate a move towards producing niche products and utilising land for non-agriculture uses, whilst continuing intensive production of agriculture goods. These findings may suggest that characteristics of both productivist and post-productivist regimes are co-existing, rather than seeing a clear shift from productivism to post-productivism (Ilbery & Bowler, 1998). The changes to business activities are discussed further in the next section.

6.2 What changes have occurred from a business perspective?

Most of the business owners alluded to the fact they have multiple business activities operating on their properties. These may be activities that are ancillary to the orchard, for example a roadside fruit stall, or a completely different activity such as a tourism venture. Key Informant Thirteen described how, over time, their property has been utilised for merino farming, viticulture and associated cellar door activities, and tourism and events. In addition to this, some areas of the property have also been subdivided for the
development of lifestyle properties. This finding was supported by Key Informant Fifteen (CODC planning representative) who explained they have received a number of resource consent applications for subdivision and some non-complying retail activities associated with wineries in the rural areas. Key Informant One identified they operate multiple business activities including a small scale accommodation unit alongside the production of cherries and other agriculture products. This key informant also shared that the co-owner of the property had employment outside of the business, and thus, they also relied on off-farm income.

These findings suggest that, in some instances, the rural areas around the Cromwell Basin are becoming multifunctional. The generation of income from both on and off-farm sources shows that the concept of pluriactivity, as defined by Ilbery and Bowler (1998), is significant for some farming households. Whilst farm diversification has been associated with a shift towards a post-productivist agricultural regime within the Cromwell Basin agriculture appears to still be the dominant focus. Thus, rather than a shift away from productivism there is evidence that both productivist and post-productivist practices are occurring in the same rural space. Given there is little acceptance of the term post-productivism, this study agrees with Wilson (2001) that the notion of a multifunctional agriculture regime better describes the changes being seen in the rural areas. That is, there is mass production of agriculture goods occurring alongside activities that do not follow the traditional productivist approach (Woods, 2011b). However, this is interesting when comparing the Cromwell Basin to the nearby area of Queenstown. Studies have highlighted the weakening of traditional primary industries within Queenstown as the rural areas have become increasingly commodified due to the development of tourism and amenity migration (Cater & Smith, 2003; Woods, 2011a). Thus, it can be concluded the rural areas around the Cromwell Basin have not experienced the same level of commodification as Queenstown, although the findings from the current study suggest new uses for rural land will continue to emerge.

Another change described by Key Informant One was how a number of smaller orchards have been planted on their road (2 hectares or less in size), and whilst they are not sure if this is a financially viable option they recognise it may appeal as being a better land use then growing grass.
“looking at it from the standpoint its better than just growing grass and mowing it or having trees that they have to continually prune so their saying obviously the areas being used for cherries we should put cherries in” KI 1

An increase in the number of small-scale farms is often associated with a typical post-productive landscape in Britain (Ilbery & Bowler, 1998). However, within the context of the current study only a small minority of the key informants identified this change so it is difficult to conclude if this is occurring within the Cromwell Basin or not. If there has been an increase in small-scale farming operations one explanation may be that the financial viability of these smaller holdings is made possible through pluriactivity and niche production. In addition to this, the smaller holdings may represent individuals pursuing the rural idyll or semi-retirees, and thus the motivations for establishing a small-scale business are embedded in a complex web of motivations rather than solely monetary drivers. Further research into the ownership and business structure of the smaller orchards would be needed to confirm this.

Some of these activities have been the result of a slow change although it may have always been the intention to shift the nature of the business. For example, two of the key informants acknowledged it had always been in their long term plan to diversify the business activity for a combination of financial and personal reasons. The change may have been slow to occur due to obtaining the necessary consents or the general nature of the activity taking time (e.g. the planting of cherry trees can take a number of years to mature). Other business owners acknowledged opportunities to change or shift the focus of a portion of their land have come about through changes in personal circumstances or from external forces. These personal circumstances include succession planning to ensure all children have an ability to benefit from the family business and associated land. Further discussion on the drivers of rural change is provided in section 6.3 below.

Interestingly, three of the business owners suggested their primary market is largely targeted at selling direct to the customer. In some instances this is through a roadside fruit stall or selling at the local farmers markets. The key informants utilising these markets mentioned they have enjoyed a steady increase in sales in recent years. In particular, two key informants noted they used to have quiet winters but now the fruit stalls are busy year-round, even in winter. The fruit stalls in some instances stock and
sell a wide range of products which target the international consumer market, and other products that appeal to both domestic and international consumers such as ‘real-fruit’ ice cream. In addition to this, a more recent change Key Informant Seven described was the increase in cellar door sales through increased tourist numbers. This has led the business to move away from its traditional focus, which was targeted towards the export market and now they target sales at a local level. These changes clearly indicate a move towards multifunctional activities and consumption of the rural as described within the literature (for example see Holmes, 2006; Woods, 2011b). That is both tourists and domestic residents are attracted to the rural areas for the opportunity to ‘consume’ the product direct from the source. Further discussion on the drivers and explanations for a shift towards consumption of rural areas is provided below.

6.3 What are the drivers of the rural change?

A number of key themes were identified through the current study as being the main drivers of rural change. These include overall population growth, both locally and externally, the location of Cromwell as a central ‘hub’ and the unique climate that the Cromwell Basin offers which is well suited to growing grapes and stone fruit. This is supported by a strong export market for cherries and wine and associated infrastructure that facilitates this (i.e. the proximity to Queenstown Airport). Further drivers include the demand for land, an increase in people looking for ‘lifestyle’ properties or external people looking for income opportunities, and changes in technology. The growth of Queenstown and Wanaka was also raised as having a significant influence on the rural change, however these factors will be discussed separately in section 6.4.

Population growth was described by the majority of the key informants as the key driver of the change within the rural areas. However, this was closely linked to the overall growth being seen within the Cromwell township. As outlined within Chapter Three the significance of the population growth is evident when looking at Statistics New Zealand figures. Although the recent Census results were not available at the time of writing this thesis the current 2018 population projection of Cromwell is 5,100 persons, representing an 18 percent increase since 2013 (Stats NZ, 2018b). Current projections also show this growth is predicted to continue.
Reasons for the change in the rural areas due to population growth were attributed to a number of factors. Key Informant Four described how New Zealand as a whole is attractive to migrants as it is seen as a “sanctuary” both geographically and economically and thus this drives population growth for the whole country. Whereas, locally the Cromwell Basin is attractive to both international and domestic migrants. A number of the key informants identified an increased demand for rural subdivisions as being a localised driver. Changes in technology have made it easier for people to be located in a place such as the Cromwell Basin as they can work from home. Furthermore, the proximity of Cromwell from Queenstown International Airport which is only 40 – 50 minutes away by car is a factor influencing peoples’ decisions. The flow on effect of population growth was also mentioned by Key Informant Seven who believes the population will continue to grow significantly, which will result in more people wanting things to do and this will therefore drive further demand for new activities or businesses.

Key Informants Four and Eight described how Wanaka has traditionally been a popular retirement town for those who could afford it. They believe Cromwell is now starting to appeal to retirees for a number of reasons. One of those being the image the viticulture industry adds to the area.

“Cromwell’s got this new image with the grapes and central position so it’s not all young people like it was before with the ministry, much more cross section of age groups” KI 8

Whilst this comment may have been directed towards the growth that is occurring within Cromwell’s township, it does summarise how the rural areas are adding to the attractiveness of the wider Cromwell area. Furthermore, another key informant discussed how they thought the rural areas were specifically becoming more appealing to semi-retirees. They believe there has been a rise in the numbers of semi-retirees looking for lifestyle businesses, such as small cherry blocks, although as discussed above in section 6.2 further research would be needed to confirm this.

These factors all link closely to the explanations provided in the literature about the phenomenon of counterurbanisation. A key factor influencing counterurbanisation is the notion of the rural idyll and associated amenity migration (Boyle & Halfacree, 1998;
Cloke et al., 1998), which involves people relocating to rural areas in search of the ‘good-life’ as they look for a way to escape modern living. Amenities such as natural landscapes are recognised as key factors motivating people, particularly wealthy middle class citizens to relocate to rural areas (Halfacree, 2008). Within a New Zealand context the attractiveness of ‘sunbelt’ areas, which are areas close to the coast or large lakes with high sunshine hours, have been identified as a significant factor effecting the distribution of population in the 21st century (Lee & McDermott, 1998). Contributing factors for this population growth include the growth of our retirement population and preferences for lifestyle and amenity factors, combined with a desire to escape urban living (Lee & McDermott, 1998). Thus, it can be concluded that the growth in the number of retirees, as described by the key informants, is consistent with the motivations of amenity migrants.

The importance of economic factors are highlighted by Halfacree (2008) when describing the phenomenon of counterurbanisation. Within the context of Cromwell, economic factors such as the relocation of businesses to the township from outside areas is no doubt playing a role in reinforcing the towns position as a central ‘hub’. This has flow on effects as people are attracted from outside the district for employment prospects. The increase in the production of labour-intensive agriculture products and thus the associated movements of migrant workers could also be a factor. Whilst the current study did not investigate in-depth the impact of these workers, there is support within the literature that the presence of ‘temporary’ migrant workers can have a large impact on the places where they reside (Halfacree, 2008). Therefore, further study into the motivations and drivers of migrant workers is needed to understand how the growth of migrant workers may also act as a driver for rural change.

Other factors the key informants acknowledged as driving the rural change include the unique climate which is well suited to growing grapes and stone fruit. As Key Informant Ten stated, this climate “has set the rural areas up pretty well”. Another driver has been noted as the innovative people with international experience that have been attracted to the area for the unique climate and potential to grow grapes and cherries. Key Informant Nine claimed this international knowledge is ‘great’ for the district. These new people have explored different growing techniques and have bought a new level of international marketing experience which is highly beneficial to the whole horticulture industry.
The impact of both the unique climate and innovative pioneers can be further understood when exploring how the farming community responded when grapes were first introduced. Key Informant Seven described how they were only the second vineyard to plant in their immediate area, which was a significant change as initially the property had been a mixed-fruit orchard. Another key informant acknowledged the rural areas were originally cheap land and many farmers didn’t know what to do with it. However, a few visionaries planted grapes and that’s had a significant impact on the overall change. The success of the viticulture industry has compounded as others have recognised the potential first identified by those key visionaries. Since grapes were first planted there has been a huge change in terms of number of plantings and it is not uncommon now to see the planting of grapes extending to the hill areas around the Cromwell Basin. Thus, in this regard it appears a driver of the change is a combination of the unique climate and the change itself. The success of vineyards and cherry orchards have not only stimulated further growth of these industries but they have also added to the attractiveness of Cromwell. This was further eluded to by Key informant Eight when discussing the growth of the vineyards and orchards.

“\textit{It has been absolutely fantastic. Its bought in different people, its put Cromwell on the map for reasons rather than being a Ministry of Works town}” KI 8

This finding is further confirmed by the study conducted by Perkins et al. (2015) who found that vineyard development has stimulated further rural change through attracting amenity migrants to the Cromwell District.

As mentioned briefly above, changes in technology have contributed to rural population growth as it has made it easier for amenity migrants to locate themselves within rural areas and still be involved with urban-orientated employment. This is similar to what was found in the case study undertaken in Denmark, Western Australia (G. Curry et al., 2001). However, an additional driver of change that Curry et al. (2001) uncovered was the migrants themselves stimulate change as they often look to leave the formal economy. This results in individuals looking for alternative ways to generate an income, and thus contributes to the diversifying of the rural economy. The current study did not target amenity migrants therefore it is difficult to confirm if this is occurring within the
Cromwell Basin, however the responses from key informants suggest this could be an area that warrants further research.

6.4 How has the growth of Queenstown and Wanaka impacted the change?

The majority, if not all, of the key informants acknowledged the significant impact the growth of Queenstown and Wanaka has had on Cromwell and the rural areas. The location of Cromwell as a ‘hub’ or service centre to Queenstown, Wanaka and the wider Central Otago region was mentioned by a number of the key informants. This was particularly evident when key informants spoke of Cromwell’s central position to main transport routes. For example, Key Informant Ten identified a number of transport companies who are choosing to relocate to Cromwell given its proximity to the Lindis Pass (the main inland route out of Central Otago to Canterbury). Additionally, Cromwell was described as servicing Queenstown and Wanaka through being home to ‘tradies’ (tradesmen) or other workers who commute to Queenstown and Wanaka. The following summarises quotes from the key informants describing the influence of Queenstown and Wanaka on the growth of Cromwell.

