



AGRICULTURE MASTER PLAN



ROCKY VIEW COUNTY
Cultivating Communities



Executive Summary

The purpose of the Agriculture Master Plan is to identify a long term vision and policy framework for agriculture and land use planning in agricultural areas within the County. The plan's vision is intended to support both existing agricultural operations and provide new opportunities for diversification of the agriculture industry in the County for the next generation of farmers. The vision was developed in close consultation with community members and states:

Rocky View County is a community where agriculture is valued and respected. The agriculture industry is flourishing through innovation and diversification and is promoted and recognized as vital to the County's social, economic and ecological integrity.

The Agriculture Master Plan is a strategic, guiding plan for agriculture in the County. It provides initiatives which will support the industry, and highlights the importance of the industry to the County. It is intended to help inform future planning decisions and policy development related to support, development, and diversification of the agriculture industry. It also provides direction for land use planning and integration strategies in agricultural areas.

The timing for preparation and adoption of the Agriculture Master Plan is extremely opportune given the current direction to confirm strategic growth planning through the anticipated preparation of a new Municipal Development Plan (MDP). The new MDP will provide the vision and supporting policy structure for future growth in the County. A primary purpose for the AMP is to provide direct input into the vision for this growth and for agriculture in particular.

Public consultation was essential in providing the direction for a plan for agriculture that the agriculture community directly contributed to, understands, and supports. This extensive public consultation process included: use of a volunteer "Focus Group" consisting of +/- 35 agricultural landowners for frequent group discussions and workshops; four community open houses and workshops where invitations were directly sent to approximately 1000 members of the agriculture community; creation of the thinkfresh.ca project website; industry stakeholder consultation including the Agriculture Service Board and industry specialists; and numerous surveys and questionnaires provided in person and on the project website.

Two of the most common themes during this consultation process were the need for flexibility for agricultural operators – both with how they run their businesses, and in land management, and the need to remove over regulation. We also learned that there are strong, differing viewpoints amongst the agricultural landowner group. This plan attempts to achieve a balance between these differing opinions.

An early success of this consultation was the establishment of agreed upon plan goals. These goals provide a series of targets to help implement the plan's vision. They are:

1. To recognize and promote the importance of the agriculture industry to Rocky View County.

2. To increase public awareness and understanding for agricultural activities and uses.
3. To increase awareness and facilitate opportunities for the diversification of the agriculture industry in Rocky View County, where possible and viable.
4. To provide a policy framework which will facilitate a sustainable and viable agriculture sector by addressing conflicts and opportunities arising from growth, regional urbanization and competition for agricultural lands.
5. To acknowledge the land as natural capital and establish appropriate land use policies to preserve and enhance this investment.
6. To review County policies and regulations which are prohibitive to the agriculture business and provide recommendations for improvement.
7. To provide a priority based implementation plan for the successive measures required to implement the recommendations of the AMP.

To achieve these objectives, 35 plan recommendations are provided. These recommendations provide a clear direction for Council and administration to move forward towards implementation of this plan.

The AMP is divided into four major sections: Introduction, Overview of Agriculture, Roots of Rocky View Agriculture, and Plan Recommendations and Implementation Strategy. There are also four plan appendices' which include: A - Summary of Plan Recommendations; B - Public Engagement; C - Glossary; and D - Census Data and Regional Analysis.

Sections 1 and 2 provide background information on the plan and on the agriculture industry as a whole. Section 3 identifies three essential components that contribute to the success and continued development of the industry in the County. These are: the Business of agriculture, the Land, and the People involved. They highlight items that can positively contribute to each of these elements of the agriculture industry through listing opportunities and corresponding recommendations to aid in implementation. Section 4 summarizes the grouping of plan recommendations into eight categories, and establishes timeframe guidelines for short, medium, and long term implementation items. These recommendations are summarized in detail in Appendix A. Appendix B provides a review of the entire public consultation process. The Glossary of terms used in the plan is included in Appendix C. Appendix D includes the 2006 Census Data and regional analysis information prepared in conjunction with this plan.

The Agriculture Master Plan is an important step in establishing the new vision for agricultural lands in the County. The success of the plan must be pursued through implementation of the recommendations and further corporate commitment to agriculture.



Executive Summary	1
Contents	4
1 Introduction	7
1.1 Background	7
1.2 Purpose and Intent	7
1.2.1 Terms of Reference	8
1.3 Public Engagement	9
1.4 Plan Context	10
1.4.1 Relationship of AMP to Other County Documents	10
1.4.2 Plan Structure	12
1.4.3 Plan Approach	13
1.5 Plan Vision	14
1.6 Plan Goals	16
2 Overview of Agriculture	22
2.1 Global Context	22
2.1.1 Agricultural Supply and Commodity Price Projections	24
2.2 Canadian Context	27
2.2.1 Canadian National Food Strategy	28
2.3 Rocky View County	30
3 Roots of Rocky View Agriculture	35
3.1 The Business	35
3.1.1 Agriculture is a Business	35
3.1.2 Production and Economics	36
3.1.3 Industry Opportunities and Recommendations	39
3.1.4 Policy Recommendations	53
3.2 The Land	59
3.2.1 Natural Capital	60
3.2.2 Maximizing on Natural Capital Opportunities	61
3.2.3 Agricultural Regions of Rocky View	66
3.2.4 Agricultural Land Use Planning	68
3.3 The People	79
3.3.1 The Agriculture Community	80
3.3.2 Education	84
3.3.3 Administrative Requirements	87

4	Recommendations and Implementation Strategy	91
4.1	Rocky View Support for the Agricultural Industry	91
4.2	Plan Recommendations	94
	References	98
	Appendix A: Summary of Plan Recommendations	102
	Appendix B: Public Consultation	113
	Appendix C: Glossary	119
	Appendix D: Census Information and Agricultural Regional Analysis	122



1 INTRODUCTION

1.1 Background

In the fall of 2008, the Agricultural Service Board (ASB) completed its 2009–2013 Strategic Plan. This Plan was accepted by Council to provide direction for the ASB and Agricultural Services for future business planning and budgets. Based on the vision and mission of the ASB and considering the current implementation of the Growth Management Strategy, it was identified a long-term Agriculture Master Plan was important to guide the future development of the agriculture industry in the County.

The initial phase of the Agriculture Master Plan (AMP) included completion of the Agricultural Context Study, which was accepted by the Public Services Standing Committee on October 13, 2009. The intent of the study was to complete an analysis of the existing general context of agriculture in Rocky View, which included an analysis of the county's biophysical resources; county-wide agricultural trend data; provided a county-wide land use context; and considered existing and new legislation considerations affecting agriculture.

The Context Study provided useful county-wide agriculture related background information for future policy direction for agricultural land use and growth. The next step was to create a strategy based, forward-looking plan for agriculture.

1.2 Purpose and Intent

The purpose of the Agriculture Master Plan (AMP) is to identify a long term vision and policy framework supporting both existing agricultural operations and providing new opportunities for diversification of the agriculture industry in the county. The intent of the AMP is to guide future planning decisions and policy development related to agriculture industry development. The policies will align with and enhance the purpose and intent of Rocky View County's Growth Management Strategy.

This plan is about supporting the agriculture industry, highlighting its importance to Rocky View County, updating our agricultural policies, aligning our agricultural growth plans with other statutory plans and strategically thinking about the future of agriculture in the county.



“Maintaining agriculture means more than preserving land; it requires support for the industry as a whole, including tax reform, research funding, ways to resolve land use conflicts, public education and measures that ensure long-term financial security for farmers.”¹

The Terms of Reference were formally presented to the Public Services Committee on February 16, 2010. The adopted Terms of Reference objectives are:

1.2.1 Terms of Reference

1. Provide a sub-county review of existing agricultural pursuits and trends through building upon the strengths of the Agricultural Context Study.
2. Include a comprehensive public consultation strategy and to raise the general profile of agriculture.
3. Evaluate possible future trends in food and agriculture production.
4. Investigate the relationship between agricultural land uses and other land use forms.
5. Identify a long-term vision and policy framework supporting both existing agricultural operations and providing enhanced opportunities for the agriculture sector.
6. Identify recommendations for implementing the vision and policy framework of the Agriculture Master Plan.

These Terms of Reference provided the baseline objectives for information which was to be researched, evaluated and communicated with the agriculture community.

¹ Margaret Walton, *Agriculture in the Central Ontario Zone* (Toronto: Neptis Foundation, 2003).

1.3 Public Engagement

From the early stages of the AMP inception, it was realized public input and consultation would be essential to provide a plan for the agriculture community which they have contributed to, support and understand. They are the experts, the landowners, the operators and the most directly related stakeholders. Their input into the plan was instrumental to its success.

Highlights, successes and unique initiatives of this consultation strategy are numerous. These include:

- use of a focus group, which included a volunteer based membership of +/- 35 agricultural landowners, representing a diverse range of land interests for frequent group discussions and workshops
- numerous direct mail outs, surveys and questionnaires sent to every agricultural landowner in Rocky View County
- creation of the thinkfresh.ca website – an AMP specific website to gather plan information and community interest
- four community open houses and workshops held throughout various stages of the project preparation

Several other initiatives are included in Appendix B, with a full summary of the public engagement strategy used during the preparation stages of this plan.

