

Socially Sustainable Urban Development: The Role of Leisure and Recreation in a
Canadian Resource Based Community

By:

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Abstract

This research examines the role leisure and recreation have in contributing to a high quality of life, citizen satisfaction, and resident retention that ultimately support the sustainability of resource based communities (RBCs) in Canada. The Regional Municipality of Wood Buffalo (RMWB) and its urban service center of Fort McMurray are used as a case study for this project. The objectives of the research are 1) to explore local values, and practices around leisure and recreation, citizen satisfaction, place attachment and resident retention; 2) to evaluate the perceptions of the current state of provision of opportunities for leisure and recreation and assess the congruence with principles of socially sustainable development and; 3) to directly assess the perceptual and objective constraints that limit opportunities for leisure and recreation in an RBC.

The research draws on face-to-face interviews with 25 residents in the RMWB over a five month period in 2015. The research is exploratory in nature and can be used to highlight areas that may be of interest to urban planners in particular. The findings are based on several themes that emerged during the analysis of the discourse contained in the interviews.

Three key findings can be drawn from this research. First, there is an unexpected level of social cohesion and place attachment to the community based on social connections, despite a high level of resident transiency and diversity. Second, the development of social cohesion was found to be result of the spaces and opportunities for leisure and recreation in the RMWB. These spaces and opportunities were important to make social connections in a community where “everyone is from somewhere else” and where established social networks do not exist. Third, opportunities for tertiary leisure (e.g. entertainment, shopping, dining) that support a high quality of urban life was found to be

lacking in the RMWB. The challenges in developing and investing in these opportunities are a result of the *culture* of RBCs that have irregular rhythms of social life due to the reliance on shift work and fly-in-fly-out worker practices that produce fly-over-effects.

Preface

This thesis is an original work by Trina Lamanes. The research project, of which this thesis is a part, received research ethics approval from the University of Alberta Research Ethics Board (see appendix D). Project name, “Socially Sustainable Urban Development: The Role of Leisure and Recreation in a Canadian Resource Based Community”, No. Pro00057126, August 28, 2015.

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Chapter One: Introduction

1.0 Introduction

Since the 1987 Bruntland Commission’s report, *Our Common Future*, concerns over negative environmental impacts associated with the use and production of fossil fuels have helped inspire a global focus on sustainable development (Mubratu, 1998; Elliott, 2009). Contributing to the demand for energy is the increasing urbanization of the global population, which according to the 2009 United Nation’s report *Planning Sustainable Cities*, “over half the world’s population is living in urban areas” (p.8). Furthermore, predicted urbanization is expected to require approximately one million square kilometers of new urban area over the next 25 years (McDonald, 2008). This rate of urban development will increasingly rely on non-renewable energy sources, such as coal, oil, and natural gas (McDonald, 2008) requiring continued development of large scale in-situ industrial extraction projects particularly where known deposits of oil and gas exist. Figure 1.1 illustrates the location of known oil reserves and are measured in millions (bn) of barrel units of oil (bbl).

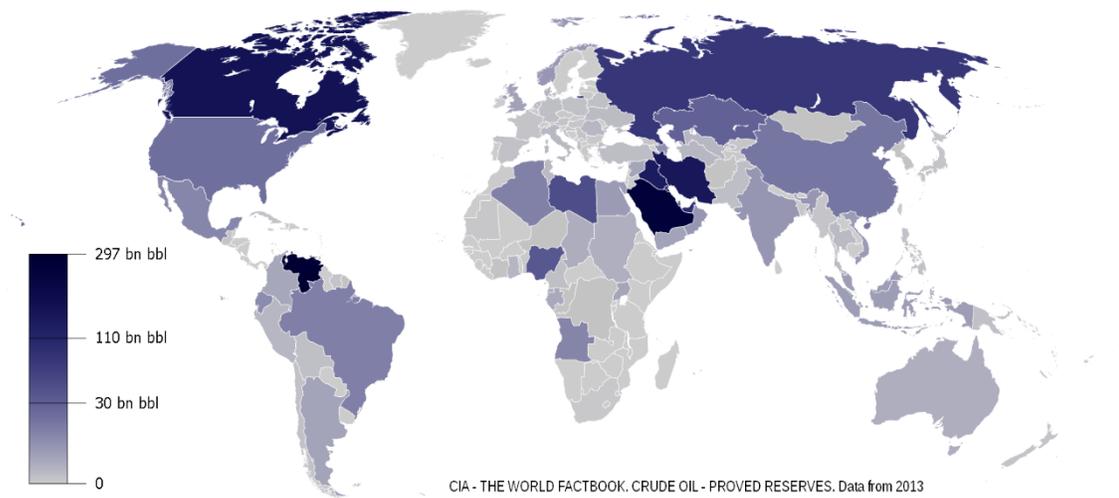


Figure 1.1 Distribution of known global oil reserves. (CIA Factbook) N.D.

The sites for industrial development, more specifically extraction and production of oil and gas, require a large accessible workforce resulting in the growth of existing rural communities and the development of new suburbs (Gill, 1991; England and Albrecht, 1984; Freudenburg, 1981). These communities are often referred to as ‘boomtowns’ or resource based communities (RBCs), and are characterized by considerable, rapid economic and population growth, (or decline) due to the extraction of a natural resource (Besser, Miller and Malik, 2012; England and Albrecht, 1984; Freudenburg, 1981).

Traditionally, sustainability in the context of resource extraction and RBCs, has focused on the negative effects to the natural environment from the process of extraction. However, more recently there has been increased academic attention focused on examining the impacts of extractive activities on the social environments in these small communities that are often reliant on a single resource based industry (Franks, 2012; Parkins and Angell, 2009). Recognition of the negative social conditions found in RBCs is encouraging research that contributes to developing strategies to mitigate these negative social impacts and increase the quality of life and well-being in these communities (Elliott, 2009; Gill, 1991).

1.1 Research Context and Problem

Despite the positive economic benefits associated with resource extraction, there are often significant negative impacts to the social systems in the communities where this industrial activity takes place. Due to rapid population growth and high rates of transiency (Franks, 2012; England and Albrecht, 1984; Freudenburg, 1981) urban infrastructure and services are unable to keep pace with the increased demand from the burgeoning population resulting in lower levels of citizen satisfaction and decreased quality of life (Lawrie, Tonts and Plummer, 2011). Additionally, RBCs commonly experience cycles of boom and bust due to the volatility in global energy market conditions. The recent volatility in global oil prices have resulted in multi-year lows of \$30 USD per barrel (Puko and Kantchev, 2016) bringing about significant economic impacts to the regions dependent on the extraction of these resources including, high unemployment, significant out-migration, and reduced business investment. There are

many long and short term problems that these municipalities must deal with due to these cycles of growth and contraction. For example, in the short term, municipalities are concerned with providing immediate housing for the influx of workers that will support industry and future growth. However, a long term problem focuses on increasing the resilience to the boom and bust cycles by developing and maintaining appropriate infrastructure that attracts a permanent resident population that can support a high quality of life, economic diversity, and sustainability in RBCs.

1.2 Justification and Purpose for the Research

Resource extraction and the communities that develop in close proximity to these sites are a historical and significant characteristic of Canada's geographic landscape. Canada is one of the only developed nations that heavily relies on extractive activities (Stanford, 2008). For example, in 2013 the natural resource sector directly and indirectly accounted for 1.8 million jobs, contributed \$30 billion in government revenue, and accounted for 19 percent of GDP (Minister of Natural Resources, 2014). Additionally, Canada's natural resource exports were valued at \$235 billion in 2013 (Minister of Natural Resources, 2014).

With an estimated reserve of 315 billion barrels of oil (Alberta Energy, 2014), Canada is home to the third largest oil reserve in the world (Alberta Energy, 2016; RMWB, 2014). The largest deposits of oil are located in the province of Alberta and the most renowned are the Athabasca Oil Sands in the northeast portion of the province, within the Regional Municipality of Wood Buffalo. The Athabasca oil sands are a type of unconventional petroleum deposit consisting of a highly viscous form of petroleum that is mixed in with particles of sand or clay (Alberta Energy, 2016). This mixture has a tar like appearance and requires intensive extraction and processing methods, such open pit mining (3.4 percent of total reserve) and steam assisted gravity drainage (SAGD). SAGD is an in-situ process that has made processing the Athabasca Oil sand deposits economically viable requires drilling and the use of steam to heat the thick oil reducing its thickness and making it easier to pump to the surface (Alberta Energy, 2016).

The notoriety of these particular deposits has developed largely because of concerns related to environmental and social sustainability issues attributed to the perceived unregulated growth of the industry. Recently, the economic un-sustainability of the region has gained significant media attention in the face of low global oil prices and the uncertain political environment associated with new federal and provincial government administrations in late 2015. As efforts increase to maintain development, issues of environmental, economic, and social sustainability within the RMWB will either encourage or restrict future opportunities for growth and exploration of the relatively undiscovered north in search of new or alternate sources of energy (Roberts et al., 2008).

The Municipality works to attract permanent residents to the RMWB to increase the resiliency to the cyclical volatility of the oil and gas sector (RMWB, 2011). In order to attract permanent residents, proper investment is necessary and includes providing social infrastructure (e.g. medical care, schools, public transportation, parks, social support services, volunteer base, community and sports facilities) to increase the quality of life and well-being for residents. One of the major influences for this thesis originates in the field of health geography and the World Health Organization's (WHO) objective for "the attainment by all peoples of the highest possible level of health" (World Health Organization Constitution 45th edition amendment, 2006). Health is defined by the WHO as, "a state of complete physical, mental and social well-being not merely the absence of disease or infirmity" (WHO 1946), and is mutually reliant on social infrastructure (Haines and Cassels, 2004). In other words, social infrastructure supports a healthy population by providing those facilities and services that increase human capital (e.g. knowledge, job performance and earning potential, positive health behaviors, and interpersonal skills) (Bailey et al., 2013), happiness (Priesner, 1999), comfort, and reduce illness (Grossman, 2000). An improvement in population health has a feedback effect for social infrastructure since individuals are more able to support and maintain these facilities and services that are dependent upon their collective participation. To achieve the highest possible level of health, an individual must have the ability to choose how they want to physically, psychologically, and socially interact with their environment (Jalloh, 2013).

In support of the WHO's declaration of health, the United Nations Universal Declaration of Human Rights (1948) recognizes that leisure provides a pathway to achieving health and is characterized as a right to opportunities for personal or group experiences that provide satisfaction, pleasure, discovery and socialization (World Leisure Organization Quebec Declaration 2008). In addition to the physical benefits from leisure and recreation (Warburton, Nicol, and Bredin, 2006) there is a significant body of academic research that has linked leisure and recreation to the development of place attachment (Hebblethwaite, 2014; Thibault and Lavigne, 2014; Sivan and Ruskin, 2000), sense of community (Carruthers and Hood, 2007; Allen and Beattie, 1984; Arai and Pedlar, 1997), social capital (Jalloh, 2014; Carruthers and Hood, 2007; Putnam, 1995), and economic diversification (Florida, 2014; Bakowska, 2011; Jalloh, 2014; Thibault and Lavigne, 2014). These benefits have been shown to contribute to citizen satisfaction and resident retention, making it an important aspect of urban development, particularly in RBCs that struggle with maintaining a stable population.

With a specific focus on leisure and recreation, this case study of Fort McMurray, the urban service center of the RMWB, will provide insight into factors that influence resident retention, quality of life, and well-being in an RBC. Broad theoretical concepts are used critically for this thesis and originate from research in various sub-disciplines of human geography including: health geography where "places matters in regards to health, disease and health care" (Kearns and Moon, 2002, p.610); social geography and a behavioral approach emphasizing the "study of people's activities and decision-making processes within their perceived worlds" (Knox and Pinch, 2014, p.21); economic geography's institutionalist approach that considers social, political and cultural contexts in a region's economic development (Martin, 2000).

In addition to these theoretical concepts, this thesis considers the role of leisure and recreation in community development (Bailey, Hillman, Arent and Petitpas, 2013; Besser, Miller and Malik, 2012; Arai and Pedlar, 1997) and resident retention (Baker and Palmer, 2006; Allen and Beattie, 1984). This study is concerned with addressing issues of social sustainability through planning for leisure and recreation, and is informed by general planning theory approaches such as rationalism which is based on normative

goals that rely on the expertise of professional planners to determine the spatial organization of urban spaces (Dalton, 1986; Murphy and Rogers, 2015), comprehensive or strategic planning that determines community goals and aspirations (Altshuler, 1965), and socially responsive planning that considers the impacts of environmental design to social behavior (Gill, 1991) .

To date there is scant research that links the role of leisure and recreation and the social sustainability of RBCs. By exploring the local perceptions of leisure and recreation opportunities and the role it has played in the lives of residents in the RMWB, this thesis may help understand and connect the dynamic social processes involved in resident satisfaction and retention. This knowledge can inform how RBCs can plan and develop effective social infrastructure that can increase the quality of life and overall well-being in these communities.

1.3 Research Questions and Objectives

In order to understand how to increase the sustainability of RBCs in Canada this research will use the RMWB as a case study to answer the following questions:

1. What role do opportunities for leisure and recreation play in contributing to a high quality of life that results in citizen satisfaction, resident retention and social sustainability in the RMWB?
2. What effects do the social, physical, and institutional structures in the RMWB have on the provision of leisure and recreation?

These research questions will be answered by addressing the following three objectives:

1. To explore local values and practices around leisure and recreation, urban sustainability, citizen satisfaction and resident retention.
2. To evaluate perceptions of the current public and private provision of leisure and recreation in RMWB and asses if current practices effectuate principles of socially sustainable urban development.
3. To assess the perceptual and objective constraints related to providing opportunities for leisure and recreation in a resource based community.

1.4 Contributions of the Research

There are a number of potential short and long term contributions to the local context from this research. In the short term: 1) This research will illustrate the contribution that leisure and recreation has made to the quality of life in the RMWB, and 2) This research will identify some of the challenges that residents in the RMWB experience in their pursuits of leisure and recreation. In the long term: 3) This project will provide support for the development of context specific planning policies in other RBCs aimed at attracting and retaining permanent residents and increasing the quality of life in these communities. Beyond the context of RBCs, this research will help to strengthen the linkages between the literature on citizen satisfaction, leisure and recreation and socially sustainable urban development and contribute to the sustainability literature.

1.5 Thesis overview

This chapter provides an introduction to the broad concerns of sustainable development and RBCs, followed by background and defining characteristics of RBCs and the increasing focus on the social sustainability of these communities. Furthermore, it provides information on the case study of the RMWB and the significance of leisure and recreation in attaining a high quality of life that results in resident retention. The research questions and objectives are identified along with the study's potential contributions to the academic literature regarding socially sustainable development.

Chapter two presents a review of the three areas of literature that informed this research. A review of the literature regarding RBCs and the various factors that contribute to negative social conditions will provide the background knowledge necessary for this study. A review of the relevant literature regarding sustainable development, with a particular focus on social sustainability will help highlight the goals of this research, and a review of the community building aspects of leisure and recreation will help justify it as a tool for planning for social sustainability.

Chapter three provides a description of the case study and methods used for this thesis. A rationale for utilizing grounded theory and qualitative methods such as semi-structured

interviews and unstructured observations for this case study will be presented. The procedures and methods used will be described in detail, including site and participant selection, content analysis of planning documents, interviewing, and observations. A detailed description of the case study's demographic and geographic characteristics is presented as well as a description of the current social conditions and a brief history of the community. Following this the data and analysis procedures are discussed and methods for establishing qualitative rigor.

Chapter four presents the results of the interview, and some observational data from 25 participants living in the RMWB. This chapter is organized thematically based on the research's objectives and a hierarchy of major subthemes that emerged from the interviews. Three major themes include: perception of place, perception of leisure and recreation and perceptions of constraints to leisure and recreation. Positive place attachment based on social networks is evident and how meaningful opportunities for leisure and recreation, based on how participants defined leisure and recreation, have contributed to developing this. Regardless of employment with industry or government the perspectives presented reflect the various opinions of participants based on their experience as a resident living in the RMWB.

Chapter five presents a discussion that synthesizes the resulting data with the reviewed literature. This chapter identifies some of the living conditions in the RMWB that are typical of other RBCs as well highlights the unexpected levels of social cohesion that are not typical of other RBCs. The impact on the community that results from negative media attention and the unfavorable opinions of camp workers based on their limited experience of the community is discussed. An interpretation of the various factors influencing opportunities for leisure and recreation and its relative success in the RMWB will be discussed, which includes employment structures, reliance on a single industry, geographic realities and models of public provision for leisure and recreation. This will be followed by a discussion of the limitations to the study, recommendations for future directions and finally a concluding section of the discussion.

Chapter Two: Literature Review

2.0 Introduction

This chapter will review the relevant academic literature to provide necessary context and justification for this research. The first section will focus on resource-based communities and include a summary of the common social conditions experienced that contribute to the challenges of attracting and retaining a permanent resident population. Second, a review of the literature concerning sustainable urban development will help conceptualize a working definition of sustainable development and its related goals. Additionally, a review of various approaches used to achieve and measure sustainable urban development will be presented to justify the focus of the research. Third, since the case study focuses on the use of leisure and recreation as a tool for planners to achieve socially sustainable urban development in RBCs, a review of the academic works regarding the contribution of leisure and recreation to citizen satisfaction, increased quality of life, and well-being will be presented.

2.1 Resource Based Communities

Previous research on resource based communities (RBCs), often referred to as ‘boomtowns’, characterize them as primarily small, homogenous rural communities that have undergone an unprecedented phase of economic growth and increase in population due to the large-scale extraction of a natural resource (Deacon and Lamanes, 2015; Besser, Miller and Malik, 2012; England, Albrecht; 1984, Freudenburg; 1981). The term ‘boomtown’ may evoke images of historical mid-19th century mining towns in the western United States. However, Hostetter (2011) interprets them as a material expression of a more general process fueled by the speculation of a potential source of vast wealth, which varies given the valued resource and time period. Historically, these small communities followed a common pattern of rapid and unrestrained development of the built environment, a social atmosphere of overindulgence, and eventual decline in economic activity and population growth (Hostetter, 2011). Due to similarities in social systems and structures, this literature review will focus on RBCs in the industrialized

context, primarily Australia, Canada and the United States. Significant attention has been given in these countries to the environmental impacts of resource extraction, however there is an increasing interest in the impacts to social systems within RBCs. Industrial activity associated with the extraction of natural resources attracts an initial influx of people seeking employment opportunities (Halseth, 1999). This rapid population growth often results in strained urban services (e.g. health care, schools, childcare, retail) and local infrastructure (e.g. transportation and housing) beyond the regions capacity to meet supply (Lawrie, Tonts and Plummer 2011). Research has demonstrated there are many interrelated social impacts to RBCs from this rapid growth including social disruption, transiency, inflated housing costs, insufficient urban infrastructure and services, and a lack of a sense of community or social cohesion which further limits the ability of these communities to attract permanent residents (Ennis, Finlayson and Speering, 2013; Franks, 2012; Carrington, Pereira, 2011; Lawrie, Tonts and Plummer, 2011; England and Albrecht, 1984; Knox, 1976).

Early studies of boomtowns in the U.S contributed to the formation of social disruption theory, which states that negative social impacts such as increased crime, fear of crime (Ruddell and Ortiz, 2014; Ruddell, 2011), alienated youth (England & Albrecht, 1984), social isolation, depression, marital breakdown, and substance abuse have been seen to increase in RBCs as a result of changes to the social structure from rapid population growth (Lawrie, Tonts and Plummer, 2011; Ruddell, 2011; Cortese and Jones, 1977; Albrecht, 1976). The literature often faults high rates of resident mobility typically found in RBCs as a causal factor of negative social conditions and states that a permanent resident workforce and diversified economy is key in reducing these impacts (Lawrie, Tonts and Plummer, 2011). It has also been argued that this social disruption is not as profound as initially thought and subsides over time as residents adapt to the changes in community structure (Ennis, Finlayson and Speering, 2013; Smith, Krannich and Hunter, 2001). Nonetheless, RBCs perpetually have difficulty attracting a permanent resident population that can provide a stable workforce and opportunities for economic diversification that support the long term well-being of the community due to many complex, inter-related issues that are affected by both local and global conditions. One such contributing factor to this social disruption in RBCs is varying degrees and severity

of social isolation that result from irregular patterns of daily life resulting from shiftwork needed to ensure the 24/7 operations of these industrial projects to maintain lucrative levels of production (McKenzie, McKenzie and Hoath, 2014). These patterns are often incongruent with typical social and institutional activity that supports social interaction between residents (McKenzie, McKenzie and Hoath, 2014). Social interaction encourages the development of support networks, which have been shown to provide protective health benefits (e.g. referrals to access a wider range of resources, healthy behavior modeling) against the stress caused by social isolation (House, 2001; Coleman and Iso-Ahola, 1993; Greider and Krannich, 1985). Research in Australia on the social impacts of resource booms indicates that respondents felt shift work depleted the availability of residents to volunteer and meaningfully participate in local recreational and civic activities resulting in a decreased or absent sense of community (McKenzie, McKenzie and Hoath, 2014; Carrington and Pereira, 2011).

The academic literature lists inadequate housing availability within RBCs as a persistent concern (Keough, 2015; Ennis, Finlayson and Speering; Franks, 2012; Nikiforuk, 2011; Gill, 1991). The rapid growth in population and ensuing demand for immediate housing cannot be reasonably met, creating a large deficit in local housing stocks and increased prices that contribute to homelessness or 'near homelessness' in these communities (Ennis, Finlayson and Speering, 2013). People drawn to RBCs for employment opportunities often have to search for alternatives in housing, such as unofficial campsites or resort to multiple renters in a single suite (Ennis, Finlayson and Speering, 2013; Carrington and Pereira, 2011; Nikiforuk, 2011). Transiency and homelessness from insufficient housing in RBCs create barriers in the development of social bonds that lead to community involvement and increased place attachment required to maintain a permanent resident population. These housing conditions result from interrelated and often uncontrollable influences, such as the timely release of developable land from previously held land leases intended for industrial development (Keough, 2015), and the insufficient supply of labor in secondary construction industries, which delays the construction of new housing (Ennis, Finlayson and Speering, 2013). General laws of supply and demand (Lowe, 1942) are not altered in RBCs; as the supply of housing decreases the price will increase, but there are exacerbating conditions in these

communities such as higher wages earned in the primary industry of resource extraction increasing the ability or willingness to pay higher prices for a limited supply of housing (Carrington and Pereira, 2011; Ennis, Finlayson and Speering, 2013). The lack of affordable and available housing reinforces the transient nature of RBCs, and further limits the ability to develop place attachment and social connections that are needed for resident retention that supports the long-term sustainability of these communities

As mentioned, boomtowns in the early 20th century, were male dominated work places associated with lawless, incorrigible behavior (Hoestetter, 2011). It was thought that many of the social problems and instability in RBCs were due to the largely male workforce being away from their wives and families (Gill, 1991). Since the mid-1950s there has been increasing support from industry to establish more permanent settlements, referred to in the literature as ‘company towns’, that supplied housing for a resident workforce and their families in near proximity to the site of extraction (McKenzie, McKenzie and Hoath, 2014; Carrington and Pereira, 2011; Gill, 1991). These past attempts to address housing in RBCs sought to provide accessible, affordable housing for workers and provide them with an opportunity to bring their families and alleviate some of the negative social conditions that ultimately affected worker health and productivity. Early ‘company towns’ of the 1960’s were essentially owned and operated by industry, but persistent problems occurred for companies in providing sufficient urban services resulting in continued resident instability, and the development of independently run municipalities emerged with variable degrees of success (Gill, 1991).

The more frequent and common use of the ‘camp model’ today is also intended to alleviate the stress on local housing markets in RBCs and provide industry with the ability to access a larger workforce in a flexible and cost effective manner (McKenzie, McKenzie and Hoath, 2014; Storey, 2001). However, this model is not conducive to the development of social cohesion or bonds, because they are often geographically and socially removed from the larger community (McKenzie, McKenzie and Hoath, 2014; Storey, 2001; Halseth, 1999). More recent research has focused on the impacts of fly-in-fly-out (FIFO) lifestyles on both host and source communities (Perring, Pham, Snow and Buys, 2014; McKenzie, McKenzie and Hoath, 2014; Carrington and Pereira, 2011). In

response to the challenges of providing housing for the influx of workers, industry increasingly supports the use of temporary camp-like accommodations for non-resident workers who are flown to the mine and housed in temporary structures that are located near site for the duration of their shift and are then flown back home. This is fundamentally different from the ‘company town’ development model that was used previously in RBCs.

A community can be thought of as a system of interactions that work together to achieve a level of prosperity, and from a systems theory perspective (Lalande and Baumeister, 2014), the input of camp accommodations to solve the problem of housing in RBCs creates alternate responses in other social systems (e.g. economic development and diversification, taxation and the equitable allocation of tax dollars). FIFO accommodations provide many of the physical and social needs for workers while they are in camp to support their well-being and productivity, however this creates a ‘fly over effect’ where the money earned by workers is not spent in the local community to support a developing retail and service sector, such as dining and entertainment, recreation, and local food producers (McKenzie, McKenzie and Hoath, 2014). Despite the attempt by camps to provide for the needs of their workers they cannot account for the increased demand on local urban infrastructure and services such as roads, hospitals, and utilities. Allocation of municipal taxes are based on permanent residency and provide the necessary funds for developing and maintaining these urban services and infrastructure which becomes insufficient to accommodate the additional temporary residents that are not accounted for in the system of taxation (RMWB census, 2012). Although necessary and well-intentioned, FIFO accommodations encourage transiency resulting in inaccurate forecasting of population growth, which makes planning for sufficient urban infrastructure and services that support a high quality of life and resident retention extremely difficult in RBCs (Keough, 2015). Traffic congestion, long hospital wait times, and insufficient police services create friction and resentment between permanent and temporary residents resulting in the loss of social cohesion (Carrington and Pereira, 2011). FIFO living arrangements can supply industry with an economically efficient, mobile workforce however they can negatively impact a community’s ability to attain sustainable urban development.

Beyond issues of housing and infrastructure, challenges remain in retaining the necessary workforce to adequately populate the service industries (i.e. health care, education, hospitality and retail services) (Ennis, Finlayson and Speering, 2013) due to wage competition and the inflated cost of living found in RBCs (Meinert, 2013; Nikiforuk, 2011). Residents employed in the service and hospitality industries, community welfare, and arts sectors are typically the lowest paid workers, and the high cost of living in RBCs either discourages them from considering long-term residency, or pushes them towards resource-based sector employment. This in turn reduces the services that a community can offer making them an unattractive option for those considering relocating on a permanent basis. Ennis, Finlayson and Speering (2013) examined Darwin Australia and note that Darwin became insulated from the typical negative social impacts of the bust cycle associated with resource extraction due to its relatively large stable population and diverse economy. The ability to maintain a stable, permanent population that has a high level of citizen satisfaction can provide opportunities to develop place attachment, social connections, and economic diversity that increase the sustainability and resilience of RBCs despite the inherent cycles of growth and decline.

The following sections examine the factors that contribute to citizen satisfaction and resident retention and their significance in the context of socially sustainable urban development in an RBC.

2.2 Socially Sustainability Urban Development

Sustainable development has various meanings that are applicable to environmental, economic, and social systems. These systems comprise a three-pillar model of “complex interdependencies” (Elliott, 2009 p.3) that often have competing agendas and various interpretations that can make sustainable development difficult if not a contradictory endeavor. Taking a geographic perspective, sustainable urban development is concerned with how these three systems (environmental, economic, social) interact within urban space to provide a high quality of life for residents. Understanding how social and economic needs can be met within an urban environment that continually requires sources of energy, without causing environmental harm that reduces future generations’

ability to meet their needs is the primary goal of sustainable urban development (Whitehead, 2009).

The importance of sustainable urban development is increasingly becoming a part of policy development due to increasing global interdependencies and urbanization and as of 2008, half the world's population is reported to be living in urban areas (Dempsey et al., 2011). The United Nations Habitat report on Planning Sustainable Cities (2009) argues that governments must take on a more central role in meeting basic urban needs and planning must have an understanding of the factors that are currently shaping our cities (e.g. climate and demographic changes, socio-spatial inequalities, urban sprawl, economic challenges, and challenges related to the increase in participatory planning). Worldwide, new urban areas are expected to develop in response to this process of urbanization and prioritizing the creation of responsive and adaptive policies that support sustainable urban development has inspired recent research concerned with the social dimension of sustainable development (Weingaertner and Moberg, 2014; AlQahtany et al., 2013; Labonne, 1999).

The Canadian Institute of Planners (n.d) define planning as “the scientific, aesthetic, and orderly disposition of land, resources, facilities and services with a view to securing the physical, economic and social efficiency, health and well-being of urban and rural communities”. As varied in the conceptualization of sustainable development are, so too are the priorities and criteria involved in the models that guide planners in achieving sustainable urban development. For example, certification programs such as, LEED-ND (Leadership in Energy and Environmental Design for Neighborhood Development) in North America, BREEAM (Building Research Establishment Environmental Assessment Method) in the United Kingdom and CASBEE-UD (Comprehensive Assessment System for Building Environmental Efficiency for Urban Development) in Japan, have been used to address context specific development needs and values within these countries (AlQahtany, Resgui and Li, 2013; Murakami et al., 2011). These certification programs identify and provide a checklist of physical development criteria that are intended to result in a sustainable built environment.