“the gorge [Kawarau Gorge] has become extremely busy, it seems to be increasing exponentially you know if it was just a trickle 5 years ago but now it’s an absolute torrent of people coming in” KI 1

“Cromwell’s become a hub, especially for the building for that sort of industry, and for the wineries, it’s a hub, people can come here and put their businesses here and move out” KI 5

“Population is increasing rapidly that’s due to the growth of both Queenstown and Wanaka because a lot of the tradesmen have their centre here and businesses here
because the land is available for them to build their workshops and all that sort of stuff” KI 9

“the grapes and the cherries and the lake have all helped but the big one is Queenstown” [when talking about overall population and business growth] KI 10

“Queenstown and Wanaka are huge from the tourism perspective” [when discussing drivers of the change and growth] KI 7

Another driver of the change are the number of tourists who are being bought into the area through the attraction of Queenstown and Wanaka. The international airport in Queenstown is recognised as being a primary component of this. As Key Informant Twelve described Queenstown airport is ‘going gangbusters’ whilst Key Informant Fourteen felt the Queenstown airport had been a game-changer for the wider district. The recently released demand forecasts by Queenstown Airport outlined in Chapter Three, show this growth is predicted to continue reaching 3.2 million passenger movements and 25,000 aircraft movements by 2025. Furthermore, Key Informant Thirteen discussed how the growth of Queenstown and Wanaka has helped to facilitate some of the businesses activities that have more recently started up in the rural areas. For example, they felt there would have been no market for a cellar door and farm gate shop twenty years ago as no one was interested in Central Otago wines. However, they further described how it is a ‘chicken and egg’ situation as it is difficult to say which came first as Cromwell may now be enjoying a growth in tourist numbers regardless of whether this is a flow-on effect from the growth seen in Queenstown and Wanaka. It is evident now that the Central Otago region, and the Cromwell Basin, is starting to appeal to tourists as a destination in its own right. As Key Informant One explained, a number of the guests that stay at their lodge base themselves in Cromwell as a way to explore the wider area whilst escaping the high numbers of tourists in Queenstown and Wanaka.

The rising land prices in Queenstown and Wanaka were mentioned by a number of key informants as one key driver of change. This has influenced the overall growth of
Cromwell as businesses look for more affordable land which can still be found in Cromwell. A further factor contributing to this growth was acknowledged by Key Informant Ten (a real estate agent) as the legacy of industrially zoned land left by the Ministry of Works. This key informant stated industrial land is four times more expensive in Queenstown which is attracting a number of businesses to the Cromwell area. Again, these factors can be associated with economic drivers of counterurbanisation theory. A key factor driving counterurbanisation is the relocation of businesses as they search for ways to remain profitable. Whilst Fielding (1982, p. 32) suggests this is often associated with the relocation of firms from large cities to smaller towns in this instance it is the relocation from slightly larger to smaller towns. A further explanation could be the attractiveness of businesses to more rural areas because of the perceived superior quality of life on offer (Gould & Keeble, 1984). The relocation of businesses may also be made possible through advances in technology and production processes (North, 1998).

However, it is not just businesses which are attracted to Cromwell. Many of the key informants mentioned how Cromwell is becoming more attractive for permanent residents looking for an alternative from Queenstown and Wanaka. For example, one key informant described how people are taking notice of the area as a nice place to live, either because of the unaffordability of Queenstown and Wanaka or simply because they like Cromwell. Further reasons for this preference include the lack of facilities in Wanaka, compared to Cromwell (for example Cromwell now has two supermarkets and a number of sporting facilities) and the ‘country atmosphere’ feel that Cromwell offers with township style shopping, compared to Queenstown which now has more metropolitan-style shopping. These can all be associated with people-led explanations of population growth explained in the above section. That is the perception of the rural idyll and the desire to move somewhere which offers greater amenity and thus there is hope of a better lifestyle (Boyle & Halfacreee, 1998; Halfacreee, 1994). It may be that initially Queenstown and Wanaka attracted individuals and families to the wider district, however the rising prices and increasing tourist numbers could be making the rural idyll unattainable within these two towns. Therefore, adding to the attractiveness of Cromwell as an affordable, more appealing alternative to pursue the rural idyll.

It can therefore be concluded the growth of Queenstown and Wanaka is certainly having an impact on the change seen in the Cromwell Basin given the close proximity of
Cromwell to these two towns. However, it is also evident the wider Cromwell area is becoming an attractive location in its own right, either for tourists or amenity migrants. Therefore, the change and growth being seen in the Cromwell Basin could be occurring irrespective of the growth of Queenstown and Wanaka.

### 6.5 Conclusion

This chapter has identified the first research question and explored the key changes that have occurred in the rural areas in the Cromwell Basin. There was a general consensus the biggest change has been the specialist focus on cherry and viticulture production. This finding suggests the Cromwell Basin represents characteristics of a sophisticated productivist landscape. However, other more subtle changes were identified through interviewing rural business owners. This includes the diversification of business activities, generating income from off-farm sources and an increase in the sale of farm goods direct to customers. Therefore, these findings suggest the concept of multifunctionality may be a better representation of the change that has occurred and is predicted to continue within the Cromwell Basin. This chapter has also identified there was a general consensus that the growth of Queenstown and Wanaka has had an impact on the growth and change seen within the wider Cromwell area. The location of Cromwell as a hub to these two centres was recognised as a key factor influencing the population growth as individuals could locate themselves in Cromwell and commute to either centre. However, it is also noted Cromwell is becoming attractive in its own right due to a number of factors including the rural idyll.

It is evident a significant change which impacted the Cromwell Basin prior to the changes described within this chapter was the creation of the Clyde Dam. The construction of the Clyde Dam not only impacted the physical landscape but also impacted the Cromwell community. The next chapter will provide a separate discussion on the lasting physical and social impacts of the dam and discuss how this may have influenced the more recent change seen in the rural areas.
As was outlined in Chapter Three the Clyde Dam is an important part of Cromwell’s recent history. The filling of the Cromwell Gorge saw the creation of Lake Dunstan which submerged a large part of the Cromwell District. This included 1,405 hectares of productive land, of which 605 hectares was recognised as having high potential for export quality horticultural crops (Beecroft, 1983). A significant body of literature exists on the impact of large scale dam projects which recognises the positive economic impacts and often the negative social impacts of such projects (Richter et al., 2010). Therefore it was considered important to include a research question which addresses the development of the Clyde Dam to discuss how this may have influenced recent change within the rural areas. This chapter will first summarise the general findings from the key informant interviews discussing how the Clyde Dam may have influenced the change identified in Chapter Six. It will then describe the physical changes, impact on the town centre and social changes.

7.1 What impact did the Clyde Dam have on the rural areas?

A number of the key informants who have lived in Cromwell since before the creation of Lake Dunstan recognised the impact the Clyde Dam has had on the rural areas. These impacts include the physical changes associated with the construction of the dam and Lake Dunstan and the legacy of major infrastructure works within the town centre. As summarised by Key Informant Four –

“I would venture to say this is the most modified landscape in the country... or you’d be getting close” KI 4

Whilst many key informants were able to describe various impacts due to the creation of Clyde Dam there was no clear consensus as to what degree of influence this has had on recent rural change. Some key informants felt the effects from the construction of the dam were highly instrumental in instigating the subsequent change and growth that occurred in Cromwell. As Key Informant Ten stated “the lights came on in Cromwell
bigtime” when the dam was constructed. While Key Informant Eleven felt the shift seen in the rural areas came after the dam arrived and Key Informant Fourteen believed the transformation that happened at the time of the dam was bigger than what is happening now. However, other key informants were not as convinced and felt the growth of Queenstown and Wanaka, combined with Cromwell’s physical location, would mean the area would still be growing and acting as a ‘hub’ to the wider area, regardless of the dam. As stated by Key Informant Five when referring to the changes brought about by the dam “it did bring about changes, but I don’t think it bought about the sort of changes that you see now”. This was further supported by Key Informant Eight who stated “Even when the ministry works was here there was a trickle on of people but it didn’t seem to have the same explosive effect as what it has had recently”. Thus, describing how there were changes within Cromwell due to the construction of the Clyde Dam but it was quite different to the significant population growth and expansion the town is experiencing now.

7.2 Physical Change

A number of physical changes were identified as occurring due to the construction of the Clyde Dam, particularly with the creation of Lake Dunstan. Common themes included the relocation of orchards, how the visual outlook of the Cromwell Basin changed and how the dam provided a source of irrigation. Many key informants felt that the change had been positive. For example, Key Informant Two commented how the flooding of the orchards in the gorge resulted in these businesses relocating and subsequently experimenting with new planting techniques and embracing new technologies which, over-time had been positive. Another key informant, who was not living in Cromwell at the time the lake was created and therefore acknowledged they did not have a full understanding of the wider impacts, stated -

“the beautification of those areas are now starting to come into their own... so the dam had a huge effect then, we’re only seeing the rewards of the change that took place” KI 1

The changes that the Clyde Dam had on the amenity of the Cromwell Basin could be an associated factor impacting the motivations of amenity migrants moving into the
Cromwell District. That being, the movement of people which is often linked to the draw of natural and cultural amenities (Abrams et al., 2012; Gosnell & Abrams, 2011). One key informant identified Lake Dunstan is likely to appeal to persons involved with boating and water-based recreational activities. They also believed the amenity of the lake was attractive to both families and recreational campers. Furthermore, Key Informant Twelve felt the lake may be more user-friendly than the Clutha River was and therefore makes the area a more attractive place. This finding is supported by the work of Perkins et al. (2015) who also found Lake Dunstan has greatly increased the scenic amenity of the district. Thus, the amenity created by Lake Dunstan may add to the overall appeal of Cromwell for both new residents and tourists. However, other key informants thought the Cromwell Gorge (prior to the creation of Lake Dunstan) consisted of a number of beautiful river spots which were popular recreational areas with natural amenity created by the fiery, wild water of the Clutha River. Therefore it is difficult to quantify what the overall impact of Lake Dunstan has been in terms of amenity and recreational changes.

A number of key informants described the change that occurred as a result of the dam providing an irrigation source. Key Informant Eleven detailed how the change to the rural areas all started with the dam. This informant also explained how, up until the creation of the dam, the rural areas had been quite static with predominately beef and sheep farming, and a bit of cropping, such as the orchards in the gorge. Key Informants Seven, Ten and Twelve all explicitly stated the dam provided a source of irrigation with two of these informants further describing how the irrigation schemes became more secure -

“we now had this beautiful lake instead of a fiery river.. but the big win of the lake was it saturated all the gravels that we live on in the valley floor and all of a sudden you can drill holes anywhere and get water...whereas before you were quite dependent on mountain streams...all of a sudden you could grow grapes”

KI 10

This is consistent with the literature on the benefits of large dams. The World Commission on Dams (2000, p. 13) estimates 30 – 40 percent of irrigated lands worldwide rely on dams. Interestingly, literature specific to Cromwell suggests the change seen within the rural areas of the Cromwell District was assisted due to work
carried out through central government. This work involved scientific studies which assessed the district in terms of feasibility for the construction of the dam and classified land which would be affected by the development of Lake Dunstan (Beecroft, 1983). Potential land was also assessed for new crops and other economic uses (Perkins et al., 2015). Although it is not clear if land owners and developers had access to this scientific work and what influence it had on new crops and productive uses being established. However, it can be concluded there appears to be a direct correlation between the development of the Clyde Dam and the economic growth of the Cromwell Basin in terms of intensified production. Thus, in the instance of the Cromwell Basin the Clyde Dam may have assisted in facilitating the re-resourcing of the rural areas through providing new irrigation opportunities.

Within the literature it is often thought that large dam projects are justified by the national benefits they can bring, with the costs and impacts of the dam being borne largely by local populations. The following section will discuss the impacts on the town centre and the social change.

7.3 Town Centre Change

Whilst not directly a change that occurred in the rural areas, many key informants explained how the creation of significant infrastructure, as a result of the Clyde Dam, benefited both the town and rural residents. These key informants were of the opinion the town has been left with fantastic sporting and educational facilities and better water supply and waste water infrastructure as a result of the dam. As one key informant described children used to have to go outside the district for schooling or sporting pursuits. This infrastructure has provided new opportunities for the younger generation which they may have not had otherwise. The development of the three waters infrastructure has also supported the growth of the rural and town populations since the development of the dam.

As Key Informant Ten stated it was “amazing luck” the dam was constructed in Clyde and Cromwell. This informant went on to explain how during the tougher economic times in the 1980’s Cromwell and the surrounding area had “hit the jackpot” as they were not as heavily affected by the economic downturn like other areas. There was also the
construction of a number of houses by the Ministry of Works, the design and creation of
greenways and the construction of community facilities, such as the shopping centre
which benefited locals in both the short and long run. However, it was also recognised
the town did have its own downturn after the construction. As one key informant
identified this resulted in three removal firms being based in the town after the dam was
constructed. Furthermore, Key Informant Two described how after the construction the
dam workers had largely disappeared but the dam had not started filling yet –

“there was this 4 or 5 year period where town was just terrible... it was just
earthworks everywhere” KI 2

This highlights there were the negative short-term impacts due to the construction work
on the amenity of the area.

7.4 Social Change

What is particularly interesting to observe is the social change that has occurred. Key
Informant Four explained how the Cromwell Basin wasn’t just a remote location and that
it had a rural population inside it as well. The plans and rumours of change in the 1960’s
and 1970’s bought about some uncertainty in the community within the wider Cromwell
district. However the change happened quite incrementally as there were various
proposals put forward and a number of challenges with the physical construction of the
dam.

As Key Informant Eleven identified, prior to the dam the rural areas had been relatively
static in terms of the movement of people and type of production occurring in these areas.
This informant felt the dam had changed the community as a lot of local people moved
out of the area and the creation of Lake Dunstan forced people out of their homes.
However, overall the change had been positive as the new people coming into the area
bought with them different views on how things should be done and also had different
skills and expertise.