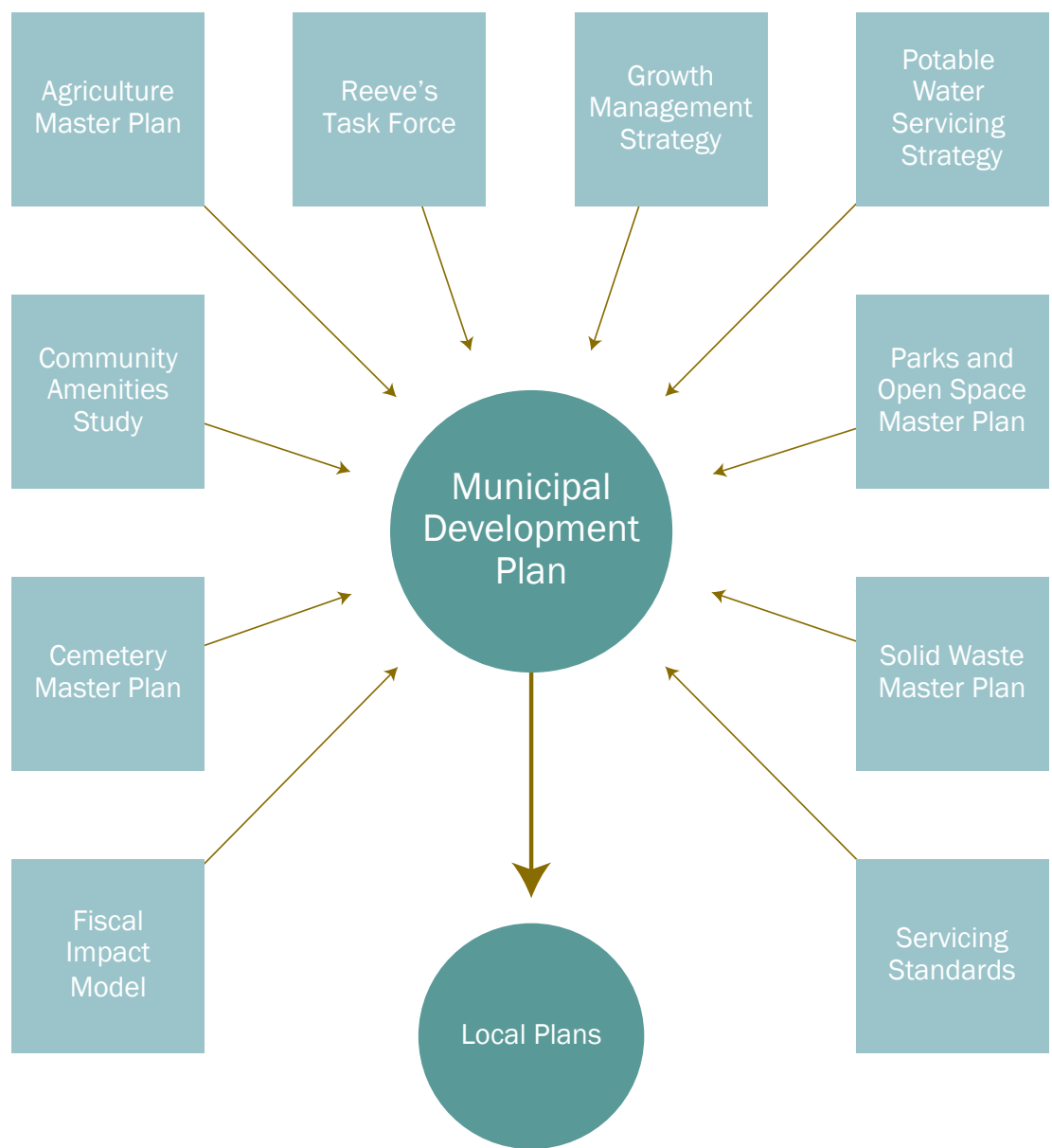
1.4 Plan Context

1.4.1 Relationship of AMP to Other County Documents

The AMP is a guiding plan assisting in future policy development by providing general policy and program recommendations for future implementation. The most relevant of these is the anticipated preparation and adoption of a new Municipal Development Plan (MDP). A MDP is a statutory (legally required) document that must include policy structure for future land uses; the manner of and the proposals for future development; demonstrated coordination with adjacent municipalities and future growth patterns; and include transportation and municipal servicing provisions.

The new MDP will provide a new vision and supporting policy structure for future county growth. The vision for this growth is intended to be supplied directly from the AMP and other existing or currently underway County plans which includes: the Solid Waste Master Plan, Potable Servicing Strategy, Recreation and Open Space Master Plan, the Growth Management Strategy and the Community Amenities Study. [Figure 1](#) shows the relationship of these plans to the new MDP.

Figure 1 | Planning Process Relationship



These plans and emerging factors such as the underway provincial and regional land planning initiatives, indicate the preparation of a new MDP is timely. The AMP has been a unique opportunity for the agriculture community to be intricately involved in land use planning policy development for agricultural / rural areas of the county, with the goal of being ultimately incorporated into the new MDP.

Implementation of the recommendations of the AMP is not only required to be within the new MDP, but also within other County planning documents, corporate policy, initiatives and service delivery. Future Community Development Strategies (CDS) and Neighborhood Area Structure Plans provide direction for new development and will be required to account for the information provided in the AMP. The County Land Use Bylaw (LUB) also has very direct influence on agricultural practices from a regulatory standpoint in the county.

The AMP has also been created to proactively align with the Alberta Land Use Framework (LUF). The LUF attempts to manage provincial growth while sustaining the growing economy and also accounting for Alberta's social and environmental goals. The Alberta Land Stewardship Act (ALSA) is the supporting legislation effectively needed to implement the intent of the LUF. While many provisions of the ALSA need to be developed further, such as regional plans, conservation and stewardship tools and transfer of development credits, the AMP aligns with these principles and allows for County led initiatives in these areas.

Figure 2 | Planning Policy Framework



1.4.2 Plan Structure

The AMP is divided into four major sections: Introduction, Overview of Agriculture, Roots of Rocky View Agriculture, and Plan Recommendations and Implementation Strategy. There are also four plan appendix's which include: A – Summary of Recommendations; B – Public Engagement; C – Plan Definitions; and D – Census Data and Subregional Analysis.

The introduction section provides the general background information pertaining to why and under what direction the AMP was created, including the Terms of Reference and the plan's relationship to other County and provincial planning documents. A brief summary of the extensive public consultation strategy is also included in the section – though the full strategy is included in Appendix B. The Plan Vision and Goals are also included, which provide the foundation on which the plan was built on.

Section 2 includes an Overview of Agriculture, from a global, Canadian and Rocky View County context. Supplementary information for the Rocky View portion of this section is located in Appendix D, which includes the customized Statistics Canada Census data, on a sub-regional analysis for the county.

Section 3 is entitled the Roots of Rocky View Agriculture and suggests there are three essential components to agriculture in Rocky View: the business, the land and the people. This is the most extensive portion of the report as it provides a detailed synopsis of the relationship of these components and how they fit within the context of the AMP. Each section also provides opportunities for improvement, from a regulatory, policy, service delivery or program development viewpoint. Specific recommendations are also provided.

The Plan Recommendations are summarized in Section 4, where they are organized into eight categories based on: the implementation item or amending document; implementation time frame; administrative department responsible for implementation, and corporate related responsibilities. Appendix A provides a quick reference summation of all the plan recommendations. It is important to note that many plan recommendations are in the form of statutory plan amendments. Those amendment processes will require further detailed study and public consultation processes, so some adjustment may be required. *The suggested recommendations throughout the plan cannot be read in isolation, will sometimes require additional criteria to be developed and must be taken in context with the intent of the entire AMP.*

1.4.3 Plan Approach

The plan approach was simple. Create a visionary and strategic plan for agriculture in Rocky View County, in close consultation with the agriculture community. The purpose and intent was to highlight the importance of the agriculture industry to Rocky View County, improve and update agricultural related policies and promote the creation of new opportunities in the industry.

The dialogue and information received from the community was invaluable to the direction of the plan. This information was gathered from the constant communication in the form of in-depth focus group discussions, broad community consultation workshops and open houses, various surveys and questionnaires and direct mail outs to all agricultural landowners.

This information provided essential community input into the direction of the plan. A significant amount of policy and other municipal jurisdiction research was also conducted. The amount of information provided in the broad category of agricultural planning was overwhelming. Included in this research was meeting with industry representatives and specialists, including landowners with specialized operations or knowledge, provincial agricultural policy representatives, attendance at workshops and conferences, webinars, conference calls and talking to other industry stakeholders.

Customized Statistics Canada data was used in the preparation of our sub-regional analysis and the Context Study provided historical agricultural trending information to provide some baseline information on the industry in the County.

From the community consultation, literature and stakeholder review and through analysis of the census data, the draft Agriculture Master Plan was created. This plan was presented to the general public in the summer of 2011 in its near-complete, draft form. Revisions to the document based on this information were provided in the months following.