These frameworks, or systems, explicitly address the reality of environmental degradation caused by urban development through green building practices. However, they do not explicitly describe practices that address the less visible social concerns resulting from urban development. Based on the list of criteria contained in these frameworks, the social dimension is only implicitly addressed through the adequate provision of physical infrastructure, such as hospitals and park space that is intended to increase the overall well-being of the community (Murakami et.al, 2011). A critical review by AlQahtany, Rezgui and Li (2013) of the various frameworks for sustainable urban planning resulted in the development of a new model for sustainable urban planning development and includes key social elements (e.g. health, education, community, security and equity) intended to support an expected or desired quality of life for current and future residents. Continued development of a more comprehensive model, based on these existing frameworks, is needed to specifically address development practices that help achieve social sustainability.

According to the 2005 European Union (EU) Ministerial Informal on Sustainable Communities, sustainable communities are places where people want to live and work, are safe and inclusive, well planned, built and run, and offer equal opportunity and services for all residents, and as the world becomes increasingly urbanized, the resulting migration patterns have increased the ethnic diversity of many communities (United Nations, 2009; Putnam, 2007). However, Putnam (2007) has argued that increases in ethnic diversity negatively impact social sustainability and the ethnic enclaves that develop within these communities reduce social capital and cohesion. A reduction in social capital makes it difficult for a community to cooperate and achieve collective goals that increase prosperity and well-being. While the term 'community' can have an abstract meaning, for purposes of this review, community will be conceived as a group of people living in the same geographic space that have a feeling of fellowship that result from shared attitudes, resources, interests and goals, and the concept of community development is defined as a process that involves building and strengthening the community (Mercer et al, 2009; Theodori, 2006).

The social dimension of planning within this process of community development is concerned with much of the service provision that residents rely on (e.g. education, medical care, safety, culture and leisure) to provide an expected or desired quality of life that ensures their overall well-being. As mentioned earlier, the assessment by AlQahtany et al. (2013) of the most widely accepted models for sustainable urban development, addressing the social dimension of urban development planning is to go beyond providing subsistence level satisfiers and address the deeper subjective elements to citizen satisfaction, place attachment, and resident retention (Francis, Giles-Corti, Wood and Knuiman, 2012; Burley, 2007; Allen and Beattie, 1984; Fried, 1982). Individual and collective measures of citizen satisfaction can aid in effective, adaptable policy development that directs current and future urban growth (Beauvais and Jenson, 2002). Citizen satisfaction is conceptualized as residents' overall assessment of the quality and performance of urban services (Van Ryzin, 2004).

There are many factors that residents consider in their assessment of community life and the conditions that support retention and social sustainability: opportunities for social interaction, community cohesiveness, group decision making, open space, climate and topography (Allen & Beattie, 1984). A German study, conducted by Zenker and Rutter (2014), found that citizen satisfaction, as measured by a Citizen Satisfaction Index (CSI), strongly decreased the desire to leave a place. However, additional future empirical urban research is needed to further develop and support these findings. Psychometric techniques that help evaluate feelings of well-being or community satisfaction are available to social researchers who often use some form of scale to measure specific indicators, such as transit service, housing conditions, health and education, recreation, entertainment, and employment opportunities (Knox, 1976). However, critiques concerning the validity of such subjective measures claim the variable levels of expectations of one person to the next do not provide an accurate picture of the objective reality (Knox, 1976). Despite this subjectivity, Knox claims that these subjective measures may “highlight areas of concern which would otherwise have been overlooked by conventional (objective) indicators” (p 430), and the results can justify further investigation that leads to equitable policy development and greater social outcomes.

As mentioned previously, measuring the quality of life and citizen satisfaction within urban spaces provides valuable feedback in the development of governmental policies intended to increase the overall well-being of residents. For example, GDP (gross domestic product) is commonly used to evaluate quality of life by measuring the economic health of a country based on all goods and services produced, but it does not consider social or environmental health. Although subjective, flawed and philosophical in nature, other publicly accessible indexes via the internet have been developed to reflect the social health of a country such as GNH (gross national happiness) and HDI (human development index). These changing evaluative measurements indicate a shift in values that prioritize social conditions as a measure of prosperity (Bates, 2009; McGillivray, 1991). Various publications (e.g. *The Economist*, *The Mercer Survey*, *Monocle Magazine*) produce annual reports that rate the most livable and desirable cities based on objective and subjective indicators (e.g. business conditions, crime and safety, climate, health, education, public transportation, tax rates, and architecture). However, considering Tobler's first law of geography that states "everything is related to everything else, but near things are more related than far things" (Tobler, 2004, p.304), attempting to replicate these highly ranked built environments in other places and contexts may not result in the same amount of citizen satisfaction and is a missed opportunity for developing a socially functional and sustainable community. The subjective nature of citizen and community satisfaction can be difficult to measure, but it is important to quantify in order to determine and justify the allocation of resources at the planning level to ensure social sustainability.

2.3 Leisure, Recreation and Social Well-being

The importance of leisure and recreation to human development is supported by the United Nations which declared that opportunities for leisure and recreation are a fundamental human right, and supporting this right can be an effective part of a holistic approach to increasing the quality of life and well-being for all people (Jalloh, 2014). Opportunities for leisure and recreation are a high priority in the assessment of a community's attractiveness and an important dimension of citizen satisfaction and resident retention (Baker and Palmer, 2006; Allen and Beattie, 1984). Citizen satisfaction

has been shown to increase with opportunities for leisure and recreation by providing daily opportunities for positive experiences that increase happiness, personal development, and community involvement (Hebblethwaithe, 2014; Francis et al., 2012; Carruthers and Hood, 2007; Kruger, 2006; Warde, Tampubolon and Savage, 2005; Allen and Beattie, 1984). Place attachment results as residents engage with one another and the surrounding environment through leisure endowing it with value (Hebblethwaite, 2014; Thibault and Lavigne 2014; Sivan and Ruskin, 2000). Opportunities to socialize and interact within the natural and built environment through public and privately funded leisure and recreation is one of the seven measurable dimensions of community life identified by Allen and Beattie (1984) that have been used to empirically assess the importance of leisure to citizen satisfaction. Dimensions of citizen satisfaction include: 1) health, 2) safety, 3) formal education, 4) environment, 5) economic, 6) community involvement and 7) leisure. Allen and Beattie's study revealed that of these seven dimensions, leisure contributed the most to satisfaction, while the economy was perceived as the most important, indicating that there is an order to human needs that are to be met to achieve citizen satisfaction (Allen and Beattie, 1984).

The corpus of literature on leisure and recreation go beyond addressing not only the health-related benefits from physically active leisure or health problems resulting from inactivity (e.g. obesity, cardiovascular disease), to include the broader meaning of health defined by the World Health Organization (WHO) (1948) as being "a state of complete physical, mental and social well-being and not merely the absence of disease. Caldwell (2005) has organized this extensive literature on the contributions of leisure to health and well-being into three approximate categories of research: "prevention of, coping with, and transcending negative life events" (p.8) further demonstrating the application of leisure and recreation to broader contexts. Interactions within environmental, economic and social systems can influence negative life events including physical and mental illness, social isolation, substance abuse, family conflict, or job loss (Jacquet and Stedman, 2013; Public Health Agency of Canada, 2011; Caldwell, 2005; Spinney and Millward, 2010), and opportunities for leisure and recreation can be a tool to increase individual and collective resilience to such events (House, 2001; Coleman and Iso-Ahola, 1993; Greider and Krannich, 1985). Leisure and recreational pursuits contribute to

increased resiliency by providing people opportunities to interact, support, and communicate with each other resulting in increased social capital and trust (Putnam, 1995), generational teaching and learning (Hebblethwaite, 2014), and community development (Jalloh, 2014). Social capital refers to the benefits accruing to society by virtue of participation in groups or networks that share intangible assets such as culture, knowledge, or health (Warde, Tampubolon and Savage, 2005; Portes, 1998).

Planning for the provision of spaces for leisure and recreation are an effective way to increase social capital and cohesion by facilitating opportunities to develop bonds amongst a diverse group of people that will enable them to co-operate and collectively achieve societal goals that lead to prosperity (Lavigne, 2014; Lewicka, 2011; Glover, 1999; Tew, Havitz and McCarville, 1999). Based on the societal contributions that leisure and recreation make to public health and well-being (Spinney and Millward, 2010; Rosenberger et al., 2005) spaces and programming had been provided as a public good up until neo-liberalist policies reduced public spending (Powarka, Havitz and Glover, 2015; Glover, 1999). Today there are varied approaches (e.g. public-private-partnerships, outsourcing) that governments now take in the provision of leisure and recreation, which have become increasingly privatized to gain the efficiencies associated with free market (Glover, 1999; Tew Havitz and McCarville, 1999).

Academically there is some divergence in the definitions of leisure and recreation that has distinguished them separately based on their utility in society (Van Moorst, 2006). An appropriate definition, for the purposes of this review, is provided by Sivan and Ruskin (2000) who combine the two terms to mean:

...a specific area of human experience with its own benefits, including freedom of choice, creativity, satisfaction, enjoyment and increased pleasure and happiness ... whose elements are as often physical in nature as they are intellectual, social, artistic or spiritual (p.1).

Leisure and recreation support a process of personal growth that helps an individual realize their full potential through learning new skills, increased physical health, team play, and research has shown that individuals who experience such personal growth often develop greater confidence and sense of control in their lives (Bailey et al., 2013; Caldwell, 2005; Arai and Pedlar, 1997; Coleman and Iso-Ahola, 1993). This fosters

positive life experiences and increases a person's willingness towards community involvement (e.g. volunteerism) because they feel they have the ability to influence change within their community (Arai and Pedlar, 1997). In considering the conceptualization of leisure and recreation mentioned above, it can be concluded that individual development resulting from leisure and recreation can effectively increase the development of social networks within a community, and contribute to feelings of place attachment (Hebblethwaite, 2014; Burley, 2007; Fried, 1982). Furthermore, this connection indicates a long-term commitment that reflects feelings of satisfaction with the community and increases the likelihood of homeownership. Increased homeownership stabilizes resident turnover and will contribute to the municipal tax base needed to provide services and amenities that increase citizen satisfaction and social sustainability (Dorow and O'Shaughnessy, 2013; Nikiforuk, 2011).

In addition to leisure and recreation's capacity to increase social capital and place attachment, developing a wide variety of leisure and recreation opportunities is known to attract the creative class (e.g. engineers, doctors, lawyers, artists) and increases the opportunities for economic expansion and diversification (e.g. dining, retail, tourism, entertainment) that can increase the sustainability of post-industrial RBCs (Florida, 2014; Jalloh, 2014; Bakowska, 2011). Economic diversification can provide additional options for activities that support less structured social interactions, giving residents 'third places' to gather during their non-productive time (Francis et al., 2012). Specifically, tourism has been touted as a significant source of economic activity and a strategy for economic development and diversification (Jalloh, 2014; Kruger, 2014; del Valle San Salvador, Ortega and Cuenca, 2013), especially in areas with valuable natural amenities that provide opportunities for eco-tourism. In relation to sustainability, there are concerns that these activities will degrade the natural environment and contradict the values of sustainable development, but Jalloh (2014) argues that the intrinsic value of these areas will encourage values of preservation and conservation as seen in Yellowstone National Park, Banff National Park and many other natural areas across the globe.

Development patterns around natural amenities and public recreation facilities that attract the creative class also act as anchors for the agglomeration of other businesses (Bidulka,

2013) that meet the demand for specialized goods and services related to various activities (e.g. physiotherapists, clothing, equipment, hotels). The city is a place of social interactions that can be facilitated through leisure and recreation and can be used as an effective branding strategy that enables a city to compete for residents and development that promotes economic growth (Thibault and Lavigne, 2014; del Valle San Salvador, Ortega and Cuenca, 2013). Strategies that promote leisure and recreation and urban development include attracting events (e.g. sport events) and, according to Lavigne (2014), provide evidence of high levels of social capital that allow the collaborative exchange and allocation of resources amongst the public and private sectors to promote the common good. For example, the 2010 Vancouver Winter Olympics spurred urban improvements that included an expansion and upgrade to the City's transportation system (The Vancouver Observer, 2010). More recently, the new arena development in Edmonton, Alberta has attracted new real estate development that will revitalize the downtown core (Kemp, 2014). Leisure and recreation help support many of the United Nation's goals such as improving the quality of life, attaining sustainable development, and provide high level of citizen satisfaction (Jalloh, 2014). Appropriate, comprehensive, and adaptable planning policy can ensure that the social and economic benefits from leisure and recreation are realized in a sustainable way.

2.4 Conclusion

Attaining a high level of citizen satisfaction is particularly significant in the context of an RBC because, despite efforts to increase the livability of these communities by providing basic urban services, there continues to be issues with resident retention and social sustainability. Leisure and recreation opportunities contribute to feelings of well-being and existing research on citizen satisfaction and place attachment provides justification for a further look into the elements that contribute to a high quality of life in these often remote, isolated communities. There has been limited research concerned with the social dimension of planning in resource dependent regions however, planners are recognizing the importance of maintaining the social resiliency of RBCs by asking "are we building a work camp that will disappear in a couple of decades or a community that will be sustainable for centuries?" (Nikiforuk, 2011, p.41). Due to the negative community

impacts of resource extraction, research used to inform appropriate planning policy that supports a connection between leisure and recreation and social sustainability in RBCs can provide a way to ensure the long term sustainability of RBCs and Canada's natural resource sector.

Chapter Three: Research Design

3.0 Introduction

This chapter will provide an overview of the research design employed in this thesis. Included within this discussion is a re-introduction to the three objectives of the project followed by an explanation of the theoretical and philosophical framework that was used. After explaining the frameworks, the research methodologies that were utilized for data collection will be explained along with a justification for their use to be followed with a description of the site and a brief history to provide additional context for the research. Semi-structured interviews are the primary source of data for this study, therefore sections will be devoted to discussing participant selection procedures and the development of the interview guide. The process of data reduction, data analyses, and data selection for presentation will be explained including a detailed description of the database that was developed for the analysis using the qualitative management software NVivo. The final section will address qualitative rigor, including credibility, transferability, dependability, confirmability, and the methods employed to ensure the research produced reliable results.

3.1 Research Objectives

The Regional Municipality of Wood Buffalo (RMWB) serves as a qualitative case study to explore three research objectives:

1. To explore local perceptions and practices around leisure and recreation, urban sustainability, citizen satisfaction, and resident retention.
2. To evaluate perceptions of the current public and private provision of leisure and recreation in the RMWB and determine if current practices effectuate principles of socially sustainable urban development.
3. To assess the perceptual and objective constraints related to providing opportunities for leisure and recreation in a resource based community.

3.2 Theoretical and philosophic considerations

Theory allows us to explain what we observe and often provides the means for us to predict and alter what we observe (Maxwell, 2013). Developing sufficient theory to explain social phenomenon requires that the data is grounded in the context of the observations in which they occur (Charmaz, 2008).

3.2.1 Grounded Theory

The intent of grounded theory is to develop a unified theoretical explanation (Maxwell, 2012) for a phenomenon (action or process) experienced by a group of people, where existing theories are either “ill-suited or inappropriate for participants under study” (Creswell, 2013, p 84). Grounded theory’s approach to research, according to Glaser and Strauss (1967), has evolved from its positivist underpinnings that advocated using systematic and analytical procedures in the development of theory to the more flexible constructivist approach supported by Charmaz (Creswell, 2013). A constructivist approach to grounded theory emphasizes the perspective of the participants and considers the role of the researcher in the process rather than the methods used, which allows for greater flexibility in investigating the complexities of the action or process under study (Creswell, 2013). Social phenomena and the conditions in which they develop are often unique and cannot be generalized into overarching theories that are applicable to all contexts (Charmaz, 2008). However, as mentioned above, theory can provide a basis for developing solutions that enable a society to predict or alter social conditions and outcomes. In situations where a substantial amount of research exists (i.e. ‘well tilled soil’) the objective of grounded theory is to “make the familiar strange” and to elaborate on “existing theory” rather than un-tethered “new” theory (Suddaby, 2006, p. 635).

It is important the data that is used to develop a theoretical explanation is obtained directly from those who are experiencing the phenomenon and ‘grounded’ in the context it originates (Creswell, 2013). In grounded theory, both method and content emerge during the research process rather than being preconceived (e.g. hypothesis testing) prior to the investigation (Charmaz, 2008). Grounded theory supports a flexible and iterative process of exploring evolving themes that emerge during observations, interviews, content, and discourse analysis (Maxwell, 2013). The emerging data continuously

informs the research process generating internally valid results that are intended to be understandable not only to the community from which the theory is generated, but also to a larger audience (Charmaz, 2008).

3.2.2 Social Constructivism

Social constructivism assumes the existence of a real world, however, our representations of that world are constructions that we apply in order to relate to and exist in it (Maxwell, 2013). Social constructivism focuses on how this knowledge of the world is produced through processes of social interactions with others in a particular group or setting (Maxwell, 2013). Therefore, a social constructionist view to grounded theory prioritizes participants' views and voices in the analysis, construction, and presentation of the research data and critically examines the role of the researcher during the entire research process (Charmaz, 2008).

This research employs a constructivist interpretation of grounded theory to investigate the social processes surrounding the experience of leisure and recreation in the context of a resource based community (RBC). It is important to understand the role that leisure and recreation plays in the process of developing social cohesion, citizen satisfaction, and a sense of community to help minimize experiences of negative social conditions associated with RBCs and supports resident retention. Theorizing the multiplicity of interactions that produce variations in the social processes related to the social phenomenon under study can inform context-specific planning-policy related to the provision of social infrastructure intended to improve social conditions in RBCs.

3.2.3 Critical Realism

Critical realism is a theoretical framework based on the combination of a general philosophy of science and social science that has increasingly been applied to social research to describe the interactions between the natural and social worlds (Roberts, 2014; Bhaskar, 1998). Critical realism can effectively address some of the dominant and problematic epistemological and ontological assumptions in qualitative research, such as the assumption “that reality is itself a social construction and has no existence outside of this construction” (Maxwell, 2012). Critical realism supports a constructivist epistemology and a realist ontology (Maxwell, 2012) that seeks to understand and

examine causal powers or mechanisms that occur in an “open system” of a social world that is often abstract and intangible but arguably ‘real’ (Roberts, 2014). This is compatible with a grounded theory approach where data and observations are obtained within the context of this ‘real’ social world as understood and expressed by those participants experiencing it. Critical realists acknowledge that our knowledge of the world may be wrong and by studying it in different contexts we can develop more complete theories on which to base actions that can effectively change or alter the outcomes of social processes (Roberts, 2014).

Using a critical realistic position, it is asserted that there is a reality that exists independent of our construction (ontology), however, ultimately our representation of the real world is constructed through social processes that endow reality with different meanings (epistemology) (Maxwell, 2012). Critical realism denies that we can have any objective or certain knowledge of the world and accepts that there may be alternate accounts (discourses) of phenomenon that are valid. Charmaz (2008), a leading authority on grounded theory, notes that in practice grounded theory has elements of both constructionist and objectivist approaches with a critical element of reflexivity that encourages researchers to critically examine how the lived reality may be constructed by their participants. The perceptual notion of ‘reality’ is based on the following argument by Putnam,

The notion that our words and life are constrained by a reality not of our own invention plays a deep role in our lives and is to be respected. The source of the puzzlement lies in the common philosophical error of supposing that the term “reality” must refer to a single super-thing instead of looking at the way in which we endlessly renegotiate-and are forced to renegotiate-our notion of reality as our language and our life develop. (Maxwell, 2012, p. 9)

A critical realist framework is relevant for understanding the social processes that this study is focused on. Specifically, this study takes the position that there is a ‘real world’ in which residents of the RMWB live, that is impacted by various economic, political, and demographic factors that influence their experience of leisure and recreation. However, our knowledge and experience of this ‘real world’ is only partial at best and considering a variety of perspectives (e.g. residents, providers of leisure, government and

industry) can help understand how the complex interaction of these various factors can effectively be influenced to induce a desired social outcome (Maxwell, 2012).

3.3 Methods

Methodological techniques, or methods, compatible with a critical realist perspective and grounded theory approach that were used for this research, include thematic content and discourse analysis, semi-structured interviewing, and unstructured observations. This mixed methodological approach is best suited in meeting the objectives of this research since the primary sources of data reflect the lived reality, or constructions (Roberts, 2014; Charmaz, 2008), from the perspectives of those experiencing leisure and recreation within the setting of an RBC. This inductive approach considers the local context in developing appropriate, beneficial planning policies around this lived reality of social practices as expressed through language (discourses), which are influenced by local perceptions and institutional frameworks (i.e., government, corporate).

3.3.1 Thematic Content and Discourse analysis

Within qualitative research literature, content and discourse analysis have various meanings and applications. For researchers, the concern with discourse is the role of language in the construction of a social reality (Willig, 2003) and in this research project content and discourse analysis refer directly to the analyses of written or spoken communication (e.g. interview transcripts, municipal planning documents). According to Maxwell (2014), the world we perceive and live in is structured by concepts which are expressed in language, therefore understanding the meanings of these concepts that are held by the people we study will help better understand their 'reality' and how they experience social phenomena.

In this project, content analysis is concerned with the identification of various key characteristics and themes derived from various planning documents (content) and discourse analysis refers to interpreting the themes that emerged from interview data (discourse). Both were used to analyze the case study's context and help understand the perceptions of the lived reality that each participant held. This type of descriptive analysis is relevant for the study's objectives to understand not only how respondents experience

and value leisure and recreation, but also how institutional practices govern social processes involved in its provision. The use of content and discourse analysis is compatible with this project in that the experience of leisure and recreation is ‘grounded’ or established in the meaning and interpretation of the spoken and written words.

It is important to note the distinction between discourse analysis and the more widely used critical discourse analysis, because the latter focuses on the ways that social power, dominance and inequality are produced and perpetuated through language (Gee, 2004; Van Dijk, 1999). It is recognized that the discourses contained in the interview data may implicitly or explicitly express issues around power relations but the focus of this research is to interpret the meaning of the participant’s words (discourse) through a process of thematic coding.

Interview Data

For this project, the primary source of data are the spoken words (discourse) obtained from interviews, which can both mediate and construct an understanding of the reality experienced by the participants (DiCicco-Bloom and Crabtree, 2006). This understanding of reality (tangible or intangible) may influence a participants’ behavior (Maxwell, 2012). In support of the interpretation of a critical realist perspective, discourse analysis allows the researcher to understand the meanings behind the words of the participants, which reflect the social process or phenomenon under study. This meaning becomes a co-construction between the researcher and participant in an iterative process of clarifying and confirming the meaning of the words used by both participant and researcher during the interview.

Discourses shaped or constructed by those people who are experiencing the phenomena under study may not be understood outside of the social context (the RBC) and the co-construction process provides an agreed upon portrayal of the phenomena. This process of co-constructing data involved fleshing out prominent themes within interviews, which were used to formulate additional or clarifying questions for the other participants. This process ensured a more complete mutual understanding was reached between the researcher and participants enhancing the reliability of the analysis (Starks and Trinidad,

2007). Data from qualitative interviews provide an alternate account of a phenomenon (leisure and recreation) that has not been considered in other contexts (RBCs) leading to the formulation of new theory, or justification for further exploration in developing one.

Planning Documents

Content analysis of municipal planning documents and government reports (see appendix A) provided insight into the values and practices of urban development planning within the RMWB's institutional frameworks. An initial analysis of these documents provided contextual background information on the RMWB and informed the initial development of the interview guide. The complementary use of document analysis to inform interview guide questions has been used in other qualitative research (Bowen, 2009) to help ground the data in the context of the social environment in which the documents developed. In addition to informing the interview guide, analyses of additional municipal (e.g. 2012 census) and provincial documents (e.g. Radke Report, Alberta Government, 2006), provided insight into some of the challenges and concerns of retaining a permanent resident population that could not be gleaned from interview data alone (see appendix for complete list of documents). The background contained in these various documents helped to develop relevant questions that participants would find interesting to discuss.

3.3.2 Semi-structured Interviews

Semi-structured interviews were used in order to understand the lived-experiences of residents and municipal authorities within the RMWB. The flexibility awarded by semi-structured interviewing provided participants the opportunity to express what issues were significant to them. Thick descriptions of the participant's lived reality resulted by allowing participants to freely express themselves during the interview. The results from each interview further informed questions for the next interview in an iterative process that addressed the nuances of the lived reality of residents in the RMWB to more accurately represent the phenomena under study.

Semi-structured interviews were the preferred method of data acquisition since their open-ended style is more compatible with discourse analysis (Diefenbach, 2009). Semi-structured interviews allow a researcher to understand more deeply the perceptions that

are held by participants by allowing them to construct the majority of discourse on their own without being unduly influenced by any information contained in a structured interview or set of survey questions.

3.3.4 Unstructured Observation

Within many qualitatively-driven research projects, some form of observation, whether it is structured or unstructured, is included (Sofaer, 1999; Corbin and Strauss, 1990).

Generally, a positivist approach to qualitative research engages in structured observations using predetermined criteria developed from existing theory. In contrast, a constructivist grounded theory approach, unstructured observation is used to understand and interpret cultural behavior within the context it occurs (Muhall, 2003). Two purposes of unstructured observation that this research consider are: 1) to provide information on the physical environment of the case study and; 2) to increase the credibility of the interview data by observing additional non-verbal information (actions) that might provide insight in considering the “the whole social setting in which people function by recording the context” (Mulhall, 2003, p.308) in which they (actions/processes) occur. However, unstructured observation can be criticized for its subjectivity as the researcher chooses what observations are significant and how that information is filtered (Mulhall, 2003). The rationale for this method relates to its critical realist approach that acknowledges there is an observable real world that influences the phenomenon we are studying (Maxwell, 2012).

There is an observable spatial aspect in the provision of urban services, such as leisure and recreation, and the location and condition of these services can impact how participants perceive their community. The critical realist stance that this research takes asserts that the perception of the physical world can vary amongst residents and in order to provide a reliable analysis of leisure and recreation provision in the RMWB these different perceptions must be considered. For example, the distance a resident must travel to participate in leisure and recreation activities will impact their perception of how well the local government performs in supporting social equity that contributes to their overall level of satisfaction. Reliance on the description of urban services contained in municipal planning documents alone, to understand the lived reality of participants, would not have

considered these various perspectives of a lived reality that is impacted by social processes (travel). Researcher observations of these physical characteristics were recorded and in the process of co-constructing a reliable description of the participant's reality, these observations provided points of discussion during interviews allowing participants to either confirm or refute the significance of them. Observations in the form of reflexive memos were made and included location and physical condition of facilities, available programming of activities, and general levels of participation. These observations served to identify or confirm that the lived reality of residents may or may not conform to the physical reality indicating further investigation into the elements that impact the perception of leisure and recreation is needed.

3.3.5 Triangulation

Compatible with a grounded theory research approach is the use of triangulation, which utilizes various sources or methods 'in the study of the same phenomenon' to help identify and theorize emergent data (Denzin, 1978, p 291). Source and method triangulation was incorporated into the design of this study and provided an opportunity to cross check and compare data in efforts to provide an accurate assessment and presentation of the participants' collective experience that is credible (Krefting, 1991). According to Guba (1981), the cross checking and interpretation of data involves using different data sources, investigators, theories and methods and "no item of information ought to be accepted that cannot be verified from at least two sources" (p. 11). For this research the use of various methods and sources was not used in this sense that Guba endorses to establish confirmability, but rather they were utilized to provide an accurate depiction of the multiple realities that are experienced by the participants.

Source triangulation provided a form of complementarity and cross checking between the data contained in government documents and interview data. Government documents, such as municipal development plans, area redevelopment plans, and strategic infrastructure plans, provided a normative view of the community based on future goals, while census reports and economic profile reports provide quantitative objective data. Combined with the subjective nature of the interview data, a more accurate picture of the lived reality can be presented by the researcher by corroborating or refuting the two

sources of data. Triangulation between content and discourse analysis help meet the objectives of this research, in particular by comparing discourses (interview data) that reflected local perceptions of leisure and recreation to the actual goals and challenges identified in the content analysis of government documents to determine if the processes involved with the provision of leisure and recreation support citizen satisfaction and resident retention.

Method triangulation included the use of semi-structured interviews, unstructured observation, and reflexive use of memos in obtaining data. These data were constantly compared during the research process and helped to inform the interpretation of the results. For example, researcher observations of travel distances to facilities helped to understand the barriers that exist from the perspective of certain participants and helped shape an argument for the development of measures that address issues of inequitable access. Triangulation between these three methods recognized the role of the researcher and allows reflexivity in interpreting the results through the comparison of the resulting data further supporting a constructivist approach to the generation of knowledge (Jick, 1979).