This theme was raised by other key informants who identified how the new residents had
different ways of thinking which impacted the existing population. For example, Key
Informant Fourteen felt there was a “complete culture change”, whilst Key Informant Two described how the locals were not accustomed to the types of people who came into the town. They further believed there was a disconnect between the locals and dam workers. However, as described by Key Informant Eight although the workforce for the dam were seen as slightly different to the existing residents of Cromwell they did mix well with the community eventually. One reason they cited for this was due to the fact the Ministry of Works programme ended in Cromwell (as no more large dams were constructed in the country) which meant a lot of workers did not leave Cromwell. Furthermore, the legacy of the community facilities which were constructed as a result of the dam provided a platform for the dam workforce and original community members to interact.

The social changes the town and rural areas experienced during the construction of the dam could be likened to the social changes seen when rural areas are impacted by counterurbanisation. Gallent (2008) acknowledges counterurbanisation processes have seen a new social structure emerge in rural communities. Although, this involves an influx of a different demographic in comparison to what Cromwell experienced during the construction of the dam, similarities can be drawn between the views of ‘old’ and ‘new’ residents. These contrasting opinions can make it difficult for planning as decision makers try to represent these conflicting opinions. However, it is also acknowledged that planners are agents for change and play an important role in fostering conflict resolution negotiations within communities (Spain, 1993). One spatial area that assists in maintaining and enhancing social connections is town centres and physical spaces, such as shops and community halls, which become a social foci for communities (Liepins, 2000). In the context of the Clyde Dam the legacy of the community facilities appears to have played a significant role in enhancing these social connections.

Within the literature there is a large focus on the negative impacts of large dams, particularly negative social impacts. These include the physical displacement of individuals and communities living in the immediate area of the dam and the impacts on populations who live downstream and depend on river flows for their livelihoods and food supply (Richter et al., 2010). However, the responses from the key informants generally suggest the overall impact of the Clyde Dam has been positive for Cromwell. Key Informant Five identified how the displacement impacted some residents but
believed everyone was well looked after (during the process of land being acquired for the dam). A number of informants also identified how the dam workers earned good money and they felt this had a positive impact on the town and community in general. Furthermore, Key Informant Eleven identified how there continues to be significant scope for different types of employment within the Cromwell Basin due to the opportunities made possible from the natural resources. Thus, the general belief seems to be that overall the construction of the Clyde Dam has been positive for the Cromwell Basin.

7.5 Conclusion

This chapter has addressed the second research question in relation to the impact of the Clyde Dam. It is evident the creation of Lake Dunstan has facilitated some of the change seen within the rural areas, particularly through the opportunities for irrigation. The key informants also discussed how the creation of Lake Dunstan has changed the amenity of the Cromwell Basin, however it is difficult to quantify what the overall impact has been in terms of enhancing the amenity of the Cromwell Basin. The legacy of significant infrastructure works within the town centre has also been identified as having a positive impact for both the town and rural populations. It is noted social connections can be enhanced and maintained through the development of community facilities which become a social foci for communities (Liepins, 2000). In the context of Cromwell, the legacy of the community amenities, particularly the sporting facilities, have clearly been beneficial for enhancing and maintaining social connections of both the town and rural populations. Overall it can be concluded the Clyde Dam bought about a number of positive changes for the rural areas and population.

This chapter has addressed the impact of the Clyde Dam on the rural areas within the Cromwell Basin. However the recent growth and change of the rural areas within the Cromwell Basin have produced a number of other effects. The following chapter will address these key effects from a planning perspective.
Chapter Eight: What are the key effects which the Cromwell Basin is experiencing due to growth within its rural areas and what are the associated planning challenges and implications?

The primary research identified a number of effects that are occurring due to the changing rural environment. These effects are as a result of the growing population, the increase in land utilised for horticulture activities and the rise in tourism. Interestingly, when discussing the effects of the change many of the key informants discussed the effect on the Cromwell township, as well as the rural areas. This indicated the township and rural surroundings are intrinsically linked in the minds of the respondents. Key Informant Eight described this relationship, when referring to the viticulture and horticulture industries and the association with the urban community, “it’s the soul of the community so to speak”. This finding is consistent with the Ministry for Primary Industries (2017) study outlined in Chapter Five which found the ‘divide’ between urban and rural populations is not as big as some media reports indicate. Therefore, this chapter discusses the effects of the growing population and changing nature of rural activities on both the Cromwell township and the rural areas.

A number of key themes have been identified which align with the theoretical framework. Given the complex inter-play of factors driving the growth within the Cromwell Basin many of these effects are inter-related. The first section of this chapter will discuss the effects of the socio-economic changes, including the positive economic benefits generated by the growth of the rural areas and the changing mobility of rural workforces. Following this, section 8.2 discusses the increase in demand for housing, both within the town and within the rural areas. A key effect which is often associated with the rising demand for housing in rural areas is reverse sensitivity. Reverse sensitivity is addressed in section 8.3 as it is a highly topical issue within the Cromwell District at present and could be a real concern for rural activities. An associated effect of the urban areas encroaching into rural areas is the potential loss of high-class productive land, which is
discussed in section 8.4. The planning tool of imposing minimum lot sizes to protect productive, rural land is introduced in section 8.5. Another issue related to the demand for housing is the growing cherry and viticulture industries and associated concern of how to accommodate this seasonal workforce. Therefore, section 8.6 specifically addresses the effects of seasonal workers. Following on from this, concerns regarding reduced public access particularly to waterways and open rural areas are discussed in section 8.7. Lastly section 8.8 identifies the effects on the landscape and changes to the rural character, particularly as a result of increasing demand for housing and the growth of the growing horticulture and viticulture industries.

8.1 Socio-economic Changes

From the key informant interviews it is apparent there is strong support for the continued growth and development of Cromwell’s rural areas. Many key informants felt in earlier times Cromwell had been going backwards and the current growth was highly beneficial for the whole area. As Key Informant Seven stated “I used to describe Cromwell as having the odour of a dying town” now the whole area has a vibrancy about. Furthermore, Key Informants Eight and Nine felt the wine and cherry industries function to the greater good of the whole community. The primary research identified how the town and rural areas are strongly interrelated. These industries only functioning with the support of the workforce based within the township and vice versa. Thus, the socio-economic benefits bought about by the growth of the rural areas is seen as positive for residents in both the town and rural areas.

The survey results from the Cromwell Masterplan further support these findings. The one thing that community members most wanted Cromwell to be known for was horticulture and viticulture. This survey also showed respondents wanted Cromwell to be known for other aspects that relate strongly to the rural environment, including the outdoor activities/sports, the beautiful environment and rural identity (Central Otago District Council, 2018c).

This connection between the rural areas and Cromwell township could be partially explained through the notion of the rural idyll. That is, rural areas are perceived as good places to live and people invest themselves culturally and psychologically in rural areas
The key informants generally spoke positively about the rural areas and the identity of Cromwell as a whole seems to be embedded within the rural landscape and the products produced within the rural zone. This is reinforced by the giant fruit sculpture which is situated at the entrance to the town centre.

One of the most cited effects of the overall growth of the wider Cromwell district was the increase in traffic and the pressure this places on transportation infrastructure, particularly on the three roads heading from Cromwell to Alexandra, Queenstown and Wanaka. The key reason for the traffic was attributed to the number of people residing in Cromwell and commuting elsewhere for work. The rise of the commuter and increase in traffic was described by Key Informant One -

"the gorge [Kawarau Gorge] has become extremely busy, it seems to be increasing exponentially you know if it was just a trickle 5 years ago but now it’s an absolute torrent of people coming in” KI 1

This change is clearly linked to changing mobilities and advances in transportation. As identified within the literature, people are now more mobile and have the ability to work and live remotely (Johnson, 2001). Urban areas may be the key source of employment for rural populations who live within commuting distance of these urban centres (Gallent et al., 2008) or individuals may be able to establish their urban-orientated work within the rural areas due to advances in technology (Johnson, 2001). Goods and services can also be produced at a considerable distance from their further markets adding to the increases in traffic. However, the primary research also identified the growth of tourism a contributor to this increase in traffic. One key informant, who resides on a popular cherry growing road, explained how they have noticed an increase in traffic on their road particularly from tourists looking to pick their own cherries. Another business owner also identified the growth in tourists visiting the wineries cellar door over recent years. Again, this can be clearly linked to increased mobilities. It can also be attributed to the shift in rural areas no longer solely being places of production but also as places of consumption by both tourists and residents (Halfacree, 1999).

A small minority of the key informants were able to describe the social changes that have occurred as the production in the rural areas has intensified and overall population has
increased. As Key Informant Eleven explained the area of Lowburn, which is situated five minutes north of Cromwell, used to be a ‘community centre’ with the pub located there but it is not like that anymore. There has been a significant amount of development around Lowburn with new housing subdivisions, and as a result there are not many ‘locals’ left there anymore. Although this informant found it hard to articulate the social change what they described shows similarities to the changes seen in rural communities as a result of rural gentrification. These ‘new’ residents may have come from urban centres and therefore bought preconceived ideas about what rural living should be like, whilst simultaneously desiring different services and amenities to the ‘old’ population (Gallent et al., 2008; Ghose, 2004). Thus, tensions could arise as the ‘new’ residents opinions and ideas about rural living differ from ‘old’ residents (Gallent et al., 2008). Rural gentrification can also result in NIMBY judgements towards new developments (Gallent et al., 2008). Whilst this NIMBY effect was not explicitly raised by the key informants in the context of the rural areas, there were suggestions that it could be occurring within the context of the Cromwell township. Some key informants felt those residents objecting strongly to recently approved plan changes to enable further housing developments were some of the towns ‘newest’ residents.

8.2 Housing

A further effect closely related to the socio-economic changes is the increased demand for housing, both within the Cromwell township and within the rural areas. As has already been identified there has been an increase in persons residing in Cromwell and commuting elsewhere for work. Therefore the different factors which enable greater mobility impact the demand for new housing in both the Cromwell township and wider rural areas. However, as explained by Key Informant Thirteen this becomes a problem within the Cromwell Basin, as more land is taken up by grapevines and cherries there is limited space for housing developments to support the town’s growing population. A key effect of the growth is increased demand for new subdivisions, particularly in areas which were traditionally considered rural. This has flow on effects in terms of housing affordability, reverse sensitivity and the concern for protecting high class productive land.
The contestation of utilising rural land for housing has long been debated (N. Curry & Owen, 2009). Within the context of New Zealand as a whole it has been identified the demand for rural-residential subdivisions is increasing (Miller, 2017). This demand is often driven by retirees and commuters who search for a better quality of life outside of urban centres. The literature identifies that the market value of land often increases as demand for rural subdivisions increases, meaning it is no longer economically viable to use it for productive purposes (Andrew & Dymond, 2013). However, it is difficult to determine if this is occurring within the Cromwell Basin. The primary research identified differing opinions regarding the land-value. For example Key Informant Ten discussed how the underlying land value increase exponentially once it has vines and cherries growing on it. Whereas Key Informant Thirteen acknowledged land which was never utilised for productive purposes has been subdivided for rural subdivisions and has not impacted on farming/productive uses. Thus, although this land has increased in value due to being subdivided for rural residential purposes it is not associated with what Daniels (1986) described as impermanence syndrome. That being, the land owner has not reduced their investment in productive uses as they anticipate converting land to residential uses. However, another business owner who owns productive land closer to the town centre did acknowledge it is now getting to the stage where the demand for housing is so strong that the economic viability of keeping the land for productive purposes is becoming less viable. This raises the issue of finding a balance between protecting high-class productive land and enabling land to be utilised for housing. This will be discussed further below.

8.3 Reverse Sensitivity

The effects from expanding urban populations on rural communities are well documented within the literature. However, in the context of Cromwell it appears these effects are yet to be fully experienced. As one key informant explained they do not believe Cromwell has seen significant reverse sensitivity implications yet but their business will probably be one of the first to really be impacted by it. This informant was describing the issues that were likely to occur through a growing urban pressure on the rural areas. Everyday rural activities could suddenly be seen as creating noise pollution or negatively impacting on the neighbouring residents’ wellbeing. This issue of reverse sensitivity has been found as a legitimate concern under the RMA to decline or restrict new developments (Pardy
& Kerr, 1999). However, reverse sensitivity issues have also been found to influence decisions to subdivide existing farms/productive land (Andrew & Dymond, 2013). This was identified by one business owner who discussed how there could come a time when there is too much pressure (on the orchard) from residential development so it would make sense to subdivide for housing.

8.4 Protecting High-class Productive Land

A key concern for rural areas around New Zealand is the desire to protect high-class productive land from residential subdivisions (Andrew & Dymond, 2013). Owners of rural land are faced with competing interests as their land becomes attractive for housing developments, which as described above, often conflicts with the traditional rural land use due to reverse sensitivity issues. This issue is well documented within the literature and a report from the Ministry for the Environment (2018) shows there has been a 7 percent reduction in the area of land in agriculture production between 2002 and 2012. Key Informant One suggested the land around the Cromwell Basin is unique in New Zealand and there could be problems once it is lost. Whilst Key Informant Four felt it was a local and national interest to protect the land for productive purposes such as growing cherries. This is similar to the reasoning presented by Andrew and Dymond (2013) who argue that in order to achieve sustainable management of resources for future generations these non-renewable resources should be protected. However, another key informant felt there is other land with similar, unique qualities further away from the township of Cromwell. Therefore, this raised questions about whether the land that is closest to the town boundary should be protected when potentially it makes the most geographic sense to utilise this for housing.