The plan provides a strategic direction for agriculture in the County for the next generation of farmers. Research data indicates that based on the age of existing farmers, the farming community is entering a stage where a transition to a new generation of farmers is occurring. This plan attempts to help facilitate this transition.

The plan is a living document and should be periodically reviewed and updated to ensure it aligns with current farming practices, trends, environmental and stewardship standards, and the provincial policy framework.

1.5 Plan Vision

Four general principles were used in preparing the Agriculture Master Plan's vision for agriculture in Rocky View County. These were to:

- prepare a plan which will be suitable for the next generation of farmers
- recognize agricultural practices have and will continue to evolve
- recognize a need to challenge the status quo with this plan
- recognize and highlight the importance of agriculture to the County

Based on these principles, the plan vision is stated as follows:

Rocky View County is a community where agriculture is valued and respected. The agriculture industry is flourishing through innovation and diversification and is promoted and recognized as vital to the County's social, economic and ecological integrity.

In the years ahead, the County envisions agriculture in Rocky View County to continue to be a major economic force. Traditional agricultural uses including large scale crop and cattle production still dominate the land use pattern; However, the industry has recently been revitalized through a renewed global emphasis on food production, increased prices for food commodities, introduction of the next generation of producers and general diversification and innovation of the industry.

More producers in Rocky View County are now involved in agricultural pursuits which have a local or region-based clientele. This includes: the raising and local processing of specialty animals and animal products; fruits and vegetables are being successfully grown in greenhouses utilizing local irrigation infrastructure; and more value added food products are being developed, enhancing the end value of those products. Family unit scale farms can thrive on the landscape as specialty production make operations successful at a smaller scale.

Local markets have been developed to capture some of the new demand for locally grown food. Successful farmers markets have been established, farm-gate direct sale of products puts more money directly into farmer's hands and economies of scale have resulted in a more cost effective food distribution system which is taking food products directly to markets in the surrounding metropolitan area.

The intrinsic value farmland holds as natural capital is identified and celebrated. County entrepreneurs have captured new opportunities in the agricultural tourism and ecotourism sectors which are strategically integrated with the agricultural landscape. Small scale local based energy production, which includes energy generation from biomass processing, wind and solar energy results in district heating options and effectively utilizes the land's natural capital.



Sustainable farming practices continue to evolve and environmental features of the landscape are celebrated and preserved with special management practices.

Agricultural land stewardship is recognized as being a vital component to the health of our local ecosystems and environment. Land stewardship programs and initiatives have expanded, and more compensation tools have been developed to both encourage and compensate for appropriate land and environmental stewardship practices.

County regulations in the agriculture industry have been improved to remove over regulation and allow more entrepreneurialism in the agriculture business. The Agricultural Services Office provides proactive services, educational opportunities and information for both the agricultural producers as well as country residential landowners.

Rocky View County continues to thrive with new residential, business and industrial growth. This growth is focused to strategic locations and is sensitively integrated with the working agricultural landscape. The social fabric of the agricultural community remains strong and the county growth areas have become the hub of recreation, social and economic activity, both for the people living in those areas and the surrounding agricultural community.

1.6 Plan Goals

The goals of the Agriculture Master Plan provide a series of targets intended to help implement the plan's vision. The goals ensure each objective and the purpose and intent of the Terms of Reference is followed. The goals also provide clarity on what the plan is intended to achieve for the agriculture community and provide a foundation for the future direction of agricultural policy development in the county.

The plan's goals are incorporated throughout the document including the strategic direction, recommendations and in the successive measures required to implement the necessary policy, regulatory, planning and procedural changes. The seven plan goals are highlighted below, with several strategies on achieving the identified goal.

Goal #1: To recognize and promote the importance of the agriculture industry to Rocky View County.

The economic data provided in the census information (see Appendix D) demonstrates the significant economic value of agriculture in Rocky View County, including the capital expenditures, production dollars, related services and value of goods produced. Recognizing the importance of agriculture to the county must include a triple bottom line assessment of all the social, environmental and economic benefits. The importance of the role of agriculture in these areas must be highlighted and celebrated as part of Rocky View County's heritage, community, environment and business. Strategies to ensure this goal is achieved are as follows:

- 1.a Adoption of the AMP will recognize the importance of agriculture to the County
- 1.b The AMP considers all the economic, social and environmental benefits of the agriculture industry and provides recommendations for improved policy and management in each of these areas
- 1.c The AMP will provide guidance to other County statutory plan amendments which will require adjustment to align with the vision and intent of the AMP

Goal #2: To increase public awareness and understanding for agricultural activities and uses.

Rocky View County has a diverse range of land uses and interests and continued growth of the county's residential, commercial and business-industrial land uses is expected. Introducing these sometimes conflicting land uses in rural areas can create conflicts which require mitigation. From an agricultural community perspective, it is most often the agricultural operators who must adjust or deal with the consequences of conflict. The lack of understanding for the agricultural business operator needs and the conflicts created as a result were recurring themes during the

plan's consultation stages. The aim of this goal is to attempt to improve the communication and program development in these areas. Strategies for achieving this goal include:

- 2.a To provide direction on the type of enhanced programs and educational services provided through the County Agriculture Services section to bring awareness to the needs of the agriculture community
- 2.b Provide direction on new policy and program development needed to support the unintrusive operation of the agriculture business
- 2.c To highlight the social and environmental benefits of the agriculture business

Goal #3: To increase awareness and facilitate opportunities for the diversification of the agriculture industry in Rocky View County, where possible and viable.

This goal recognizes traditional agriculture is and will continue to be the dominant agricultural land use in Rocky View. Throughout history the agriculture industry has evolved and opportunities for diversification of the industry exist. As of 2006, the operators in Rocky View average an age of 54 years and a next generation of farmers must be introduced to the industry. Some of this next-generation will be through further consolidation of the land base and increased farm sizes, but new trends for smaller scale, specialty focused, local based food sectors are emerging. Although there are limitations due to climate and soil type, Rocky View County is strategically located to capture some of the demand for this evolving food production system.

The intent of this goal is to increase the awareness of these opportunities, provide resource materials and provide criteria and policy support for diversification initiatives. Strategies include:

- 3.a Use the Agriculture Master Plan as a resource and promotional tool to help direct new investment in the industry
- 3.b Provide criteria and policy support for diversification of the industry



Goal # 4: To provide a policy framework which will facilitate a sustainable and viable agriculture sector by addressing conflicts and opportunities arising from growth, regional urbanization and competition for agricultural lands.

Due to the location of Rocky View County and anticipated continued strong population and economic growth in the region, the county will continue to face growth pressures. This growth will be in the form of:

- expansion of existing growth areas in the county
- pressure for new country residential land uses in rural areas
- business growth
- an increased need for recreation and community services
- annexation and expansion of the county's urban neighbors

These growth pressures create both conflicts and opportunities for the agriculture industry. The intent of this goal is to attempt to mitigate and plan for the challenges and anticipate new opportunities. Strategies include:

- 4.a Highlight new agricultural development and marketing opportunities to capture demand from the expanding population base in the region.
- 4.b To establish the criteria for planning for agricultural related uses in new community planning areas in the county and with urban neighbours.
- 4.c To establish criteria for development opportunities of compatible, non-agricultural land uses to co-exist with agricultural lands without compromising the viability of the agricultural operations.
- 4.d Promote socially, environmentally and economically sustainable growth; thereby improving the lifestyles of existing communities, while securing the needs of future generations.



Goal #5: To acknowledge the land as natural capital and establish appropriate land use policies to preserve and enhance this investment

The agriculture community told us agriculture was more than just food production – it was about land management and stewardship and utilizing the land to create societal goods. These goods go beyond food production and include broader public benefits like clean water and air, healthy habitat, riparian areas and landscapes. They also include utilization of the land to generate renewable, sustainable energies including solar, wind and biomass energy production. It also includes using the land's sand and gravel resource potential and conversion back into productive agricultural or natural lands. All of these benefits must be generated on an appropriate scale for the area and may not be appropriate in all locations, but can be supported based on the fact it is part of the land's natural capital. This goal includes several longer term strategies and is an important component of the AMP.

- 5.a Define what natural capital means to the AMP.
- 5.b Create a policy framework which supports the utilization of the land's full natural capital, when appropriate mitigation strategies are used and is appropriate for the area.
- 5.c Create a policy framework which recognizes the land holds intrinsic value from an environmental, ecological and social viewpoint and promote the development of future policies and programs which compensate for this value.
- 5.d To create County programs and initiatives which support environmentally sustainable initiatives such as: best management practices, land stewardship and investments made by landowners to enhance protection of these areas.

Goal #6: To review County policies and regulations which are prohibitive to agriculture business and provide recommendations for improvement.

Rocky View County is continuously seeking for ways to improve its policies, procedures and processes. Agriculture business operations are directly linked to the successful management of their land base. Given the current economic realities surrounding agriculture, they need operation and land management flexibility and removal of excessive, unnecessary administration involvement. This goal involves an in-depth investigation of County policies, regulations and programs to determine the effectiveness and support for agriculture. The strategy includes:

- 6.a To review the Municipal Development Plan, Land Use Bylaw and other County Policies and programs and provide recommendations on how to improve the policies in order to help meet the vision and intent of the Agriculture Master Plan.