3.4 Site Selection

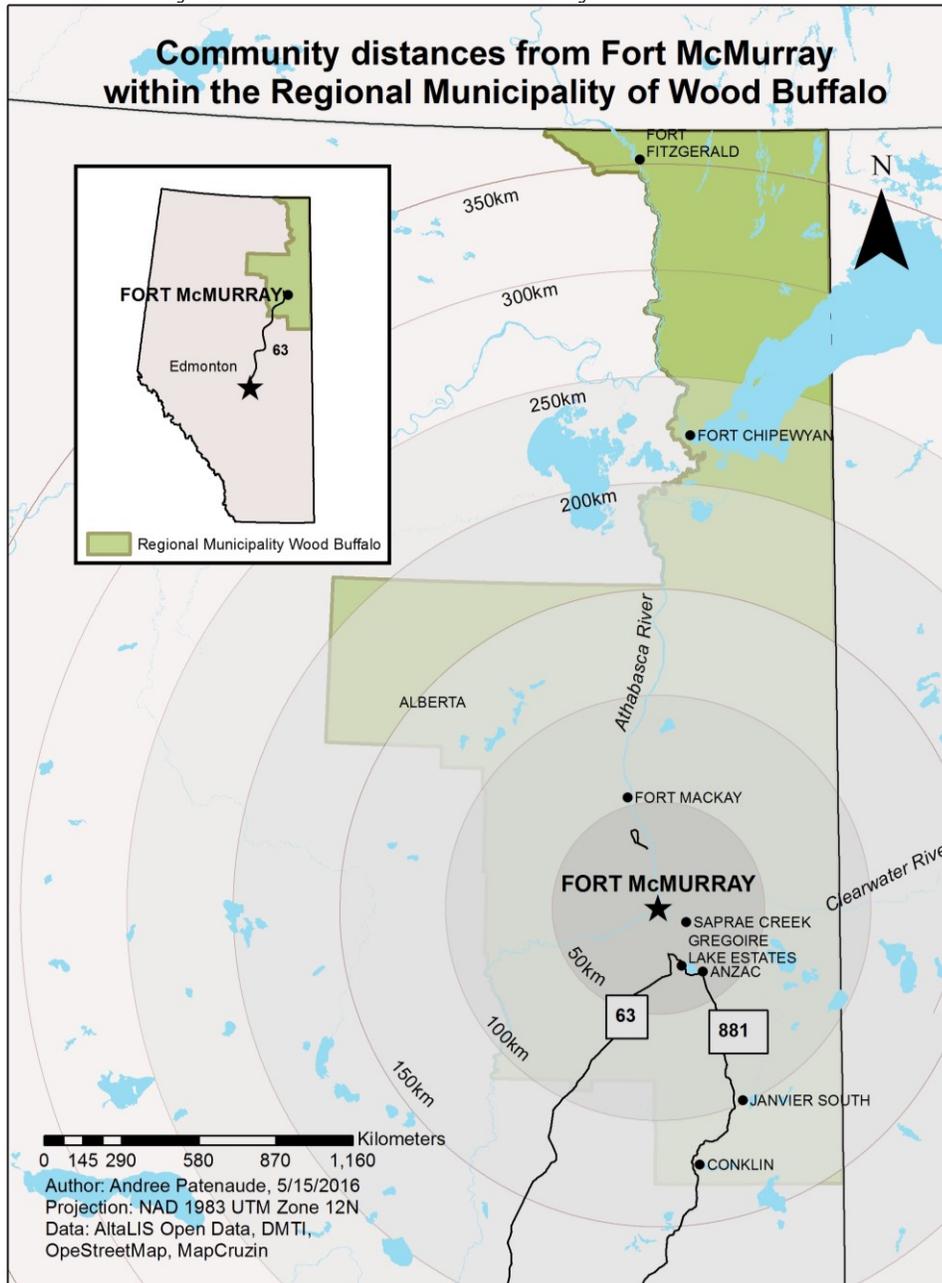
This study considered residents' perceptions of how opportunities for leisure and recreation can increase the quality of life in a remote, isolated resource based community. While Fort McMurray illustrates many characteristics typically found within an RBC, it is a unique case because of its national and global economic significance, prolonged and focused media attention, longevity of the resource, size, and geographic location in continued resource development. From a planning perspective, the case study of Fort McMurray can provide an opportunity to look at this RBC as one worthy of continued investment in social and physical infrastructure, which is contrary to the expected outcomes of other RBCs that often experience eventual permanent population and economic decline. The RMWB was chosen for various reasons that typify it as an RBC which include; rapid population growth, high housing costs, lack of economic diversity, economy based on a single industry, remote location, proximity to site of resource

extraction, transiency, and large non-resident workforce. Unique features of the RMWB provide additional justification for this particular case study including, widespread global publicity and notoriety as a place of social disruption and environmental degradation, local, national and international economic significance, geography (location), size of the community, longevity of resource, and potential for influence on planning policy for other RBCs due to the constant media attention the region receives. While similar to population sizes of RBCs studied in Australia (Ennis, Finlayson and Speering, 2013) the RMWB is unique due to the vast amount of area under its jurisdiction, which include an urban service center and other various smaller communities (RMWB MDP, 2011). The findings of this research must be applicable to the development of policies that consider the whole municipality and not just the urban service center of Fort McMurray where the majority of the population live.

3.5 Community Profile

The Regional Municipality of Wood Buffalo is located in the North Eastern corner of Alberta (see figure 3.1) Canada and incorporates a geographic area of over 63 000 kilometers, making it one of the largest municipalities in North America (RMWB MDP, 2011). Comparatively, the region is more than twice the size of the country of Belgium and nearly as large as Scotland. The region encompasses ten rural communities and one urban service center in the heart of the Boreal Forest, surrounded by wetlands and numerous river systems that provide the region with accessible natural amenities akin to an adventurer lifestyle. Fort Murray is the urban service center and is approximately 435 kilometers north of the nearest major city and provincial capital, Edmonton. Two major highways provide access to the RMWB, and over the past decade the provincial government has invested a significant amount of money for improvements in local road infrastructure, such as the recent twinning of highway 63 set to be completed in 2016 (Alberta Transportation, n.d.). This investment was justified in order to expand the oil sands operations and improve the safety of the highway.

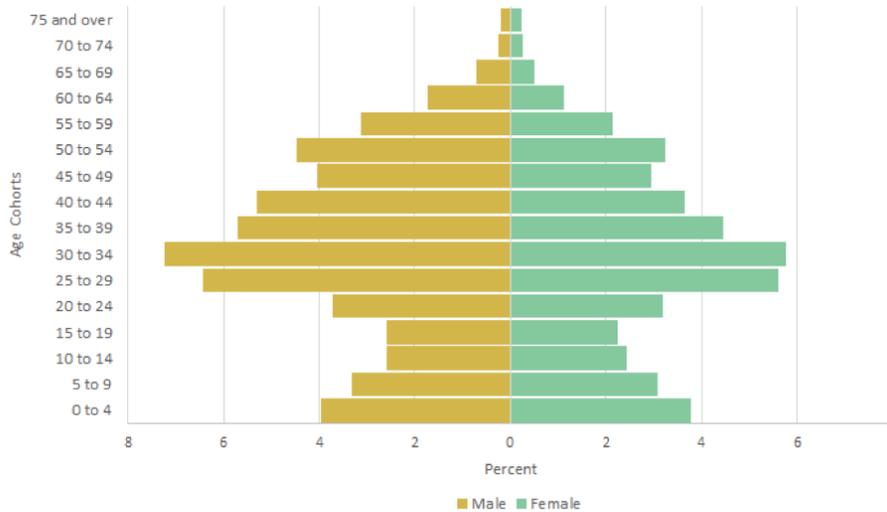
Figure 3.1 Community distances from Fort McMurray



As of the last official census report in 2015, the population of the region was 125,032, which is an increase of 8625 from the 2012 census. This includes Fort McMurray (78,382), the rural service area (3566), and non-permanent residents including camp accommodations (43,084). The camp accommodations house what is referred to as the ‘shadow population’ and according to the RMWB 2012 census report, are “temporary residents in the Municipality who are employed, or will be employed, by industrial or commercial establishments in the Municipality for a minimum of 30 days” (Municipal Census, 2012, p 30). The municipality historically has had great difficulty in determining accurate population numbers due to this shadow population. For example, in 2012 the official ‘shadow population’ of 30,271 was believed to be much lower than the actual population based on municipal water usage rates for the camp accommodations which reflect a population size of approximately 82,374 (Municipal Census, 2012). The significance of this is that the arcane nature of such a large, dynamic ‘shadow population’ can greatly impact the planning and provision of appropriate urban and rural services in this region.

The annual average population growth rate over the last 10 years is 7.24 percent compared to the Alberta provincial and Canadian national ten-year averages of 2.10 percent and 1.10 percent respectively. Demographically the RMWB is one of the youngest regions in Canada with an average age of 32 years compared to the Canadian average 41 years and has a slightly higher percentage of males (55.5 percent) than females (44.5 percent) (see figure 3.2). The draw of employment opportunities has attracted people from all over the world and the region is ethnically diverse. According to the 2012 municipal census, the majority of the population (75 percent) is Caucasian with the next largest group consisting of Native Aboriginals (6.8 percent).

Figure 3.2 Age Pyramid for RMWB in 2015 (Source: www.rmwb.ca/census)



Note: This analysis is based on 73,252 valid responses and does not include the shadow population living in project accommodations and non-residential accommodations.

The region is rich in natural resources including minerals (salt), timber and bitumen deposits and currently is the epicenter of oil and gas development in Canada and home of the largest industrial site on the planet. Large deposits of bitumen spurred investment and development of the Athabasca Oil Sands. The majority of the region (99.6 percent) is considered crown land (owned by the federal government) and administered by the Province (RMWB MDP, 2011). In order to meet current and future urban development needs the RMWB must negotiate with the Province for the timely release of land that has previously been designated for oil and gas exploration (RMWB MDP, 2011). Due to the large industrial sector (36.7 percent resource based and 27.4 percent construction) the RMWB has fewer small businesses than other communities of similar size resulting in limited opportunity to diversify the local economy and supply residents with a variety of expected urban services. In 2012 the average household income in the RMWB was \$189,458 more than double the Canadian average of \$75,000, and the average price of a

home listed at \$751,232 (\$398,000 Canadian average). Despite these higher living costs, residents of the RMWB enjoy a higher than average disposable income of \$30,464 followed by Calgary, A.B with a disposable income of \$16,081.

Over the past few decades the RMWB has garnered a significant amount of negative media attention related to environmental degradation as well as reports of increased crime, drug abuse, gambling, and violence against women. For example, in 2011, Maclean's magazine ranked Fort McMurray as the eighth most dangerous city in Canada. However, a recent report on crime in the RMWB from 2003-2012 indicates that, with the exception of cocaine trafficking and impaired driving, the region has relatively low crime rates in all other categories compared to provincial and national averages (Boyd, 2013). The discrepancies are a result of inaccurate population estimates in the RMWB due to the large shadow population previously mentioned. These largely negative news stories impact the perception of the region and is struggling to combat these negative images and counter it with a more balanced portrayal of the lived reality for the permanent population that call this region home. Additionally, the RMWB does face serious challenges in regard to planning and developing appropriate hard (physical) and soft (services) infrastructure to meet the changing dynamics in their population.

3.6 Site History

This region, originally referred to as Athabasca, was inhabited by a number of First Nations and Métis people. The first signs of the impending industrial development came in the form of a sample of oil saturated sand called bitumen presented to Henry Kelsey in 1719 by a Cree guide (Hein, 2000). This discovery prompted further exploration with the first geological assessment of the oil sands completed in 1848 followed by the establishment of the Hudson's Bay fur trading post called Fort McMurray in 1870 (Hein 2000). In addition to the oil sands, the region was home to various salt mines in the early 20th century, but it would be the discovery of the vast deposits of oil that spurred its rapid development. The potential of the oil sands was indicated in a report by the director of the Geologic and Natural Survey of Canada in 1882 that states,

The evidence ... points to the existence in the Athabasca and Mackenzie valleys of the most extensive petroleum field in America, if not the world ... it is probable this great petroleum field will assume an enormous value in the near future and will rank among [Canada's] chief assets. (Hein, 2000, p 2)

Experimentation on how to access this vast resource began in 1920 with a hot water separation process and gave way to innovations that developed the Athabasca Oil Sands into an economically viable endeavor. However, it is recognized that the increased production and industrial activity “will have to be balanced with environmental and socio-economic concerns to bring about prudent planning and mitigation of major issues involved with the development of this vast resource” (Hein, 2000, p 8). In efforts to address these concerns, the RMWB was established in 1995 as a specialized municipality, which amalgamated the city of Fort McMurray and Improvement district 143. This was to allow the co-existence of the large urban center of Fort McMurray with the sparsely populated vast rural territory within the jurisdiction of one municipal government to meet the unique needs of the region.

The region has experienced various boom cycles with an exceptionally long and unprecedented boom cycle since the early 1990's that had coaxed those who were waiting for the 'bottom to drop out' into believing perhaps the region was resilient to a bust. As of the writing of this thesis, the RMWB is currently experiencing a significant and extended downturn in its economy due to global volatility in oil prices that have seen multi year lows of \$30 per barrel (Puko and Kantchev, 2016). It is important to note that this downturn has since intensified after the fieldwork for this study had been conducted therefore, the conditions that are reported in the results chapter may have been impacted by this downturn.

3.7 Participant Selection

Participants were selected using a form of purposive theoretical sampling called snowball sampling. Two initial streams, or sources, of participants were contacted, and from these samples participants were asked if they knew of anyone who could offer a different perspective than their own. Using two separate streams of participants ensured that a variety of perspectives would be presented as snowball sampling often relies on

participants sharing contacts that often hold the same values thus limiting the variety of perspectives (Cohen and Arieli, 2011). In an iterative process of collecting interview data and analyzing it, potential participants were identified based on the observations and experiences of those participants interviewed. For example, during the course of the first round of interviews it became apparent that it would be important to include additional perspectives on leisure and recreation from a senior's point of view. Snowball sampling from these two streams informed additional well-rounded interview questions that considered the experiences and perspectives of those who are involved in the provision of and those who consume leisure and recreation. A variety of views on leisure, recreation and community conditions were presented and requests for interviews were met with great interest and enthusiasm.

Twenty-five participants (N=25) were interviewed which fulfills Creswell's (2012) suggested target of between 20 and 60 interviews when utilizing a grounded theory. The selection process arbitrarily resulted in ten males and fifteen females. Interviews were conducted in locations of the participants choosing (i.e. place of work, home, restaurant) and lasted between 60 to 90 minutes in length. In advance of the interview, participants received a written description of the research and consent form via email. Each participant was asked if they had any questions before the interview began and was asked to sign the consent form indicating their understanding of the research process and their willingness to participate.

Twenty-eight percent (N=7) of participants had lived in the RMWB for less than 5 years, forty-four percent (N=11) had lived there for more than ten years, and twenty eight percent (N=7) had lived in the region for more than 20 years. Sixteen of the participants were Canadian, four from the Maritimes, four from Eastern Canada (Ontario and Quebec), five from the prairies and three from British Columbia. Nine of the participants had immigrated to the RMWB from other countries, two from India, two from England, one from the Czech Republic, two from Africa and two from South America. The participants were also categorized as resident or municipality and reflected a possible biased perspective that may be present in their discourse. While this method of participant selection may not be considered a representative sample, it provided views

from as many groups as the interview data supported, and no more additional groups were sought out once theoretical saturation was reached (see table 3.1).

Table 3.1 Research Participants

	Gender/Pseudonym	Age	Years of Residency	Place of Origin	Stream	Perspective	Code
1	Male (Des)	20+	>5	Africa	1	Resident	1R-M1
2	Male (John)	20+	>5	Czech Republic	1	Resident	1R-M2
3	Male (Brad)	30+	>5	Maritimes	2	Municipality	2M-M3
4	Male (Dale)	30+	5+	BC	2	Municipality	2M-M4
5	Male (Collin)	30+	10+	Maritimes	2	Resident	2R-M5
6	Male (Will)	40+	30+	Maritimes	2	Resident	2R-M6
7	Male (Kevin)	50+	30+	Prairies	2	Resident	2R-M7
8	Male (Dan)	50+	10+	Prairies	2	Municipality	2M-M8
9	Male (Bob)	60+	10+	England	1	Resident	1R-M9
10	Male (Rick)	60+	30+	Eastern Canada	2	Resident	2R-M10
11	Female (Alexis)	20+	>5	South America	1	Resident	1R-F1
12	Female (Roxanne)	20+	5+	Africa	1	Resident	1R-F2
13	Female (Kristy)	20+	>5	South America	1	Resident	1R-F3
14	Female (Laura)	20+	5+	BC	1	Resident	1R-F4
15	Female (Sandy)	30+	20+	Eastern Canada	2	Municipality	2M-F5
16	Female (Pat)	30+	10+	Prairies	2	Municipality	2M-F6

17	Female (Marj)	40+	5+	India	1	Resident	1R-F7
18	Female (Kim)	40+	20+	Maritimes	2	Resident	2R-F8
19	Female (Michelle)	40+	30+	Eastern Canada	2	Municipality	2M-F9
20	Female (Anna)	40+	10+	Eastern Canada	1	Resident	1R-F10
21	Female (Ellen)	50+	>5	BC	1	Resident	1R-F11
22	Female (Carrie)	50+	30+	Prairies	2	Resident	2R-F12
23	Female (Rita)	50+	>5	India	2	Municipality	2M-F13
24	Female (Grace)	60+	10+	England	1	Resident	1R-F14
25	Female (Sara)	40+	10+	Prairies	1	Municipality	1M-F15

Stream 1

Stream one resulted from initial contact with an industry spokesperson who was an acquaintance of a personal friend who lived in Edmonton. It is a common practice for workers to commute back and forth between Edmonton and the RMWB resulting in social connections that span the 400 plus kilometer distance. The initial contact from stream one provided a personal tour of the Suncor Plant and during this tour additional contacts with industry workers (and their spouses) were made resulting in eleven participants.

Stream 2

The second stream of participants was established by contact through email with a municipal employee from Communications and Stakeholder Relations. Through this participant additional contact with other municipal employees was made from the various departments, such as Community Services, Economic Development, and Industry Relations. The second stream also provided contacts for friends and acquaintances that were not municipal employees.

Focus Group

One focus group consisting of four females and one male spontaneously occurred from a contact with the Multi-Cultural Society. Initial contact with the director resulted in her taking the initiative to invite some of the volunteers who were present at the Multi-Cultural Society center upon my arrival to participate in the interview. The initiative of the director helped utilize an opportunity to explore the perspectives of ethnic immigrants in the community and provided another layer of interpretation in the factors relating to social sustainability, such as inclusion and equity.

3.8 Interview guide

The initial interview guide (see appendix B) included topics that were informed by the content analysis of the various government reports, initiatives and planning documents indicated in section 3.3.1. Beyond gathering background information such as age, place of origin, employment sector, and length of residency, additional topics included:

- Livability and the factors that contribute to their quality of life in the RMWB including the built and natural environments, and economic and social stability
- Their practices and opportunities for leisure and recreation and the perceived impact these opportunities have made to their well-being
- Perceptions on the constraints experienced with leisure and recreation in the RMWB
- How they experience a sense of community and what their social network consists of
- Perceptions and experiences of resident satisfaction and retention in the RMWB

The use of the guide provided the interview with a broad range of topics related to the project's objectives and helped provide structure among interviews, but also allowed the flexibility to enable participants to freely express closely related topics.

3.9 Data Reduction and Analysis

3.9.1 Contextual thematic analysis

Qualitative studies that involve large amounts of data require a systematic process for the analyses in order to provide a coherent interpretation. The 25 interviews in this case study averaged approximately 60 minutes in length, with some being over 90 minutes and some as short as 40 minutes. This comprised over 344 pages of interview dialogue with 13,733 lines of text. This volume of data required the use of computer software to manage and organize emergent themes, provided analytic tools (e.g. word and code frequency) in the exploration of thematic relationships (e.g. transiency and shift work). All interviews were digitally recorded, transcribed verbatim into Microsoft Word and imported into NVivo 10, a qualitative analysis software program. NVivo software was selected based on its popular use within qualitative research, user friendly analytic tools that allowed merging and rearrangement of nodes (themes) during the process of analysis, and its ability to include visual presentation (e.g. word clouds or word trees).

Contextual thematic analysis was utilized to present data and build on traditional modes of presentation in qualitative interview based studies (Deacon, 2010). A general inductive analysis approach to qualitative research and interview data involves multiple readings and interpretations of raw data and coding the emerging themes into a model or framework represented by nodes/codes which have been ascribed discrete units of text (DUT) contained within the transcripts (Thomas, 2006, Baxter and Eyles, 1999).

3.9.2 Structure of NVivo thematic database

This section describes the structure of the hierarchical database and how interview data was categorized according to the themes that emerged. Each participant's interview transcripts were imported into NVivo and each line of text, or portion of, was initially coded to three major themes or nodes based on the research objectives mentioned at the beginning of this chapter. These nodes included; 1) Perception of place and quality of life; 2) Perceptions of leisure and recreation and; 3) Perceptions of constraints. The resulting database, based on these initial nodes (themes) grew as each DUT was further refined into additional sub-themes and continued until the coding saturation point had

been reached. During the process of coding it is not unusual to have a complex hierarchy of successive codes and then “taper back to fewer codes at the deepest level” (Deacon, 2010, p.59). This involved merging nodes of similar meaning into a manageable structure with a maximum of four levels rather than eliminating them in order to retain as many DUT as possible. According to Bowen (2008), the point of saturation is reached when “no new insights are obtained, no new themes are identified, and no issues arise regarding a category” (p. 140). The saturation point in this study was reached approximately after the 19th interview after which very few new nodes (themes) were identified.

3.9.3 How data were selected for presentation

The task of how to concisely present the full range of ideas represented by the three major themes and 17 sub-themes was challenging as several DUTs were associated with any one code. Due to the large number of DUTs their interpretation and presentation was necessarily selective. The justification for the selection of the DUTs presented in the form of quotations included meeting one or several of the following conditions:

- The quote represents the most complete articulation of an idea
- Frequency of mention
- Represented an opposing view
- Represented a unique perspective (age, immigrant) to ensure all context is accounted for
- Specifically addressed the research objectives

In addition to the above criteria, observational data in the form of field notes were useful in the selection process and arrangement of quotations. Notes made before and after interviews offered a source for reflexivity that considered the implications of what participants said and did for the interpretation and analysis of the interview data. For example, sarcasm was not easily detectable in the transcripts, yet in many instances participants used sarcasm to illustrate the importance the topic had to them.

Observational notes indicating changes in tone of voice or body language (e.g. facial expression) helped to identify these important and interesting comments that otherwise might not have been included in the presentation of data.

3.10 Addressing Qualitative Rigor

Baxter and Eyles (1999) note that a form or system of evaluation is critical if qualitative evidence or findings are to gain a wide acceptance amongst the various disciplines that intend to generate knowledge about the world. There are four components to establishing rigor in qualitative research: credibility, transferability, dependability and confirmability. Providing a detailed account of how participants and data were collected, selected and analyze, and the rationale for the methods the research engaged with will increase the integrity and trustworthiness of the study. For this research rigor is established through the use of verbatim quotes, low inference indicators, theoretical sampling, and source and method triangulation. Some of these techniques are used to address one specific component of establishing rigor and some of them are used to address multiple components and are outlined below.

3.10.1 Credibility

Credibility in qualitative research is analogous to that of validity in quantitative research and is one of the most important principles in establishing rigorous qualitative results (Baxter and Eyles, 1999). Credibility refers to the believability and value of the findings (Lincoln and Guba, 1985) and is associated with the description of the phenomenon the social scientist offers and the degree to which it is immediately recognized by those having experienced it and understandable by those (lay persons) who have not (Baxter and Eyles, 1999). This reflects an understanding that there are multiple realities that are individually constructed from experiences with the real world therefore strategies that enhance the credibility of the research are needed. Verbatim quotes were used to ensure that the data-to-concept links followed a coherent path by using and identifying the terms the participant used themselves in conjunction with my interpretation. This would ensure that the concepts were recognized by the participant and that these concepts were adequately interpreted and presented to appeal to a larger audience, including policy makers, municipal and provincial authorities, industry representatives, and relevant academic disciplines.

Credibility is also addressed through a participant selection technique referred to as purposeful or theoretical sampling. Purposeful or theoretical sampling is an ongoing

process of collecting and analyzing data obtained from participant interviews and provides insights into emerging theories and informs the selection of the next participants. Themes derived from each interview can provide criteria for selecting the next participant who can offer a credible view of particular salient experiences and maximizes opportunities to discover alternate or additional themes until theoretical saturation is reached and no more new themes or concepts present themselves. For example, younger participants expressed a concern around opportunities for leisure and recreation that cater to seniors, so in order to get a credible account of this, interviews with local seniors to provide credible data was sought. The significance of this is that the credibility of the data from the relatively small sample sizes is not threatened.

Source and method triangulation was used to establish credible results. Consistency in the findings of data from various sources and methods increases confidence that the findings are credible (Houghton, 2013). Source triangulation of the data from the content analysis of municipal and provincial planning documents/reports, discourse data obtained from interviews, and unstructured observations was used to determine the trustworthiness and compatibility of the data. Source triangulation was also achieved using quotations from several of the participant interviews. Method triangulation including, interviews, unstructured observations, and reflexive memos strengthened credibility, and were used in meeting the objectives to answer the research question.

Credibility was addressed through member checking with follow up emails that provided participants a copy of their transcribed interview and were invited to provide feedback. While the transcripts returned to participants did not yet contain my analysis it allowed participants to reflect on the visual representations (text) of what was said during the interview, and they could choose to retract or clarify any of their statements.

3.10.2 Transferability

Direct transferability is not necessarily a claim of this research, however by providing ‘thick’ or detailed descriptions about the context and research methods, readers are able to determine if the findings are transferable to another context (Houghton, 2013).

Describing the unique context of the RMWB, and providing direct quotes from participants living in this community, enhances transferability to other RBC contexts.

3.10.3 Dependability

Similar to reliability in quantitative research, dependability in qualitative research addresses design or researcher induced changes, and the consistency in the interpretations of data. This research employs digitally recorded interviews, verbatim transcription, and low inference indicators to ensure the dependability of the data. With multiple layers of analyses comes a threat to the dependability of the interpretation, therefore the original wording of the participants was maintained throughout the analysis, aided by analysis software, digital audio recordings and verbatim transcriptions.

Poorly defined analytical constructs and premises (LeCompte and Goetz, 1982) can threaten the dependability of the research findings as they may be subject to various interpretations by researchers and researched. During the literature review divergences of concepts related to this research were identified and during interviews these concepts were clarified by asking the participants how they internalized these concepts. Both meanings were presented to the participant and they were asked to identify with one or the other based on the description they were presented with to ensure that both the participant and researcher understood each other. For this research content and discourse analysis is not particularly concerned with quantifying the instances of identified codes but rather determining the meaning of the codes.

In order to deal with the large amounts of textual data involved in this research a process of coding, condensation, and interpretation that focused on the interpreting meaning was used. Contextual thematic analysis involved taking large amounts of textual data and reducing them to a manageable amount by coding, and categorizing them, followed by their analysis based on their relation to each other. Sections of documents and interview text are given a code or keyword that sums up the main point, and during a process of condensation (categorization) the most prolific themes emerge and are then subject to interpretation. Dependability during this phase of analysis was enhanced through the use of qualitative analysis software used to produce an analytic framework. NVivo software provided an audit trail of the data-to-construct links that were made from the contextual thematic analysis.

3.10.4 Confirmability

Confirmability in qualitative research helps ensure that the biases, motivations, and perspectives of the researcher do not unduly influence the results of the research and how accurate is the data (Houghton et al. 2013). Qualitative researchers need to be aware of their own position (reflexivity) during all phases of the research due to the subjective nature of qualitative methodology. Confirmability was addressed in this research by keeping researcher notes and an audit trail of the research process. It was important to be reflexive during the process of discourse analysis (documents and interviews) and set aside any assumptions or knowledge in order to present a true account of the experience of leisure and recreation in the RMWB. This was accomplished using field notes or memos where thoughts, observations and feeling were recorded to allow reflection on any possible biases in the de-contextualizing and re-contextualizing of the data into codes and categories. Keeping a journal provided an additional opportunity to be reflexive and note why or how certain conclusions were made and how they may influence the analysis phase. One identifiable threat to confirmability is the selection of those voices that would or should be heard through the presentation of direct quotes. These were selected based on their conciseness and simplicity in illustrating a concept as well those quotes, which seemed unusual or unique in some way in order to illustrate a different perspective.

3.10.5 Reflexivity

The process of reflexivity encourages a researcher to be aware of how their own knowledge and experiences influence the interpretation of their research data. It is crucial for the researcher to consider how their race, nationality, age, gender and socio-economic status influence the production of knowledge (Rose, 1997). While the sampling method (snowball) used arbitrarily resulted in 10 female and 15 male participants it is recognized that being a female researcher may have influenced existing participant's choice in recommending additional interviewees. It is acknowledged that this research and its interpretation is inevitably influenced by the female who produced it, and while this does not discredit the results it is important to note that the collection and analysis of the data is based on a female perspective. As mentioned in the previous section, journaling was

used in the process of reflexivity in identifying potential issues of positionality during the entire research process.