8.5 Minimum Lot Size

The planning system is often seen as being at the centre of managing the competing interests of land use in rural areas (Gallent et al., 2008). Within New Zealand a range of approaches have been utilised to address these challenges, including creating rural-residential zones, clustering housing developments and imposing minimum lot sizes (Miller, 2017). The implications of minimum lot sizes, or the effects of smaller rural
residential subdivisions were raised by a number of the informants. One concern expressed included the unproductive use of land particularly from lots around the 4,000m² size. This key informant was describing how it is unproductive in terms of addressing housing needs to only allow one house on a 4000m² site as the remaining land would not be able to be utilised for any productive purpose. However, other key informants felt some areas are unproductive from a farming perspective and therefore a better, more productive use of the land would be rural lifestyle housing. Concern was also raised about smaller lifestyle blocks, around the 2 hectare size, which may not be a viable economic unit. However, Miller (2017) outlines how the requirement for each block of land to be a viable economic unit has faced criticism in the past. This is because of the difficulties with monitoring and enforcing such a requirement make it unfeasible (Miller, 2017). Furthermore, imposing a larger minimum lot size does not guarantee the land will be used productively and in some instances could lead to poor management of the land as the blocks are too large for individual owners to manage. This issue was discussed by one informant who felt there was poor land management surrounding pest control, particularly in rural subdivisions. This key informant has resided in the rural zone for a number of years in the capacity of a ‘rural lifestyler’ and understood the implications that come with rural land ownership. They felt it was individual land owners’ responsibility to control rabbit numbers on their land and did not believe this was occurring in newer rural subdivisions in places such as Queensberry, towards the northern end of the Cromwell Basin.

8.6 Seasonal Workers

Additional concerns about rural housing and accommodation were raised by many of the key informants in regard to the shortage of seasonal workers accommodation and issues associated with freedom campers. Whilst seasonal workers have long been accommodated within the Cromwell District it is the increasing demand, in terms of the number of workers, and the issue of housing them, that is becoming a real concern. One business owner felt the ability to advertise online made it easier to attract workers, although there were concerns over how some business owners treated the seasonal workers and that this might create adverse effects for the whole industry -
Key Informant Nine identified that the growing cherry and viticulture industries do not just impact on the demand for housing through the rising numbers of seasonal workers required to pick the fruit or prune the trees. As the cherry and viticulture industries grow there is also a growing demand for permanent, skilled workers within these industries. The results of the 2018 Labour Survey support this as it was identified there has been a 16 percent increase in permanent workers in the horticulture industry over the last three years (Druce & Anderson, 2018). Thus, the workers required to fill these jobs require year-round housing and they contribute to the permanent population of Cromwell and its district.

Within the literature there is dispute over whether seasonal migrant workers should be included in our understanding of the counterurbanisation phenomenon due to the often temporary nature of their presence (Halfacree, 2008). However, a counter argument to this is although they may be temporary, the demands for equivalent labour makes the overall presence of such workers much more permanent (Halfacree, 2014). Thus, in the instance of Cromwell although the individual workers may only reside in a rural area for a short period of time the overall presence of equivalent workers could be having a much larger impact on the character of a place. The ongoing presence of these ‘seasonal’ workers drives the demand for additional services and infrastructure, such as retail shops and public facilities.

It was identified by a number of the key informants that the Recognised Seasonal Employer (RSE) scheme is vital to rural activities. This scheme allows migrant workers to obtain a RSE visa providing they have a job offer from a RSE in the horticulture and viticulture industries (Immigration New Zealand, 2018). Interestingly, however, although the key informants recognised the importance of the RSE workers for the districts horticulture and viticulture industries they did not extend this same regard towards the backpacker workforce. Thus, the key informants appeared to have a higher
regard for the RSE workers compared with the backpacker workforce. However, the labour survey results show backpackers make up 62 percent of the horticulture industries workforce and 32 percent of viticulture’s (Druce & Anderson, 2018). This movement of seasonal workers highlights the association between increased mobility and counterurbanisation (Woods, 2011b). The RSE scheme or employment of backpackers shows the trans-national movements of migrant labour forces. Woods (2011b) argues these trans-national movements increase the spatial expression of rural communities as rural workforces exist on a global scale. Increased mobility has further impacts for seasonal workers as it allows employees to move between properties or be employed on a temporary or part-time basis.

A concern for addressing rural housing shortages is the nature of rural employment is often represented by low skilled and low paid jobs (Gallent et al., 2008). This creates difficulties for workers to afford the increasing accommodation costs associated with rising land values. However, as some key informants suggested, seasonal workers are unwilling to pay for accommodation and therefore prefer to freedom camp. The overall problem of freedom campers was raised by a number of key informants. Although it is important to acknowledge that when discussing freedom campers the key informants were referring to both tourists who freedom camp and seasonal workers. Most of the business owner key informants described how they provided onsite accommodation for all of their seasonal workers and felt the issue of seasonal workers who freedom camped was only caused by a few businesses. Furthermore, it was recognised that freedom camping is not a new phenomenon but it is the volume of people now camping at popular ‘free’ spots that is causing adverse effects. This included pressures on public toilets and issues with rubbish, particularly at areas such as Lowburn and Bendigo. The recent decision to develop Cromwell’s primary camping ground for housing was also raised as a concern by many key informants as they felt this has the potential to increase the number of freedom campers.

8.7 Public Access

The impacts of the rural growth on the access to waterways was raised by a couple of key informants. These informants have lived in the district since before Lake Dunstan was created and traditionally enjoyed access to waterways through private properties.
However, they felt access to waterways has changed drastically due to the sale of land, subdivisions, the overall growth and changes to personal attitudes or philosophies. This includes the philosophies of both rural landowners, who traditionally may have been reasonably open to public accessing their land, and members of the public who respected this privilege. This could be associated with the differing opinions highlighted in the literature between long-standing residents and new comers (Yung et al., 2003). As the study undertaken in Montana found, long-standing residents welcomed unrestricted access to properties, whilst new residents wanted to restrict access (Yung et al., 2003). This notion is further summarised by Key Informant Six –

“…that’s one of the bigger issues that we’ve actually got is public use of a lot of the rural areas where in the past you know the rural community here was owned by families or generations of families that owned stations or properties for a number of years, and so the public was you know welcome to access waterways through the properties and that’s changed somewhat with land sales, different philosophies...” KI 6

The contentious issue of public access to waterways and open rural areas has been receiving attention in New Zealand for a number of years. This resulted in the establishment of the New Zealand Walking Access Commission, Ara Hīkoi Aotearoa under the Walking Access Act 2008. The purpose of the Walking Access Commission is to provide leadership on walking access issues which also involves administrating a national strategy on walking access (NZ Walking Access Commission, 2018). As was outlined in an opinion piece by Dr Mick Strack (2011) there is a competing interest between the institution of private property and the expectation that land is also public, particularly in the interests of our open spaces and waterways. Strack (2011) explains how public access was often provided for by setting aside riparian strips or reserves. However, riparian strips need to be set aside by land development surveys and this has not been the case in many situations.

Issues around public access have been raised by frequent debate within newspaper headlines over recent years, particularly in regard to areas of the South Island High Country, including areas around the Cromwell Basin such as Lowburn Station (Price, 2016). The debate is largely focused on the withdrawal of access by landholders due to
concerns over increased visitor numbers and the impacts this has on farming operations. These concerns led to the NZ Walking Access Commission producing a report which investigated access in the South Island High Country (NZ Walking Access Commission, 2018). The main issues highlighted in the report include increases in tourist numbers and the use of social media to advertise areas which were once only known by locals. The increased numbers of tourists, unpredictability of their movement patterns and lack of control over where they can go are all concerns for rural land owners. Other issues include a lack of infrastructure and debate over whose responsibility it is to provide this. These issues are exacerbated in areas with a low-ratepayer base and high tourist numbers. The difficulty in providing up to date information and the high safety risks often present within these remote, rural areas further creates concerns for land owners providing access (NZ Walking Access Commission, 2018).

8.8 Changes to the Landscape and Rural Character

The changes to rural areas discussed within the literature review in Chapter Two present conflicting economic, social and environmental challenges. One of these challenges is the issue of protecting or preserving rural landscapes and rural character (J. Tilt et al., 2007). A variety of opinions were expressed by the key informants regarding the changes to the physical landscape, particularly the visual effects from the increase in housing and growth of the viticulture and cherry industries.

The effects of housing on the landscape was described by Key Informant Twelve -

“I suppose the rural outlook has changed... instead of seeing baron farmland and then into the hills which I suppose naturally how it was now you’ve got vines and trees on the lower lands scattered with houses as well... I’d rather see clusters of houses you don’t want to see things subdivided so small, that’s not viable by itself” KI 12

Key Informant Ten also shared this opinion believing there is a need to protect outstanding landscapes and thought clustering housing has worked well overseas in places such as Italy to protect the ‘countryside’ amenity.
A small minority of the key informants held the view that the cumulative effects of cherry nets were visually impacting the outstanding natural landscape. However, the majority of the informants did not specifically identify the impact of the nets. As Key Informant Two explained -

“Visually, I do a lot of flying as well, I find the whole net thing pretty disappointing you know we’ve lost some of the romance of the area with the nets everywhere their quite visual from a massive distance even driving from Wanaka to Cromwell you can see the nets out at Bendigo” KI 2

Key Informants Six and Seven both specifically mentioned their disappointment in the development of vines at the end of the Sugar Loaf, an outstanding natural feature near Pisa Moorings. Key Informant Seven further expressed dislike over permanent cherry nets in some areas, however they believed the vines and associated nets on the Bendigo side of the lake look more attractive. In contrast, Key Informant Six expressed concern about the development of Bendigo. This key informant described how the ‘natural’ Central Otago landscape has been subdivided into smaller rural blocks for the development of viticulture which has visually changed the landscape due to the vines being covered in nets. Furthermore, Key Informant Fourteen felt intensified farming can have a greater impact on the landscape then lifestyle blocks. This shows how different individuals can hold contrasting belief systems about rural land and therefore have different perceptions about constitutes rural (Anderson et al., 2017). From a planning perspective this highlights the difficulties in assessing effects on landscapes and rural character as it can mean different things to different people. Furthermore, there are differing opinions about how are acceptable activities to occur within rural areas. This challenge of protecting landscapes will be discussed further in Chapters Nine and Ten.

8.9 Conclusion

This chapter has addressed the third research question and described a number of key effects the Cromwell District is experiencing due to the growth of the population and changing nature of land use within the rural areas. Many of these effects are inter-related, for example, there are positive economic effects due to the growth of the rural areas, particularly from the increase in cherry and viticulture production but this is producing
concerning effects in terms of housing the seasonal workforce. The identity of Cromwell is intrinsically linked to these industries therefore the growth is perceived as a positive for both the rural and town populations. However, it was also noted there is pressure being placed on the transportation network due to the rising population and growing economy. The growing population and intensification of the cherry and viticulture industries is also placing pressure on housing supply and demand. The appeal of the Cromwell Basin due to the rural idyll and amenity migrants has seen demand for housing increase, however the use of land for cherry and viticulture production also restricts supply. This creates issues in terms of managing reverse sensitivity and protecting high-class productive soils. Additional concerns were raised due to the increased demand for seasonal workers and the issue of housing this growing workforce. The restriction and effects on public access to waterways and open rural spaces were also attributed to the growing population, increase in rural subdivisions and rising tourist numbers. Lastly, key informants identified visual effects on the rural landscape due to the change, particularly from the increase in housing and growth of the viticulture and cherry industries.

The following chapter will now discuss how the existing planning framework supports and manages this growth and changing use of rural land.
Chapter Nine: How does the existing planning framework support and manage this growth and changing use of rural land? Are there any issues with the current policies?

The previous chapters have described the changes that are taking place within the rural areas in the Cromwell Basin. Chapter Eight identified the key effects from this change including socio-economic effects, issues with housing and seasonal workers, changes to the landscape and concern over protecting high-class productive land. The purpose of this chapter is to address the fourth research question, namely to assess how the existing planning framework supports and manages the change which is occurring within the Cromwell Basin. The limitations discussed in Chapter Four are particularly relevant with respect to these results. It was noted that the key informants largely talked about the existing planning framework from the perspective of the growth of Cromwell as a whole – both rural and urban. This was particularly evident with current issues and concerns surrounding the Community Hall, Masterplan and recent approvals for, or plan changes relating to new subdivisions.

Given that this research involved interviews with both rural business owners and community members it is not surprising the results show varied opinions when discussing the effectiveness of the existing planning framework. This chapter will discuss the shortcomings of the current planning framework and identify areas that are working well. It will then discuss how the planning framework might better support this change and growth moving forward.