Goal #7: To provide a priority based implementation plan for the successive measures required to implement the recommendations of the AMP.

Adoption of the Agriculture Master Plan has drawn on significant administration resources and extensive community input to create a plan for agriculture recognizing its importance to the county. Adoption of the plan and implementation of the vision and intent will require a series of successive statutory plan amendments, new policy adoption, education and program development and functional changes . The strategy indicates:

- 7.a The AMP shall include a clear, staged, prioritized process for the future implementation requirements of this plan.



2 Overview of Agriculture

Agriculture in Rocky View County is affected by both local and global influences. While this plan will not address most of the more macro issues affecting the agriculture industry, it is important to identify them in order to better understand Rocky View's role in the global, Canadian and local context. The more global perspective also provides insight into what general direction the industry appears to be going.

2.1 Global Context

The following information contained in this Global Context section of the report has been adapted from a 2011 report from the United Nations Food and Agriculture Organization, entitled *The State of Food and Agriculture*.

Global population, undernourishment and food price volatility are all on the rise. Most estimates predict that the world's population will be 9 billion people within the next 30 years. The effect on agricultural lands is twofold in this regard. One factor relates to the continued increase towards an urban population, as people move from rural areas to urban centers in hopes of finding improved economic prosperity. This causes urban expansion in areas which are often the most productive and fertile lands for agricultural use. The second factor relates to needing to produce more food with less land. These 9 billion people will need to have places to live and food to eat.

These concerns were accentuated during the world food-price crisis, followed by the global financial crisis and economic recession in 2008 and 2009. This period saw the number of undernourished people in the world reach unprecedented levels. Estimates indicate that the number of undernourished people declined in 2010, as food prices fell from their peak levels and global economic conditions began to improve. However, levels of undernourishment remain very high by historical standards, and concerns both for the world economy and for world agriculture continue to be at the top of the international policy agenda.

In October 2010, the International Monetary Fund (IMF) indicated "macroeconomic recovery is proceeding broadly as expected, although downside risks remain elevated." At the same time, the sudden rise in cereal prices from June through October 2010 raised fears of a new food-price crisis. Whatever the short-term outlook for the world economy, agriculture and food security, a number of lessons with long-term implications appear to have emerged or to have been confirmed from the developments of the past few years. The experiences of the food price and financial crises have provided a sharp reminder of the vulnerability of world food security to

shocks in the global food system and the world economy and have demonstrated how rapidly an already unacceptable level of food insecurity in the world can deteriorate in the face of such events.

The food price crisis has highlighted a series of concerns specific to the agriculture sector and agricultural markets. First, the most recent projections by the Food and Agriculture Organization (FAO) and the Organization for Economic Co-operation and Development (OECD) indicate, although international prices fell fairly rapidly from the peak levels attained during the global food-price crisis, they remain higher than they were before the crisis and it appears higher food prices are here to stay. Agriculture faces higher production costs, increasing demand from rapidly growing countries in developing regions and expanding bio-fuel production. As a result, prices are projected to increase over the next decade and to continue to be at levels, on average, above those of the past decade. There is now a widely recognized need to significantly increase investments in agriculture in order to generate environmentally sustainable productivity increases and expand production, while at the same time enhancing the contribution of agriculture to economic growth and poverty alleviation.

A second source of concern is the recent turbulence in international agricultural markets and the risk of increased price volatility. Price volatility has always been a feature of agricultural markets; however, a number of trends appear to be accentuating this phenomenon. The unexpected price hikes and volatility are amongst the major threats to food security. They pointed to a number of root causes needing to be addressed:

- the lack of reliable and up-to-date information on supply, demand and export availability
- insufficient market transparency at all levels, including in relation to futures markets
- growing linkages with outside markets, in particular the impact of “financialization” on futures markets
- unexpected changes triggered by national food-security situations
- panic buying and hoarding

Climate change may also be leading to more frequent and extreme weather events and to the consequent risk of shocks to agricultural markets. Expanding production of bio-fuels based on agricultural commodities will also make agricultural markets much more dependent on developments in global energy markets.

A specific human induced threat to market stability is the uncoordinated national policy responses to increasing food prices. Because such measures are based exclusively on concerns about domestic food security, with little regard for their effects on trading partners, they may exacerbate international market volatility and jeopardize global food security. The recent food

and financial crises, the uncoordinated policy responses and continuing fears over global food market turmoil have underscored the urgent need for action by the international community².

2.1.1 Supply and Commodity Price Projections

In spite of the recent economic crisis, the global agricultural sector has shown remarkable resilience with strong supply response to recent high prices and continuing demand growth. Global production is however anticipated to grow more slowly in the next decade, though it is expected to continue to be able to satisfy estimated long term demand, based on projections of global production, consumption, trade and prices for key food and agricultural commodities.

International commodity prices are anticipated to average higher in the next decade compared to the decade before the price spike of 2007–08. This forecast is based on the resumption of economic growth, above all, in developing countries, increased demand due to rising bio-fuel production and anticipated higher costs of energy related inputs.

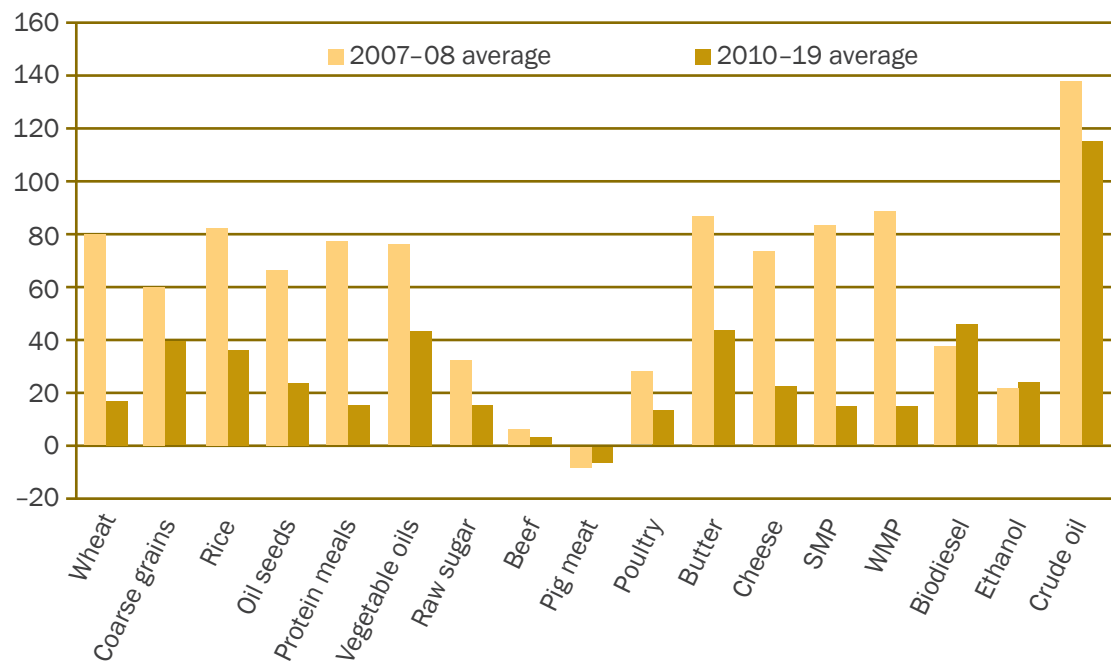
Average wheat and coarse grain prices are projected to be nearly 15–40 per cent higher in real terms relative to 1997–2006, while for vegetable oils, real prices are expected to be more than 40 per cent higher. For livestock products, average meat prices in real terms, other than pork are expected to surpass the 1997–2006 average over the coming decade initially due to lower supplies, higher feed costs and rising demand. Average dairy prices in real terms are expected to be 16–45 per cent higher in 2010–19 relative to 1997–2006, with butter prices showing most gains, supported by higher energy and vegetable oil prices³.


² Hafex Ghanem, *The State of Food and Agriculture* (Food and Agriculture Organization (FAO) of the United Nations, 2011).

³ Organisation for Economic Co-operation and Development (OECD) and the United Nation's Food and Agricultural Organization (FAO), *Agricultural Outlook 2010–2019*.



Table 1 | Summary of real commodity prices and future price predictions





The **net production index** is a summary measure of the growth in gross value of production of all commodities, (net of seed and feed costs which are internal to the sector) all measured at constant international reference prices of 2004-06. Based on the net production index, Brazil is the fastest growing agricultural sector by far, growing by over 40% by 2019, when compared to the 2007-09 base period. Russia and Ukraine are projected to grow by 26% and 29% respectively, marking a significant recovery in production levels, provided plans and support measures by the respective governments proceed and succeed. China and India may also grow significantly by 26% and 21%. Australia's production in 2019 is anticipated to be some 7% higher than in 2000. Production growth in the US and Canada is projected in the 10-15% range over the same period. In contrast, over the same period, net agricultural output in the European Union will have grown less than 4%. These diverse trends reflect important developments in these countries which may be generating or inhibiting growth⁴.