The subsequent chapters are dedicated to presenting the main findings from the case study followed by a discussion of the relevance of these findings to social sustainability in RBCs.

Chapter Four: Results

4.0 Introduction

This chapter will present the results of the semi-structured interviews. In total, 20 semi-structured interviews and one focus group of five participants were completed. Interviews were conducted over a five-month period and were directed by an interview guide that addressed topics related to the three objectives outlined in chapter two.

This chapter is organized based on the three themes that emerged during the interviews and reflect the intended objectives of the research:

- 1) Resident's views on the factors that directly affect the quality of life within the RMWB;
- 2) How participants perceive and experience a sense of community and well-being through opportunities for leisure and recreation in the RMWB;
- 3) Perceptions of factors related to participation and access to leisure and recreation.

Additional subthemes within each of the three main themes were identified and evolved into a hierarchical database of discrete units of texts, and the results are presented in this chapter.

4.1 Perceptions of Place and Quality of Life

The first theme that emerged was related to perceptions of place and quality of life. This particular theme provides insight into how residents view their community. This theme is particularly important in order to be able to decipher how residents perceive living in the RMWB and to make linkages between leisure and recreation and how they contribute to overall social sustainability. Potential participants were enthusiastic to participate in the study and every participant expressed great pride in their community. However, there appeared to be unanimous concern over the negative portrayal of Fort McMurray from external sources (i.e. the media) and the continued growth of the city. In terms of frequency of mention there were six (N=6) primary themes that participants referenced when sharing how they perceive their community: employment and economy, infrastructure, sense of community, ethnic diversity, notoriety, and sense of place (See Table 4.1).

Table 4.1 Perception of Place

Perception of Place	Theme/topic	Number of participants	Number of mentions
4.1.1	Employment and economy	21	168
4.1.2	Infrastructure	18	62
4.1.3	Sense of Community	21	182
4.1.4	Ethnic Diversity	15	86
4.1.5	Notoriety	18	88
4.1.6	Sense of Place	14	34

4.1.1 Employment and Economy

The prospect of employment is often the primary pull factor for migration into RBCs (Hostetter, 2011; Nikiforuk, 2011; Halseth, 1999; Gill, 1991) and this is illustrated by the employment demographics of the RMWB. Sixty-four percent (64 percent) of the population is employed in either oil-and-gas or construction industries (RMWB, 2011). Throughout the qualitative semi-structured interviews, job opportunities directly and

indirectly related to the development of the oil sands were identified as the prominent contributing factor to a high quality of life enjoyed in the community. The majority (N=22) of participants came to the region for employment opportunities and identified themselves and their neighbours as “hard working people” and “the backbone of the local economy”.

Brad, a resident for less than five years, came to the RMWB from Nova Scotia in search of opportunity and provided an interesting description of why he is confident that the local economy of Fort McMurray is resilient:

My perspective is someone that grew up in a blue collar community in Cape Breton, has lived in five different provinces, came here for work and career advancement and...yeah...given everything that's happening in the global economy and nationally, even with this downturn Fort McMurray is sitting on great opportunity and continues to take advantage of it. It's the most meritocratic place I've ever lived, let's put it that way. Now it's a little bit different it's slow as it's ever been since I've been here [four years]. Comparatively speaking it's a robust economy even though we've had a doubling of the unemployment rate. (2M-M3)

While many participants were not directly employed by the oil industry, their spouse or partner was. Twenty-two (N=22) participants indicated that at least one person from their household was employed directly in the oil and gas sector. Many participants explained that they believed that it was the associated high incomes earned in the region that helped to buffer against some of the more negative aspects of living in the RMWB (e.g. geographic isolation and high cost of living (housing, food)). Sandy, a resident for over 20 years and municipal employee, indicated that her family generally had enough income to offset the challenges of living in the RMWB and identified their high disposable income level as what enabled them to frequently get away from the remote location of the community:

When you make \$100K a year [like] most people... once me and my husband have our combined income we are very comfortable (laughs). We can afford to make those trips. We can afford to go see family that lives outside of town. We can go on an annual trip somewhere...to somewhere nicer to break up the winter the long winter. Those are things we're very fortunate for and we understand that we are fortunate for and that we wouldn't have that if we lived somewhere else because of where we live and some of the opportunities here allow us to do some of those things. (2M-F5)

However, it was acknowledged that residents not working in the high paying oil or construction industries experience difficulty managing the high cost of living in the municipality. When participants were asked ‘what was one of the worst aspects of living in the RMWB’ Kevin a longtime resident, responded with this observation.

The price of things, if you're not working in the oil sands plants. If you're working in the sundry [miscellaneous] industry being restaurants, fast food or things like working in hotels and that it's a hard time for those people to get by because the price of housing and that. (2R-M7)

Participants agreed that there was a need to diversify the economy in order to retain residents and increase the resiliency required to reside in a resource-based community. Resident retention and the prominence of high paying jobs in the oil industry were considered a barrier in developing a diversified economic base. Anna, a resident for nine years, states:

If we're so tied to oil all the time then we're gonna ride those ups and downs, because oil is never gonna be completely stable so how do you survive those ups and downs and do it well? You need other things that are going on that keep people employed, but again it's a catch twenty-two because how can you compete with the forty-five dollars an hour you make at oilsands right. If all it is, is an oil town then as soon as the work dries up everybody leaves! There is nothing else here to make people want to stay, so if there is other things to make people wanna stay and other places for employment? (1R-F10)

4.1.2 Infrastructure

Throughout the interviews, participants identified that services and infrastructure in the region were continuously improving and helping to increase the quality of life for residents. Accessibility to effective transportation, health care, education, and urban design (which developed into its own theme and is presented in 4.2.3) were prevalent themes during interviews. The most frequent mention (N=15) regarding infrastructure was concerned with roads and transportation, and the following observational data provides an overview of the physical characteristics that are related to this issue.

The urban service center of Fort McMurray is divided into two sections by highway 63, and residents identified these sections as ‘uptown’ and ‘downtown’. The topography of the Clearwater and Athabasca river systems, combined with muskeg soil conditions have influenced and constrained the physical development of the city resulting in ‘pod’ like

development (RMWB, 2009). The initial development of Fort McMurray is located on the east side of highway 63 and the Athabasca River (downtown) and comprises the city center or central business district. Older residential housing stock in the neighborhoods of Abasand Heights, Waterways, and Beacon Hill are also located in this section. The newest developments of Thickwood Heights, Dickinsfield, and Timberlea (uptown) are located on the west side of the river and highway 63, accessible from the downtown via the Athabasca Bridge, along highway 63. These newest developments consist of mostly residential housing where approximately 80 percent of the population resides. The large distances between these separate ‘pods’ of development require some form of motorized transportation in order for residents to access other neighborhoods and the city center. Regionally, highway 63 is a spine road that runs north and south through the RMWB providing the only access between neighborhoods, rural communities and oil sands plants. Most residents agreed that, until recently, this major roadway was a daily challenge due to ‘bumper to bumper’ traffic, particularly during shift change as buses and vehicles tried to get through intersections to exit onto or off of secondary roads.

Dale, who lives downtown and must travel along the main highway to get to his office located uptown (Timberlea) reflects on the impacts this has to the quality of life for residents as travel times along the highway increase the length of the average workday significantly, and road infrastructure was identified as having had a profound negative effect on the quality of life in the region.

If you’re working a twelve-hour shift and it takes you an hour and a half [to get to work] and an hour and a half to get back...that’s a fifteen-hour day! (2M-M4)

Residents expressed that there has been a marked improvement in this area with the recent and extensive upgrades to the road system, which include the construction of Confederation Way, Thickwood Boulevard, and most recently Parsons Creek interchanges (Alberta Transportation, n.d.). These interchanges reduce the need for traffic lights along the highway and have improved travel accessibility internally and externally. Dale and Pat have lived in the region long enough to have experienced the previous negative impacts of the road infrastructure and describe the recent improvements. Dale

recognizes that the government has made a significant effort to improve road infrastructure in the region.

And I should throw props to the Government of Alberta for all of the highway 63 upgrades that they've done through Fort McMurray. Maybe it took a little longer than some of us would have liked, but in 2006 to get from this building [located in Timberlea] to the downtown location on a regular commute was forty-five [to] fifty minutes in the morning [an approximate physical distance of 15 kilometers). Like you basically got on to Confederation Way and boom...bumper to bumper all the way down the hill, all the way down 63! And now when I drive in the mornings its seven minutes, eight minutes so the new bridge and the roundabouts and overpasses [thoughtful pause] it's been a huge game changer. (2M-M4)

Pat had indicated that in previous years to travel the ten kilometers between uptown and downtown, an approximate 10 kilometer distance, would take up to 45 minutes.

But now that we have the new infrastructure [roads and interchanges] it feels like, it just feels like it's a lot easier. You're not fighting traffic, it's an easier commute and these things add up and make a big difference in terms of your daily life. (2M-F6)

However, Dale added an additional observation that, the collective memory of this restricted mobility has resulted in a legacy that still influences resident's perception and travel behavior.

Mentally it was a big decision to decide to get on the highway and go if you got kids in the back of a hot van or whatever right. But now it's not there anymore... yet even today when you talk about meeting somewhere, people still say "well that's downtown". There's no reason for you not to, but there's still that mental block for some people which is kind of a neat little artifact (sarcasm) from the 2006 to 2009 timeframe.

The majority (N=19) of participants indicated they drove their own personal vehicle to get around and six participants indicated they accessed public transportation. There were varied views on the quality of public transportation between those who did not solely rely on public transportation and those who did. For those who did not rely on public transit it was enough for them that it was an inexpensive option and existed. However for those residents like Des, a young man originally from Africa working in the oil sands, who relied on public transit, felt that it was cumbersome and reduced their willingness to travel unnecessarily.

Now downtown here if you wanna do anything like the movie theater is like two blocks away from this and then you have take a bus to go to Wal-Mart which is way over there. I guess this also ties into the transportation thing because for me it's an issue. So I never want to go downtown because everything is just so far away so it's just a hassle more than anything. (1R-M1)

Health care was repeatedly mentioned to be insufficient in supporting a high quality of life for residents. While this research did not specifically focus on health care, it was often mentioned during interviews as an element that would help retain residents and improve the well-being of the community. Anna's daughter had problems with her vision and the family had to travel to Edmonton (five hours away) every four weeks for treatment and Anna expressed that the reduction in access to local health care is discouraging for many families.

Better health care would make the community grow. We are...I feel we're really under-serviced in terms of health care for the size of our community. (1R-F10)

Kim, who has a daughter that requires ongoing medical care, expressed how the lack of health care has reduced her family's quality of life in the region.

...the health care system sucks! That's one obstacle [referring to quality of life] ...huge, huge, huge! (2R-F8)

Despite problems with health care and transportation, participants (N=12) identified that they either directly experienced or heard from others that the school system in the region was exceptional. This was a surprising and unexpected mention during interviews, and the unsolicited references to the public education system reflect participants' perceived value the school system has and hold it in high regard. Pat, a public affairs advisor for the municipal government did not have children, but had heard feedback about the school system through her numerous contacts with community members.

In the mean time we have some of the best education systems in all of Alberta if not all of the country. (2M-F6)

Will had attended high school in Fort McMurray and his own children are currently attending a local school and he was very pleased with it.

The school system is amazing! (2R-M6)

4.1.3 Sense of Community

All participants (N=25) expressed feelings of attachment to the community regardless of the length of residency, and most identified the community as being cohesive and supportive. Most (N=15) attributed this to the similar experiences of being new to the community and being away from family and friends. This common experience created a basis for friendships to develop and a large portion (N=13) of the participants specifically stated that their “friends became their family”. The following quotes reflect that a sense of community is established through an interdependence that result in people feeling they are part of a larger dependable structure (Warde, Tampubolon and Savage, 2005; Beauvais, 2002; Putnam, 1995; Greider and Krannich, 1985).

Brad, an outgoing male who has lived in various Canadian cities noted:

So everyone has a similar common thread so anywhere that you meet someone you can say, “Hey where are you from, why did you come here?” The exact same conversation and there’s usually a similar story of aligning opportunity so there’s a real common thread. Creates social cohesion. Certainly my perspective is that I don’t think there is a stronger community in the country...it’s that resilient! I’ve never seen this level of generosity because that’s how they have had to stay together. (2M-M3)

Sandy, a resident of the smaller community of Anzac expressed her feelings about the RMWB with deep emotion and gratitude.

But the community up here really embraces you because everybody is in the same boat. Uh...everybody here is from somewhere else and your friends become your family. You become each other’s support network. (2M-F5)

John, who works at McDonald Island observes that...

There are friendships created on a daily basis and people are very, very close, like I’ve never seen before. (1R-M2)

Participant’s indicated that the strength and resiliency of the community was related to close relationships that had developed based on similar, yet dissimilar, backgrounds. Many (N=16) expressed that they were able to adjust to the shock of moving to a community that was often very different from where they came through the welcoming support of the friends who accepted them simply based on the fact they were new to the community.

4.1.4 Ethnic Diversity

There is overlap between the previous section (Sense of Community) and ethnic diversity. Ethnic diversity is often a component of most communities across Canada. Within the RMWB, skilled and unskilled workers are often in short supply and are recruited from other provinces and countries. The sample of participants reflects some of the ethnic diversity that exists, particularly in Fort McMurray, and a variety of perspectives on this diversity is presented from both internal (national) and external (international) migrants. In response to interview questions regarding ethnic and cultural variation, participants expressed positive association with the community and existing ethnic diversity within it. The majority of participants (N=16) were internal migrants to the RMWB, meaning they migrated from other provinces, which is reflected by the ratio of quotes used to illustrate the element of ethnic diversity. Anna and Brad, two residents originally from the Maritimes, discussed that ethnic diversity could be celebrated and encouraged by incorporating diversity into urban development through restaurants and festivals.

Brad articulated that he appreciated the cultural diversity of the region.

It adds a vibrancy. I think it brings the world to it (the community). You might not be as connected to the world but having it around you especially for the people who call this home and live here just adds an element of cosmopolitanism that you might not find this far north of the 49th parallel. But if you look where we are geographically to have the opportunity even culturally at this point...it's incredible. (2M-M3)

Anna appreciated the opportunity that she has had to learn from her many friends in the community that were from other countries and felt there could be more done to expose residents to the various ethnic groups in the community.

It would be nice if we could have more restaurants representing the different ethnic cultures...or do like a multicultural days where they have booths set up so you can see what the traditional clothing is like and you can test out some stuff from those different cultures. (1R-F10)

While ethnic diversity was reportedly visible, it was noted that Fort McMurray does not have visibly identifiable urban spaces or enclaves, such as a China Town or Little Italy,

typically found in major urban centers. Particular comments by two participants indicate the community is well integrated and socially cohesive.

Sandy, who has lived in Fort McMurray for over twenty years observed that often in larger cities there is a spatial segregation, or enclaves of various ethnic groups whereas in the RMWB this was not the case.

You have your China Town in Edmonton, or little Italy whereas here they're all over and they don't just live in one area. You can be in a grocery store in Timberlea and see every ethnicity possible. (2M-F5)

Will, a longtime resident of over thirty years corroborated with Sandy's observation.

There's more visible distinct groups, but it's always been a melting pot a true melting pot. There's always been a lot of countries and cultures represented here. (2R-M6)

Comments from the group interview with five recent immigrants from South America and Africa, indicated that they did not feel out of place or "othered" in this community. This was significant in that previous literature indicates that ethnic diversity often had negative effects to social cohesion (Putnam, 1995). Despite the geographical location they originated from or their physical characteristics, residents like Des felt a bond with other residents simply based on being "from somewhere else".

I was not the only visible minority in that [soccer] field and I was like wondering, ok, this small city such a multicultural because when I was in the university (Victoria) the first days in 2011 there were not many African people from Africa in the university and people keep on asking me, "where are you from" and all these things. When you move to Fort McMurray you will not find these question you know. People, everybody is from somewhere right so I was like 'oh'. (1R-M1)

4.1.5 Notoriety

Involvement in interviews were met with great enthusiasm and participants expressed a need to combat the negative image that the region had garnered over the years.

Participants felt the negative perceptions about the RMWB made it difficult to attract and retain permanent residents needed for the region to develop and remain sustainable into the future. The notoriety of Fort McMurray and the oil sands was both a significant and initial focus in many of the interviews. Brad, who moved to Fort McMurray in 2011, shared how the notoriety of Fort McMurray shaped his perception prior to coming to the

RMWB, and how his experience of living here re-conciliated the information he had been exposed to.

I guess I was affected by the perception of Fort McMurray that I had in my head. Parts of my perception were true and certain things were relatively accurate, but for the most part I had a bad impression...the wrong impression. It was just not what I expected it to be whatsoever, and I was pleasantly surprised by a lot of things. It's a little more hard scrabble. Um, it's maybe a little rougher and there is a certain intensity to Fort McMurray. Yeah...it has an edge to it because it's a blue-collar place and it has a certain history but [pause] yeah I think that perception, it's just a matter of time before it goes away because it's not true anymore. (2M-M3)

While many participants felt the community has been misrepresented by the media they also acknowledged that some challenges exist in the region. Participants (N=21) identified challenges related to the nature of the oil and gas industry and felt that the fly-in-fly out workers (FIFO) presented an inaccurate representation of the community. Common sentiments amongst participants existed that the poor reputation has made the region unattractive, and FIFO workers were reluctant to bring their families and consider permanent residency. Anna, a resident for over 10 years conveys the opinions she has heard in the community

I know a lot of people say we gotta stop the fly in fly out kind of thing so if people are moving up here with their families and being part of the community then they will have those social networks they need to sustain them through some of this stuff right. A lot of times the camp workers have a negative impression of Fort McMurray but they never get to see the good part of it because they're at the camp. (1R-F10)

Five residents (N=5) directly addressed the misconception or misrepresentation of the region as being crime ridden. Two recent reports regarding rates of crime in the region produced conflicting results; *Macleans Magazine* reported higher than average crime rates (Shendruk, 2012) while the other reported below average crime rates (Boyd, 2012). The second report (Boyd, 2012) states that the discrepancy results from the non-resident workforce population that was not included in the calculation of the statistics in the *Macleans* article. Residents, such as Sandy, did recognize there are certain locations in Fort McMurray where crime exists, but followed these statements with comments that the level of crime is no worse than in any other city.

I'm a woman who feels perfectly safe in every community here. There's drugs and alcohol and dangerous neighborhoods in every community; well maybe not every, but every urban center. If you're comparing, what troubles me the most when I hear those comments is when...the mix again of are we a small town or are we an urban center. Because, if you're looking at us as a small town...yeah we have more crime, we have more drugs and we have more abuse or whatever. We have more crime in general than a small town, but we have a greater population and we have a greater financial opportunity for those activities. But if you look at us next to an urban center, which is what we should be compared to, because we are so remote, and we have this shadow population that we service; we don't have that much if we compare apples to oranges or apples to apples. (2M-F5)

The media was identified as a major contributor in perpetuating the misconceptions of the region, and the perceptions of Fort McMurray expressed by participants contradicts these views that exist in the media. Pat, a woman in her early thirties specifically identified magazine articles that create an image of the RMWB as a lawless, dangerous place.

But they [media] know it's a hot story...sensational so they skew the numbers and they make a story out of it. So every year Maclean's tells us how dangerous we are, and meanwhile I'm here I've lived here a decade and I feel perfectly safe! (2M-F6)

Ellen, a woman in her early fifties who recently moved to Fort McMurray approximately two years ago from Vancouver, identifies the censure of celebrities as a major factor in producing negative images that misrepresent the community.

Oh that it's just a hellhole. You know that whole Neil Young bullshit. You know and [they] think that it's... You know it's funny I get some notes from friends that are in Vancouver, and there's little snide remarks about the tar sands. You know they use the word tar sands as opposed to oil sands and things like that right and yeah, lots of friends have come up and they are always shocked, absolutely shocked at how nice it is. (1R-F11)

4.1.6 Frontier and Adventure

During the discussions of what it was like to live in the RMWB (N=14) of the participants characterized the region as having a frontier or adventurous feeling. These terms are somewhat similar in that they both express notions of discovery or the unknown. However, the two terms were related to specific geographic spaces. For example, according to Laura, the proximity to the natural setting of the region contributed to a feeling of adventure.

You know what part of...I think the part that brings people to Fort McMurray is a sense of adventure. I don't think you can live up there and thrive without being adventurous. I think it's more outdoorsy here. (1R-F4)

Kim is an avid outdoors person and coordinates the activities for a volunteer organization that provides residents with opportunities to experience the natural amenities in the RMWB and she described the types of residents she has observed that are attracted to the region.

You're an extremist when you live here. Those are the people that buy into the community. (2R-F8)

Participants linked the frontier feeling to urban space by describing it as the opportunity for expansion into new urban territory with the possibility of creating memorable spaces that characterize the future development of the city. This was an attractive prospect for many participants and added another aspect of opportunity here, an opportunity for innovation. Rita, a municipal employee who originated from India, followed her husband to his various locations of employment, and related her experience of this process of place making.

I like the opportunity to expand, because we are still quite an open slate. We on the contrary do not want to have this frontier town; we want to be an urban community that has opportunity for everyone. So that's what I like about it. When we lived in Dubai it was the same, it was undeveloped and for me it's the same thing here. This is the scope to bring it up to the next level and it will happen gradually. (2M-F13)

Pat has lived in Fort McMurray for over ten years and relates this feeling to her hometown of Calgary, Alberta.

I always describe Fort McMurray as Calgary before Bankers Hall, and before the Saddledome, and before all these big things. You always feel like you're on the cutting edge of creating something new, which is exciting. (2M-F6)

4.2 Perceptions of Leisure and Recreation

The second objective of this research included evaluating the perceptions of the current provision of leisure and recreation in the RMWB to determine its relevance to the social sustainability of the community. In meeting this objective it was important to first define what leisure and recreation means to the participants to provide the context for the

interpretation of the prominent six themes that emerged (see table 4.2). The majority (N=20) of participants consider leisure and recreation as the same thing, but to some degree differentiated between the types of activities that define leisure and recreation. For example Ellen who regularly engages in physical activity states:

Um...for me it's more [that] recreation has a physicality aspect to it. Yeah, I do distinguish between the two. (1R-F11)

The following comment by John, a young male who had spent his life playing competitive sports is demonstrative of the collective opinion that leisure and recreation can be considered to mean the same thing.

Leisure and recreation in my mind you know is the same thing. Its something you will do on your down time. It doesn't have to be sports, it doesn't have to be running around. It could be you know just going for a walk, going to a movie, taking your kids to a park, taking your dog to a park, it could be shopping. That's in my mind. (1R-M2)

However, the differentiation was important because it reflected the type of development that is needed in order to provide equitable, meaningful opportunities for all residents. Leisure was often associated with non-physical or restful activities, and recreation was associated with physical activity and sports. For example, Brad a participant who felt that leisure and recreation served the same purpose in contributing to a person's overall well-being still differentiated the types of activities he considered leisure and those he considered recreation.

Playing shuffle board or chess or painting a picture is leisure but recreation is more related to, I would say, a specific physical activity. Yeah, so like playing a sport whether its competitively or just with a group of people. But I guess you can't separate the [similar] psychological and emotional side of art classes versus basketball. (2M-M3)

Despite the divergence between the types of activities, a common element emerged which defined both as activities that were done in their non-working time that contributed to relaxation, happiness, and moments for self-reflection. Dale describes this as a highly personal experience:

It allows you to retreat into yourself. There's something about it [leisure and recreation] whether it's an art class or basketball where you actually come back to reality...like I spend my whole day being an extrovert so it's a part of my day where I can recharge. (2M-M4)

Table 4.2 Perceptions of Leisure and Recreation

Perceptions of Leisure and Recreation	Theme/topic	Number of participants	Number of mentions
4.2.1	Spaces of social interaction	21	189
4.2.2	Facilities and Amenities	21	117
4.2.3	Spaces for Tertiary Leisure	17	52
4.2.4	Sources of Support	21	226
4.2.5	Why Bother	16	67
4.2.6	Health and Well-being	16	60

4.2.1 Spaces of Social Interaction

In several interviews (N=21) participants expressed how important they felt opportunities for participation in leisure and recreation were in contributing to their ability to make social connections and friendships. Work schedules, which will be discussed in more depth in 4.3.2, were identified as challenging conditions that impacted traditional spaces of social interaction (e.g. neighborhood). While places of employment were identified as the location where participants made initial contact with other community members, many (N=16) expressed that meaningful social interactions took place in spaces of leisure and recreation (e.g. recreation center, walking trails, urban public spaces). Laura remembered when she first arrived in Fort McMurray, and how she began to develop her social network through work.

So when I [first came here] not necessarily like were they colleagues, but a lot of them work at Suncor and I may have met them there and then we did leisure activities together that put us into friendships. (1R-F4)

Participants expressed that opportunities for social interaction beyond the work place allowed them to get to know people and helped them to develop a sense of attachment to the community. Alexis, a young woman originally from Venezuela, spoke of her difficult

adjustment and integration into the community and the types of opportunities she felt would allow her the opportunities to overcome these difficulties.

I just think there needs to be more activities or places for people to gather in a social setting. It is so difficult to make friends like I've been here for a year and some months and I can say that I haven't really made any friends since I've been here. Like I have a lot of acquaintances people that I know from work but I haven't really been able to meet people socially and have friends because everybody that I have right now is just people that I met through work and I don't really see them on my own time I only see them at work or maybe at like if you go do something after work and have a coffee or something like that but it's not ... it's not you know like in other places where you can go and meet people at random places I don't know how to explain it. (1R-F1)

John, a participant who immigrated to Canada as a young man and had lived in various communities across Canada before coming to Fort McMurray, indicated that his perception was that leisure and recreation as spaces for social interaction is unique to Canadian culture.

You know what? I don't think it's the case only here; I think it's a little bit of a Canadian thing to get this sense of belonging within a leisure group rather than your community. I know back home especially I lived in an apartment building with, I don't know maybe twenty-five other families, and we all knew each other on a first name basis. You would know what your neighbour on the 3rd floor and his wife did for a living, and if you needed eggs, or I don't know half a cup of oil, you would go see your neighbour and borrow it. I think in general it is something that Canada lacks as a whole. (1R-M2)

Brad, an outgoing thirty something male, when asked what role he felt leisure and recreation played in developing his sense of community responded with this comment.

Absolutely crucial! It gives a place for the community to congregate in a healthy way, right. Especially in a place that's like I said suburban and working long hours. First of course is the objective, obviously these things are good for the quality of life, because it just it allows you to be physically fit, allows you to exercise, allows you to engage with art and community events, is the business case quote on quote. But then there's also just...in a place that has had the history it has had, and in a winter city where you need solid indoor spaces, building that recreation infrastructure and community infrastructure is absolutely crucial. Because most people come together and it gives them the opportunity to get along and experience each other right. And I've watched it first hand and I'm a believer in it, and from a community building perspective I think it's everything for a place like this. So it's a natural way to get along so if you create spaces in public where

people can bring that together even more. I've watched it happen with McDonald Island. It's incredible! (2M-M3)

Kim, a longtime resident in the RMWB and avid snowmobiler, emphasized how spaces for her chosen activity have helped her develop and support a sense of attachment to the community. Kim emphasized that it was important for her to have these opportunities to participate readily available, but also that easy access to places of social interaction was also important.

Oh the people I meet I automatically know. And I'm a very emotional person as you can see (laughs), and I emotionally connect with people really quick and easy and to be able to share you always go snowmobiling. You go at your leisure. You go out on the trail in the winter time, on a weekend 2 o'clock in the morning there's still people sittin' at the fire-pits. Not even joking ya. There's people there all the time. There's always a fire burning no matter what time of the day you go. (2R-F8)

Many participants (N=19) mentioned the extensive trail system in the city and felt it provides opportunities for social interaction. Kristy, a recent immigrant from Columbia, expressed how, despite cultural differences in the ways (activities) people socialized, she utilized the trails and found a place where she could meet new people.

But yeah, the adjustment process is just like getting engaged in the community really helps. There's people who don't like [nature]. I have friends from Columbia who think I'm crazy going out and walking for an hour. I have to because my dog, he's a husky but there are people from my culture that would never do that. People are walking their dogs and they just talking and there very open to get to meet you it's not like small talk you can actually meet people in the trails. (1R-F3)

4.2.2 Facilities and Amenities

The previous section presented participant views on locations and processes of meaningful social connections related to leisure and recreation, and the following section explores the perceptions of the supply of these spaces. The region's facilities and natural amenities were identified by the majority (N=21) of residents as providing ample opportunities for leisure and recreation. Participants (N=14) reported active participation in activities, such as snowmobiling, archery and target shooting, skiing, and yoga, and others (N=11) reported participating in arts and cultural activities. For example, Will, a long term resident specifically mentioned the abundance of parks.

The amount of parks and trails and rec here is unheard of. And then you throw in all the new development of McDonald Island and Syncrude Sport and Wellness and the other things that are going on I mean it's just unparalleled there's nothing else like it. (2R-M6)

As mentioned previously, participants indicated that they value the natural trail system and outdoor amenities although a number of them (N=6) expressed that they do not actually make use of it. For example, Brad is aware of the trails but doesn't access them.