9.1 Shortcomings of the Current Planning Framework

A theme that was raised by a number of the key informants was the feeling that developers are in control of the growth and change that is occurring. For example, Key Informant Two felt farmers often become developers as they look to change the use of
their land. This key informant was of the opinion farmers had the ability to act as a strong lobby group, resulting in their views being heard more strongly in regard to policy decisions. Although, as Key Informant Fourteen expressed the notion that change cannot be managed and the drivers of these changes are international forces. However, some of the key informants felt the Council had done a good job and managed to keep up with the growth until recently. For example, Key Informant Ten expressed the opinion that planning hasn’t kept pace with the growth in the last 12 months. Some key informants also felt there have been a number of highly controversial new developments which have recently been granted resource consent. This led to a general feeling that it is hardly worth making a submission. This sentiment was expressed by key informants who were concerned about recent proposals but did not feel it was worthwhile to make a submission as they believed public opinions were often disregarded.

Whilst not a direct issue relating to planning in the rural zones it was interesting to note the passion and connection many of the key informants felt towards the Cromwell Memorial Hall. Discussion to redevelop the hall to better suit the needs of the community have been ongoing for close to 20 years. A decision was made to proceed with refurbishing the hall, however, in 2018 the Cromwell Community Board voted to reconsider the future development options of the hall (Central Otago District Council, 2018c). The redevelopment of the hall is now being considered as part of the Masterplan process and thus, progress to redevelop the hall has halted. Key informants were unhappy with how the redevelopment process has been managed, particularly in terms of how long the process has taken, and highlighted the importance of such a hall to both the rural and town community. Again, the key informants felt as if their opinions had fallen on ‘deaf ears’ with this matter. The importance of community spaces or town centres is described within the literature. Community spaces, such as community halls, are often seen as the social foci of communities as they assist in enhancing and maintaining social connections (Thomas & Bromley, 2002). In this instance many of the key informants felt a strong connection to the Cromwell Memorial Hall and recognised the important role it played in the community. However, they also felt frustrated and let down by the planning system as the process has taken too long and yielded little tangible results.

Another theme that arose was the need to protect areas of outstanding natural landscape. As has already been discussed in Chapter Eight, two key informants were disappointed
at the development of grapevines on the end face of the Sugar Loaf. However, as outlined in Chapter Five the Sugar Loaf is classified as an Outstanding Natural Feature. When considering what is deemed inappropriate use or development of these outstanding features their ability to provide for people and communities social, economic and cultural well-being must be taken into account (Central Otago District Council, 2008). Furthermore, the District Plan explicitly recognises landscape values can be enhanced by human made elements such as orchards and vineyards. However, the views expressed by some key informants identified the negative impact human made elements may be having on these landscapes. Although, the sample size of the current study was relatively small and therefore cannot be assumed to represent the views of the whole population it does warrant that further consultation could be undertaken regarding the impact of agriculture and horticulture activities on the landscape.

Concern was also expressed over subdivisions and housing development within these outstanding natural landscape areas. However, as discussed in Chapter Eight there were contrasting opinions from the key informants regarding the changes to the landscape. In particular there were differing opinions regarding the impact of housing compared to the permitted effects of intensified farming within these areas. For example, Key Informant Fourteen felt the rules of the District Plan are counterproductive as the flat land is best suited for productive uses but housing on the hillside is discouraged. However, other key informants felt the clustering of houses has worked well overseas to protect the rural character of landscapes. This shows there are conflicting opinions and beliefs about rural land and associated landscapes. As was discussed in the literature review these conflicting opinions and beliefs create difficulties from a planning perspective when determining landscape classifications and considering what appropriate land uses are (Anderson et al., 2017). However, it is vital to protect certain landscapes as they play an important in enhancing our social, economic and ecological well-being (Peart, 2004). Therefore, there seemed to be mixed opinions as to whether the current planning framework is adequately protecting these outstanding landscapes.

As one key informant discussed they were slightly disappointed at the subdivision development that has occurred in the Bendigo area. This area is now covered in a number of smaller viticulture blocks and some rural lifestyle type properties which has changed the outlook of the ‘natural’ Central Otago landscape. This highlights the concern and
difficulty of managing cumulative effects on landscapes. Within the literature it is noted that cumulative effects are the greatest threat to important landscapes, yet there is often a lack of information on consented activities and the full effects of such activities may be unknown due to limited monitoring (Peart, 2004). When reviewing the District Plan there does not appear to be any policy objective in respect of cumulative effects, particularly from subdivision. Cumulative effects do not only impact on important landscapes but could be particularly important when assessing fragmentation of productive land.

Protection of productive land was another area about which key informants expressed concern. As one informant stated it was difficult to comprehend the decision to rezone productive land around Ripponvale, a highly productive horticulture area, to allow smaller lot sizes. Whilst other key informants felt there would be continued rezoning of areas to smaller lot sizes as the town continues to expand which would further compromise the ability to utilise the land for productive purposes. However, since the primary research was carried out, the Otago Daily Times announced that Horticulture New Zealand is currently mapping the current and future horticulture landscape of the Central Otago district including the Cromwell area (O'Hara, 2018). This article further stated this information will be used by the CODC for its district plan review. Therefore, it is acknowledged this shortcoming of the planning framework is potentially already being addressed by the CODC.

The issue of protecting high-class, productive land within New Zealand has been debated for a number of years, although it does not appear that a resolution is close to being reached (Andrew & Dymond, 2013). Research indicates lifestyle blocks occupy 10 percent of New Zealand’s high-class land (Andrew & Dymond, 2013). Furthermore, lifestyle blocks have the ability to fragment land and therefore are a key driver associated with the loss of productive land (Miller, 2017). Thus, it is an issue which is of concern to New Zealand planning as a whole. As identified by Miller (2017) one of the most significant changes that occurred under the RMA was the removal of the explicit requirement to protect land that had food production potential. The requirement of the RMA to focus on the independent effects of an activity on the environment has made it difficult for the planning framework to protect high-class productive land. It is also
thought that the removal of the requirement to protect land which has food production potential has led to further loss of high-class productive land (Miller, 2017).

Productivity of land can also be affected by factors such as reverse sensitivity issues (Andrew & Dymond, 2013). Reverse sensitivity is where an established use produces adverse effects and a new use is proposed for nearby land (Pardy & Kerr, 1999). As was already discussed in Chapter Seven a number of key informants expressed concern over how reverse sensitivity issues would be managed as more subdivisions are proposed for locations close to existing rural activities. These developments could result in a number of issues for rural activities as some rural activities are not permitted within a certain distance of residential developments (e.g. wind machines have to be located more than 300m from a residential development). Thus, reverse sensitivity appears to be more of a concern regarding how the planning framework will protect the rural activities moving forward, rather than a shortcoming of the planning framework to date. The Cromwell Masterplan stakeholder session with primary producers also identified similar concerns to the key informant interviews. The summary from this consultation highlights there is concern the planning framework is not robust enough to preserve the productive economy, particularly in regard to the pressure from housing and lifestyle subdivisions which the rural areas are currently facing (Central Otago District Council, 2018c). That said, within the literature it has been identified that in New Zealand under the RMA reverse sensitivity is a legitimate concern to decline or restrict new developments (Pardy & Kerr, 1999). Thus, these concerns may be simply hypothetical at this stage.

Apprehension was also raised over the precedence that may have been set by recently approved subdivisions, in particular the Wooing Tree Plan Change decision which approved a higher density residential and commercial development at an existing vineyard. As described by Key Informant Ten, controversial developments which are approved such as this will encourage other people to ‘have a go’. Although, other key informants felt zoning of 4000m² was not a productive use of the land given it generally only accommodated one residential unit and therefore did not completely oppose the decision to allow smaller lot sizes. This relates closely to the above discussion regarding protecting high-class land as it was felt increasing the density on these already unproductive lots could be a better use of land then encroaching into the productive, rural areas.
A different concern was expressed regarding the management of camping. Almost all of the key informants made a comment about the pending closure of the camping ground in Cromwell and the recent decision to subdivide this land for residential housing. While some informants acknowledged it made sense for this ‘rural’ land to become utilised for housing given its position within the town centre, concern was raised about the pressures this would bring to informal camping spots around the lakefront. Whilst Land Information New Zealand is responsible for the management of Crown property, and therefore manages these camping areas, key informants felt more could be done at a local level to manage these camping spots. Key Informant Ten questioned how do you stop the freedom camping? This key informant suggested the camping area at the Lowburn inlet could be enhanced through the planting of additional trees which could also benefit the visual outlook of the area. This concern over the closure of the Cromwell campground was also linked to the concern over seasonal workers, particularly in regard to accommodating these workers.

One key informant, who is involved within the horticulture industry, raised concern over the effects of permitted activities. In particular they were concerned about the wider implications that will come about through the growth of the cherry industry, such as housing the seasonal workers and providing the associated infrastructure, such as additional packhouses to support the growth. Other key informants expressed concern over the treatment of seasonal workers and the need for individual businesses, and Cromwell as a whole, to do better in looking after these workers. In this instance there appears to be clear disparities with some employees providing accommodation for workers and others not, although it is not a requirement that they provide such accommodation. Thus, this appears to be a concern as the accommodation demands are not being met by the free market. Whilst the rules of the District Plan are conducive to business owners providing for seasonal workers accommodation as Key Informant Fourteen explained, it is just the cost of physically providing the accommodation that puts people and businesses off.

Since these interviews took place a new labour survey was commissioned by the Central Otago Labour Governance Group. This survey, as introduced in Chapter Three of this thesis, investigates the current and future labour demands of the horticulture and viticulture industries (Central Otago District Council, 2018a). It appears that the industry
and CODC have therefore recognised the need to obtain accurate data on these permitted activities. Although it was not the purpose of the current study to investigate the labour demands of the horticulture industry, the findings of this labour survey do support the current study. The survey found 88 percent of respondents felt there was a shortage of accommodation in their area (Druce & Anderson, 2018). There was also concern regarding the potential effects of proposed changes to camping bylaws and closure of commercial camping grounds on local accommodation supply. Furthermore, moving forward providing affordable accommodation conditions was identified as one of the biggest challenges in order to secure future workers (Druce & Anderson, 2018). The results of this survey suggest there is increasing attention and pressure being placed on the horticulture and viticulture industries to do more to ensure the seasonal workers have on-site accommodation options.

9.2 What is the framework doing well?

A number of key informants felt the township of Cromwell had been left a great legacy by the planning that occurred as a result of the construction of the Clyde Dam. Although there was a general consensus regarding the planning and layout of the towns mall/retail area being ‘bad planning’ there was strong support for the industrially zoned land and sporting facilities. This is significant for the rural area as a number of businesses which support the rural activities have been able to base themselves within this area of town and this further facilitates the growth of the rural sectors. The sporting facilities have also provided opportunities for both town and rural people that might not have otherwise been available. There was also support for the amenity and public areas around the lake front, including the installation of camping areas, boat ramps and public toilets. Within the literature review it has been discussed that planning’s focus has moved more towards supporting and providing for community well-being (Gallent et al., 2008). In this instance the planning associated with the Clyde Dam seems to have been a success, with the exception of the mall. This planning and provision of infrastructure has supported the growth of the town and provided a number of facilities which have supported the community’s well-being.

Most of the business owners interviewed believed the current consenting process is relatively conducive to business progressing and that CODC has been very supportive of
growth. This included setting up business activities such as cellar doors. One planning professional interviewed felt it had not been particularly arduous to have consents approved within the rural zone, even for activities such as short term accommodation that may not be directly related to traditional rural land use. This is supported by the rules in the District Plan which enable different uses, such as certain retail activities as either a controlled or discretionary activity (Central Otago District Council, 2008). This suggests the Council processes enable other uses of land within the rural zone and as such are open to multifunctional business activities.

This research was being carried out while consultation for the Cromwell Masterplan was being undertaken and many of the key informants spoke about their support for the Masterplan. As Key Informant Seven explained the Masterplan process was great for Cromwell and it was pleasing to see Cromwell taking steps to manage the growth. Key Informant Thirteen described how they are now more optimistic about how Cromwell will manage the change and growth:

“I have more hope now than I had a couple months ago because of the Master Plan process that's underway... I'm hopeful we'll get it right” KI 13

Although the Masterplan relates primarily to the Cromwell township, aspects of it do relate to the rural areas and will have an influence on the rural population. As the literature identifies, planning has traditionally aimed to find a balance between ‘community good’ and private interests, although the complexity of changing communities makes the notion of ‘community good’ hard to define (Gallent et al., 2008). Therefore, it is often difficult to represent conflicting opinions. However the Masterplan process shows the Council and Cromwell Community Board are committed to understanding and representing the views of the changing Cromwell community.

9.3 Moving Forward

Whilst it has been discussed above that the consenting process has been relatively conducive to business progressing, there is also a feeling that the resource consent process could become more difficult as the area continue to experience grow. A number of the key informants were conscious of the growth that has occurred in Queenstown and
Wanaka and did not want to see Cromwell going down the same path. There was overall support for the steps being taken to manage the growth through the Masterplan. This general support and desire to be involved was alluded to by Key Informant Four who described how they were optimistic that people would participate in the planning process and felt younger people are better equipped to get involved compared to previous generations. However, the desire for the community’s wishes to be listened to was also raised. As stated by Key Informant Thirteen -

“I would just hope the powers that be, the Council, the community board, you know, are very firm, once we get the master plan, that blueprint, the Council are very firm on following what this community wants” KI 13

It was recognised by Key Informant Two that there is a fine balance between allowing economic growth whilst also protecting land that was non-productive and managing subdivision. This management included the provision of essential infrastructure and being forward-thinking to avoid problems that has been seen in neighbouring towns. Some concern was also raised regarding how changes to policies for rural activities, such as overhead frost fighting, combined with the encroachment of residential into rural areas could create detrimental effects for both ‘town’ and ‘rural’ residents. Therefore, moving forward there is a need for the planning framework to understand and recognise the impacts of the different land uses and how various policies foster or hinder this.