Phosphorus also plays a vital role in the global food chain, as it is an essential nutrient for plant growth, and is used in fertilizers to enhance crop production throughout the world. This non-renewable resource is one of the biggest natural resource shortages you have never heard of ⁵. Professor Elser cites two major concerns pertaining to phosphate production as being:

1. Global phosphate reserves are rapidly being depleted, threatening the world's future ability to produce food, and
2. Cheap fertilizers are a thing of the past as global demands begin to outstrip the available supply of high quality, economically recoverable phosphate reserves.

All of these global factors remain outside of the area of influence of the AMP. While they do tend to provoke some concerns related to future food supply and pricing issues for the consumer, they also tend to suggest that there is a certain amount of optimism for producers, as demand and prices for their commodities is anticipated to rise substantially in the near future.

⁴ Organisation for Economic Co-operation and Development (OECD) and the United Nation's Food and Agricultural Organization (FAO), *Agricultural Outlook 2010–2019*.

⁵ James Elser, Federation of Canadian Municipalities 2011 Sustainability Conference.



2.2 Canadian Context

Agriculture in Canada is among the most sophisticated and technologically advanced in the world. Farmers use scientific crop and soil analysis as well as state-of-the-art equipment. The global conditions described above are likely the most significant influences on agriculture in Canada, as it is inextricably bound in a global economy. With that said, Canadian agriculture remains robust and responsive to world demand.

Canada produces substantial quantities of food for domestic consumers and for export, yet also imports a significant amount of agricultural products. The United States supplies Canada with roughly two-thirds of its total agricultural imports. Conversely, the United States is Canada's main market for agricultural goods, including crops, livestock and fish.

While the overall number of Canadian farms continues to decline, the decline has slowed in recent years and several provinces are in fact adding or gaining new farms. The decline in farms has slowed to under one per cent per year, the lowest level of decline since 1941. The total number of farms in Canada is approximately 275,000. The average size of a Canadian farm is 608 acres. Contrary to the trends in the rest of the country, British Columbia has experienced dramatic growth in the number of its small farms. About half of all new farms in the province have gross profits of US\$10,000 or less. The number of new small farms in British Columbia has increased by 14.7 percent since 1991. Similar trends are occurring in Alberta in recent years.

The nation's main crops are wheat, barley, corn, potatoes, soybeans, rice, and sugar beets. The dominant crop is wheat. However, there is less wheat under cultivation in Canada than at any time in the 20th century. This is the result of increased diversification and low worldwide wheat prices. The second most planted crop is barley. The primary livestock products are beef, pork, chicken, duck, turkey, and goose. Beef production is concentrated in the western areas of the nation while poultry production is concentrated in the east, as about two-thirds of all poultry farms are in eastern Canada. A significant amount of the nation's livestock is consumed domestically. For instance, in 2000 beef production was valued at US\$1.5 billion. Of this, US\$70 million worth of beef was exported while the rest was consumed in Canada. The country also imported US \$140 million of beef, almost all of it supplied by the United States. One out of every four farms in Canada raised beef.

One of the fastest growing segments of Canadian agriculture is organic products (food grown naturally without pesticides, and often sold without preservatives or additives). The organic food industry has been growing at a rate of 20 percent per year. There are now about 1,500 registered organic food producers in Canada. Organic production is strongest in the western areas of the country. There are also a growing number of specialty farms. For instance, there are now 1,593 farms whose main output is Christmas trees. In addition, the number of bison raised on farms for buffalo meat has tripled since the early 1990s, and the total number of head is around 45,000. There are also a number of exotic species, including llama and elk, being raised for sale in specialty markets. For instance, elk and deer antlers are sold to Asian nations for use in food

products and tea. Specialized crop products include various herbs and spices such as garlic, ginseng, and coriander, cut flowers such as roses or lilies, and tobacco.

At present, a number of factors have been identified which may significantly impact agriculture in Canada in the future, including: the global economic outlook, peak oil, climate change and carbon mitigation policy, impending elimination of the Canadian Wheat Board, food vs. fuel production policy debate, and impacts of the bee colony collapse throughout the world. The extent to which these factors may influence Canadian agriculture is unknown. (Adapted from Canada Agriculture, Information about Agriculture in Canada). It is with some of these issues in mind, that the Canadian Federation of Agriculture (CFA) initiated development of its National Food Strategy in 2010⁶.

2.2.1 Canadian National Food Strategy

The CFA has made development of a National Food Strategy (NFS) a major priority. The identified mission for the NFS is: *Canada will be a leader in providing safe and nutritious food through a vibrant, competitive, responsive and sustainable farming, processing, distribution and sales sector.*

Development of the NFS has been underway since February 2010. Since then, extensive industry consultation has occurred, and through these consultations, guiding principles, a mission and nine strategic objectives were defined. The NFS is still in draft form; however, is applicable to the Agriculture Master Plan because it provides a larger Canadian context to the food and agriculture industries, and anticipated future growth, direction, and policy development of that industry from a Canadian perspective. Below are the nine strategic (draft) objectives which have been created, and some of the more notable strategies and targets to meet those objectives are highlighted.

- Objective A:** Canadian Grown, fresh and processed product will be the first choice of Canadian consumers. Highlights for achieving this objective include:
- Food labeling and retail signage systems will clearly identify Canadian grown and processed products; Canadian governments and institutions (and retail and food outlets) will lead by example and increase utilization of Canadian grown and processed products by 10% per year; Sectors will adapt quickly to evolving market demands.
- Objective B:** Canadian grown, fresh and processed product will be the preferred choice of international markets.
- Objective C:** Consumers will choose foods that lead to a healthy lifestyle.

⁶ Encyclopedia of the Nations, *Canada Agriculture, Information about Agriculture in Canada* (2011).

- Objective D:** Consumers will always have access to safe and nutritious foods. A highlight for achieving this objective includes:
- Clear and enforceable land, soil and water protection arrangements and secure arable land and sustainable farming for future generations;
- Objective E:** The Canadian Food chain will be driven by its diverse, innovative and profitable farm and supply sectors. Highlights for achieving this objective include:
- Regulations and regulatory processes don't impose high costs and competitive disadvantages while offering little or no risk mitigation; Investment in agriculture and food processing education programs actively promote food careers.
- Objective F:** Canada's food chain capacity will meet future demand in a sustainable manner.
- Objective G:** Canada will have secure infrastructure to support the production, processing, distribution and sale of food in Canada and abroad.
- Objective H:** Canada will grow and provide green energy and other renewable products in balance with our food requirements. A highlight for achieving this objective includes:
- Sustainable energy pricing policies facilitate new and renewable energy technologies.
- Objective I:** Canada will be a global leader in ensuring international agreements impacting food are based on science, fairness, consistency and enforceability.

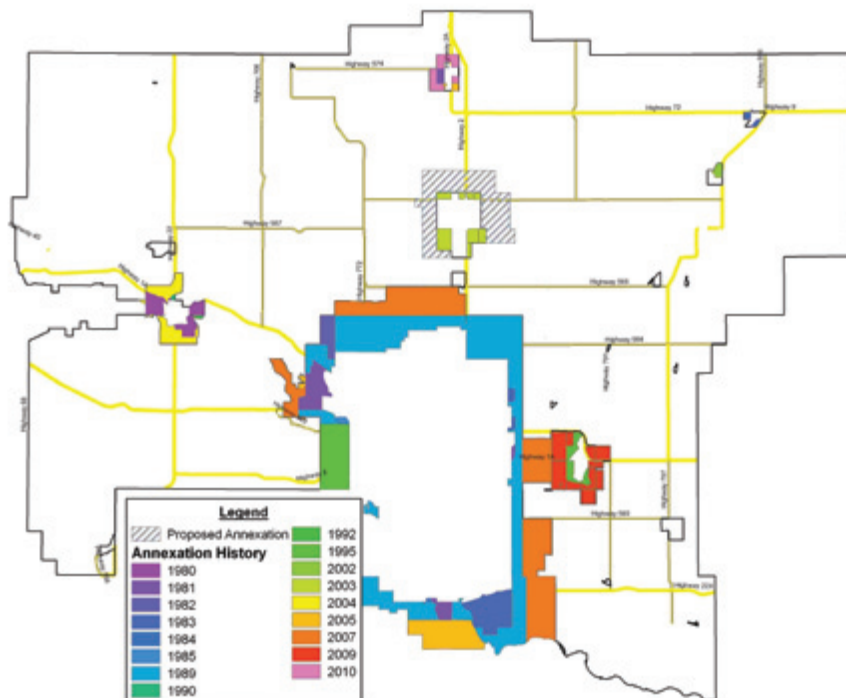
This NFS provides a context for the general national direction for further development, enhancement, and specialization of the agriculture industry in Canada. The AMP aligns with this national strategy and attempts to utilize the opportunities this strategic direction provides.