See the outdoor amenities are good. There's good trails system and I don't really use that side of it. But I identify that as being pretty solid. So I think in terms what I would say what municipalities are responsible for we're in good shape. Like we have the physical infrastructure that we need. We won't wanna keep going down a path. (2M-M3)

However, even though participants did not report using the trails, a sense of ownership and pride was indicated through the use of the terms 'we' when referring to this amenity. This is exemplified by Dale's following comment.

We have some amazing, as far as outdoor recreation goes, I mean my goodness if you like to hike, if you like to camp, if you like quad, snowmobile, fish, hunt I mean all those sorts of outdoor recreation activities, fill your boots. There's really no end to that sort of stuff here. (2M-M4)

A consensus amongst the participants was that there were enough facilities that catered to active recreation, such as gyms, athletic fields and yoga studios and that they appreciated the world-class quality of these facilities. Michelle, another longtime resident felt that the investment in these facilities could attract people to the region through event promotion, which would give visitors an opportunity to experience the positives of the community and combat the negative stereotypes of the region.

I think we are in an enviable position that if we chose to make a pursuit of games orientation or sport or hosting events for any type of thing we've got it covered. We've got great athletic fields, we've got great flooring for whatever gymnasium type of stuff in the community for assets, we've got great, great, great, not good great. So I think that makes us really competitive if we choose a path like that. (2M-F9)

Despite the satisfaction with the available facilities for active forms of leisure and recreation there was an expressed need for facilities that supported more passive forms of

leisure and recreation such as, arts, entertainment, and shopping as noted by Pat and Rick, both long-term residents of the RMWB.

Pat relates that having this type of development would increase her quality of life by providing her access to more choices for shopping.

You lack some of the ease of having urban development in terms of shopping opportunities or retail or things like that. (2M-F6)

Rod, a retired resident who has lived in the region for over thirty years grouped shopping in with other forms of leisure and recreation.

Yeah that's the worst part is it being so far away from a major community and then the other thing is really the shopping opportunities are not really good. I mean what's the biggest store here in Fort McMurray? You know you got Wal-Mart and Canadian Tire but you just don't have the variety, which I say is one of the biggest drawback, but the facilities [recreation] in town are quite good. And if a person was really into arts and so on they would probably not find this community terribly interesting. (2R-M10)

4.2.3 Tertiary Leisure

As discussed in section 4.1, Perceptions of Place and Quality of Life, urban design was a consideration for participants in their evaluation of their community. Based on the interview data, there is a link between the location of infrastructure and the perception of leisure and recreation. For example, responses from 11 participants indicate that participants perceive leisure and recreation as consisting of various levels. Physically demanding activities (e.g. sports, fitness training) were often identified first, followed by passive activities (e.g. art and reading), and then by 'tertiary leisure' (e.g. shopping, entertainment and dining), which is the focus of this section. The order of mention amongst participants is important here as it can be viewed as a barometer of what opportunities are perceived as a priority in the provision of leisure and recreation. Mentioning these activities (i.e. tertiary opportunities) as a third option indicates that participants do not consider them to be of primary importance, yet it was often (N=16) noted that they increase their quality of life and improve their satisfaction level. Participants expressed there is a significant lack of tertiary leisure and these activities provide opportunities for spontaneous social interactions and require less time commitment than traditional leisure and recreation. Participants (N=17) expressed that

being able to casually walk or sit in public areas where they could observe the activities of those around them would be desirable. For example, going for coffee, shopping in an urban market, enjoying a local band play, and watching kids play in an urban park were all thought to create a vibrant mix of leisure activities that would increase citizen satisfaction amongst residents. Kevin, Brad, and Laura, all long-time residents, echoed these desires.

Kevin, who is semi-retired expressed he would like more opportunities that support spontaneous participation in a central location.

Downtown I think that should be either an entertainment district or a combination of entertainment district and park where I could say let's go for, there's a band playing down there lets go see the band play at the club. And so downtown entertainment and park area I would like to see down there. Entertainment. There's not enough entertainment and people would say that. (2R-M7)

Brad, a self-proclaimed urbanite stated he would simply like to have a variety of options available to him.

... [A space] where I could walk to my grocery store, I could walk to my neighbourhood pub, I could walk to where I exercise. Not that you want to do that but just so you have that option. I like being able to spill out onto my main street, there's my coffee... (2M-M3)

Laura, expressed that she enjoyed the local market that set up every two weeks during the summer months and would like more options like that.

Um...I would say having some more events downtown in the public square for example would be really awesome. The market is one of them, but I think you know continuing on that and expanding on it would be great. (1R-F4)

Participants expressed that the location of types of activities should be centralized, ideally in the downtown core, and the current provision of leisure and recreation generally directs people away from the downtown. John, a resident of Fort McMurray for approximately two and a half years, expressed how the lack of opportunities for leisure in the City's downtown dissuades him from traveling to that area of the city.

We rarely go downtown. You know really, technically there's really nothing that would draw me to be downtown at all. (1R-M2)

Kevin, another long-term resident of 30 plus years, echoes the importance of downtown leisure opportunities but questions whether there is a critical mass of people to make that viable.

And so a downtown entertainment and park area I would like to see down there. Is it feasible? I'm not in that business but it seems to make more sense. (2R-M7)

In fact, Collin who lives downtown with his young family feels there is a lack of vibrancy and blames the lack of vision from the planning department as not supportive of downtown development.

All these big indoor places [speaking of the new rec centers scheduled to be built in Timberlea and Parsons Creek neighborhoods] they're awesome but every time I hear one is popping up it gets me more mad. How much of this do we need it's like they're completely separating downtown from uptown. Like some people won't even come downtown. (2R-M5)

Participants expressed there are challenges in the RMWB regarding the provision of tertiary leisure opportunities. More specifically, participants (N=6) employed with the municipality expressed that there are residents who often oppose new development downtown and are averse to change, yet based on the results participants (N=17) feel this would greatly increase their satisfaction with community life. These findings suggest that planning that addresses the different types of leisure and recreation requires two separate types of development (private commercial and public facilities) to improve the perceived quality of life in the RMWB.

4.2.4 Sources of support

Understanding participants' views on whom and what supports leisure and recreation in the RMWB provided insight into how provision of such services need attention. There were three sources of support for leisure and recreation that were identified: industry, volunteers, and the municipal government. Industry and volunteers were thought to meaningfully contribute the most and the municipality and its structure/operations was identified as less supportive. The majority (N=15) of participants recognized the contributions and support that industry has made to the development of leisure and recreation facilities in the region, which often bear the name of the contributing company,

such as the Syncrude Sports and Wellness Center and the Suncor Leisure Center as indicated by quotes from Michelle and Kevin.

Michelle works for the municipal government and explained how much money she understood came from industry to support capital investments in leisure and recreation.

Well again it [taxes industry paid to the municipality] could have been anywhere from eighty-five to ninety percent of the budget contributions so you could go to any capital year and if you know one hundred million was for recreation they [industry] would have provided ninety percent of a hundred million. (2M-F9)

Kevin, who has been involved in sports promotion states that the support goes beyond tax contributions.

The oil sands plants assist tremendously with the amount of sporting events we do. Syncrude and Suncor are all great supporter of sports. (2R-M7)

Participants (N=8) identified that industry's support often goes beyond simply providing the tax funds for the construction of facilities or sponsorship money for events. The following participant quotes illustrate some examples of how industry, regardless of their motive, has provided active support for leisure and recreation. Dale, who is a municipal government liaison to industry has observed this support.

Now again I'll go back to our Western Canada Summer games example there are some, Noralt Lodge for instance, who have come on and been an amazing sponsor, and they view themselves as part of the community. Maybe I'm putting words in their mouth, but they see themselves as just another hotel in the community and they really wanna become part of the community and help out and they are doing some amazing things. So they signed up and said 'yeah we'll be X level sponsor, we'll do these sorts of things' but then every single time another opportunities comes up boom they are the first to take it and jump on it and knock the ball out of the park. The reason why they're doing it, well I'm sure there's some business reason that they're doing it to get their name out, but another reason why they're doing it is because they want to be a part of the community, build the community. They wanna have help Fort McMurray and the regions change the way that people perceive life to be in Fort McMurray. (2M-M4)

Laura and her husband both work for industry and viewed them as very supportive of leisure and recreation that goes beyond what they expected.

One of the other great things we have in a community like that is that you have a lot of corporate sponsorship. My husband's company actually bought us both a family

gym membership for McDonald Island. So there's a thousand employees and their families that are automatically given memberships to McDonald Island. I mean that's something not other communities would get you know. (1R-F4)

Volunteerism was mentioned in most interviews (N=20) as a self-reinforcing mechanism for the support and delivery of opportunities for leisure and recreation in the RMWB. Participants expressed that volunteerism is strong and has supported the development of a variety of activities that the municipality, or its facilitators do not directly provide (e.g. snowmobiling, art classes, cross-country skiing). Nearly every participant (N=20) indicated that they volunteer their time in leisure and recreational pursuits in one form or another on a consistent basis. Based on the transient nature of the community, this was an interesting result, as one might expect that there would be difficulty in recruiting enough volunteers. Sandy, through her experience as a community events coordinator with the municipality, provided objective observations on the relationship between volunteerism and developing a sense of community.

I'd say it's a challenge. I wouldn't say it's an issue. I don't think that it's an issue [but] I think that it is a challenge because there is that core group of volunteers now that the mentality is shifting to being more of a community. People are coming here and living here. We're still in that shift but more and more people are doing that and shifting their mentality of the community and seeking out those opportunities. And so we are getting more and more of the volunteer base. The core volunteer group that we've had for years is growing because people are more inclined to invest their time and energy into their community. (2M-F5)

An example of the level of volunteer support involved with sport was recently displayed when the RMWB hosted the 2015 Western Canada Summer Games in August. Ellen, who co-chaired the volunteer committee for games remarked how her expectations for the level of volunteerism in the RMWB were surpassed.

Baseball particularly had excellent crowds and then the number of people that volunteered like over 3000 people volunteered. Which was really amazing because I didn't think they would pull it off I absolutely didn't think there was enough volunteerism here and it really was interesting. (1R-F11)

In regard to support from the municipal government, there was a consistent message that there were 'structural issues' (i.e. how leisure and recreation services are delivered), within the local government rather than apathy that created some of the frustration with the perceived lack of support for activities. For example, in 2012 the RMWB created an

at arms-length corporation One Recreation that was responsible for programming, building maintenance and operations for various leisure and recreation centers in the region, while the Municipality provides the funding for the construction of the facilities from municipal reserves and supports any shortfalls in cost recovery from membership fees. This follows a model that seeks to both deliver leisure and recreation as a public good, and meet the efficiencies of the private market (Glover, 1999). Unstructured researcher observations revealed a lack of programming choices at McDonald Island, and inspired a line of questions regarding the provision and development of activities to one participant who worked for One Recreation. When asked why there were no drop-in classes, which are typically and regularly offered in other leisure and recreation centers around the province, John who is responsible for programming provided the following answer.

See this is a different issue too with just our facility. Because we are government funded and part of our mission or culture is not to intervene with privately owned businesses so we run supplemental programs here at Mac Island. Say for me personally, if I see that there are two private companies that run minor hockey camps I'm not gonna run one, because this is covered in the community. Not that I'm really not allowed to, but the idea of us as a recreation center is to supplement what is not in the um...the municipality I guess. (1R-M2)

This separation in the delivery of leisure as a public good has created a lack of continuity in program delivery that has left many residents having to spearhead the development of activities. The current model of leisure and recreation delivery provides a general provision of activities for residents, through arenas, pools, recreation centers, and sports fields and some residents expressed that there is a lack of support for popular activities that are unique to the context of the environment. Kim, a resident who has embraced an abundance of outdoor activities such as camping and snowmobiling, expressed her criticisms of the types of activities that the Municipality offers.

People don't come to the north to go to a gym. People don't come to the north to go to dinner theatre. (2R-F8)

Often participants expressed that they personally experienced difficulties in getting the appropriate support and direction in developing appropriate infrastructure needed to get their volunteer based activities up and running. Kim mentioned above, and Collin, both

long-term residents of the RMWB, expressed frustration with governmental structures of control and surveillance that limited the ability for their volunteer group to maintain the lawful provision of some popular leisure activities in the region.

Kim's frustration stemmed from a perceived lack of authority granted to her organization to ensure proper and safe usage of the regions vast trail system.

We can't do any policing on the trails. There can't be any fines given out. We have to maintain them and we're responsible for them and if you died on them we gotta be paying up. However, God forbid if they'd allow policing to give people enough [authority] ... because they won't give us the proper legal things on our trails so we can police. (2R-F8)

Collin expressed his frustration with the lack of support he received from the municipality in meeting their development requirements.

Like I had no idea how the permit system works in this town. No idea...never did. I was just a redneck wanting to have a place where we all could play and share with the community. But the development process with the city being so busy they couldn't help us whatsoever. So we had no idea what they really wanted. Barely had any resources. (2R-M5)

4.2.5 Why Bother (resident retention and economic importance)

Why Bother? A question posed to participants during the interviews provided such passionate responses that it was decided to include them in the findings. The sixty-seven references coded to this theme illustrate that participants felt there is a need to continue with measures that improve the quality of life for residents in the RMWB. At the end of every interview, participants were asked "why bother" investing in social infrastructure, such as leisure and recreation, in the RMWB. This question was asked at the end of the interview to allow participants to reflect on the topics and issues discussed during the interview. All participant responses included elements related to moral responsibility, economic development, resident retention, right to quality of life, and opportunity for innovation. The following quotes represent the collective concerns regarding the future sustainability of the RMWB.

The following comments by Brad and Laura connect the idea that the RMWB embodies a sense of frontier as mentioned in section 4.1 Perceptions of Place and quality of life. The

region provides a great opportunity to demonstrate to the rest of the country and beyond that RBCs can transcend expected outcomes of urban decline and actually support sustainable development.

Brad points out the opportunity that the region has to demonstrate innovative practices for sustainable development.

I mean you have a region of the country that generates, and it depending on whose numbers you trust, but close to ten percent of the GDP. You have families, children, people who are Albertans but also from all over Canada, and an incredibly strong and resilient community so. Uh...I think you have an example to set to the world on how to do resource extraction the best way the worlds ever seen. (2M-M3)

Laura's comments elaborate on this perspective and emphasize goals of resiliency to bust cycles in a resource based economy.

I think there's also a lot of passion and a real desire to make a difference and make a change there so I think it's actually the perfect place to experiment and see what happens when you put all your effort into creating not just a boom and bust cycle, but a real livable community that may have started as a single industry that is now is a viable diverse economic engine in the country. (1R-F4)

Ellen sums up the economic value of the region and that the investments into the community will help mitigate the impacts of future cycles of economic instability.

Absolutely affects everybody so if everybody walks away from here you know, and can't manage the ups and downs and things then what are you gonna do when the oil prices go back up? You know with all the talent, with all the stability, with knowledge and everything then your right back to square one where you're having to spend a fortune recruiting and bring it all back here again. Or it all completely goes and then we've got you know this resource that just gonna sit and all the talent is just gonna go to other countries because they can. And the amount of money that this place produces, and funds so much within the economy. You know, and you can bitch about it all you want, you can say all the negative things you want but it's a driver and we're still a resource based economy in this country so when one of your main resources falls apart your falling apart too. (1R-F11)

The following comment by Rick, who has lived in the region for over thirty years, reveals the community has more than just economic importance.

I think because some people want to live here and the more you do that then the more people will want to continue to live here. It's got good facilities and I know a

lot of people that come here from other places and they still continue to live here. That's why I'd bother. That's a good question. (2R-M10)

In line with this sentiment is Dale's perspective that the community is just as worthy of investments into social infrastructure as any other.

While they're here if they're here six days, six months, six years, or sixty years people, [pause] yeah they deserve to have a good quality of life. They're here, they're travelling on the roads, they're trying to make a go of it just like everywhere else. Why do it anywhere? (2M=M4)

These comments reflect a strong connection that participants have to the community, and indicate there is potential for resident retention here that will support long-term sustainable urban development.

4.2.6 Health and Well-being

The interviews explored the perceived impact that leisure and recreation has had on resident's physical, mental, and social well-being while living in the RMWB. The majority of responses (N=21) focused on the mental and social benefits that participants experienced from their chosen activity. The following responses highlight how opportunities for leisure and recreation have helped participants increase their resiliency and ability to cope with daily stresses.

Brad states that he experiences a sense of revitalization and a greater ability to cope.

It's ironic that the battery recharge time is me doing something physically exhausting. But if that makes any sense...exerting myself physically creates introspection. There's music and there's exercise and I'm allowed to sink into just being alone with myself if that makes any sense. Basketball used to do that for me even though it was a team sport the ability to and athletes will tell you that when you walk onto a surface your troubles go away. It's a sanctuary. So...exercise can be a sanctuary. (2M-M3)

Sandy states that opportunities for leisure and recreation help her balance her life and stay engaged in the community despite the isolating conditions related to scheduling her daily life that involves a toddler, career and the erratic schedule of her husband's shift work.

Uh...it keeps, I wouldn't say grounded, but it keeps you engaged in society. It gets you active, like in your brain. We've all seen the studies, brains work better if you stay active. It helps relieve your stress that may come from work or that may come from home. So it helps balance life in general. (2M-F5)

Laura experienced a greater sense of purpose within her community where she felt she could make a difference in contributing to the social development and sustainability of the RMWB.

They [opportunities for leisure and recreation] brought joy to my life. They gave me purpose. They helped me re-energize and allowed me to connect with people in my community. They made me grateful for what I have. I feel empowered to be able to create the pieces that may not have been there. (1R-F4)

Participants expressed that leisure and recreation contributed significantly to their overall health and well-being, which has the potential to contribute to high levels of human and social capital that ensures prosperity for the entire community.

4.3 Perceptions of Constraints

In order to develop information for the purpose of planning for the provision of leisure and recreation in an RBC, the case study provides the opportunity to discuss residents' perceptions concerning the conditions that limited their ability or inability to participate in activities in meaningful ways. There were five constraints identified from the twenty-five interviews (see table 4.3).

Table 4.3 Perceptions of Constraints

Perceptions of Constraints	Theme/Topic	Number of participants	Number of mentions
4.3.1	Transiency & FIFO	21	206
4.3.2	Shiftwork	17	78
4.3.3	Diversity of options	16	26
4.3.4	Information and Promotion	16	66
4.3.5	Travel	11	30

4.3.1 Transiency and Fly-in-Fly-out workers

Based on frequency of mention (N=21) the largest concern participants felt impacted the successful provision of leisure and recreation was the high rates of transiency across the community. The rate of transiency includes the resident workforce and the large non-resident workforce, which participants often referred to as camp workers, fly in fly out (FIFO) workers, or more officially, the shadow population (RMWB Census, 2012). Participants' comments regarding the negative impacts of FIFO lifestyles to local community life included consistent references to leisure and recreation, road construction, and reduced health care reflecting various aspects of frustration that has created a division between residents and non-residents. Participants complained that FIFO workers use the regions public infrastructure and 'take from the community' but felt that they (the FIFO workers) did not contribute back to, or invest in the community. Comments were often emotionally charged regarding the strain on infrastructure caused by FIFO workers.

Dan points out that the infrastructure extends to the smaller communities in the RMWB where many new oil sands plants are expected to increase the FIFO population.

Ok. So now you got a population of 72,000 [urban service center] people or 108,000 [entire region]. Oh we haven't talked about the work camps either so let's throw another 40-50 thousand out there. Why do we gotta consider them? Because most of them are up here [Fort McMurray] some of them are down in Conklin area, either way they're using the infrastructure. So what do you build for capacity here right? (2M-M8)

Will, whose wife works in the emergency department of the local hospital states that the absence of community involvement with residents amongst FIFO workers, with the exception of accessing public infrastructure, there is a common sentiment that they are not considered part of the community.

The transient or the majority of those camp workers, they won't see the community unless they come in to get drunk or go to the hospital. So they just come in to take from our system they don't contribute to our system. (2R-M6)

Will also expressed that he felt that camp workers perpetuated a negative perception of life in Fort McMurray. For example, as mentioned in the introductory paragraph to this section and the relationship that FIFO workers have with leisure and recreation, participants felt that the money made by FIFO workers is not spent in the community supporting the development of the local economy that could provide a variety of tertiary leisure and recreation (retail, entertainment, dining).

They're the ones that every word is the 'f' bomb when they talk about Fort McMurray and talk about how horrible it is, and how much they hate it here but they love payday and they love that flight back home to spend all their money! (2R-M6)

John has lived in the RMWB for a short time but he has also observed there are fly over impacts from FIFO practices.

It would be helpful absolutely! It would be helpful to keep some money in this community as opposed to just taking the money away and spending it elsewhere. (1R-M2)

The fly over effect from the highly mobile workforce associated with the oil and gas industry was felt to negatively impact commercial development of tertiary leisure options. Dale reflected on the fact that people tend to stay here for a short duration and his silence indicates that an unstable consumer base is unattractive for commercial development.

With so much focus on the energy sector we're definitely lacking the [pause] in that department [retail]. But I think that again given the fact that most people stay here for two years. Two years you know [pause] sooo... (2M-M4)

A significant number (N=14) of participants expressed that the FIFO lifestyle reduced the social benefits intended by the provision of leisure and recreation. FIFO workers are not considered part of the community because they never come into town to engage in leisure and recreation where they could potentially interact socially and connect with residents. Participants felt that the lack of a social support system and focus on work increased feelings of loneliness, and stress amongst many camp workers who then associate this experience with the whole community.

Brad's perspective considers that FIFO workers have simply not experienced what the community of Fort McMurray can offer them.

And then we have a work camp population [pause] they couldn't even tell you where McDonald Island is. And that's ok there's nothing wrong with it ... it's not a value judgment that I'm making. They never come in town. You have however many 90 000 people living a normal residential life in whatever capacity and you have 30 000 people living in camps, many of whom will actually never experience the actual community, and have whatever opinion they have based on that experience. So a lot of what you hear from a reputational point of view is. "I hate Fort McMurray! I go there to work, it sucks". Well yeah you live in a dorm. It's isolated its dark and its cold and you have no friends and you have no family and all you're doing is making money and sending it back somewhere ...of course it sucks. (2M-M3)

Anna felt that the FIFO lifestyle was a detriment to developing place attachment based on social support.

I know a lot of people say we gotta stop the fly in fly out kinda of thing so if people are moving up here with their families and being part of the community then they will have those social networks they need to sustain them through some of this stuff right. (1R-F10)

Participants also acknowledged that camp workers were not entirely to blame for the lack of social interaction through leisure activities. Dale, a municipal employee and industry relations liaison explained that often camps are located too far away for workers to come into the city on a regular basis. He explained that it would need a concerted effort to help improve the perception that camp workers have of the community.

If they're close enough, camps have buses bring'em in to town so the guys can go to a movie, go the doctor go to a restaurant or do whatever it is that they want to do. Um...but again it's just back to that piece about changing perception. They're probably not gonna spend, what there's forty some odd thousand people that live in camps throughout the region, there's a good chance that most of them aren't ever gonna come into Fort McMurray, they might see the airport. So give them as much information about Fort McMurray and then when they are here make sure they have a good [pause] whatever you can do to make sure they have a good experience when they are here. (2M-M4)

The sentiment that it is not necessarily a choice amongst FIFO workers to not participate in community activities was corroborated by Anna, who at the time of the interview was involved with the capacity building of the communities social profits (non-profit and social services).

Like, I think a lot of the camp jobs they work 21 days then they go back to where they came from for 7. So yeah they don't see a lot of Fort McMurray. They don't have a chance to participate in anything. (1R-F10)

While it was understood that the work camps have been a necessary part in the development of the oil sands, many participants (N=8) felt that there was a responsibility for employers to ensure and encourage that workers get involved in the community. Will, a semi-retired homebuilder, requires that his employees live in the community because he feels that they will conduct themselves better and become more invested in their workmanship. While he recognizes this was mainly for his benefit in maintaining his company's reputation, he also recognizes there was a spillover effect into the community.

I hate this whole camp bullshit. If I could eliminate and say if you're working here you have to be here. I won't hire...I've had my company for 17 years and I absolutely refused to hire anyone who was just here to earn their stamps or if someone asks me is there a camp arrangement I say no. I'm looking for people who are in the community or want to be in the community I have no desire to talk to you outside of that. And you know again the people that are only here to make that buck and get out they just have a bad attitude and that's reflected in what they do every day what they say and how they carry themselves and how energetic they are...it's just your happier when your home. So if you make it home you tend to be happier. If you're living in camp or someone's basement or boarding out a room and sending your check home or whatever how can you be happy? How is that a good life? (2R-M6)

Beyond issues with the non-resident workforce, participants expressed that the transient nature of the community created various hardships for those left behind. These included breaking emotional bonds that had been developed and the loss of support to run those leisure and recreation activities that depended on volunteers. The following statement from Kim, a resident, poignantly describes the process that she had become all too familiar with.

It's like a year before people are ready to leave and they're thinking about selling their houses and then all of a sudden they're making you out to be a bad person because they have to break that bond in order to move on right. But I feel bad for the youth in the community because they're not aware of that, of those hurt hazards that comes with livin' here. (2R-F8)

Strong rates of volunteerism were reported by participants but high transiency left some organizations without the leadership to maintain their existence. The municipality had

even spearheaded a special committee called Leadership Wood Buffalo to try and address some of these problems. Kevin, a resident for over thirty years, had witnessed the impacts transiency has had on community leadership.

There is very few people in the 32 years I've been here that I can name that are still involved in sports and a lot of people get involved only because their kids are involved and then they leave so that hurts the community. (2R-M7)

Anna explained that in response to this concern over retaining community leadership the RMWB initiated a program to help organizations recruit and train new leadership.

Um...and that was part of the reason they started the Leadership Wood Buffalo program is because they found a lot of the really strong leaders in the community were leaving and its like how do we bring those new leaders up because we always need new people and there has to always be that new batch of people to continue things and to put fresh blood in it and fresh life and stuff so you always need that. (1R-F10)

The transient nature of the community, which is reinforced with the use of FIFO workers, as expressed by the participants, has significant impacts to leisure and recreation. Fly over effects limit the development of tertiary leisure as camp workers do not spend their discretionary income that these activities would rely on. With limited reasons for workers to come into town the benefits of social interactions that develop social cohesion is not realized. As expressed by the participants, volunteerism and community leadership is negatively impacted from the constant turnover of residents and results in social hardship for those left behind.

4.3.2 Shift Work

Participants noted that shift work was a significant challenge for meaningful participation in leisure and recreation. The primary listed explanation was the various schedules that switch between days and nights and, depending on their rotation can make working the same days of the week rare. For example, a worker may work three mornings then switch to three evenings followed by six days off, making it difficult to coordinate programming that ensures consistent reliable participation. These shifts were identified as making participation challenging (not impossible) and reduced opportunities to connect with other people as expressed by the quotes of the following participants.

John describes the patterns of daily life in the RMWB that result from shift work as a culture indicating that this is something that is not easily altered and may impact participation levels more than socio-economic conditions.

You know the regularity of programs is something that doesn't fit the culture of Fort Mac where people work twenty-four days in a row, and then they get 4 days off. So you know the time commitment, it's certainly not the financial aspect of it I know that for a fact, but it's the time commitment. (1R-M2)

Sandy indicates that from the perspective of the Municipality providing equitable programming that accommodates such a large portion of residents that are shift workers is very difficult.

There's a huge role [shift work plays] because you, well I guess nowhere does everybody work nine to five, but you have to always consider the shift worker in any programs or projects that we're [municipality] offering because there is just such a high population of it [shiftwork]. So to offer regular programming is sometimes a challenge. You don't know if you're going to have every Tuesday off to go to a book club or take a painting class or whatever. (2M-F5)

Collin, a heavy-duty mechanic, made a conscious decision to attain skills that gave him more options for employment outside of employment structures of the big oil companies (Suncor and Syncrude).

Shift work is a problem. Cause I have some friends I'll never see because they are opposite shift. As they're going to work I'm getting off work you know [pause] that's a challenge. (2R-M5)

Anna, the spouse of a shift worker herself, comments on the impacts of shift work that she has observed in the community.

Um...I think mental health issues certainly take a beating in this town because you have a lot of people working a lot of hours, a lot of odd shifts which disrupt family life so that can increase problems with abuse within the family, or stress within the family. (1R-F10)

Problems in providing programming around shift work were far reaching and not only impacted the individual workers or programmers. Kim expressed the difficulty she observed in the provision of programs for children when school is out for the summer due to shift work.

When the summer camps run they're from eight to five. Who the fuck works from eight to five around here! Nobody. Nobody not a soul! [laughing] They don't run the program for shift work like you know for six days you know or seven days. They run it for like Monday to Friday. (2R-F8)

As mentioned in the previous section, many activities rely on volunteerism and shift work impacts the ability for residents to volunteer their time to support those activities. The inability to commit to regular participation resulted in sporadic, insufficient attendance for activities, and problems coordinating the necessary volunteers for the regular operations of clubs and organizations. Participants explained that one of two things would happen; the activity or club would cease to exist or the workload would be put on to fewer volunteers resulting in 'burn out' and less enjoyment for them. Anna shared her experience of the difficulties she had in maintaining regular attendance for voluntarily teaching a fitness class.