9.4 Conclusion

This chapter has addressed the fourth research question and explored how the existing planning framework is managing and supporting the growth and change occurring within the Cromwell Basin. As was outlined at the beginning of this chapter a limitation exists with these findings as the key informants spoke about the planning framework from the perspective of the growth of the whole township, which includes both the rural and urban areas. However, a number of shortcomings were identified which relate to the rural areas and rural population. One shortcoming is the current rate of growth and ability for planning to keep pace. Whilst key informants felt planning around the time of the Clyde Dam had been positive they now believed the growth was occurring at a rate that planning could not keep pace with. Some key informants also felt frustrated and let down by the
planning system due to controversial developments being granted resource consent and the slow speed at which decisions regarding the Cromwell Memorial Hall have been made. Concern was also expressed over how the natural landscape is being protected and how the use of productive land is managed. Particular concerns are arising due to reverse sensitivity issues as urban areas encroach into the rural zone. However, many of the key informants felt positive about the steps being taken to create a Masterplan for Cromwell and expressed hope that Cromwell can appropriately manage the growth moving forward.

The next chapter will now discuss the opportunities and challenges facing the Cromwell District moving forward as a result of this growth and change.
Chapter Ten: What challenges and opportunities are there moving forward as a result of this growth and change in the Cromwell Basin?

This chapter addresses the fifth research question and discusses the challenges and opportunities for the Cromwell Basin moving forward. A number of themes were raised throughout the key informant interviews regarding the future implications for the wider Cromwell community due to the growth and change that is predicted to continue. Many of these themes related closely to the overall growth of the Cromwell township, as well as to growth of the rural areas. Therefore, these challenges and opportunities are presented in a broad way to capture the range of associated implications. The key challenges identified include the contestation of land, the issue of housing a growing number of permanent and seasonal workers, pressure on infrastructure, reverse sensitivity issues, protecting the landscape, protecting productive land and open spaces and growing the rural areas in a way which is sustainable. The key opportunities identified included the potential for new industries or business activities to emerge and the opportunity for Cromwell to change the status-quo regarding planning for the rural areas.

10.1 Challenges

The key challenges identified through the findings of this research include the contestation over rural land due to the emergence of multifunctional land uses, concerns regarding protecting the landscape and productive land, whilst also meeting housing demands, managing reverse sensitivity issues and enabling the wider Cromwell area to grow in a way which is sustainable.

The changing nature of rural areas and emergence of multifunctional agriculture regimes presents a number of challenges, particularly from a planning level. Growing demand for ‘consuming’ rural areas, either through amenity migrants looking to live in a rural area, or through changes to tourist demands now means rural areas are no longer solely places
of production (Cloke, 1985; Halfacree, 1999). Therefore, there is now greater contestation for rural land. As research from Queenstown has shown the emerging global countryside and commodification of adventure tourism and boosterism have placed intense pressure on rural areas (Woods, 2011a). This complex inter-play of different actors has influenced the reconstruction of these rural areas (Woods, 2011a). However, it presents challenges for planning as on one hand there are calls for rural planning to be flexible to facilitate production changes (Miller, 2017) but on the other hand it is thought trade-offs will need to be made between activities which produce economic gains but simultaneously have a negative impact on the environment or vice versa (Garrod et al., 2006).

Whilst, it has been concluded the Cromwell Basin has strong characteristics associated with productivism it is also apparent the area is displaying features that are associated with multifunctional agriculture regimes. The findings from this research suggest new land uses and activities will continue to be discovered. This is evident through the recent announcement of plans to develop an adventure swing at Northburn Station which could be operating as early as 2020-21 (Jones, 2018a). Although the changing economy of rural areas is not a new phenomenon and can be seen as a reoccurring feature over the last 300 years (Gallent et al., 2008) it is the shift towards uses which are not related to primary production which could present a challenge. Primarily this could create challenges as there is potential for conflict to occur due to competing land uses.

It is apparent that early planning processes protected farming and restricted development, although there is a belief this ‘no development’ ethic is still embedded in modern rural policies (Gallent et al., 2008). However, as the literature review identified traditional land use planning such as this, has had very little influence over the landscape and land use changes seen in some rural areas (Gallent et al., 2008). This is evident within the Cromwell Basin as the rural environment now represents a highly modified landscape. Not only did the landscape undergo a radical transformation through the formation of Lake Dunstan but it continues to change through intensified farming and the introduction of new land uses, such as the development of viticulture. However, the study by Perkins et al. (2015, p. 95) concluded “our interpretation of why this dramatic transformation of the District was essentially peaceable was that the actors saw the arrival of grapes, vineyards, wine-making and allied real estate development as culturally acceptable form
of ‘productive’ land use”. This, suggests that the transformation of the landscape is acceptable in the opinion of the public when it is utilised for productive use.

As was already discussed in Chapter Eight some key informants identified negative visual changes due to these productive uses. One key informant even felt the impacts from permitted agriculture activities on the landscape were far greater than that caused by lifestyle blocks. This presents a challenge as moving forward there will be differing opinions regarding what are considered acceptable activities to occur within the rural areas. In particular there will be challenges for planners as they seek to protect the ‘rural character’. Determining what the rural character is can be particularly challenging due to the different interpretations and perceptions of what constitutes ‘rural’. Individuals hold different belief systems which therefore influence how they evaluate the effects of different land use changes. (Anderson et al., 2017). This challenge is summarised by Miller (2017, p. 191) “landscape protection…has become a battle ground for competing interests.”

Protecting rural character is often in conflict with the challenge of housing the growing population. A key concern facing outstanding landscapes within New Zealand is pressure from residential development (Peart, 2004). Many key informants spoke about the need to address housing demand and supply within the wider Cromwell area. However, the results from the key informant interviews found varying opinions about how land should be utilised for housing. Some key informants felt the minimum lot size of 4,000m² which exists around the outer edges of the town centre is an unproductive use of the land. There was the opinion that having a single dwelling on a section this size does not produce productive use of the land. Whilst other key informants felt the town should be building ‘up’ and not ‘out’ as it was important to protect the productive rural land. One suggestion raised by a couple of key informants was the concept of ‘cluster housing’ within rural areas as a way to meet the demand for rural lifestyle living whilst minimising effects on the landscape. However, there was also discussion regarding the use of unproductive rural land that is non-economic in a farming or horticulture sense. Thus, these key informants felt a better use for this land may be housing and lifestyle subdivisions.

This complex inter-play of factors highlights why addressing housing demands is a major challenge for rural areas. There are a number of debates raised within the literature
regarding rural housing concerns. Evans’ (1991) work in the late 1980’s questioned the restriction of housing developments in rural areas, believing this restriction increases the intensity of housing within urban areas, which causes destruction within urban areas in order to preserve the rural environment for a small minority of the population. Although more recent arguments believe the rural resource should be conceptualised as ‘countryside capital’ and therefore it is an economic asset in its own right (Gallent et al., 2008). By taking this approach the economic value of the visual and cultural aspects of the rural area are recognised (Gallent et al., 2008). However, one of the primary reasons to protect rural land is for the provision of protecting the food production potential, particularly of high-class productive land.

The literature identifies a key driver associated with this loss of productive land is the fragmentation caused by lifestyle blocks (Miller, 2017). However, as already discussed in Chapter Eight, key informants who were business/land owners identified there could come a time when the demand for housing is so great it is no longer financially feasible to keep the land for productive rural purposes. Alternatively, the opportunity to subdivide may become appealing as it could assist with succession planning and allow all children to retain a stake of the land. This finding was supporting by the Environmental Defence Society study undertaken in 2004 which confirmed lifestyle subdivisions have become more appealing to farmers as a means of succession planning, given intergenerational transfer of viable farming operations has increased in difficulty (Peart, 2004). This presents a challenge as the economic viability of protecting high-class productive land is called into question. However, it could also present an opportunity for planning to move away from the status-quo and become progressive rather than reactionary which will be discussed further below.

The demand for housing and expansion of the Cromwell township presents challenges for the daily operation of rural activities. This challenge is encapsulated by the term ‘reverse sensitivity’ which has been discussed in previous chapters. Reverse sensitivity is where an established use produces adverse effects and a new use is proposed for nearby land (Pardy & Kerr, 1999). This is a particular a concern and challenge for Cromwell moving forward as the town continues to expand outwards and residential housing encroaches on the surrounding rural areas. There may be significant consequences for established orchards who find themselves positioned next door to hundreds of new
households. Key Informant Five relayed how herself and her husband are rural lifestyle residents who have chosen to live amongst orchards and have done so since the 1970’s, therefore they understand the effects of general orchard activities such as frost fighting. However, new residents coming from outside the district may not fully understand the implications of living nearby rural area and the noises associated with orchard activities, including helicopters/frost fighting, windmills, sprinklers and spraying.

This presents an argument for planning to move towards spatial planning which looks at the ‘where’ of different things. Albrechts (2004) suggests the relationship between different activities within an area can be explored and more effective ways of integrating different agendas can be established. This study argues spatial planning also needs to consider the wider rural environment around Cromwell and not just focus on urban areas. Historically planning for rural areas “has often been the ‘poor cousin’ of planning” (Miller, 2017, p. 190) and has received limited attention. Therefore this presents a challenge and opportunity to move away from the traditional urban bias which is evident within planning.

The concerns regarding seasonal workers and pressures on housing have been discussed in earlier chapters. However, growth projections show that the horticulture industry, particularly cherries, is forecasted to continue to experience rapid growth (Druce & Anderson, 2018). Thus, the challenge of meeting the accommodation requirements of this labour force is predicted to continue for the foreseeable future. From the key informant interviews it was apparent there was a general sense that more needs to be done to ensure seasonal workers have accommodation options and do not resort to camping in their cars. The recent 2018 Labour Survey results show business owners are acknowledging the difficulties they face in order to attract workers and are investing in providing additional accommodation for seasonal workers (Druce & Anderson, 2018). However, as Key Informant One explained, the community also needs to celebrate their presence. This key informant used the example of an end of season party which the transient workers held within an area of town to celebrate the end of the cherry season. Describing how it resulted in the locals complaining, which demonstrated how the locals do not value the backpacker workers contribution. Furthermore, this informant felt there was a feeling among some of the seasonal workers that they do ‘our’ jobs for a minimum wage but receive little appreciation. Thus, there is a challenge for the community to
embrace the backpacker workforce in the same way they have done with the RSE workforce.

Whilst the literature on counterurbanisation is conflicted as to whether seasonal/temporary migrant workers should be included in our understanding of counterurbanisation there is also the argument that they can have a large impact on the character of a place (Halfacree, 2008). The 2018 Labour Survey results from the horticulture and viticulture industries highlights how reliant Cromwell’s rural economy is on seasonal workers, in particular the backpacker labour force. Furthermore, the consultation from the Masterplan shows the importance the community places on these industries, as there is a desire for Cromwell to be known for its viticulture and horticulture (Central Otago District Council, 2018c). Thus, seasonal workers are clearly a vital factor in fostering the character of Cromwell. The viticulture and horticulture industries represent the identity of Cromwell, however they would not be able to grow without this international labour force. A challenge therefore exists as to how the community can better understand and work together to provide for the needs of these seasonal workers. This study argues that the presence of seasonal workers should be taken into consideration when assessing the growth of Cromwell and the rural areas. Although they may only be ‘seasonal’ the reoccurring presence of equivalent workers means their presence is much more permanent. This could bring significant challenges particularly for the provision of infrastructure.

The challenge of meeting infrastructure needs was identified through the pressure on key infrastructure such as transportation networks, wastewater and water supply due to the overall population growth. This finding is similar to the Ministry for Primary Industries (2017) study outlined in Chapter Five which found lack of infrastructure was the main negative aspect about living in rural New Zealand. However, there was also some concern regarding the pressure placed on infrastructure in the rural areas, particularly at freedom camping locations, due to seasonal workers. One key challenge identified was how the town will fund the infrastructure needed to keep pace with the growth. As described within Chapter Seven the general consensus from the key informants was that the growth is already happening at a pace at which the town cannot keep up with. The factors driving counterurbanisation processes, in particular changes to technology which give people greater mobility (Johnson, 2001), may indicate that this growth and pressure
on infrastructure will be expected to continue. Furthermore, the growth of the tourism sector and horticulture industry will place additional pressure on infrastructure in the rural areas.

A key concern is any factor that affects the world market and reduces the demand for primary goods produced in the Cromwell Basin. As key informants involved with the cherry industry described, the 2017 growing season resulted in large numbers of cherries being ‘dumped’ as a number of factors resulted in a challenging season for growers. This presents a challenge and opportunity as the rural business owners may look to diversify into different income streams. As described by one key informant, there is a need to ensure all ‘our eggs are not in one basket’. However, from a planning point of view this creates challenges as the diversification of land use often goes against existing land use policy and zoning regulations (G. Curry et al., 2001).