2.3 Rocky View County

Rocky View County surrounds the City of Calgary on three sides – to the west, north and east. Furthermore, the County shares borders with six rural municipalities, two First Nation Reserves, one other City, and five towns. The proximity to this population and associated growth pressures in the County, has both positive and negative impacts on the agriculture community of Rocky View County. Despite some of the growth and development pressures in the region, agriculture is and will continue to be a major economic contributor in the region. More information is available on the economic value of agriculture, as well as the varying agricultural production patterns, demographics, farm sizes, etc, in Appendix D: Census Data and Regional Analysis. This analysis provides a sub-regional assessment on agricultural activities in the county.

The Agricultural Context Study⁷ is another extremely useful reference document that provides a broad overview of agriculture in the County. It indicates that ranching and cropping activities

Figure 3 | Rocky View County Annexation History



⁷ Rocky View County, *The Agricultural Context Study* (Rocky View County, 2009).

have been the dominant agricultural land uses over the past 25 years, and the ratio of ranching to cropping has remained generally constant over that time period. Despite that consistency, world and national influences play a dominant role on agriculture within Rocky View County today. High production costs, market turbulence, erratic national policy response, urbanization and the global economic situation are the overriding factors affecting local producers. In addition, regional influences have had an impact on agriculture in Rocky View, most significantly in the past ten years. Urban growth pressure has resulted in large annexations of agricultural land to cities and towns. Annexations are responsible for most of the loss of land available for agriculture in Rocky View. **Figure 3** documents the annexation history of the County since 1980, showing that approximately 105,830 acres, (+/-165 sections), were annexed over that twenty-one year time period.

The second largest factor in removal of land from agriculture is the growth of oil and gas activity. Approximately 18,000 acres of land have been sequestered to oil and gas activity since 1980. Oil and gas activity has spread from east to west across approximately two-thirds of the County. Unlike annexations where concentrated areas of land are removed from production, oil and gas installations are small sites dispersed across the landscape, potentially affecting agricultural production efficiency on more than just the installation sites themselves.

Development has also impacted agricultural land within Rocky View County. Commercial, industrial and residential development has for the most part been concentrated in growth areas identified within the County, but there are areas which are now interspersed with new non-agricultural uses, offering new challenges and opportunities to ongoing agricultural operations.

Provincial government policies and departments also have influence on agriculture at the local level, either through policies and programs which directly affect agriculture, or through related policies which also impact agricultural lands. This plan predominantly focuses on local County initiatives which can help positively influence the agriculture industry; however, the role of specific external Provincial departments and stakeholders must be referenced, and are described below:

- **Alberta Agriculture and Rural Development:** The primary focus of Alberta Agriculture and Rural Development is on Government of Alberta Goal #1,

“Alberta will have a diversified and prosperous economy under the key opportunity of Unleashing Innovation.”

The Ministry achieves this by working with others to promote prosperity for Alberta through a strong, competitive, sustainable agriculture and food industry. (Core businesses include facilitating sustainable industry growth, enhancing rural sustainability and strengthening business risk management. Support is provided for 4-H, agricultural societies, commodity groups and Agricultural Service Boards.)



- **Alberta Sustainable Resource Development:** Roles include to:
 - ensure Alberta's public lands, including rangelands, are healthy, productive and sustainable
 - protect Alberta's forests and forest communities from wildfires; supporting healthy ecosystems and communities in Alberta's forests and forest communities
 - managing Alberta's forests to support a competitive and sustainable forest sector
 - ensure Alberta's fish and wildlife resources and their habitats are healthy, productive and sustainable
 - oversee resource development and confined operations to meet the public interest
- **Alberta Environment:** The Ministry is a partner in protecting and enhancing Alberta's natural environment, to ensure the continued enjoyment of a clean and healthy environment by all. Its renewed Water for Life Strategy has three goals: safe, secure drinking water; healthy aquatic ecosystems; and reliable, quality water supplies for a sustainable economy.
- **Natural Resources Conservation Board (NRCB):** The NRCB is an agency of the Government of Alberta and reports to the Minister of Sustainable Resource Development. Established in 1991, the NRCB has mandates under two Acts – the Natural Resources Conservation Board Act and the Agricultural Operations Practices Act. Under the Natural Resources Conservation Board Act, the NRCB reviews proposals that affect the province's non-energy natural resources. Under the Agricultural Operations Practices Act, the NRCB has been responsible for regulating Alberta's confined feeding operations since 2002.

- **Alberta Energy:** The Ministry is responsible for ensuring the development of Alberta's resources in a responsible and appropriate environmentally sustainable manner to the benefit of all Albertans. It supports the further development of enhanced recovery technologies, alternate sources of energy (bioenergy, nuclear), emissions reduction efforts (Renewable Fuel Standards), and maintaining a competitive royalty and regulatory framework necessary to attract capital investment from world markets.
- **Alberta Municipal Affairs:** The Ministry assists municipalities:
 - in providing accountable and effective local government to Albertans
 - conducts hearings, renders decisions and/or provides recommendations to Cabinet on matters defined under the Municipal Government Act through the independent, quasi-judicial Municipal Government Board
- **Energy Resources Conservation Board (ERCB):** The ERCB is an independent, quasi-judicial agency of the Government of Alberta. It regulates the safe, responsible, and efficient development of Alberta's energy resources: oil, natural gas, oil sands, coal, and pipelines.
- **Alberta Utilities Commission (AUC):** The AUC regulates the utilities sector, natural gas and electricity markets to protect social, economic and environmental interests of Alberta where competitive market forces do not. It regulates investor-owned electric, gas and water utilities, and some municipally owned electric utilities, making certain that Albertans receive safe and reliable utility service at just and reasonable rates.

All of these external stakeholders have the ability to influence policy development and production potential for agricultural lands. Due to a number of global factors outside of anyone's control, the industry has also had some significant challenges to overcome in recent decades. In spite of the substantial number of external influences, agriculture in Rocky View County remains dynamic and robust.

One of the key challenges to address within the context of the Agriculture Master Plan is to improve the prospects of agriculture by removing potential barriers for farmers.

"Open the door for farmers to be innovative on their farms by allowing them to do new things and practice less traditional forms of agriculture. Farmers that try to alter their land to support the growth and sale of new products often come up against land use policy barriers. Currently, the process of challenging these barriers takes patience as well as considerable time and money, and the outcome does not always turn out in the farmers' favor⁸."

⁸ Chris Dickinson et al. *Planting the Seeds for Farm Innovation: A Guide to Achieving Flexible Land Use Policy in Ontario's Greater Golden Horseshoe* (Ontario 2010).



3 Roots of Rocky View Agriculture

Agriculture in Rocky View County has three roots, or three essential components contributing to the success and continued development of the industry. These roots are: **the business** of agriculture, **the land** needed for the business operations and **the people**, families and communities involved.

All roots need the appropriate amount of support in the form of water, soil structure, heat and nutrient intake, to aid the growth and health of the plant. This section of the AMP focuses on providing supporting items positively contributing to the growth and health of the agriculture industry through listing opportunities and corresponding necessary recommendations benefiting the business, the land and the people involved in agriculture. When implemented, the recommendations will positively impact the development of each of the three roots, through improved Rocky View County policy guidance, service delivery and program development. “Farming is essentially a small business that is becoming increasingly complex. Research and bureaucratic support that is readily available at the local level is essential to its success⁹.”

Many of the opportunities and recommendations can be cross referenced or included in various sections of this portion of the plan as they are all interrelated. For simplicity purposes, a particular theme or recommendation is only included in one subsection. All plan recommendations are summarized in Section 4 and in Appendix A: Summary of Recommendations.

3.1 The Business

3.1.1 Agriculture is a business

One of the strongest sentiments of the agriculture community and business members is the fact that agriculture is a business. There are clear frustrations when those operators get treated as something other than business managers. Agricultural operators are entrepreneurs. They have the expertise and technical skill to run the operation. They also have to make difficult financial decisions to fund their capital requirements needed to operate and need to deal with the repercussions of bad decisions. They also have a strong passion and relationship with the lands and in the food they are producing.

In the day-to-day operations of these businesses, Rocky View County has a minimal role to play. There are instances where some level of regulation is needed; However, given the economic realities of today’s agricultural economy, these operators need some flexibility in how they run their operations and manage their lands.

⁹ Margaret Walton, *Agriculture in the Central Ontario Zone* (Toronto: Neptis Foundation, 2003).



“To enable growth within the agriculture sector, there needs to be enough flexibility in policies and regulations that enables farmers to change business strategies when necessary to remain competitive. The sector also needs to have the capacity to create long term sustainability by engaging new generations of farmers¹⁰.”

In order to provide a clear and consistent level of understanding regarding what agriculture means in Rocky View County, the AMP provides a definition for agriculture.

Agriculture means the business of growing, raising, managing and sale of: livestock, crops and directly-related value-added processing, products and services on farms within Rocky View County.

The definition emphasizes the business component of agriculture and provides the foundation for expansion from what a more traditional definition of agriculture might be. It includes a compilation of directly related, value added uses and services which can be considered to be agricultural by-products and appropriate in agricultural areas of the county. Expansion of what types, when, where, how and why these uses are appropriate on an agricultural scale are discussed in detail in the Section 3.1.3: Industry Opportunities and Recommendations.