The shift work makes it difficult in participation and in other ways it doesn't. So for example I was teaching a Pilates class at one of the yoga studios [and] when my husband worked straight days it was great because he was home in the evening with the kids I could go teach my fitness class. Then he went on shift work. And it's like I couldn't make a commitment to anything anymore because one week he'd be working and then he'd be off. I could teach then I'd have two weeks he'd be working because of the way the schedule went so I'd either have to get a babysitter all the time. (1R-F10)

Collin runs a local non-profit club that supports motor cross, and has found that the biggest barrier for this specific activity is the time requirement for participation.

[It's a challenge] getting people who are committed to this community who have the available time to get into something like this. (2R-M5)

Similar to Collin's experience of the difficulties related to time commitment, Kim also makes the point that many of the unconventional activities that do not fall under the Municipality's model of provision rely on volunteers that are challenged with time and support.

Because the lawyer when he goes to volunteer he don't wanna go do lawyer stuff, he don't. He'd rather go slashing in the ditch [snowmobiling] somewhere. That's what he does all week long. Your accountant don't want to be your treasurer. She also wants to go clean trail too. So were putting more stress on people and were not giving them the tools and the resources to help make what is now a community's job to put on. It's really frustrating and then you expect someone to

work and do that to. You know just out of like paper work, not like any snowmobile activity at all my husband put in 447 volunteer hours on paper work and for the government. That's kinda of insane isn't it, but that's what they expect for people to do to keep riding. That's what we do to keep six hundred people on a trail locally. (2R-F8)

Ellen observed that shift work impacted the desire and physical ability to engage in leisure and recreation.

Most people work six and six so when they're working that shift they're full on working. Its fourteen hour days you get up you eat breakfast you get on the bus you go to work you come home you eat you go to sleep. Very few people find the time to do much because you basically just sleep and go to work and there's an hour on the bus and back right. (1R-F11)

Participants felt that there were definite health impacts from shiftwork and understood them to include, physical exhaustion, difficulty with sleep patterns, and a general inability to cope with daily activities. This reportedly resulted in apathy towards the very activities that could help mediate some of these health issues for shift workers. Brad, whose job is not structured by shift work, shared his insights into the effects of shift work.

Uh...we know the health impacts right? Um...it shaves years off people's lives. That's what the science tells us. (2M-M3)

Despite her recognition and appreciation of the numerous opportunities for leisure and recreation in the RMWB, Laura, a participant who was interviewed both prior to and since she and her husband moved away from Fort McMurray identified shift work as a primary factor in her family's decision to leave. This may reflect a need for the development of more options that support spontaneous unstructured participation, or perhaps a shift in the structure of employment.

Well how it started was he was on a shift that was three days, three nights, and six off. And the shift is really hard for him the constant flipping between days and nights he was having trouble sleeping and consequently just having a really hard time kind of functioning in day to day life. So we started looking at other companies in the region and noticed that every company had the same schedule and so that's when he started looking for other opportunities outside of Fort McMurray when the schedule just didn't align with what work for his sort of you know well-being. (1R-F4)

Encouraging participation in leisure and recreation opportunities within the community would alleviate both boredom and provide the opportunity to develop social connections that would decrease the propensity towards negative behavior. Participants expressed that due a large successive number of days off and large disposable incomes, young males were prone to get into trouble simply out of boredom. Brad is a thirty something, single male who indicated that in his experience idle time was the worst thing for young males with large disposable incomes.

Yeah, people have these stretches of leisure time, if they are off and if you don't have certain things for them to do its easy for them to maybe go down a certain path so you need to create the healthiness for them right. (1R-M2)

4.3.3 Diversity of Options

During the interviews variations in the conceptualization of leisure and recreation held by participants influenced their view on the diversity of opportunities available to them. Some residents, like Kim, who live outside of the urban service center expressed that they needed more support for activities that are not reliant on infrastructure, such as recreation centers in order to provide an equitable distribution of leisure and recreation opportunities. Some participants like Kim, felt that options catering to those more adventurous activities were unsupported due to the nature of the activity and she passionately expressed some of her observations regarding a lack in alternative forms of leisure and recreation.

You can't have people in the bush and have a green space right behind and go "No you can't use that", right. "No you can't use that". There were staging areas all throughout our communities [but] they're all gone. They keep making these [pause] I got an ATV plan from 2012 and 2011 and we just had a meeting there and they're gonna start making another off road structure plan. Well what happened to the 2011 one we just paid for. Why do we need another one when you never did anything with the last one? What's this plan for? Are you kidding me! It's my tax payers money too. Right. So stuff like that is super frustrating and the limitation that they make and the blame. And yet they feel it was important to do what? Put in a rec center that don't even get used. It's pathetic. If they would have took a third, probably an eighth and just developed the trails that were already there, but no we gotta give that to volunteers [to do]. If you wanna go to the gym and take steroids, I'll pay for that [sarcasm]. God forbid if you wanna go out with your family on something that burns fuel. (2R-F8)

Recreational activities that involved off road vehicles (ORV) provided meaningful opportunities for some participants that increased their well-being. The following participants were involved in the provision of these opportunities and felt that the activity defined the regions atmosphere of adventure and had the potential to help develop a sense of community. Kim continued her passionate responses in regard to the value that she felt alternative activities supported by the natural amenities had in supporting resident retention.

We're just recreational people were just here to keep people mentally healthy...that's really not that important (laughs sarcastically). Yeah. It's true. People don't come to the north to go to a gym. People don't come to the north to go to dinner theater. (2R-F8)

Collin expressed that he appreciated the options that are available but they did not necessarily meet the needs of the large population of residents in the RMWB who engage in ORV activities.

But now with the money that is around here, well not right now, but the potential of it people got toys and they wanna go play. Especially all the diesel trucks in this town right...typical Fort McMurray image. So that's what we want is just a place to go play. It will offer something a little different than the abundance of arts and culture that's here. Like ...the culturalism in this town is awesome but it doesn't apply to everybody. Like I don't go to plays I don't go to music festivals it's not my thing its my wife's thing. So we do need it I think it's a valuable part. Its takes all kinds and there's a lot of people here that are into that. (2R-M5)

While these particular participants recognized there is some resistance to these activities due to environmental impacts and liability issues, Kim felt that the current provision of leisure and recreation options did not consider the entire context of the community. She expressed that there was a need for more government support to provide the necessary authority for surveillance, and tools for developing and maintaining trail infrastructure that ensure safe participation and reduction of environmental impacts from unregulated use.

Are you tellin me there isn't a need [for ORV]? Bullshit! No one wants to stay here because all they do is stuff that people don't wanna do. You know I don't wanna go to a concert hall. I like a concert once in a while, once a year [but] I don't need ten of them a year. Give me a trail that I can ride with my family any day of the week. They just keep putting up...they want us to pay for our own things the government

do. They [municipality] give you next to no money to work with yet every year you have to pay your fees again. You can't police it; you can't make people pay to use the trails because it's considered crown land. You have to fix all of industry's mistakes because no one tells you that they're goin in there because you won't put a little dot on a map that says that we're there you know [referring to a P and T]. Yeah you're right we sometimes do get a bad name us fuel burners. But because you put up so many barriers you can't expect people who live in the north to have all of this county side around them and [and not use it]. There's just barrier, after barrier, after barrier. People are gonna look like assholes because they are gonna break those boundaries. (2R-F8)

Most participants felt there are more than enough activities related to what they identified mostly as recreation (sporting type activities). However, as mentioned in section 4.2.2 Facilities and Amenities and 4.2.3 Tertiary Leisure most residents felt there was a large deficit in more passive and entertainment style leisure activities that produced a barrier in accessing meaningful opportunities. Brad, who has lived in various large Canadian cities (Ottawa, Toronto and Halifax) specifically identified the community as having an expected level of publicly provided leisure and recreation opportunities, however expressed that tertiary leisure (shopping, entertainment) was lacking in the RMWB.

See the outdoor amenities are good. There's good trail systems [non-motorized] and I don't really use that side of it. But I identify that as being pretty solid. So I think in terms what I would say what municipalities are responsible for we're in good shape. Like we have the physical infrastructure right that we need. We won't wanna keep going down a path. I don't think we have a gap there it's more the tertiary leisure. (2M-M3)

Laura, who is in her twenties and works in industry, corroborates Brad's observations by stating:

Even just like...what I really love is mom and pop shops so like little restaurants, art galleries, breweries um...things like that. I found Whitehorse is a smaller community but it also had a lot of those things that I just described, like a lot more local restaurants, breweries kind of just like home grown businesses and things to do. (1R-F4)

John who enjoyed an active lifestyle offered his perspective on the diversity of options available in the RMWB.

And if there was a good downtown core where people can go shopping and people can go to sit down and relax you know go to a park and go to a nice movie theater not one with garbage everywhere. You know something you'll hear from everybody

is, you know, there's nothing to do in Fort Mac. I don't fully agree with that. You can find things to do there's always something to do but you know for somebody who doesn't look for things to do not everything is served on a silver platter. (1R-M2)

A significant number of participants (N=16) expressed they missed having entertainment options like bowling and a satisfactory movie theater. This type of commercial development requires private investment but due to wage and land use competition often have difficulty taking root in the community. Unlike the support offered by industry and the municipality for facility developments like McDonald Island and Shell Place, tertiary leisure appears to lack the same support. From the data it was evident that participants felt increasing this type of development would effectively increase the diversity of options and improve the quality of life in the RMWB. Brad points out what he considered to be a contradiction in opportunities for leisure and recreation.

Things that often are quasi private sector quasi-public sector, because of the ins and outs of the economy over the years like we just lose stuff like this in development right. We have a great rec center but we don't have a bowling alley. (2M-M3)

4.3.4 Information and Promotion

Many residents (N=16) felt that there was a need for a consolidated source of information of what options are available in the region and they expressed that they often do not know what is available or where to find this information. This experience was more pronounced when residents first arrived to Fort McMurray, but many participants still expressed that they are unaware of events and the diversity of options that exist. There was a need identified at all levels (industry, municipality, residents) for additional support to increase the provision of information and promote what activities are available. There were various opinions offered by non-municipal and municipal employees, which reflected variations in perspectives but a consensus remained that there is a lack of communication in regards to leisure and recreation.

Kristy, a recent immigrant from Columbia, observed that there is a lack of residents who frequent the local available campsites (4 provincial parks, 7 municipal)

Exactly its not the lack of it, people don't go. There's beautiful campsites around the area people don't know about it they don't use it. (1R-F3)

Kevin a local resident who has been involved with sport as a volunteer, participant and observer also indicates there is a lack of information regarding what is available in the community.

There's lots here to do but a lot of people don't know. I think they just don't know they can do this or do that. (2R-M7)

Dale, a municipal employee recognized that perhaps there was room for improvement in what the Municipality provides for information regarding spaces for leisure and recreation.

I think we could do better. We have some amazing facilities that I don't think we tell people that they're there for leisure and recreation opportunities. (2M-M4)

While the municipality puts out information in the form of pamphlets and guides, many participants (N=16) found it was still difficult to get a complete perspective of what was available. For example, Anna felt that consulting a single source would help alleviate some of the confusion.

You get the community leisure guide but if you wanna know what's going on at Mac Island you gotta call Mac Island and if you wanna know what's going on at the YMCA you gotta call the YMCA, and if you wanna know what on at Keyano you have to call Keyano. But that doesn't necessarily include all the private taekwondo clubs, judo clubs karate clubs, you would get a phone number for the ski club but then you have to call them. So yeah it can still be little difficult. (1R-F10)

Alexis, who came to Fort McMurray with her family from South America when she was a teenager, indicated that in retrospect a single source indeed would have made it easier for her to become involved with activities where she could develop friendships.

So I never heard if there was anything so if I had been able to get that information and participate that would have been such a huge difference. If there was a place that I knew I could go to where all of that information would be available for me that would be amazing. Because sometimes trying to find things to do here is difficult. (1R-F1)

4.3.5 Travel

Participants expressed various scales of travel as a barrier to their participation in opportunities for leisure and recreation. Due to the geographic size of the RMWB, which is bigger than the province of Nova Scotia and only slightly smaller than the country of

Scotland at just over 63,000 square kilometers, it is challenging to provide equitable opportunities to the more remote communities. For example, Dale states:

You got communities that are [pause] ...the distance between Fort Smith and Conklin is like eight or nine hundred kilometers and you have to try and provide recreation services to everybody. Sure it's got to be a big challenge! (2M-M4)

Michelle, a municipal employee who has worked with the surrounding communities in various capacities claimed that social costs can often outweigh the costs of investing in infrastructure for leisure and recreation in remote rural communities.

And while we are Fort McMurray we are also the RMWB. We got these faraway places a couple hundred kilometers [away] and no road in Fort Chip, which changes the lay of the land. And the question is do they really need a pool in Fort Chip? Well not by the population they don't, but do they really need a pool? In my mind they're a community that has its issues around water and things that are affecting the perspective [decision]. If you got other correlating factors, if you got youth that are involved in drugs and alcohol and committing suicide, and if they're causing great problems for social health in the community what difference would a pool in the community make? And so those are sort o the measure that I want to think about in making these decisions. Does it economically make sense? No way shape or form could it ever make sense but it does it make sense I say yeah to me it does make sense. (2M-F9)

Challenges, due to travel distances at the regional scale, were frequently cited as a barrier for athletic development and participation in activities. John notes that despite the large investment in world-class facilities, travel remains an issue that needs to be addressed by infrastructure development at the provincial (highway) and municipal (public transportation) levels.

[If] we want to organize a tournament and we ask teams in Edmonton and they say that they won't because the highway is too dangerous. (1R-M2)

While the travel distances for regional competition involving leisure and recreation cannot be avoided, participants (N=11) expressed that the condition and reputation of highway 63 was a factor that could be improved upon. Improving the highway was thought to encourage the willingness of other municipalities to reciprocate attendance at tournaments hosted by the RMWB, and reduce the instances of outbound travel required for residents in the RMWB.

Kim has a daughter who is involved in singing for competition and similar to sport competitions she points out that despite all the investment into facilities that support participation in sport, travel distances limit the typical opportunities for competitions.

Nevertheless you can put all of it [opportunities for leisure and recreation] here you want but your still gonna have to drive five hours for a competition it don't matter. Now if you're a quader or you race dirt bikes or stock cars, a five hour travel is normal. It's normal to travel that far. But when you're talkin' about minor hockey that's not normal. Or football, that's not normal you shouldn't have to travel five hours for a game. So you're not gonna keep those people because it can never ever be what they want it to be. It'll never be, it can't be [pause] yeah we just don't live where that can be possible. (2R-F8)

Michelle revealed that it is not uncommon for local teams to pay the expenses for out-of-town teams just to have a competition, but indicated it is also an avenue to promote the community.

The cost that it takes to get people to come and do their thing here. And when I say do their thing I mean if you're the Oil Barons hockey club you've been paying for the past thirty years for teams to come in. I don't think that's fair. But I think at the onset it's the way that you introduce other communities to what you have so I look at the cricket folks [who] just had a provincial competition. They had to pay for their last team that was there, I guess for Grande Prairie to come in. So if you're a nice little start up club where does the cricket club get the money to be able to pay these other teams to come in and have that competition? [When] I was in Grande Prairie someone] was talking about the cricket team that went to Fort McMurray and he couldn't believe we beat them. I said it was a great game and I was able to communicate about that. They're obviously going back to the community, they're obviously talking about our community, and they're doing it in a positive way. (2M-F9)

In the local context (within the city) participants (N=5) had experienced reduced accessibility to leisure and recreation activities due to travel. Laura speculated on the experience of residents who work out at the mine sites who do not have the option to access unstructured activities that would serve as leisure and recreation.

You're anywhere from twenty-five to seventy-five kilometers away from Fort McMurray [working] so it's not easy to just on your lunch break to go to like an open market, or in the afternoon go for a walk to the local coffee shop, or take a run around the track in the morning. (1R-F4)

Public transportation was not time efficient for two participants who did not have access to a vehicle. They determined that the opportunity cost based on the time it took to get to

the leisure center outweighed the benefit they would receive from it. Alexis and Kristy, both immigrants from South America shared how the time required for public transportation made participating in leisure and recreation unreasonable.

Transportation, for me it's the biggest issue because I don't drive so getting anywhere takes me from forty-five min to an hour and its honestly just not worth it because it's one hour to get there [McDonald Island] and do whatever for an hour and then another hour to get back. It's just three whole hours out of my day that's too much time that I'm wasting so it's just not worth it for me. (1R-F1)

[In response] I will have to agree. Like for transportation for me to get from my house to McDonald Island I have to take three buses. So that's like...no worth it. (1R-F3)

4.4 Chapter Summary

This chapter presents the results of twenty-five interviews with residents living in the RMWB. The results were categorized under three major themes that directly addressed the research objectives. The first theme [4.1] provided insight into how participants viewed their quality of life and community and produced six subthemes based on frequency of mention. These six subthemes provide the context for the remaining analysis of [4.2] the perceptions of leisure and recreation's six subthemes and the five subthemes identified in [4.3] the barriers that participants indicated limit their opportunities in the RMWB. It is important to note that these interviews took place prior to the collapse in oil prices in 2015 and economic concerns that significantly impacted Alberta's economy. Based on the interview results high wages earned from employment in the oil sands played a significant role in contributing to the quality of life in the RMWB, and participants expressed that they generally enjoyed a large disposable income that enabled them to maintain a high quality of life here. Based on this it can be reasonably assumed that the responses participants offered regarding their perceptions of the community may have changed in the face of large increases to unemployment in the region that as of January 2016, reportedly sat at 8.6 percent up from 3.5 percent in 2012.

4.1 The main findings regarding how participants perceived the community demonstrated that economic benefit, isolation from family, and a desire to combat the misrepresentations of the community resulted in a strong connection to the community.

Participants expressed that they enjoyed higher than average incomes, which despite high costs of living produced a sizeable disposable income offsetting some of the negatives of living in a remote location. Development in infrastructure was reported as continuously improving the quality of life in the region. Road infrastructure had until recently significantly impacted the mobility of residents within the urban service center and externally to work sites. Quality of life was impacted in that hours were added to a person's workday due to traffic congestion and people reported reduced desire to travel from the mostly residential "uptown" to facilities and activities located "downtown". The majority of residents felt that the community was underserved in regards to health care. It was indicated that everyone is from somewhere else which became the basis for developing strong social bonds that many participants felt their friends became family. Participants characterized the community as welcoming and ethnically diverse which were factors in their decision to stay. A sense of place was found to exist and was characterized as adventurous and representing an undiscovered frontier where participants felt 'anything was possible' here.

4.2 The majority of participants expressed that opportunities for leisure and recreation supported the development of friendships and provided them with a physical and mental outlet that supported their overall well-being. The workplace was often identified as the first point of contact with others in the community but it was through participation in leisure and recreation with co-workers where they established friendships and social support systems. Definitions of leisure and recreation varied, which was significant in that it reflected the types of development that result. For instance, participants felt that recreation was a physical manifestation that was well serviced by the regions current investment into sports facilities like McDonald Island and Shell Place. Leisure was identified as consisting of activities that were relaxing and not physically demanding and residents felt that facilities and opportunities existed, but there was room for improvement. Places of tertiary leisure, such as entertainment, dining, urban markets and retail centrally located were felt to provide flexible opportunities for spontaneous and unscheduled social interactions that participants viewed as beneficial. Participant felt that these opportunities were significantly lacking and reduced the quality of life in the RMWB. Of the three supports for the provision of leisure and recreation that participants

mentioned, industry and volunteerism was recognized as making the most significant contributions. Participants regardless of their association with the municipality expressed that there needed to be a greater role in the provision of leisure and recreation by the municipal government in providing programming, information, support and tools.

The economic contributions that the oil sands make to Alberta and Canada was reason enough to invest in the further development of physical and social infrastructure that would attract and retain the necessary work force not only to continue the extraction of oil and gas, but to provide the context where innovations in sustainable development can occur. Participants viewed the investment in social infrastructure such as leisure and recreation as a moral obligation that would provide residents with a high quality of life, which would increase resident retention. Resident retention was viewed as necessary to help diversify the economy increasing the resilience to the boom and bust cycles of resource extraction and reduce the reliance on oil.

4.3 Participants identified various barriers to opportunities for leisure and recreation in the RMWB. The reliance on a mobile workforce that included temporary residents and fly in fly out workers was the main concern during interviews. Fly in fly out workers were felt to create a barrier to leisure and recreation in the sense that they perpetuated a negative inaccurate image of the community. Participants felt that this negative image resulted from negative camp conditions and the lack of a social support system. This negative image reduces the RMWB ability to attract permanent residents that could contribute their time and money and support the development of a variety of opportunities for leisure and recreation that effectively increase the quality of life for all residents. Shiftwork also had a negative impact on leisure and recreation. Irregular schedules made it difficult for participants to attend activities on a consistent basis and impacted their ability to regularly engage with their friends. Participants expressed that they observed a physical toll that resulted from shiftwork. Apathy towards participation in leisure and recreation resulted from the impacts shiftwork had on sleep patterns and extended work hours. Many participants expressed difficulty in finding information regarding activities and indicated that this was a barrier to meaningful experiences with leisure and recreation. Participants identified that friendships and social bonds evolved

during participation in activities and that having a comprehensive source of information would be beneficial. Most residents felt that the municipality had a responsibility to improve the gaps in information and even facilitate the provision of it. Travel times were also considered a barrier in participation of leisure and recreational activities. Despite the investment in world-class facilities large travel distances between communities made it difficult for the region to successfully hold competitions, concerts and other events. The notoriety of highway 63 discouraged people from attending events located in the RMWB, which relied on attendance to make them financially viable. Those participant without access to a car expressed that unreasonable travel times involved with taking public transit discouraged them from participating in activities.

Chapter Five: Discussion

5.0 Introduction

In order to help ensure the success and viability of Canada's resource-based communities, retention of permanent residents is an important and ongoing challenge that requires further attention. Employment opportunities in the natural resource sector and construction industries stimulate rapid population growth that increase stress on the existing urban infrastructure and services. A lack of sufficient housing, health care services, educational facilities, and urban amenities (e.g. entertainment, shopping, dining) negatively impacts the quality of life for permanent residents. Undesirable social conditions (e.g. crime, substance abuse, social isolation) characteristic of RBCs, often associated with rapid population growth and transiency, affect the perception of these communities and can make them unattractive places to live. In order to attract permanent residents, which can reduce many of these negative social conditions, appropriate urban development that supports a high quality of life, such as opportunities for leisure and recreation, is crucial.

Social processes of leisure and recreation create opportunities for social bonding that has been shown to develop a sense of community and place attachment that encourages resident retention (Hebblethwaite, 2014; Burley, 2007; Fried, 1982). This research examines the Regional Municipality of Wood Buffalo and the primary service center of

Fort McMurray in an attempt to understand the perceptions of residents, the conditions that exist in RBCs, and what specific role leisure and recreation plays in the sustainability of this community. The following discussion is structured by the results presented in the chapter 4, which are structured around the three objectives:

1. To explore local values and practices around leisure and recreation, urban sustainability, citizen satisfaction and resident retention.
2. To evaluate perceptions of the current public and private provision of leisure and recreation in RMWB and assess if current practices effectuate principles of socially sustainable urban development
3. To assess the perceptual and objective constraints related to providing opportunities for leisure and recreation in a resource based community.

The objectives were designed to address the following two research questions:

1. What role do opportunities for leisure and recreation play in contributing to a high quality of life that results in citizen satisfaction, resident retention and social sustainability in the RMWB?
2. What effects do the social, physical, and institutional structures in the RMWB have on the provision of leisure and recreation?

5.1 Discussion

5.1.1 Objective One: Perception of Place and Quality of Life

It was important to understand how participants felt about their community in order to be able to appreciate their choice to reside in the RMWB. Insights into what made life difficult and what residents placed value in provided additional context for interpreting the challenges, benefits, and successes in the provision of leisure and recreation in the RMWB and the contributions leisure and recreation can have on the quality of life in an RBC. According to participants, the primary factors that impacted the quality of life in the RMWB, based on frequency of mention, were: employment opportunities and strong economy; infrastructure; sense of community; ethnic diversity; the impacts from the

notoriety the community receives, and the frontier/adventure characteristics of the community that contribute to a sense of place.

Perhaps not surprisingly, the participants all agreed that the choice to move to the RMWB was based on employment opportunities and characterized the community as a “hard working”, supportive, and an inclusive place where “your friends become your family”. The results also reflected that there are challenges of living in the RMWB that are both typical of other RBC’s (e.g. lack of sufficient urban infrastructure and services) and also unique challenges specific to the RMWB (e.g. effects of negative media attention).

5.1.1.1 Employment and Economy

The Athabasca Oil sands have the potential to provide employment in the oil and gas sectors for the next 100 years. Therefore, it is important to provide a high quality of life for residents within the RMWB, which in turn, can potentially attract investment into other sectors of the economy (e.g. manufacturing, research and development, tourism). Attracting professionals in knowledge-based industries related to oil and gas can provide the demand for further economic diversification into a variety of business sectors that ultimately can attract more long-term residents (Carson, 2011). Promoting economic diversification has long been recognized as an area of concern within RBCs (Ennis, Finlayson and Speering 2013). While this was corroborated by many of the participants, they also noted that they believe there is tremendous opportunity for economic diversification in the RMWB. While many participants indicated they understood the constraints that exist for economic diversity (e.g. wage competition with industry; high cost of retail space), often the mechanisms to facilitate and overcome these were beyond their control. Additional knowledge-based employment opportunities would require the provision of additional urban amenities that meet the expectations of larger urban centers (e.g. retail, entertainment, tourism, arts and culture).

Similar to the type of corporate social responsibility that was common within the ‘company towns’ during the 1960’s as a way to increase the quality of life for workers in RBCs (Gill, 1991), its current form is evident in the RMWB with Suncor, Syncrude, and other industry related businesses making concerted efforts through financial contributions

(e.g. tax revenues, sponsorship) to support the development of social infrastructure (e.g. McDonald Island, Shell Place). As previously mentioned, social infrastructure that supports a high quality of life for residents that both attracts and retains a stable population are steps towards increasing the capacity that ensures the economic health of the entire region. Currently the RMWB is disproportionately reliant on the success of the oil and gas industry and the importance of diversifying the economy is supported by the findings from Ennis, Finlayson and Speering's (2013) research that found economic diversity insulated Australian RBCs from bust cycles associated with resource extraction resulting in less urban decline and out-migration of residents.

5.1.1.2 Infrastructure

A general consensus amongst the participants was that while there are still challenges regarding health care provision within the RMWB, the continued development and investment into infrastructure has progressively increased the livability and quality of life for residents. The combined efforts from the provincial and municipal governments into road infrastructure were one of the main factors that participants identified as significantly contributing to livability and quality of life. This finding adds further evidence to the body of research regarding quality of life and urban development in RBCs (Keough, 2015; Ennis, Finlayson and Speering, 2013; Franks, 2012; Lawrie, Tonts and Plummer, 2011; Gill, 1991; England and Albrecht; 1984; Knox, 1976). One participant noted that while the infrastructure was continually improving, the behavior and attitudes of many residents had not caught up to the lived reality that these improvements had provided. For example, travel behaviors between the uptown residential area and the downtown or central business district continued to reflect a resistance to travel based on past experiences of traffic gridlock that has since been reduced significantly by additional overpasses. This has a direct impact on the ability of the downtown to revitalize and attract businesses or invest in the development of public urban spaces. The centralization of activities geared towards leisure and recreation (e.g. park space, public markets, shopping, entertainment), combined with attractive urban design, can create an efficient, effective, and supportive environment for economic and social sustainability. According to Francis et al. (2012) this increased gathering of people in these areas provide businesses with needed clientele and increased social interactions

amongst patrons and shop owners, which in turn increases the resiliency of the community.

In regard to health infrastructure more specifically, participants observed that a lack of specialists reflect the need to increase the community's attractiveness to doctors and other health care providers. This corroborated previous findings by Deacon and Lamanes (2014) which indicate that despite nearly 100 births per month in the RMWB, there remains a lack of obstetricians/gynecologists to support the medical needs for women in the community. The RMWB is five hours from any major urban center and many residents must travel to access needed services that maintain their physical and mental well-being. Attracting the needed population to provide related health care services requires a combined effort that ensures the development of sufficient medical facilities, but also investment into additional urban infrastructure and services that attract and maintain residents that provide both basic and specialized health care (Florida, 2014). While this research does not focus on health care primarily, its provision can be linked to resident retention; providing a quality urban environment will attract the creative class associated with health care provision and increase the sustainability of physical infrastructure used for health care. Participants expressed that increased health care would enable the community to grow and attract and maintain a permanent population ensuring the long-term sustainability of the community.