One area that has been identified as offering room for growth and expansion is Cromwell’s tourism sector. A few key informants felt the Cromwell area does not currently have many offerings for visitors. This presents a challenge, as well as an opportunity, as the district could grow more offerings for visitors to meet the market. For example, Central Otago, and in particular Bannockburn, is well known as the heart of the wine industry, although there are currently limited offerings in terms of cellar doors and tourism products. However, as discussed above, the diversification of land use often goes against existing land use policy (G. Curry et al., 2001). This is further contested by the different values and beliefs people place on what constitutes rural character, and therefore there are conflicting opinions regarding what are deemed acceptable activities to occur within these rural areas. Thus, a key challenge is facilitating the growth of the rural economy through enabling diversified land use, whilst doing so in a way which is sustainable for the rural character.

This section has presented a number of challenges and issues facing the rural areas around the Cromwell Basin. This includes increased contestation for rural land and rural space due to competing interests and a shift towards utilising land for non-traditional purposes. This also presents a challenge due to individuals having differing opinions about what are acceptable activities to occur within rural areas. Another challenge is arising due to the increased demand for housing and associated implications such as reverse sensitivity.
The growing horticulture and viticulture industries are now faced with the issue of housing the increasing numbers of seasonal workers, however a challenge also exists for the wider community to embrace the seasonal workforce. Further challenges arise for planning policy as it attempts to protect the rural landscape from these competing interests. However, a number of these challenges may also be opportunities. These will be discussed further below.

10.2 Opportunities

A key opportunity that was identified due to the changes described is the potential for new industries or business activities to emerge and contribute to the growing economy within the Cromwell Basin. As Key Informant Eleven explained, there is a lot of money to be made from rural businesses. There is also a strong demand for workers, including skilled workers, who are associated with horticulture activities which presents opportunities for employment. However, some of this potential includes Cromwell becoming more of a tourist destination in its own right. As Key Informant Seven described, Cromwell is in a really interesting and exciting phase. The unique climate which exists within the Cromwell Basin will continue to attract new people and there are several business opportunities which have not yet been explored. This may result in new industries starting up or new crops being planted, as has been seen in the past with the viticulture industry. There is also the opportunity for Cromwell to focus on the niche market sectors, either through tourism related activities or different productive uses, for example niche crops such as the growing of herbs. This relates directly to the opportunities seen in multifunctional rural areas. As Holmes (Holmes, 2006) describes, multifunctionality represents a system which recognises and values the vast range of activities that can occur in rural spaces. Rural areas are no longer recognised solely for their productive economic use but are places which can be consumed by people (Halfacree, 1999). The rural resource can be regarded as an economic asset and conceptualised as ‘countryside capital’ (Garrod et al., 2006). Therefore, there are opportunities for the Cromwell Basin to capitalise on the consumption values of the visual and cultural aspects of the rural areas.

Cloke (1985) critiqued planning processes are reactionary to rural problems and that there is a time-lag between the issues being identified and policy responses being implemented.
Furthermore, Miller (2017, p. 190) believes “rural planning has often been the ‘poor cousin’ of planning” and therefore has not received the same attention as its urban counterpart. The debate and challenge discussed above regarding protecting high-class productive land within New Zealand is one area where planning appears to be reactionary rather than progressive. As Andrew (2013) highlighted, this debate has been evident since 1916, however it does not appear that a resolution is close to being reached. The Cromwell Basin represents an area of New Zealand with a unique climate and rural resource. Though, as discussed above, and in Chapter Eight, there are also growing competing interests for this rural land. This presents an opportunity for the Cromwell Basin to be forward-thinking and take a lead on balancing these competing interests rather than planning policy acting in a reactionary manner.

This opportunity was alluded to by many of the key informants as they felt Cromwell has the ability to learn from the growth that has been seen in Wanaka and Queenstown and to ensure Cromwell moves forward in a positive, sustainable way. There was optimism expressed for the Masterplan process and key informants showed a high level of interest and engagement towards the growth and changes occurring within Cromwell. This represents another opportunity for planning process to engage with, and represent the views of the community moving forward.

10.3 Conclusion

This chapter has addressed the fifth research question and identified the challenges and opportunities facing the Cromwell Basin as a result of this growth and change. It is evident there are a number of opportunities within the Cromwell Basin, particularly from an economic point of view, which would further capitalise on the growth and intensification of the rural areas. However, there are also opportunities to diversify and embrace new land uses within the rural zone. There is also an opportunity for planning to engage with the community and take a lead on planning within the rural areas to foster this growth in a way which is sustainable. That said, the challenges described within the first half of this chapter do identify issues that will need to be overcome to achieve this including balancing competing interests and representing differing views.
Chapter Eleven: Conclusion

Rural areas are no longer recognised primarily for their production value and ability to support agriculture developments. The literature has identified shifts in society, particularly through population distribution and changes in the economy and space have led to the restructuring of rural areas. Greater value is now placed on the social values and environmental quality of rural resources, and thus, the rural resource can be conceptualised as ‘countryside capital’ (Garrod et al., 2006). This creates implications at a planning level as the use of rural areas becomes more contested (Gallent et al., 2008).

A number of concepts have arisen to describe this shift within rural areas. The terms productivism and post-productivism have been utilised to describe the transition seen within rural areas as they have shifted from intensification to extensification, concentration to dispersion and specialisation to diversification (Ilbery & Bowler, 1998; Woods, 2005). However, there is no universally accepted definition of post-productivism and critiques argue the use of the term ‘post’ represents a shift away from productivism (Ilbery & Bowler, 1998), when in reality productivist and post-productivist characteristics may actually co-exist. Thus, the notion of a multifunctional agriculture regime is considered a more appropriate depiction of the multi-layered nature of rural change (Wilson, 2001). From a planning perspective this transition presents operational challenges as competing interests seek to coexist within rural spaces (Woods, 2011b). Furthermore, production based outcomes are now intertwined with consumption and protection orientated goals (Holmes, 2006).

The current research has sought to understand multifunctional rural areas through a case study of the Cromwell Basin. Specifically, the overall research aim of the current study was to determine how the rural areas in the Cromwell Basin have changed over the past 40-50 years. To address this aim five research questions were established. Firstly, this research sought to understand what changes have occurred within the Cromwell Basin and what is driving the demand for change within the rural areas. Secondly, the creation of the Clyde Dam was considered to understand what impact this may have had on recent change within the rural areas. The third research question sought to understand the key effects and associated planning challenges and implications for the Cromwell District
due to growth within its rural areas. Next, the fourth research question examined the planning framework to understand how it supports and manages this growth and identify any issues with the current policies. Lastly, the fifth research question acknowledged the challenges and opportunities facing the Cromwell Basin as a result of this growth and change.

To achieve the research aim and answer the research questions an interpretative, qualitative research approach was employed. Triangulation was also undertaken by employing a mixed-methods approach. Secondary research was employed through undertaking a comprehensive literature review, a review of the policy and planning framework and a document analysis. This allowed the researcher to gain an overview of the existing body of research on rural change and enabled a theoretical framework to be developed. Primary research involved interviewing fifteen key informants who were purposively selected or recruited through snowball sampling. These key informants came from a range of backgrounds including community members, rural businesses owners and professional stakeholders. The results of the primary research were analysed to identify key themes and then triangulated with the secondary research in order to answer the research questions.

11.1 Summary of Research Findings

11.1.1 Research Question One – What changes have occurred in the Cromwell Basin and what drives this demand for change in the rural areas?

Chapter Six addressed the first research question. From the research findings it was established the key changes that have occurred within the rural areas of the Cromwell Basin include intensification and specialisation of cherries and viticulture. However, it is also established that in some instances the rural areas are becoming multifunctional. Business owners described multiple business activities occurring on their properties. A range of activities were identified as occurring within these areas including traditional farming, horticulture, viticulture, associated cellar doors and retail activities and tourism and accommodation. In addition to these business activities some rural areas have been subdivided to make way for the development of rural lifestyle type properties. Driving
this change is the unique climate of the Cromwell Basin which is well suited to growing grapes and stone fruit, the central location of Cromwell as a hub to the wider Central Otago region and the overall population growth of the Cromwell Basin. This population growth can be likened to the phenomenon of counterurbanisation and associated influencing factors including the rural idyll and amenity migration. This change is also supported by economic factors, such as the relocation of businesses and the movements of the migrant workforce, changes to technology and the increased mobility of individuals. The proximity of Cromwell to the popular tourist towns of Wanaka and Queenstown, which boosts an international airport, was described as a primary component of this growth. However, it was also acknowledge the Cromwell Basin is an attractive destination in its own right for both tourists and individuals looking to relocate permanently.

11.1.2 Research Question Two - How did the creation of Clyde Dam influence this change?

Chapter Seven explored the creation of the Clyde Dam and the impact this had on the rural areas. Whilst there was no clear consensus as to the degree of influence of the Clyde Dam on recent rural change it was established that the creation of the Dam and subsequent Lake Dunstan bought about a number of changes associated with the recent growth. These changes include the establishment of more secure irrigation opportunities, amenity and recreational opportunities created by Lake Dunstan and large scale infrastructure projects within the town centre which have supported both the rural and urban populations. Social changes were also identified as a result of the Clyde Dam, however overall there appeared to be a general belief that the Clyde Dam and associated change has been positive for the Cromwell Basin.

11.1.3 Research Question Three - What are the key effects which the Cromwell Basin is experiencing due to growth within its rural areas and what are the associated planning challenges and implications?

Chapter Eight explored the key effects for the Cromwell Basin as a result of this change and growth. However, it was identified that when discussing these effects the key
informants spoke about the impact of the growth on the Cromwell township as well as the rural areas. Therefore this chapter discussed these effects on both the township and rural areas within the Cromwell Basin. It was established there are positive economic effects due to the growing rural economy, however there is also pressure being placed on transportation infrastructure and housing. The increased demand for housing places further pressure on the rural areas as this traditional productive land becomes appealing for new subdivisions. Further effects associated with the demand for housing include reserve sensitivity concerns and issues in regard to protecting high-class productive land. Reduced public access to the rural areas, particularly to waterways and open rural areas, was also as an effect associated with the growth and competing interests. The growth and competing interests for use of the rural areas is also creating effects for the rural landscape and rural character. However these effects are difficult to fully conceptualise due to individuals holding different belief systems and perceptions about rural landscape and character.

11.1.4 Research Question Four – How does the existing planning framework support and manage this growth and the changing use of rural land? Are there any issues with the current policies which may need to alter?

Chapter Nine addressed the fourth research and assessed how the existing planning framework supports and manages the growth and change. From the research findings it was evident the planning framework has been relatively conducive and supportive of the growth and establishment of new activities within the rural areas. However there was also an underlying feeling that developers were in control of the growth leading community members to believe it is hardly worthwhile making submissions in response to new developments. Furthermore, there was a feeling that current growth is now greater than what planning can keep up with. There was also some concern regarding how the current planning framework protects the outstanding natural landscapes and the productive horticulture land. Although, a large majority of the key informants appeared to be engaged and hopeful for positive outcomes from the Cromwell Masterplan process. Therefore acknowledging the Council is taking positive steps to support and acknowledge the growth within the town centre.
11.1.5 Research Question Five – What challenges and opportunities are there moving forward as a result of this growth and change in the Cromwell Basin?

Chapter Ten, the last discussion chapter, explored the challenges and opportunities facing the Cromwell Basin as a result of this growth and change. Many of these challenges and opportunities are inter-related and affect both the Cromwell township and rural areas. The key challenges identified include balancing the competing interests for the use of the rural areas, and thus managing the sometimes conflicting multifunctional land uses. There is also a challenge to meet housing and accommodation demands whilst managing reverse sensitivity and protecting high-class productive land and the outstanding natural landscapes. However, there is also an opportunity for further economic growth and recognising the vast range of activities that can occur within the rural areas. This presents a further opportunity for the Cromwell Basin to take a progressive approach for planning within the rural areas and acknowledge the growing multifunctionality and associated challenges that the rural areas are facing.

11.2 Recommendations

The discussion chapters have eluded to a number of areas or issues which warrant further consideration. This following presents these recommendations in a more specific manner with a brief discussion and explanation.

Recommendation One

The Central Otago District Council should recognise and acknowledge the change occurring within the rural areas and in doing so take a progressive rather than a reactionary approach to rural change.

Rural planning has often lagged behind issues being identified and policy responses being implemented (Cloke & Park, 1985). Furthermore, it is evident land use planning in rural areas has traditionally been characterised by policy controls which restricted
development and protected farming (Gallent et al., 2008). However, it is also thought this land use planning approach has failed to recognise that rural areas are transforming in ways unrelated to the built form (Gallent et al., 2008). It is evident the Cromwell Basin is experiencing rapid change through both the intensification and specialist focus of grape and cherry production but also through strong population growth. Further changes are expected to continue as Cromwell becomes recognised as a tourist destination in its own right and an alternative to Queenstown and Wanaka. Therefore, by being forward thinking planning policy can acknowledge the various ways in which the rural areas will continue to change and foster this growth in a sustainable but progressive manner.