3.1.2 Production and Economics

3.1.2.1 Production

An analysis of agricultural production trends¹¹ has indicated ranching and cropping activities remain the dominant agricultural production types. In the ranching sector, the cattle industry is still the primary activity, but it can be characterized by fewer and older operators managing more land and cattle. Current data is not available beyond 2006 to confirm it, but there is likely a reduction in this sector due to the challenges associated with the Bovine Spongiform Encephalopathy (BSE) crisis beginning in 2005 and restricted market opportunities since that time. The Agricultural Context Study and Appendix D: Regional Census Information elaborate on many aspects of the particular production trends in the county.

Figure 4: Components of Agriculture Production, provides an interesting graphic which displays the complexities in the agricultural production cycle. The processing and storage, transportation, distribution and sales, the end consumer users and the waste recovery are all related aspects of this cycle. Because growing and raising the product is only one portion of many components to the food production system, there are many business entities along the cycle which require their share of a portion of the dividends from the value of the end product. As touched upon earlier, the end value of the product is largely influenced by macro-economic conditions that an individual has no ability to control. This has created significant challenges for the agriculture industry and the production model which has evolved.

¹⁰ Nick DeBoer, “Renewing Rural Economies: Agricultural Development Forum.” *2011 Farmland Preservation Forum*, (Guelph, 2011).

¹¹ Statistics Canada, *Census of Population and Agriculture Data of 2006*, (Ottawa 2008).



Figure 4 | Components of Agriculture Production¹²



The production model which has evolved in the last century has the producer focusing on ways to maximize their profit based on their product type, maximizing production potential and through trying to establish the highest sales contract, but not influence other areas of the cycle. This is changing as producers begin to realize there are other steps along this cycle which they can influence or even remove, keeping more profit for themselves.

This plan discusses many options for the producers in this regard. It attempts to help facilitate development of value added processing and distribution and sales potential, which can either help the producer add value to his product, or decrease costs in the transportation and distribution of his product. There is clearly a growing movement to establish more regional based food systems which challenge the more conventional food growing, distribution and sales patterns existing over the last century. **A Regional Food System can be defined as a food production and delivery system which focuses on producing items which can be distributed within a regional scale in an attempt to minimize transportation and distribution costs and utilize the product within the local region.** This food system does not mean all food

will be consumed or produced for regional use. It focuses on developing a production cycle which includes some supporting industries and end users at the more regional level to minimize the amount of steps in the cycle and keep the economic benefits (and food) in the local region.

An important component of this cycle is the education component. Options related to altering or capturing more value from the production cycle may exist, but there is a significant component of education needed – for all business entities of the cycle, to try and utilize some of this potential. This is another role for the AMP and some of the future program and service delivery it recommends.

¹² Janine De la Salle, "Food and Agriculture System Planning: Best practices in an Emerging Field." *Municipalities and Local Food Systems*, (Oakville 2011).



Rocky View County is strategically located to participate and contribute in a regional food system and to further develop the supporting industries related to the numerous stages in this production cycle. For example, the county has:

- a diverse and skilled agricultural business community
- varied growing season and soil types which support numerous agricultural production types
- a significant and affluent population in the region to market towards
- a well developed infrastructure base including a regional transportation system and irrigation infrastructure
- improvements being made to the international rail distribution system (See further discussion in 3.1.2) that may create enhanced opportunities for larger scale distribution.

Together with opportunities identified in Section 3.1.3: Industry Opportunities and Recommendations, there is potential for a more complete food system within the region.

3.1.2.2 Economics

“One of the most effective tools for preserving agricultural land is economic prosperity for the industry. However, in establishing land use policy, the cyclical nature of the economy must be acknowledged and balanced against the long-term societal benefits of preserving an agricultural land base¹³.”

The single biggest factor in Rocky View agriculture over the last couple decades relates to the economics of the industry. These harsh economic realities made it extremely difficult to sustain a viable farm. “A viable farm is one that provides enough income to maintain its operations while producing a reasonable profit for the farmer.¹⁴” This is a succinct statement of input provided by Rocky View farmers and ranchers in development of the Agriculture Master Plan. Profitability of farms in Rocky View are examined in some detail in Appendix D with the information providing an interesting assessment of this subject.

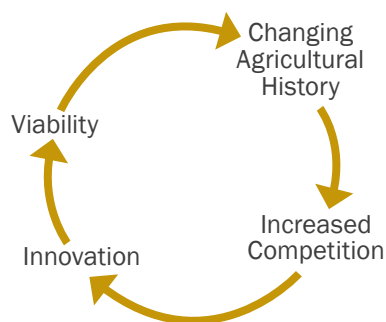
The ratio of total income to total expenses is an indication of the profitability of farms in an agricultural region. For example, based on Statistics Canada information, a ratio of 1.20 suggests that a farm is generating \$1.20 for each dollar of expenses. The farms with a ratio of 1.2 or greater are considered ‘very profitable’, and should have access to sufficient financial resources should conditions change. Farms with a ratio of 1.05 to 1.20 indicate farms that are profitable but are much closer to a break-even point between the total sales of agricultural products and total expenses. Farms with a profit ratio of less than 1.05 are considered ‘not profitable’, as their expense to revenues is either below or close to 1:1.

¹³ Margaret Walton, *Agriculture in the Central Ontario Zone* (Toronto: Neptis Foundation, 2003).

¹⁴ Chris Dickinson et al. *Planting the Seeds for Farm Innovation: A Guide to Achieving Flexible Land Use Policy in Ontario's Greater Golden Horseshoe* (Ontario 2010).



Figure 5 | Innovation and Viability Cycle¹⁵



A brief summation of Appendix D indicates in all regions there is a range of 55 to 65 per cent of farms in the ‘not-profitable’ category. However, the information also indicates in all regions, at least 25 per cent of the farms are in the ‘very profitable’ category. As there are significant variations in the profitability of the farm even on a sub-regional basis, it tends to suggest it is not the production type, but instead the farm and business management practices which can significantly impact the farm’s profitability potential. This discrepancy in the profitability of farms also recognizes innovation and diversification on farms and their ability to adapt to the most recent market conditions are important factors. Section 3.1.3: Industry Opportunities and Recommendations, includes a discussion on innovative ways to create opportunities for diversification which can potentially increase the viability of farms in the county.

The challenges associated with earning a reasonable profit in the agriculture business has lead to many operators needing secondary sources of income to support their families. The data in Appendix D indicates that more than half of all farm operators work off-farm to supplement their farming income.

3.1.3 Industry Opportunities and Recommendations

The purpose and intent of the Agriculture Master Plan is not to direct conversion of existing agricultural operations into other business endeavors. As has been established, agriculture is a business and it is not the role of this plan to direct how or what form of agriculture entrepreneurs of the industry shall conduct. Those decisions need to be made by the operators financing the business.

This plan does recognize traditional agriculture is and will continue to be a dominant agricultural land use in Rocky View. Throughout history the agriculture industry has evolved and opportunities for diversification of the industry may exist. It is the goal of this plan to increase awareness and facilitate opportunities for the diversification of the agriculture industry in Rocky View County, where possible and viable.

The plan is intended to be a resource for existing producers, potential new producers, Rocky View County Administration and Council to help direct new agricultural development opportunities and provide the appropriate policy framework supporting those initiatives.

Rocky View County is strategically located in the rapidly expanding Calgary metropolitan area. Regional population is currently at over one million people and is anticipated to be 1.6 million people by 2019 (Calgary Regional Metropolitan Plan). This has and will continue to

¹⁵ Chris Dickinson et al. *Planting the Seeds for Farm Innovation: A Guide to Achieving Flexible Land Use Policy in Ontario's Greater Golden Horseshoe* (Ontario 2010).

put development pressure on Rocky View’s agricultural lands. With appropriate strategies to mitigate development pressures and given the renewed global emphasis on food production, an anticipated increase in food commodity prices, a growing trend towards securing more local, healthy food sources and Rocky View’s strategic position in the province, there is a renewed sense of optimism and opportunity in the agriculture industry.

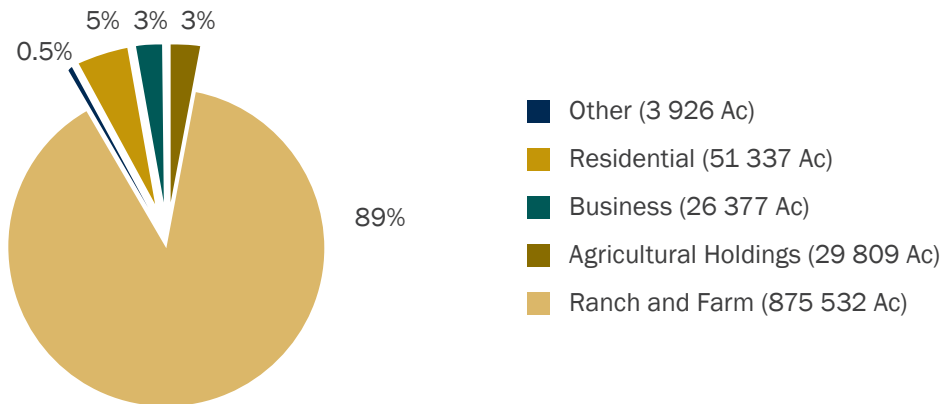
This section of the AMP highlights Rocky View County opportunities for new businesses and direction in the industry and improved policy and regulations affecting the industry.