While the primary factors that participants identified that impact health care was the lack of medical professionals, some participants expressed that hospital emergency rooms were often unable to cope with the volume of patients. This is likely related to the large number of camp workers that contribute to the shadow population that are not accounted for in census data that helps direct the allocation of resources and funding by the provincial government (RMWB census, 2012). Those non-resident workers that live in camp or other temporary accommodations have not been accounted for in the development of infrastructure but are accessing services and facilities, particularly emergency rooms. Hospitals designed to handle a number of patients based on census data are pushed past capacity resulting in long wait times for medical care and often reduced quality of care. Attracting this non-resident population to settle in the region, and

therefore being officially enumerated in the census data, would better enable planning for health care infrastructure that is based on a permanent resident population.

Public transportation had mixed reviews amongst participants, which can be attributed to the degree of their reliance on it. Those who had personal means of transport (i.e. personal automobile) rated the system as sufficient. This was based on the low cost fares of \$1.25 per ride, but for those who relied on it, their cost benefit analysis considered the time it took to get to their destinations which was expressed as excessive and prohibitive. These perspectives perhaps indicate that there is a problem with ridership use, and the efficient delivery of public transportation. Low fares are not enough to attract residents to abandon their personal vehicle use and consistently use public transit; therefore it is not cost effective to provide more frequent bus schedules to the very few residents who access public transit.

It is noteworthy that residents felt the RMWB had an excellent education system. All participants mentioned that the education system was exceptional and was considered a factor in their decisions to remain in the community, which is often overlooked in the literature regarding social sustainability in RBCs. Based on these perspectives the RMWB has an advantage in that they can attract families that value a successfully established education system. Developing additional urban infrastructure that attracts professionals in the knowledge-based sectors such as teachers can help maintain the quality of education and become a high priority in the selection criteria that maintains a stable population.

5.1.1.3 Sense of Community

Research indicates that a sense of community is one of criteria that potential residents use in their assessment of a rural or urban environment (Besser, Miller and Malik, 2012). The research demonstrated there is a significant sense of community in the RMWB, which compliments Claire Major's (2013) research findings. Prevailing themes of support, resiliency, and social cohesion demonstrate that the resident population has strong social bonds, which is contrary to what is expected in an RBC according to academic literature (Ennis, Finlayson and Speering, 2013; Franks, 2012; Carrington, Pereira, 2011; Lawrie, Tonts and Plumer, 2011). One of the most significant contributing factors to this sense of

community that participants expressed was the common experience of being from somewhere else. From this experience residents are able to relate to one another and understand some of the difficulties each other may be having that result from being away from family and friends. Residents are able to bond based on this common experience so much so that the majority of participants expressed that in the RMWB “your friends become your family”. This supports the conclusion that there is a high level of social cohesion within the community.

This is significant in that social cohesion directly contributes to the well-being of residents by providing the basis for developing trust that will enable them to cooperate in attaining societal goals that will collectively allow them to survive and prosper (Putnam, 2007; Beauvais and Jenson, 2002). Establishing close relationships despite different backgrounds and providing the opportunities for these relationships to grow is an important aspect for social sustainability. This requires going beyond simply planning for infrastructure mentioned in the previous section (roads, schools, health care) and as indicated in research by Keough (2015), will require understanding the variety of social conditions that exist within the RMWB and more broadly RBCs in general.

5.1.1.4 Ethnic Diversity

Employment opportunities associated with the oil sands development pulls people with varying skill levels from all over the world. While the majority of residents are Caucasian, ethnic diversity is a significant characteristic of the RMWB. While Putnam (1995) hypothesized that ethnic diversity may negatively affect social cohesion this was not the experience of participants from the RMWB. Social cohesion was said to increase as a result of the diversity and that everyone was from ‘somewhere else’ regardless of where that ‘somewhere else’ was and the bonds that were formed based on this were able to overcome some of the cultural differences that may typically reduce social cohesion. Participants, both Caucasian and non-Caucasian, noted that all ethnic groups benefited from each other’s various cultural practices and values.

5.1.1.5 Notoriety

The RMWB is plagued by negative images primarily propagated by the media as well as by the perceptions held by many of the workers who live in work camp accommodations.

Much of the negative media attention focuses on the environmental impacts from the oil sands extraction processes as well as perceived negative social conditions (e.g. rates of perceived and actual crime) (Shendruk, 2012). National crime statistics compiled by Statistics Canada are based on census data and do not accurately portray the conditions in the RMWB. When corrected for the effects of the shadow population, overall reported crime is below the Alberta average and only slightly higher than the Canadian average (Boyd, 2014). Rates of prostitution are no greater than anywhere else in Canada dispelling the misconception that there is rampant prostitution in the RMWB.

The community's reputation as 'crime ridden' is a significant challenge in attracting and retaining residents even though the expressed realities of the participants do not reflect this characterization of the community. Amongst participants, personal safety was not a concern and they indicated that they used as much "caution and common sense" in their assessment of their surroundings as in any other city they had been to, which is contrary to other research published regarding crime in Fort McMurray (Ruddell and Oritz, 2013; Ruddell, 2011). For example, not walking alone after a certain time or avoiding known areas where crime is prevalent were all common sense considerations that participants made and are no different than behaviors that what would be expected in any other urban setting. While one young male participant expressed he did not feel safe in the bars downtown, this supports demographic characteristics associated with RBCs of young males who engage in drinking which may increase the likelihood of physical altercations (Boyd, 2014). Participants recognized that there are often tensions that exist between resident and the non-resident population (e.g. camp workers) behaviors, which reflect poorly on the community. This tension is a common finding amongst RBCs (McKenzie, McKenzie and Hoath, 2004; Freudenburg, 1981).

A central challenge for the RMWB is how to provide the necessary workforce for the oil sands, and integrate *and* include non-resident workers into the community, regardless of their propensity or willingness for permanent residency. Providing non-resident workers the opportunity to establish a sense of attachment to the local community can increase instances of positive experiences through civic responsibility and involvement that is needed to alleviate many of the social problems found in RBCs (Keough, 2015). A sense

of place attachment “develops through an interconnectedness of the social to the physical” that occupy the same space (Burley, 2007, p. 1). Planning for social infrastructure is defined by this concept and understanding how this attachment can occur in the RMWB can help change the negative perceptions of the RMWB. In order to address the notoriety stemming from the perceptions held by the non-resident workers, who are often targeted by the media for interviews, can be accomplished by tackling how to increase equitable access to social infrastructure for this large portion of the population (approximately 32 percent). This may require active cooperation between municipal planners and industry on how to develop flexible policy and practices that allow workers the ability to experience social spaces and incentivize them to settle permanently in the RMWB. This goes against the premise of FIFO practices that claim it is a viable solution to supply industrial projects with a productive workforce (Mckenzie, Mckenzie and Hoath, 204; Perring et al. 2014; Storey, 2001). This thesis argues rather that a permanent resident workforce will benefit both the industry to have an accessible workforce and the community in retaining residents needed for long-term sustainability.

5.1.1.6 Sense of Place

A sense of place is a positive emotional bond that contributes to place attachment and is based on the human experience of a particular landscape and reflects the intrinsic characteristics or meaning of a place (Brown and Raymond, 2007). Typically, a sense of place occurs when there is some meaning or relationship established based on the direct experience of a geographic space or through written narratives (e.g. media, stories, folklore).

Adding support to Brown and Raymonds (2007) research, it was evident that the influence of the media and the experiences reported by non-resident workers have contributed to a negative sense of place for those from outside of the community of Fort McMurray. However, interview participants expressed a very positive sense of place. Participants describe the region as having attributes they associated with “frontier” and “adventure”. On the surface this would not seem out of character of an RBC, as historically boomtowns associated with the gold rush were located on the western frontier or the unsettled western regions of the United States (Hostetter, 2011). These historic

RBCs have inspired stories and visual representations (e.g. “Spaghetti Western” movies) of the ‘Wild West’ as places of overindulgence and lawlessness that have influenced the perception and sense of place associated with these communities. The historic sense of frontier and adventure associated with RBCs was counter to the descriptions provided by participants. The sense of frontier was associated with undeveloped urban space rather than the Wild West and residents felt they had the opportunity to contribute to shaping the future development of the community in innovative ways. This is significant in that residents feel a sense of control that can encourage further civic participation and long-term commitment to the community, which is in contradiction to much of the previous research on RBCs and place attachment (Ruddell and Oritz, 2014; Freudenburg, 1981).

The sense of adventure associated with the RMWB’s natural setting is an important element of place attachment and resident retention. Vast, majestic Boreal forest surround the RMWB and the city of Fort McMurray is at the middle of five rivers while images of a lawless, barren industrial, bleak landscape are propagated by the media stories of the RMWB discouraging both tourism and residency. Articles in the popular magazine *GQ* describe the community as male dominated, testosterone-fueled chaos, and a ‘black, caustic wasteland’ (Hannaford, 2012). Somewhat surprising is that such a large community of people from very different cultural backgrounds not associated with the conditions of a remote northern landscape have positive experiences of this extreme landscape. The positive association with urban space and adventure within the RMWB’s remote rugged natural landscape reflected personal characteristics associated with success and high levels of personal capital (e.g perseverance, bravery, and competitiveness) (Bailey et al. 2013).

Despite high levels of personal capital this positive sense of adventure is also reliant on the larger community that supports each other in overcoming the challenges of living in such an isolated northern location. For example, the McMurray Snowdrifters Association is a community of snowmobilers that provide residents, attracted to the natural amenities of the region, an opportunity to participate in an enjoyable social activity that makes the most of the long winter season. The association is responsible for developing and maintaining the trail system intended for snowmobiles and is supported and endorsed by

the RMWB. A sense of adventure is established through the active experience of the landscape and the support of the snowmobile community creating the potential to draw and retain residents. This example reflects the strong sense of community and social cohesion that exists in the RMWB where people from different backgrounds are able to act collectively and prosper.

5.1.2 Objective Two: Perceptions of Leisure and Recreation

The model of sustainability used in this thesis (page 14) employs three pillars to support development that will ensure current uses of resources will not reduce future generations' ability to prosper and grow. Much of the focus has been on environmental and economic sustainability and these elements are typically more easily measured and analyzed to develop standardized practices of development such as LEED and CASABEE (AlQahtany, Rezgui and Haijiang, 2013). In comparison, the social aspect of sustainability is context specific to each society, culture, and place and understanding the complexities involved in social processes can be challenging. The broad aim of this research is to develop strategies, guidelines, or frameworks for socially sustainable urban development by looking to common social processes that can be developed to provide a flexible approach to addressing social sustainability in many different contexts. Access and opportunities for leisure and recreation are a basic human right (United Nations, 1948) and provide a standard development practice in meeting the goals of social sustainability. Leisure and recreation have increasingly become an important aspect in the daily lives of developed and developing countries and is a large contributing factor to ensuring a high quality of life.

The results related to the second objective provide insight into the participant's experiences of leisure and recreation. The diversity of the citizens' backgrounds and the range of experiences have shaped the experiences and values that leisure and recreation have within the RMWB. These perspectives can aid planners and municipal authorities in determining what investments could be best pursued to provide meaningful and equitable opportunities for the wide range of people (e.g. ethnicity, ages, socioeconomic status) that live in the RMWB and increase the community's ability to retain these residents. The

interaction of leisure and recreation within place and space can help understand how best to utilize this process to continually address and improve the health and well-being of residents. The results highlight the social value of leisure and recreation in providing spaces for social interaction, and maintaining the health and well-being of residents. Additionally, results identified the supportive structures involved in the physical and social provision of leisure and recreation. Passionate responses on why there should be additional investment into social infrastructure in the RMWB support the conclusion that this community has outgrown the typical RBC trajectory, and can provide the basis for development in other RBC that increase the overall triple bottom line of sustainable development

5.1.2.1 Defining Leisure and Recreation

It was important to establish how participant's defined leisure and recreation as there are often interpretive differences in what activities are considered leisure and what are considered recreation. This is important to understand as it can help direct and focus the type of development and investment (e.g. public and/or private) that the municipality should consider in order to meet the residents' needs. Participants all expressed that leisure and recreation is defined by the free time, or non-productive, work time that is available to them which is supported by the definitions offered in the literature (Carruthers and Hood, 2007; Caldwell, 2005), however they defined *leisure* as those activities that did not require physical exertion and consisted of passive activities such as reading, arts and crafts, going for a walk and these findings reflect the divergence in the definitions offered in the literature (Iwasaki, 2006; Van Moorst, 2006; MacKay and Crompton, 1990). Equally supported in the literature reviewed is the interpretation of recreation consisting of mainly physically demanding activities such as competitive and non-competitive sports, vigorous exercise, and outdoor activities (Lavigne, 2014). The following sections will focus on the social processes that are involved in all forms of leisure and recreation that improve the quality of life for residents living in the RMWB.

5.1.2.2 Spaces of Social Interaction

Public spaces (e.g. parks, community centers, and shops) provide citizens with an opportunity to meet and gather and are considered an important factor in developing a

sense of community (Francis et al., 2012). These spaces provide citizens a venue where social networks and friendships develop through opportunities for passive and active social encounters increasing the chances for place attachment and resident retention (Francis et al. 2012). Establishing a social network is essential in any context to develop a sense of community and place attachment, arguably more so in the RMWB where everyone is from somewhere else. In support of this claim participants expressed that the spaces where they recreate allowed them to develop deeper connections to people when compared to the interactions they had at work. This was meaningful in that they were able to develop community attachments from the friendships they developed with people who shared similar interests and values based on the choice of activity.

Equitable spaces, where a variety of people can interact, can bridge differences amongst residents (e.g. SES, ethnicity, age, religion) increasing the social cohesion in the community and enable greater societal prosperity (Spinney and Millward, 2010; Kruger, 2006; Beauvais and Jenson, 2002; Glover, 1999). However, the results indicated that residents perceive the community as having more opportunities for active recreation than passive leisure reflecting a need to address equity by considering the wide range of preferences.

5.1.2.3 Facilities and Amenities

The RMWB has a large inventory of infrastructure dedicated to providing spaces for physical activity and to a limited provision of performing arts (RMWB, 2015).

Participant interviews identified McDonald Island, which is home to one of North America's largest leisure centers, the Suncor Leisure Center, as a central meeting place for residents and visitors. The \$427 million dollar investment into this large facility (RMWB, 2014) addresses the need for indoor and sheltered spaces that provide opportunities for leisure and recreation during the long harsh winters, which can last up to seven months. The public provision of leisure and recreation in the RMWB has no doubt then taken on the traditional model (Potwarka, Havitz and Glover, 2013; Spinney and Millward, 2013) of providing leisure centers, gyms, ice rinks, sports fields and swimming pools that address many of the issues related to participation and weather.

Another traditionally offered amenity for leisure and recreation in the RMWB include urban trail systems which support both passive and active forms of leisure and recreation, such as walking, biking, and other non-motorized forms of mobility (Henderson, 2014; Edwards, 2008). The quality and amount of investment in the indoor facilities often out stage the community's natural amenities such as the Birchwood Trails. Participants from other provinces and countries regardless if they use the trails all marveled at the extent and accessibility of the trail system that highlights the natural beauty of region. A significant finding is that participants felt that the RMWB has provided more than adequate investment into recreation facilities, and many remarked that the municipality does not need any additional investment into these traditional spaces for leisure and recreation. This is significant in that it provides a basis for directing future development of social infrastructure. Providing spaces for a variety of meaningful opportunities for participation in leisure and recreation cannot be met entirely through developing traditional infrastructure (leisure centers, sport fields, ice rinks) that has been the focus of the municipality's capital investments.

5.1.2.4 Tertiary Leisure

An aspect that is not addressed by the current provision of spaces for social interaction in the RMWB is that of facilitating opportunities for spontaneous interaction. Activities that occur in leisure centers, gyms etc. require some sort of coordination, pre-planning and time commitment on the part of program providers and residents (Potwarka, Havitz and Glover, 2013; Spinney and Millward, 2013; Glover, 1999). The concept of tertiary leisure is used to describe a third level of leisure and recreation provision that provides a different experience for social interaction and is similar to the idea of 'third spaces' introduced by Ray Oldenburg in 1989 (Francis et al., 2012). Tertiary leisure includes those activities such as shopping, dining, entertainment and tourism that require private investment. While participants indicated that these activities played less importance to their health and well-being the term tertiary is not intended to indicate a subjugated ranking of priority in the development and provision of leisure and recreation opportunities. Rather this thesis concludes that development for tertiary leisure is of primary importance in establishing social sustainability. The importance lies in that this

type of development incorporates the economic and social aspects of sustainable development, and less convincingly environmental.

Socially, tertiary leisure was perceived by residents to allow spontaneous social encounters that would alleviate the concerns of excessive planning and scheduling (Besser, Miller and Malik, 2012; Allen and Beattie, 1984). This finding supports previous research (Francis et al., 2012) in concluding that these opportunities could expand their social circle outside of consisting mainly those who have similar interests in leisure activities to meeting people of different backgrounds. This can enhance community development and understanding amongst residents further enhancing social cohesion.

5.1.2.5 Sources of Support

Exploring the perceptions of what and who supports leisure and recreation in the RMWB provided insight into the social processes and organizational structures to assess the need for change or enhancement. The support of volunteers, industry and the municipal government were all felt to contribute to the success of the existing opportunities. Of the three sources of support that were identified, volunteerism was felt to have the greatest impact on the provision of leisure and recreation. The results reveal that the three sources actually work in combination and one without the other would have negative impacts on the existing opportunities. The following discussion will outline the relationships that exist between these three sources and the impacts (positive or negative) that result.

The perceptions represented by the participants indicate that industry is exercising corporate social responsibility demonstrated by financial contributions (e.g. municipal tax revenues, sponsorship) for the construction of facilities (Suncor Leisure Center, Shell Place, Syncrude Sports and Wellness Center) and direct involvement in activities and events supporting leisure and recreation. Examples include providing employees with free family gym memberships or promoting local sporting events (e.g. BBQs) like the Western Canadian Summer Games and hosting competitions for CFL (football) and NASL (soccer). In contrast to ‘company town’ models (Gill, 1991) that attempted to manage all aspects of community life (housing, roads, hospitals) to ensure a productive workforce, the oil sands industry has focused on one aspect in supporting leisure and recreation.

Volunteerism was perceived to be of a high level and in many cases was an unexpected feature of the community as previous research indicates there are often low levels of volunteerism due to the transient nature of RBCs (McKenzie, McKenzie and Hoath, 2014). Participants expressed a strong desire to support their chosen activity through volunteer commitments and acknowledged that the continuation of this activity was reliant on a consistent volunteer capacity. In addition to the barriers to volunteer participation in leisure and recreation, that will be discussed in greater detail in section 5.1.3.3, there was a negative relationship in this regard to the municipality; structural issues within the local government negatively impact volunteer opportunities in leisure and recreation according to participants, and this is consistent with much of the literature regarding the current state of public leisure and recreation provision (Lavigne, 2014; Potwarka, Havitz and Glover, 2013; Glover, 1999). Supporting the efforts of volunteer groups is an area of improvement that municipal authorities need to address to provide equitable opportunities for meaningful leisure and recreation.

Participants perceived the municipality to be effectively providing traditional public leisure and recreation (e.g. sports fields, community centers, libraries) however, these activities are not valued by all residents and there was felt to be a lack of support for a large demand in alternative options. Navigating complicated licensing and permit processes, obtaining appropriate directions for organizations to get up and running, and authority to monitor and police activities have created frustration and distrust towards municipal authorities. Changes to urban governance in leisure and recreation have evolved since the introduction of neo-liberalism and many services have been privatized to improve efficiency, quality and equity (Lavigne, 2014; Powarka, Havitz and Glover, 2013; Glover, 1999). This is evident in the RMWB where much of the support for leisure and recreation from industry is distributed by the municipality and fits into their vision of what constitutes responsible and equitable provision. The Regional Recreation Corporation (RRC), a non-profit, at arms-length organization had been established in 2012 and follows a common provision model for programming, operating and managing facilities. While this is not unusual in the provision of leisure and recreation, as mentioned above (Glover, 1999), this model arguably results in producing inequitable access to leisure and recreation in that despite the RRC operating as a non-profit

organization it is still motivated economically to operate within a business framework with revenue and budget concerns (Glover, 1999).

In the RMWB programming and access for activities often suffers from this organizational structure for the provision of leisure and recreation. Ultimately, the RRC's goals are to meet budget constraints and attain an unofficial yet discernable effort to promote and support economic diversity by not monopolizing the programming offered in the RMWB (RRC website, n.d.). The RRC does not offer programs or services that are available in the private sector (e.g. boot camps, Olympic weight lifting) and this is to help support these businesses grow and develop a clientele base. Initial involvement of the RRC uses the publicly supported facilities to provide activities that are then downloaded to either the private sector or to be run by volunteers. For example, spin classes were observed as not readily available at the public facility, but were regularly offered at private gyms with much higher membership fees located in suburban neighborhoods.

In cases where activities are not provided for in the private sector, volunteer organizations are left to provide programming, raise funds, and find space in order to maintain these activities, as they become no longer cost effective for the RRC to offer to the public. The complete link between these three sources of support occurs when shortfalls in volunteer organization's resources are alleviated through soliciting industry-related businesses for support through donations, sponsorships, or favors in kind (e.g. use of land, space and other resources owned by the company). The current model of provision that the municipality uses is for all intensive purposes designed to provide equitable and cost effective use of tax dollars in providing opportunities for leisure and recreation (Glover, 1999). However, this has resulted in reduced options, and increased burdens on volunteer groups who are not offered the necessary support to ensure that the public good of leisure and recreation is equitably provided in the RMWB.

5.1.2.6 Health and Well being

A discussion regarding leisure and recreation would not be complete without mentioning the perceived contribution it makes to health and well-being. Beyond the physical benefits that participants perceived as stress relieving, and health promoting they subjugated the importance of these benefits to the psychosocial. Leisure and recreation

help residents to balance daily stresses and participating in activities connected them to their community, provided mental stimulation, brought joy and purpose into their lives. These results support conclusions by House (2001) and Coleman and Iso-Ahola (1993) that significant health benefits from leisure and recreation occur as a result of self-determination and the social ties that develop.

Social isolation, substance abuse, crime and fear of crime, marital breakdown, homelessness, irregular work schedules, and economic downturns are typical stressful conditions that exist in RBCs (McKenzie, McKenzie and Hoath, 2014; Ruddell and Ortiz, 2014, Ruddell, 2011; Lawrie, Tonts and Plummer, 2011; England and Albrecht, 1984), and can have wide ranging negative health impacts on the individual, reducing their ability to cope (House, 2007; Coleman and Iso-Ahola, 1993). The findings support that the current provision of opportunities for leisure and recreation in the RMWB has resulted in the development of social networks that have been credited to increase social cohesion (Warde, Tampubolon and Savage, 2005) and place attachment (Francis et al., 2012; Lewicka, 2010; Burley, 2007; Fried, 1982). While participants expressed a significant attachment to the community the fact that the social and mental benefits from leisure and recreation were prioritized over the physical reflect a response to the boomtown syndrome experienced in other RBCs. The impact to mental and emotional well-being was the primary health benefit from participating in leisure and recreation and identified as contributing factors to place attachment based on the social bonds that developed during leisure activities. The results of this research support previous findings and indicate that investment into spaces for leisure and recreation are effective tools for planners to increase social sustainability in RBCs.

5.1.2.7 Why Bother?

Part of any research project is determining why it matters. What are the benefits to society that this research can offer? The responses to the question of “Why bother investing in the RMWB?” warranted an entire sub-theme of their own worthy of discussion based on the passionate responses that justify the value of this research. They are presented at the end of this current section and provide concise, memorable individual summations of how participants perceived the value of their community (objective one)

and the perceived benefits of the continued investment and provision of social infrastructure (objective two).

The significant size of the oil sands deposits rank Canada as home to the third largest oil reserve in the world (Alberta Energy, 2016; RMWB, 2012). This national resource holds economic value that contributes greatly to the Canadian economy, sustaining the high quality of life Canadians have come to expect and enjoy. Investing into community development in the RMWB would benefit the national economy by retaining a productive skilled workforce that is required for the labor-intensive oil sand extraction processes. This is in line with research by Ennis, Finlayson and Speering (2013) that demonstrates RBCs with permanent resident workforces are able to diversify their economy and strengthen the resiliency to bust cycles associated with resource extraction by reducing the resulting out-migrations of workers that contributes to urban decay. Developing additional industries, supported by a permanent resident population can support workers and their families during inevitable downturns in the resource sector where they will be less inclined to leave the community

Economic diversification will take time to occur in the RMWB and resident retention is a key factor in this process which must be capitalized upon during fruitful phases in the local and global economic environments. Retaining this productive workforce will reduce much of the effort required to recruit them back once conditions support investment into production again. Unlike many other RBCs the RMWB is of considerable size and expected to experience continued growth due to the longevity of the oil sands production. Therefore, there is a moral responsibility to provide a high quality of life for those people that currently call the RMWB home. Investing into additional social infrastructure that supports leisure and recreation can act as a catalyst for attracting those of the creative class who enjoy flexible schedules and high incomes and therefore demand high quality urban services and amenities.

Research by Besser, Miller and Malik (2011) supports that the RMWB's existing natural amenities and the impressive inventory of facilities that support opportunities for leisure and recreation can induce economic diversification where professionals who willingly move to the community can provide the workforce to support additional urban

development. An opportunity exists to do things differently in regard to resource extraction in the RMWB. Investing in this opportunity can provide an example to developing countries as they continue to urbanize, innovate and develop their own energy resource sectors potentially benefitting global sustainability.

5.1.3 Objective Three: Perceptions of Constraints

The following section presents the analysis of the barriers or constraints that exist in the RMWB that limit or reduce the ability for participation in leisure and recreation. The municipality has invested significant effort and resources to increase the attractiveness of the community and has invested in infrastructure for leisure and recreation, but the question remains is this the ‘right’ infrastructure needed to retain residents.

5.1.3.1 Transiency and Fly in Fly out workers (FIFO)

While there is no objectively measured data available for the rates of transiency in the RMWB, the perception amongst participants is that it is highly transient and common to reside in the community for two or five years. This has negative impacts (e.g. social isolation, reduce social cohesion) on the community echoing previous research in RBCs (Ennis, Finlayson and Speering, 2013; Franks, 2012; Carrington and Pereira, 2011; Lawrie, Tonts and Plummer, 2011; England and Albrecht, 1984). The impacts this has on the community from the perspective of leisure and recreation are considerable and results in many challenges for the remaining residents.

As discussed previously, many activities are reliant on volunteers who are willing to initiate the development of clubs and organizations to support those activities that the municipality is not directly providing. It is often the case that a resident, who has been a key supporter in these activities, moves away and often times there is no one willing to take their place and the activity is no longer available. Various organizations have been formed to provide support to non-profits that deliver valuable social services to the community including; Leadership Wood Buffalo, Social Prosperity Wood Buffalo, and the Fort McMurray chapter of the United Way. In addition to supporting previous research on community development and transiency in RBCs mentioned above, this research identifies a causal relationship between the transient nature of these

communities and the struggle for volunteer-based leisure and recreation activities that increase social sustainability.

Another source of this transiency, albeit with different impacts, is the significant use of FIFO workers that are typically housed in camp accommodations. Lengths of stay vary but the majority of workers stay in accommodations for approximately 24 days and then fly home for four days, continuing this cycle as long as there is work available. These workers are housed in basic hotel-like accommodations and are provided with meals and activities (e.g. gym, billiards, video game consoles) to fill the leisure time between shifts. Many of these FIFO workers never take the opportunity to travel into the urban service center and experience what Fort McMurray and the region has to offer. The significance of this is twofold; large numbers of workers are not engaged with the community and worker discretionary income is spent outside of the community. This is referred to as the fly over effect (Besser, Miller and Malik, 2012).

Maintaining a stable resident population is critical for non-profit volunteer groups in providing equitable opportunities for meaningful leisure that contribute to developing a sense of community, place attachment and resident retention. Much of the resident retention that the RMWB currently has can be attributed to the provision of leisure and recreation. In support of this claim there are those residents who came with the initial intentions to only stay for two or five years, but decided to stay based on the friendships they had developed through participating in leisure and recreational activities. Place attachment grew from the social connections they made supporting the conclusion that the provision of meaningful leisure and recreation opportunities are an effective tool for resident retention in the RMWB.

5.1.3.2 Shift Work

In the RMWB shift work is part of community life as the oil sands operate on a 24 hour, 7 days a week cycle. The impact this has on challenges for the provision of leisure and recreation goes beyond providing infrastructure but appropriate structural organization. There are many negative documented effects that result from shift work (e.g. increased coronary disease, sleep disruption, reduced ability to cope with stress) that are physical, mental, and social in nature (Zhou and Turner, 2008; House, 2001; Akerstedt, 1990). This

study is not concerned with the physical and mental effects of shift work but it is important in this context as it impacts community life in that the ability to socialize through leisure and recreation is constrained making this a significant factor that needs further attention.