**Recommendation Two**

Recognition should be given to the economic, social and culture potential of non-farm based activities which protect and preserve the rural character.

This recommendation would likely require further consultation to understand what are considered acceptable activities to occur within the rural areas. Currently the CODP recognises a diverse range of activities which are reliant on the Rural Resource Area, although these are largely associated with agriculture/productive activities, such as cellar doors. However, the policies and rules tend to restrict non-farming activities which could provide for the economic, social and culture well-being of people whilst protecting the rural areas and outstanding landscapes. Therefore this presents an opportunity to ‘think outside the box’ and move away from valuing rural space solely for its productive ability.

**Recommendation Three – Part A**

Establish a spatial planning framework for the rural areas around the Cromwell Basin.
Identify areas of high-class productive land and develop more integrated housing and subdivision policies for the rural areas.

It is evident the rural areas are rapidly changing due to different economic, social and cultural drivers. However, traditional land-use planning has often protected rural areas for farming and productive purposes, taking a ‘no-development’ approach towards built development. Spatial planning brings the ‘where’ of things into focus (Albrechts, 2010) and allows for the coordination of a number of different and agencies to achieve varied objectives including community, environmental and economic objectives (Gallent et al., 2008, p. 18). What happens within the rural areas effects the township and vice versa. Thus, through establishing a spatial planning framework for the rural areas, as is being done for the Cromwell township through the Masterplan process, greater integration between different agendas could be achieved.

Part B of this recommendation acknowledges that through creating a spatial planning framework for the rural areas consideration can be given to protecting areas of high-class productive land whilst simultaneously providing for rural lifestyle type housing. The research findings suggested some rural areas may be better suited to accommodating rural housing as the land is not productive in terms of agriculture uses. There was also the suggestion the clustering of housing could work well in some instances. Traditional land-use planning has employed tools such as imposing minimum lot sizes, although it has been established this does not always guarantee the land will be used productively (Miller, 2017). Furthermore, issues such as reverse sensitivity can influence the productivity of rural land. Thus, rather than imposing rigid policies the identification of high-class productive land and establishment of strategic housing/subdivision policies could achieve greater economic, social and environmental outcomes.
**Recommendation Four**

Undertake consultation and monitoring to develop a greater understanding of the effects of permitted activities within the rural areas.

It has been established through the literature review and research findings that rural areas undergo significant change unrelated to built form (Gallent et al., 2008). Some permitted rural activities produce a number of effects, both positive and negative, which may create implications for planning. Through understanding these wider effects planning policies can be established which support and promote sustainable management. For example, the growth of the cherry industry will see pressure placed on infrastructure, particularly in regard to accommodation for seasonal workers, and increased demand for associated services such as packing sheds. Recognition should also be given to the visual effects of these permitted activities and the impact this may have on the rural landscape, particularly areas of outstanding natural landscape.

**Recommendation Five**

Seasonal and temporary workers should be taken into consideration when considering the growth of Cromwell. Initiatives should be undertaken between horticulture and viticulture operators and the permanent population to celebrate and support the presence of seasonal workers, particularly the backpacker workforce.

From the research findings it is apparent the growth of the horticulture and viticulture industries is going to see continued demand for the seasonal workforce. Currently backpackers are a key component of this workforce, however there appears to be a disconnect or lack of appreciation for the work they do. Collaboration between industry organisations, business owners and members of the community could foster and support the backpacker workforce within Cromwell. This could be through hosting events, such as organising end of season celebrations, or finding innovative ways to address the
housing shortages, for example establishing short-term campgrounds or promoting ‘homestay’ style accommodation.

11.3 Concluding Comments

This chapter has concluded the thesis and provided five recommendations which warrant further consideration from both a local government planning perspective and at a grassroots level. These recommendations have been developed based on the research findings through identifying the key changes taking place within the Cromwell Basin and acknowledging how the planning framework supports and manages this change.

This study has undertaken a case study of the Cromwell Basin to understand how the rural areas have changed and what implications this may have for planning. It was established the rural areas have undergone significant change, particularly through the intensification and specialist focus on cherry and viticulture production. The literature on productivism and post-productivism suggests there is a ‘shift’ being seen in rural areas whereby agriculture is no longer being the central focus (Wilson, 2001). However, within the Cromwell Basin significant intensification suggests agriculture, specifically horticulture, continues to be the central focus. That said, it was also acknowledged other land uses are beginning to emerge. This suggests the rural areas are becoming multifunctional and are consistent with what the literature describes as multifunctional agriculture regimes (for example Holmes, 2006; Wilson, 2001; Woods, 2011b). This presents issues for planning as competing interests seek to coexist within rural spaces. Overall, it has been established the planning framework has been relatively conducive to change within the Cromwell Basin, however recently there is a feeling planning is not keeping pace with the growth. Both population growth projections and projections of new cherry plantings show this growth and change is predicted to continue. Therefore, it is vital planning policy continues to adapt to foster the restructuring of the rural areas to ensure sustainable management of the rural resource.


Appendix A: District Plan Maps and Legend

The following District Plan Maps and Legend have been sourced from the Central Otago District Council website (Central Otago District Council, 2018d).
# Central Otago District Planning Maps

## LEGEND

### RESOURCE AREAS
- Rural Resource Area
- Residential Resource Area
- Business Resource Area
- Industrial Resource Area
- Rural Settlements Resource Area
- Water Surface and Margin Resource Area

### HERITAGE VALUES
- Heritage Precinct
- Heritage Building, Place, Site or Object (Schedule 19.4)
- Notable Tree (Schedule 19.4)
- Historic Reserve (Schedule 19.10)
- Area of Significant Natural Value (Schedule 19.6.1)
- Additional Wetlands (Schedule 19.6A)
- Outstanding Natural Feature
- Outstanding Natural Landscape (Schedule 19.6.2)
- Significant Archeological Site

### DESIGNATIONS
- Designation (Schedule 19.2)
  - Limited Access Road (Urban Map)
  - Limited Access Road (Rural Map)
  - State Highway (Urban Map)
  - State Highway (Rural Map)

### SCHEDULED ACTIVITIES
- Scheduled Activities (Schedule 19.3)

### OTHER NOTATIONS
- District Boundary
- Resource Area Boundary (where district required)
- Resource Area Boundary underlying a Designation
- Area subject to enlarged Planning Map
- Rural Resource Area
- Residential Resource Area
- Business Resource Area
- Residual Resource Area
- Proposed Road Alignment
- Actual position of formed road
- Building Line Restriction
- Verandah Required
- Building Facades
- Bridge

## NOTES
1. All legal roads are deemed to be designated.
2. All designated land subject to underlying Resource Area provisions that apply where such land is to be used for a purpose other than the designated purpose.
3. Surface of any waterbody deemed to be in Water Surface and Margin Resource Area.
4. Other Rural Landscapes (ORL) are landscapes in the Rural Resource Area not identified as ORL, IAR or UAR.
5. Cadastral information correct as at 1 December 2007
6. The actual position of any symbol as shown in Legend may vary when shown on Planning Maps.
7. Cadastral Information New Zealand Information New Zealand (NIK) CROWN COPYRIGHT RESERVED with regard to Cadastral Information.

Amended: 28 May 2011
15 July 2013
18 July 2014
20 November 2015
Note: Tarras (Map 40B) is the point of interest on this map
Appendix B: Key Informant Interview Schedule

Research questions (for business owners) -

1. Can you tell me a bit about the business activities you have operating here?
2. Why have you set up business in this area?
3. Have you changed the nature of your business in recent years? If so why?
4. When you set up your business did you face any constraints? What about from a council planning perspective?
5. Have you witnessed or experienced any change in the rural areas over the past 30-40 years? What impact do you think the Clyde Dam has had on this change?
6. Do you think there is an impact (on the Rural areas around Cromwell) from the urban growth experienced in Queenstown, Wanaka and Cromwell? What sort of impact? Has your business market changed? What sorts of implications/pressure does this bring?
7. What about moving forward, how might the rural areas change? Is this change good/bad?
8. What do you perceive as the drivers for this change? What implications may there be for private business owners and the wider community?
9. What are the key opportunities for the rural areas around Cromwell due to this change? What about any challenges?
10. How do you think the District will manage this change?
11. What would you like to see in the future from a planning and supportive point of view?

Research questions (for other key informants) -

1. Can you tell me a bit about your involvement with the rural areas around Cromwell?
2. Have you witnessed or experienced any change in these rural areas, particularly with the type of land uses, over the past 30-40 years? What drives this change? Is it local or external? What impact do you think the Clyde Dam has had on this change?
3. How do you think the District has managed this change? Has planning policy/Council been supportive or unsupportive to the change?
4. What about moving forward, how might the rural areas change? Is this change good/bad?
5. What do you perceive as the drivers for this change? What implications may there be for private business owners and the wider community?
6. What are the key opportunities for the rural areas around Cromwell due to this change? What about any challenges?
7. How do you think the District will manage this change? What about planning policy?
8. What would you like to see in the future from a planning and supportive point of view?
Thank you for showing an interest in this project. Please read this information sheet carefully before deciding whether or not to participate. If you decide to participate we thank you. If you decide not to take part there will be no disadvantage to you and we thank you for considering our request.

What is the Aim of the Project?

The aim of this project is to determine how the rural areas in the Cromwell basin have changed over the past 40 – 50 years, particularly in terms of the shift towards a multifunctional economy. This project is being undertaken as part of the requirements for Esther Neill’s Master of Planning qualification at the University of Otago.

What Types of Participants are being sought?

A small sample of 15 participants are being sought for their expertise or involvement within the rural areas in the Cromwell basin. Participants will be purposively selected based on their position within the industry or involvement with Resource Management of rural areas. This will include participants from local government.

What will Participants be asked to do?

Should you agree to take part in this project, you will be asked to undertake an interview with the researcher lasting approximately 30 - 60 minutes. I will present participants with my reasoning for the research and discuss how their involvement will aid this. The interview format will be open ended; you will largely shape the direction of the interview based on your area of expertise. However, the questions will be centred around how you perceive the changes that have occurred within the rural areas of the Cromwell Basin, particularly with the emergence of new businesses which may have multiple income streams.
Please be aware that you can choose not to answer any questions at any time. Furthermore, you may decide not to take part in the project at any time without any disadvantage to yourself.

**What Data or Information will be collected and what use will be made of it?**

Your approval will be sought to record the interview using a dictaphone. The interview will only be recorded once your approval has been granted. Data from the recording will be utilised for the purpose of transcription after the interview has been completed. Personal information will not be obtained, and to ensure anonymity, each interviewee will be labelled generically, for example; as either a resource management professional, other relevant professional, business owner or a community member.

The data collected will be used to ground the research in a ‘real world’ context, while providing a range of viewpoints on the changes that have been taking place. Any participants will have access to the final written document if they wish to view it after it has been submitted for examination.

The data collected will be securely stored in such a way that only those mentioned below will be able to gain access to it. Data obtained as a result of the research will be retained for at least 5 years in secure storage. Any personal information held on the participants may be destroyed at the completion of the research even though the data derived from the research will, in most cases, be kept for much longer or possibly indefinitely.

This project involves an open-questioning technique. The precise nature of the questions that will be asked has not been determined in advance, but will depend on the way in which the interview develops. Consequently, although the Department of Geography is aware of the general areas to be explored in the interview, the Department has not been able to review the precise questions to be used. In the event that the line of questioning develops in such a way that you feel hesitant or uncomfortable you are reminded of your right to decline to answer any particular questions(s).

**Can Participants change their mind and withdraw from the project?**

You may withdraw from participation in the project at any time up to two weeks after being interviewed without any disadvantage to yourself.

**What if Participants have any Questions?**

If you have any questions about our project, either now or in the future, please feel free to contact either:-

*Esther Neill*  
Department of Geography

*Etienne Nel*  
Department of Geography
This study has been approved by the Department stated above. However, if you have any concerns about the ethical conduct of the research you may contact the University of Otago Human Ethics Committee through the Human Ethics Committee Administrator (ph +64 3 479 8256 or email gary.witte@otago.ac.nz). Any issues you raise will be treated in confidence and investigated and you will be informed of the outcome.
Rural Change in the Cromwell Basin

CONSENT FORM FOR PARTICIPANTS

I have read the Information Sheet concerning this project and understand what it is about. All my questions have been answered to my satisfaction. I understand that I am free to request further information at any stage.

I know that:-

1. My participation in the project is entirely voluntary;
2. I am free to withdraw from the project at any time without any disadvantage;
3. Personal identifying information recorded via audio tapes will be destroyed at the conclusion of the project but any raw data on which the results of the project depend will be retained in secure storage for at least five years;
4. This project involves an open-questioning technique. The general line of questioning includes changes to the rural areas around Cromwell. The precise nature of the questions which will be asked have not been determined in advance, but will depend on the way in which the interview develops and that in the event that the line of questioning develops in such a way that I feel hesitant or uncomfortable I may decline to answer any particular question(s) and/or may withdraw from the project without any disadvantage of any kind.
5. The results of the project may be published and will be available in the University of Otago Library (Dunedin, New Zealand) but every attempt will be made to preserve my anonymity.

I agree to take part in this project.

.............................................................................   ................................
(Signature of participant)     (Date)

............................................................................
(Printed Name)