Participants expressed experiences of physical exhaustion that resulted from sleep disruptions and extended hours of work that including travel time amounted to 15 hour days. During the follow up process one participant, after receiving a copy of her transcribed interview via email, responded that while she approved the transcript she wished to include mention that she and her husband had since moved away from Fort McMurray. She explained that the decision for the move was based on her husband's frustrations with his lack of physical energy due to irregular sleep patterns supporting the research on shift work's negative health impacts. This participant's husband indicated that while he had an attachment to the community his physical and mental ability to engage with and enjoy the community was not possible. This supports the conclusions that reduced health results in indifference in participation in leisure and recreation, less engagement with the community and increases in social isolation and dissatisfaction with life in the RMWB

Along with negative health impacts, shift work was found to impact volunteer-based leisure and recreation (e.g. community run art classes, amateur sport leagues) which became difficult to coordinate due to sporadic attendance in group activities. Not having a reliable amount of attendance makes it difficult for team sports or other activities that rely on a minimum number of participants. These impacts are magnified by the method or structure of leisure and recreation provision in the RMWB that operates under a non-profit corporation (RRC). Reduced attendance makes providing certain activities less cost efficient for the RRC and are offered on a rotating schedule reducing the accessibility to and choice of activities. As mentioned in section 5.1.2.5, the cost efficient model of service provision for leisure and recreation effectively downloads activities to volunteer organizations whose volunteer base is reduced due to shift work resulting in less opportunities. Despite the change in delivering these opportunities as a public good residents expressed frustration with the local government and blamed the municipality for

the reduction in programming support. This supports previous findings by Tew, Havitz and Mearville (1999) indicating that people consider and expect the provision of leisure to be the responsibility of local government to ensure public health.

5.1.3.3 Diversity of Options

How participants defined leisure and recreation (section 5.2) was necessary in order to go beyond discussions of gyms, yoga studios, ice rinks, performance theaters and uncover some of the activities that had a deeper or hidden value that are not included in the current provision. The content analysis of planning documents and reports along with researcher observations indicates it was apparent that the municipality had significantly invested in infrastructure for leisure and recreation, however resident retention has since remained a significant challenge. There was a concern that the current trend of providing standard homogenous forms of leisure and recreation (e.g. leisure centers, sports fields, swimming pools) found in any city would continue.

There are large numbers of people in the RMWB who enjoy activities involving off road vehicles (ORV), and these groups recognize there are concerns with environmental behaviors associated with these activities. These types of activities are supported by the natural amenities and climate of the RMWB and offer a memorable experience unavailable in most other places supporting the findings by Jalloh (2014) that eco-tourism and outdoor recreation can help instill environmental values that support sustainable development. Collaborative efforts amongst industry, ORV groups and government in the provision of trail and staging infrastructure and developing policies for policing can capitalize on the intrinsic value for community development, environmental stewardship and developing a sense of place that attracts and retains residents. Those community leaders that understand the risks to human safety and the environment take measures to ensure they are minimized. These leaders need the support of the government to allow them to police these activities and be examples to a large number of participants who are either ignorant of the risk or choose to not acknowledge them. The vast source of available land suitable for recreational purposes will encourage these activities regardless and providing opportunities for responsible use can provide residents with meaningful

options that additionally can support environmental stewardship as users learn about how to reduce the risk these activities pose to the local natural environment.

Tertiary leisure was introduced in a prior section (see 5.1.2.5) and will be elaborated on here fully. Opportunities for tertiary leisure was found to be considered a valuable component in providing meaningful opportunities for leisure and recreation supporting the evidence that spaces for casual, spontaneous social interactions is an important element in establishing a sense of community, place attachment and resident retention (House, 2012). In the RMWB the public provision of leisure and recreation has the benefits of an industry committed to supporting a high quality of life for residents through large financial contributions that fund the construction and maintenance of facilities through tax dollars and sponsorship donations. The development of tertiary leisure requires attracting private investment that can somehow manage to absorb the higher operation costs that exist in the RMWB and still provide a service that is profitable. Despite these challenges, prior research (Florida, 2014; Jalloh, 2014; Besser, Miller and Malik, 2012; Bakowsk, 2011) indicates that the benefits of development and investment in tertiary leisure can help diversify the economy as retailers, restaurants and entertainment providers, create a secondary job market that attracts the creative class and retains a variety of residents.

Support for tertiary leisure is based on the significant number of residents employed in the oil and gas industry or related construction making up approximately 60 percent of employment. Data obtained from the RMWB census information (2012) indicates that workers who are married make up the majorities for both non-resident workers (51.2 percent) and resident workers (67.3 percent). The data does not indicate the ratio of male to female resident workers employed in the oil sands or construction industry, however based on the data for camp workers (five males for every female) and the nature of the work it can be extrapolated that the majority of workers are married males. The majority of participants (spouse employed in industry) indicated that they stayed at home with the kids (based on the community's median age of 32) following the traditional breadwinner model (Pfau-Effinger, 2004).

It is often the case that workers following this breadwinner model are unable to convince their spouse and family to move or remain in the region because of limited employment opportunities or things to do. A local study conducted by the non-profit organization Leadership Wood Buffalo in 2014 focused on women's role in resident retention and attraction in Fort McMurray. The logic for targeting women was that the decision to live in Fort McMurray belonged in large part to the matriarch of young families considering relocating due to employment. The results indicate that 60 percent of the women interviewed felt that more choice for retail shopping would influence their decisions for more long term residency that go beyond their initial two or five year plans. Tertiary leisure would provide jobs for a large available workforce supplied by oil and gas workers' family members including high school students and mothers with school aged children. While these jobs often do not provide a sufficient income to solely meet a family's needs, these needs are often entirely met by the high wages earned by the main breadwinner working in the oil and gas or construction industry. Eliminating the wage competition with the oil sands will enable the developing market conditions to prevail, setting wages at rate that is ideally beneficial for workers and business owners will help provide residents with valued opportunities for tertiary leisure.

Residents in the RMWB expressed that there are limited options available for shopping, dining and entertainment that provide them with a meaningful leisure experience. While there are choices available for dining and retail shopping, they provide a homogenous selection that has followed the format of development that focuses on big box stores or chain retailers such as Wal Mart, Superstore, and Canadian Tire typical of suburban development (Shields, 2012). While some of the results from this research and the study performed by Leadership Wood Buffalo provide opposing views of big box store development vs. 'mom and pop' type development, it is ultimately the challenge for municipal planners to determine what is in the best interest of the community. A pattern has developed amongst residents who desire these types of activities who make regular treks to Edmonton on a bi-monthly basis to experience the social vibrancy that is associated with shopping, urban markets, dining, performances, coffee shops and festivals. Residents appear to cope with the lack tertiary leisure and while they miss having these opportunities the complexity involved has made this type of development

less of a priority. Producing the right conditions for the profitable development of tertiary leisure is an element that will take time to evolve and develop in the RMWB.

5.1.3.4 Information and promotion

Providing residents information on the activities that are available is essential in the delivery of leisure and recreation (Tew, Havitz and McCarville, 1999), particularly in a community with a constant flow of new residents. Leisure and recreation in the RMWB is not limited to urban locations and facilities, many natural amenities that facilitate recreational activities exist within reasonable travel distances. Both interview data and researcher observations demonstrate there is a lack of information and promotion that results in participants being unaware of the variety of opportunities for leisure and recreation that are available in the RMWB. Non-profits with limited resources often have difficulty advertising and widely disseminating information about these activities. This lack of information can be attributed to the model of service delivery for leisure and recreation discussed in section 5.1.2.5 in the sense that the municipality promotes those opportunities that they are directly or indirectly responsible for via the Regional Recreation Corporation (RRC). In no uncertain terms the programming of public leisure and recreation at McDonald Island facilities are managed by the RRC, yet the facility is associated with the municipal government, creating confusion for residents in regards to sources of information supporting research by Glover (1999). As mentioned previously in section 5.1.2.5, many leisure and recreation opportunities get downloaded to the non-profit sector who in their own best interests must promote these activities for their continued survival.

Arguably providing information and promoting opportunities that are provided through public infrastructure within the urban areas are the responsibility of the municipal government and its agencies. However, in the interests of efficiency many activities get downloaded to the non-profit or private sectors which then is outside of the municipal governments responsibilities to promote (Glover, 1999; Tew, Havitz and McCarville, 1999). This is evident in the Fort McMurray where the facilities located in McDonald Island are run by a private, arms-length corporation that represents the RMWB. The facility itself represents a 'hub' in the community and new residents are drawn to it based

on its physical prominence in the city and look to it as a source of information and programming but are often disappointed because programming at times gets put on hold during trade shows or conference events. The decision to host these events are based on a business model with objectives to be efficient, operate within a budget and generate revenue to support the operations of the facilities (Glover, 1999), temporarily placing these objectives above providing public programming for activities.

As discussed previously the model of leisure provision in the RMWB encourages the development of activities offered by private and non-profit organizations, combined with objectives for efficiency this was found to ultimately reduce the number of activities that are offered in the public facility. People are then left having to “call around” to find activities that are reasonably accessible for them and being unfamiliar with a community created a sense of frustration and lack of support. In cases where participants had knowledge of these opportunities the information was generally reported to come from other residents within the community by word of mouth. While a directory of the various organizations involved in leisure and recreation are listed in the *Community Guide*, residents were discouraged by the amount of time required to call the variety of private providers and gather the required information to make informed choices.

Alternate sources of information were often stumbled upon once people got involved in volunteer organizations such as the Multi-Cultural Association, and greatly enhanced their knowledge of opportunities for social interaction. As mentioned previously the community was reported as having a sense of adventure, or discovery and attracts those individuals who are relatively outgoing and self-reliant. In the case where a move to the region is not a personal choice, such as young dependent family members, the propensity to reach out and get involved can be difficult for some. Combined with the amount of effort required to sort through all the organizations that offer a variety of activities, these residents become disillusioned and continue to isolate. It was frequently mentioned amongst those participants that had lived in the region for less than five years that had they known about the many different opportunities their adjustment to the community would have been much easier. Having a one-stop source of information or resource that provided direction for people in making choices for leisure and recreation were thought

to make a difference and corroborates with research on the role of marketing in municipal recreation (Tew, Havitz and McCarville, 1999).

Observably the RMWB has vast natural amenities that can provide meaningful outdoor leisure and recreation experiences. There were those who, had both recently moved to the community and those who had been there for many years, were unaware of these outdoor activities and reported being introduced to them by residents who have lived in the area for a long time or those who are experienced outdoors people. The activities often require some specific knowledge and equipment to engage in them safely and residents, either through volunteer organizations or individually, act as mentors and promoters for activities, such as camping, snowmobiling and hiking. Based on the model of provision these outdoor activities would fall under the jurisdiction of tourism (Jalloh, 2014), which the municipality did not appear to be connected to other than for endorsements. Outdoor experiences involving natural amenities have been shown to increase environmental awareness and stewardship based on values of preservation and conservation associated with leisure in such places as Yellowstone National Park in the U.S, or Banff National Park in Canada (Jalloh, 2014). These examples provide the premise that the RMWB can benefit economically, socially and environmentally from actively promoting and supporting the wise use and management of leisure activities, such as eco-tourism.

The RMWB has a wealth of opportunities for leisure and recreation that are relatively undeveloped in regards to their provision. While, the aspect of information dissemination and promotion cannot be addressed with physical infrastructure development it can be addressed through how physical infrastructure is administrated.

5.1.3.5 Travel

Travel is an important component to consider when planning the development of urban infrastructure and services. Leisure and recreation are particularly vulnerable to friction of distance resulting from the spatial distribution of facilities, and there has been much research regarding this subject including issues of gender, ethnicity and social justice (Spinney and Millward, 2010). Economic geography has examined the efficient provision of leisure and recreation using travel cost demand modeling in determining and predicting participation rates that in essence inform planning decisions (Mondschein,

2012; Fletcher, Adamowicz and Tomasi, 2009). However, these models do not in effect consider the role of perception, such as the value of travel time in an individual's cost benefit analysis, and using such quantitative tools for policy analysis in planning the location of meaningful opportunities for leisure and recreation can be misleading. The RMWB has invested a great deal into indoor facilities and other structural amenities (urban trail system) and continuing the best allocation of capital infrastructure development for supporting leisure and recreation in the RMWB must consider the perceptions of travel and the impacts to equitable opportunities for participation.

It is not surprising that travel times and distances would be a constraint to leisure and recreation provision in the RMWB based on its remote location and geographic size for infrastructure and service provision. Providing equitable opportunities for leisure and recreation within an area the size of Scotland is a challenge and many of the rural communities in the RMWB must make long trips to access facilities. As demonstrated the capacity that leisure and recreation has to increase social bonding can help these smaller rural communities adapt to the changing conditions caused by the increasing development of the oil sands and increase social resiliency. The provision of leisure and recreation as a public good must take precedence in such a situation, and providing swimming pools, or leisure centers in these communities are not supported by a quasi-private model that is increasingly more common in the delivery of leisure and recreation (Glover, 1999). Communities such as Fort Chipewyan that are inaccessible due to lack of road infrastructure, but are included in the tax catchment area, should be provided with an equitable share of capital investments into leisure and recreation and the social benefits that these tax dollars contribute to. This is a relatively normative outlook on the situation and the reality is that until accessibility to these communities is further developed social rather than economic efficiencies in the provision of leisure and recreation may need to take precedence.

Within the urban service center travel is also a constraint due to the suburban development patterns. Suburban development that supports the use of a personal vehicle is prevalent in Fort McMurray. Typical of North American, Euclidean development patterns that separate land uses locate spaces for leisure and recreation away from

residential areas, and according to distance decay theory as travel time increases participation will decrease reducing participation in activities (Iacono, Krizek and El-Geneidy, 2008; Hall, 2006; Jacobs, 1961). These geographic distances are exasperated by traffic congestion caused by insufficient road infrastructure which increase commute times to these spaces again reducing the desire for participation. Recent upgrades to the roadway infrastructure have significantly reduced travel times within the city, however the legacy of the old traffic patterns continues to impact the travel behavior of the residents. This is expected to take time for residents to adjust to in order to notice any significant change in patterns of participation in leisure and recreation.

Car dependency has also limited the success of an accessible public transit system by reducing ridership and the revenue required for effective operation. While public transit is extremely affordable in the RMWB, the time it takes to travel from suburban areas to leisure and recreation facilities reduce this economic benefit for those reliant on public transportation. While this may be a small percentage of the community they are often the group most in need of publicly subsidized leisure and recreation. The absence of having a car is not indicative of a personal choice to reduce one's carbon footprint rather it represents the income inequity that exists between those who work in industry and those who do not. Having a car is simply not affordable and these residents often become socially isolated due to the restrictions on their mobility and access to gathering places of social interaction.

The constraints to leisure and recreation that result from travel are difficult to overcome in the RMWB for a variety of reasons. There are development options that can be retrofitted to the existing pattern of suburban development that can increase opportunities for accessible social interaction. These include supporting the development of tertiary leisure that is not as constricted compared to the development of large facilities that require a significant amount of land and capital investment. Recently newer developments in the community have incorporated commercial and retail space into these neighborhoods, however the success is still limited to the factors mentioned in the previous discussion on tertiary leisure, namely reliance on private industry.

5.2 Limitations

This study was exploratory in nature. Limitations regarding methods and data collection have been reflected upon during the course of the research process to ensure confirmability. While this study had several limitations they do not reduce the validity of the conclusions, however it is recognized that the place in time that the research occurred yielded certain perspectives.

Interviews and observations were conducted during the summer and fall of 2015 prior to the decline in oil prices to a record low of \$28 per barrel. The impact on the research was twofold: 1) Industrial activity is normally low during these months and the community often experiences an outflow of residents that are on vacation or the temporary residents return home until employment activity starts up again, so residents remained secure in their ability to remain in the community. It is possible that the perceived value of leisure and recreation opportunities would have been negatively affected. 2) The favorable climatic conditions of summer and fall potentially contributed to positive feelings and associations with the landscape and the impacts of the long, cold, dark winters was not accounted for.

Another limitations of this study lies in the unintended exclusion of the significant number (24 reserves) of native aboriginal communities in the region who were not specifically considered. Two methodological limitations for this include, the sampling methods used and the limited resources (time) for the study. For example, snowball sampling amongst the dispersed communities would not have yielded results that represent the different perspectives amongst the various bands (Cree, Metis, Dene) (RMWB Census, 2012), and the vast distances between these communities (see figure 3.1) could not have been reasonably accommodated within the limited timeframe of a master's thesis program.

Due to the nature of snowball sampling some bias is evident in participant selection. While, participants were asked to refer only those who had opposing or different perspectives the nature of the study attracted those resident who already valued leisure and recreation. This limited the scope of resident experiences in the RMWB and the

study was unable to determine if residents who did not engage in leisure and recreation felt a similar sense of community or place attachment. While the participants represented participating in a range of activities that had similar impacts on developing social networks, it would be presumptuous to think that social networks within an RBC cannot develop outside of these activities. It would have been useful to search out a participant who did not choose to participate in the leisure and recreation opportunities that are available in the RMWB to see what other social processes may be involved in place attachment.

A final limitation that was identified includes the transferability of the results to other RBCs. The scale of industrial development is unlike any other RBC in the world and the 100 year plus longevity of the oil sands gives flexibility to develop appropriate social infrastructure. For example, the RMWB can endure many more cycles of boom and bust where planners can alter the rate of development. This would be similar to a Keynesian economics approach to stabilize economic slumps through government intervention, in this case public spending on leisure and recreation development during boom and bust cycles. Therefore due to the temporal scale of development in the RMBW the results may not be transferable to other smaller RBCs.

5.3 Recommendations for future study

This research has illuminated four future streams of research. 1) This project indicates that shift work and transiency in the RMWB negatively affect participation in leisure and recreation. While these conditions also exist in other communities around the world, it is the prevalence of these conditions within RBCs that make such an impact. The nature of extractive industries require a flexible workforce that can provide around-the-clock operation, however further research that examines how this can or cannot be structured is a line of inquiry that may inspire innovative ideas in how labor is organized in RBCs. 2) The role of the FIFO workforce and determining if these practices are conducive to sustainability, and should they continue to be supported. However, it may be more pragmatic to investigate how community functions can be adapted to the unconventional schedules that occur in RBCs and adapt alternative models for community development

that support these functions. 3) An analysis that considers the potential social benefits of economic diversification into tertiary leisure in RBCs as a justification for government intervention in market forces (e.g. rent controls, subsidies). 4) As stated in the limitations, this study did not consider the unique perspective of aboriginal peoples living in the RMWB. While this study did not intend to focus on aboriginal communities there is potential for additional study that considers a cost benefit for the provision of leisure and recreation in these dispersed communities. This is related to sustainability in that ensuring equitable access for residents to opportunities for leisure and recreation reflect principles of social sustainable development practices. It is suggested that a multiple case study be used for future research into these issues in order to compare the results amongst different RBCs and develop more generalizable theory regarding RBCs.

5.4 Conclusion

Although this thesis does not make any direct suggestions for planning policy it has identified or highlighted some of the factors that municipal planners in RBC's must consider. The 2016 approved budget for capital investments for leisure and recreation has set aside \$91 million dollars over the next five years, and how these resources are distributed will impact the future sustainability and resiliency of the community. The research demonstrates that the investments that the Municipality has made into leisure and recreation have increased the community's quality of life and contributed to increased social cohesion enabling residents to develop place attachment. Investment into leisure and recreation has done this by providing the space for activities where social interactions developed into meaningful relationships that without places for activity these results would likely not have occurred in a community of strangers with diverse backgrounds. However, resident retention still remains a significant challenge in the region and this research has highlighted some of those issues that continue to limit the full contribution to resident retention that leisure and recreation is capable of.

While oil companies in the RMWB are exercising greater social responsibility by supporting the investment in infrastructure for leisure and recreation there are institutional and operational structures in the community that limit the success of these

investments. The results support the conclusion that the model of delivery for leisure and recreation does not fit the culture or rhythm of the community influenced by the industry's employment structures. Additionally, the provision of leisure and recreation does not address the need for tertiary leisure that would provide flexibility for the significant amount of shift workers to engage socially and realize the full social and economic benefits. These opportunities are also constrained by the industry in that wage competition and real estate costs discourages private investment needed for tertiary leisure (e.g. entertainment, open urban markets, coffee shops).

Canada remains economically dependent on the natural resource sector and increasing the resiliency of our RBCs is important. The purpose of capital investment into the RMWB's community infrastructure is to secure the continued development of the oil sands that benefit not only Alberta's economy but Canada's as well. Increasing the quality of life in this community is important to retain a large and productive workforce that is required for oil sands operations. The results of this research are relevant to the field of planning that is concerned with social, economic and environmental efficiencies associated with urban growth and development and relies on understanding the system in which the development occurs to ensure these objectives are met.

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Appendix A: Content Analysis Documents

Municipal Planning Documents	Municipal Reports	Provincial Planning Documents	Provincial Reports	Federal Reports
Lower Townsite Redevelopment Plan (2009)	Future Forward 2030: The Fort McMurray Vision (2007)	Comprehensive Regional Infrastructure Sustainability Plan (2011)	Fort McMurray Athabasca Tar Sands Development Strategy (1972)	CERI:Economic Impacts of New Oil Sands Projects in Alberta (2012-2035)
Envision Wood Buffalo (2010)	Economic Profile (2011)	Urban Development Sub-Region (2013)	Radke Report: Responding to the Rapid Growth of Oil Sands Development (2006)	RSC:Environmental and Health Impacts of Canada's Oil Sands Industry (2010)
City Centre Area Redevelopment Plan (2012)	Crime in the RMWB (2014)			
Official Census 2012	Canada's Economic Treasure (2014)			
Municipal Development Plan (2012)	Community Engagement in the Women of Fort McMurray (n.d)			
Official Census 2015				

Appendix B: Interview Guide

1. Background

- How long have you lived in Fort McMurray (RMWB)?
- How old are you?
- Where did you originate from?
- What do you do for a living?
- What area of Fort McMurray do you currently live in?
 - Why did you chose this area?
- Tell me what it is like living in the RMWB
 - Did you have a difficult time adjusting?

2. Livability: the sum of factors that contribute to a community's quality of life which include the built and natural environments, economic prosperity, social stability, educational opportunity and opportunities for leisure and recreation.

- How long do you plan to live in the RMWB?
 - i. Why?
- How satisfied are you with your life in Fort McMurray?
 - i. What do you like the best about the city?
 - ii. What do you like the least?
- Can you think of a city that is comparable to Fort McMurray?
 - Why or why not?
- It is unlikely that most Canadians realize the ethnic/cultural variation that exists within the RMWB, what do you think are some of the most significant issues that have
 - a positive influence on the long-term sustainability of the RMWB?
 - a negative influence on the long-term sustainability of the RMWB?

3. Leisure and Recreation

- How important is leisure and recreation in contributing to your quality of life?
 - i. Does it matter? Why or why not?
- What do you consider to be leisure and recreation?
 - i. In your opinion is there a difference between the two?
- Please name some examples of activities that you consider leisure and recreation?
- What do you do in your spare time?
 - i. Tell me about this?

1. How did you get involved?

a. Probe: did you need to initiate this?

- How do these activities affect you
 - i. Emotional?
 - ii. Physical
 - iii. Social
 - iv. Intellectual
- In your opinion, how would you describe the available opportunities for leisure and recreation in the RMWB?
Probes
 - Do you feel that there are adequate options and facilities available?
 - What might be missing?
 - Are these opportunities accessible? If not, why not?
- In your opinion, do you feel that within the RMWB, the public is given adequate opportunity to become involved in and voice their needs or concerns in the development of opportunities for leisure and recreation?
 - Do you feel the municipality has listened to residents concerns? Why or why not?
- Whose responsibility is it to provide opportunities for leisure and recreation?
- What are some of the barriers that affect your opportunities for leisure and recreation?
 - Tell me about that?
- Do you think that there are special considerations when planning leisure and recreation in a resource based community like Fort McMurray?
 - What are they and how might they affect the provision of leisure and recreation.

4. Sense of Community

- Can you describe your social network?
 - i. Where did you develop friendships
 - ii. How did you develop friendships
- Has your social network changed since you have lived here?
 - i. How?
- Do you have family here?
 - i. If not...can you tell me how you have coped with that?
- What role do you think opportunities for leisure and recreation play in developing a sense of community? Why?
- Do you think that the large transient population here weakens the ability to develop a sense of community?
 - i. Why or why not?

5. Resident Satisfaction and retention

- What do you think are the perceptions of urban life here from those people external from the RMWB?
- What do you think are some of the significant concerns of residents within the RMWB?
- What is your most significant concern?
- How important do you think a permanent resident population is?
 - Why?
- Do you have any ideas as to how the RMWB can attract residents to stay here permanently?
- How satisfied are you living here?
 - What would you like to see more of or less?
- Do you feel that opportunities for leisure and recreation can increase levels of citizen satisfaction here in the RMWB?
- What do you think is the most important contributor to a high level of citizen satisfaction or quality of life?
- How would you respond to the question “Why bother” regarding the efforts to increase the livability and quality of life in Fort McMurray and RMWB?

Appendix C: Participant Information Letter

Project title: Socially Sustainable Urban Development: The Role of Leisure and Recreation in a Canadian Resource Based Community

Background: My name is Trina Lamanes and I am a Master of Arts student in the Department of Earth and Atmospheric Sciences at the University of Alberta. The information I am collecting will be used to help inform policy and for academic publication.

The purpose of this letter is to invite you to participate in a study on social planning development by the University of Alberta and to provide you with information that you require to make an informed decision. This study focuses on personal experiences and perceptions about your community and local social planning development initiatives. Interview questions will relate to your perception(s) of local planning decisions and initiatives and your power to effect positive changes in the context of daily life and sustainability.

Purpose of this study: The purpose of this project is to examine the role of leisure and recreation in attaining sustainable social planning development of a resource-based region. The *objectives* of the research include:

1. Exploring residents' attitudes (values) and behaviors (practices) surrounding leisure and recreation, urban sustainability and resident retention;
2. To measure and evaluate the current public and private provision of leisure and recreation in the Regional Municipality of Wood Buffalo and;
3. To assess the perceived and real constraints related to providing leisure and recreation in a resource based community.

Research procedures:

All participants must be mentally competent and over 18 years of age. If you decide to participate in this study you will be asked to take part in a semi-structured interview held at a location of your choice. Each interview will last approximately 1 hour. Interview questions will focus on your personal experiences of leisure and recreation. All information obtained from people participating in the study will be kept strictly confidential.

Risks and benefits:

There are no foreseen risks to participating in this study. In general the study should provide an empathetic account of a community experiencing tremendous growth under unique circumstances.

Confidentiality & Anonymity:

Participation in this study is voluntary. You may refuse to participate, refuse to answer any questions or withdraw from the study at any time with no effect on your future. You can request to have any collected data withdrawn from the study up to 30 days after the interview occurs. All possible steps will be taken to help ensure anonymity such as use of aliases and removal of any identifying information. All collected data will be stored on recording devices, hard drives, and portable jump drives which will be encrypted using advanced file security software (www.osborn-software.net).

As per University of Alberta policy, collected data will be kept for a minimum of five years in a secure location at which time, all recorded information will be destroyed and disposed of. All transcripts will be shredded and recorded materials will be erased. If data does not make publication, all transcripts will be shredded and recorded material will be erased.

Further information: If you would like to receive a copy of the overall results of the study, please let me know (e.g. fill in the included form). If you have any questions about this study or your participation in this study, please contact:

Primary investigator:

Trina Lamanes
Department of Earth and Atmospheric Sciences
1-26 Earth Sciences Building
University of Alberta
Edmonton, Alberta, Canada
T6G 2E3
Tel: (780) 935-6082
email: tmulder@ualberta.ca

Supervisor: Leith Deacon, PhD
Assistant Professor
Department of Earth and Atmospheric Sciences, Planning Program
University of Alberta, Edmonton, A.B
Tel: 780.248.5761
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The plan for this study has been reviewed for its adherence to ethical guidelines by a Research Ethics Board at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Research Ethics Office at (780) 492-2615.

Consent statement

I have read the letter of information and have had the nature of the study explained to me and agree to participate. All questions have been answered to my satisfaction.

Printed name

Signature

Date

Request for full study results

I would be interested in receiving a copy of the complete results of the study.

Address to be mailed to:

Name

Address

City, Province, Postal Code

Appendix D: Ethics Approval Letter

Notification of Approval

Date: August 27, 2015
Study ID: Pro00057126
Principal Investigator: Trina Lamanes
Study Supervisor: Leith Deacon
Study Title: Socially Sustainable Urban Development: The Role of Leisure and Recreation in a Canadian Resource Based Community
Approval Expiry Date: Saturday, August 27, 2016

Approved Consent Form: Approval Date 8/28/2015 Approved Document Participant information letter/consent form_letter head version

Sponsor/Funding Agency: Killam Cornerstone Grant RES0024751 University of Alberta start-up

RSO-Managed Funding:	Project ID	Project Title	Speed Code	Other Information
	RES0024751	Boomtown to Hometown	EA547	

Thank you for submitting the above study to the Research Ethics Board 1. Your application has been reviewed and approved on behalf of the committee.

A renewal report must be submitted next year prior to the expiry of this approval if your study still requires ethics approval. If you do not renew on or before the renewal expiry date, you will have to re-submit an ethics application.

Approval by the Research Ethics Board does not encompass authorization to access the staff, students, facilities or resources of local institutions for the purposes of the research.

Sincerely,

Anne Malena, PhD
Chair, Research Ethics Board 1

Note: This correspondence includes an electronic signature (validation and approval via an online system).