3.1.3.1 Opportunity: Conventional Agriculture

The 2009 Agricultural Context Study highlighted 89 per cent of the county land base held the Ranch and Farm Land Use designation and in most instances, was used in some form of agricultural operation. The Census Data and Regional Analysis (Appendix D) provides an in-depth sub-county analysis to the significant value of production goods, economic investment and subsidiary industries of the agriculture industry.

Conventional agriculture will continue to be the dominant agricultural land use form in Rocky View. The two most prevalent conventional operations include both cropping activities and cattle and ranching, with the latter occurring predominantly in the western regions. The next generation of farmers will likely explore further specialization of these operations and continued improvements in environmental management and land stewardship. There will likely be continued evolution towards more corporate farms, further consolidation of land holdings and further farm land lease arrangements as local land costs are often prohibitive for new capital land investment. The AMP supports these opportunities.

Figure 6 | Rocky View Land Inventory by Land Area¹⁶



¹⁶ Rocky View County, *The Agricultural Context Study* (Rocky View County, 2009).

Conventional agriculture can be impacted by country residential and business land uses. Mitigation strategies are provided in this plan to direct and provide the appropriate buffering techniques for new country residential growth in agricultural areas. Section 3.2 of the AMP deals extensively with land use planning principles in agricultural areas.

Even within the context of more conventional agricultural production, new industry opportunities and production niches are arising. One such opportunity relates to the emergence of biodiesel fuels and national policies to support crop production of those input sources. Though the ethical question of shifting land from food production to crops used as a fuel source remains, it has created a demand for those crop types and the agriculture business community will respond to the demand.

3.1.3.2 Opportunity: Alter Road Infrastructure Planning to Account for Agricultural Needs



The county's road infrastructure network is largely based on a conventional township pattern. Recent focus has been on regional road planning and infrastructure development to accommodate regional traffic flows and traffic generated from residential and business development.

Road use is instrumental for the agriculture community and there are often conflicts between country residential traffic movements and agricultural equipment. Seasonal road bans and the lack of connected regional road thoroughfares do not always facilitate the movement of agricultural equipment and products. Signage to close to road surfaces and narrow bridge crossings are further constraints the agriculture community has to navigate around.

Two AMP recommendations are provided in this regard. One gives direction for the long term functional road network planning to include designation of Agricultural Priority Roads, with signage and an appropriate road base which supports the movement of agricultural equipment and products. The second suggests that review and clarification of the transportation levy and how it pertains to agricultural development should occur.

AMP Recommendation: Rocky View County should include enhanced sub-grade priority planning for use as agricultural priority roads, with improved levels of service and connectivity. This includes: a) identification of roads classifying as agricultural priority roads and b) road infrastructure built and maintained to a level of service supporting safe and timely movement of agricultural equipment and products, with signage highlighting the agricultural priority use of these roads.

AMP Recommendation: The applicability of the Transportation Levy for agricultural developments should be reviewed and clarified within the bylaw.



3.1.3.3 Opportunity: Confined Feeding Operations

Another area of conventional agriculture increasing in prominence during the latter half of the 20th century is intensive livestock / Confined Feeding Operations (CFO). CFO are operations regulated by the Natural Resource Conservation Board (NRCB), based on a certain density threshold of animals being produced. There are a number of CFO operations in Rocky View County and the plan supports continued operation of those businesses.

The AMP does not foresee significant opportunity for expansion of this sector of the agriculture industry in Rocky View County. The limited opportunity for expansion arises because of the proximity of county lands to several urban municipalities, the significant rural population base and a land use development pattern which may be appropriate for less intensive agricultural operations. The NRCB will continue to be the approving authority for those operations. Section 4 of the MDP already provides county criteria for providing recommendations on citing CFO operations, which remain appropriate. This plan does not include any additional county policy support for expansion of this portion of the agriculture industry.

3.1.3.4 Opportunity: Agricultural Diversification

Rocky View County Policy already supports diversification of the agricultural industry through the Municipal Development Plans's new and expanded Agricultural Policies (Section 4.4 and 4.5 of the MDP). These policies are discussed further in Section 3.1.4. The Agriculture Master Plan expands upon this support, highlighting the following general opportunities for diversification of the industry in the County:

AMP Recommendation: The AMP supports the general diversification of the agriculture industry, including the broad categories of: diversified livestock and crop production and management techniques; value added agricultural products, services and industry; and the development of a more significant local food sector.

3.1.3.5 Opportunity: Diversified and Specialized Livestock Production

The Context Study and the Statistics Canada census data both indicate specialized livestock production has peaks and lows, but has overall been increasing during the last few decades. Specialized livestock essentially includes all animals other than cattle. Even within the cattle industry, there is increasing specializations including organic beef and grazing management techniques which affect production trends and which can occur on smaller scales. Certain areas of the specialized livestock industry have the potential for further growth in the county as operators shift production towards local and regionally based markets and cultural dietary patterns. With the development of further local marketing opportunities, local and niche



processing facilities may emerge and further opportunities for expansion of this sector of the industry may be possible.

3.1.3.6 Opportunity: Agricultural Processing Facilities

Processing facilities are often required to capitalize on the potential for adding value to raw agricultural products. Processing facilities include a number of different types including: large scale animal or plant product processing facilities; small scale / mobile animal processing facilities; and small scale, private on site processing of plant products. In addition to Rocky View County approvals, processing facilities require provincial additional approvals under provincial and/or federal regulations.

The development of large scale, regional processing facilities – either for animal or crop production is based on regional marketing and distribution needs. The facilities are better classified as industrial agricultural operations and are not permitted within the existing general agricultural land use districts as they are not always appropriate in agricultural areas. The facilities should be located within industrial areas, or appropriately located on the landscape, in locations with low population densities, where offsite impacts have been mitigated and where necessary servicing infrastructure is provided. Based on the marketing potential in the region and the development of the CN Logistics Park and associated product distribution network, the already existing industry speculation related to processing potential in the area is likely to increase. When appropriately located, these facilities can create benefits to both the agricultural landowners that gain access to the facility as well as to the County through the generation of tax dollars.

Smaller scale and niche animal processing facilities include abattoirs and specialized facilities which process a smaller number of animal units and can sometimes be transported to various locations on a short term basis. These facilities provide value added product and there is significant opportunity to capture increased regional niche market demands and utilize local transportation and distribution advantages.

There is also an opportunity for small scale agricultural processing for agricultural specialty crops or foods, for sale as a value added product. This could include conversion of berries to jams and syrups, pickling of food products; honey to mead; beef to beef jerky or sausage; etc. The advantage of these operations is they can be conducted on a fairly small scale and the end value of the product increases substantially from the raw value of it. To really capture this opportunity, local markets, onsite sales provisions and sometimes distribution facilities need to be established.

For all the cited processing facilities, bio-security and the safety of the food supply chain system remains paramount. The importance of bio-security will also only be increasing in relevance. It is controlled by the Canadian Food Inspections Agency (CFIA) and this agency will continue to regulate this aspect of the industry.

3.1.3.7 Opportunity: Distribution Facilities and Services

In February 2010, CN Rail announced the development of the Calgary Logistics Centre at Conrich, in Rocky View County. This major \$100 million investment will change the way bulk and finished products are shipped to and from Alberta. In essence, this “game changing” infrastructure development will shift warehousing, logistics and distribution focus in western Canada to Rocky View County and the Calgary Region. This is a very important and strategic development for agriculture and value-added processing in western Canada.

CN Rail’s Logistics Centre at Conrich will provide direct rail access to two deep sea Pacific ports – Vancouver and Prince Rupert. Facilities will handle bulk agricultural commodities such as fuels, fertilizers, feed mineral and potash. The facilities will also handle large volumes of containers. Container stuffing for export, specifically Alberta products moving to Asia, will present significant advantages for value-added agricultural producers. Trans-load of imported products to and from containers (bulk and finished) will enhance the efficiencies of trucking operations through the province. CN Rail regards this development as a “Transportation Hub of the Future.”

The opportunity for Rocky View County producers to increase their utilization on this product distribution network is significant and could create localized or regional advantages related to this distribution hub.

3.1.3.8 Opportunity: Equestrian Related Operations

While there is some debate on whether equestrian related land uses are part of the agricultural business landscape or as an accessory use to country residential, they are a significant component of the Rocky View County landscape. Industries related to equestrian uses, include: hay production; veterinary services; genetic and breeding operations; tack sales; boarding, training and stable facilities; and equestrian and riding arenas. Furthermore, regional synergies exist for the development of this portion of the industry through nationally significant enterprises including Spruce Meadows and the Calgary Stampede. These uses all generate economic activity for the region, creating potential for further expansion and are supported by the AMP.

The concerns related to equestrian operations often either revolve around over grazing / pasture management or pertain to the development of private riding arenas and equestrian centres one and two.

AMP Recommendation: The regulations in the Land Use Bylaw surrounding private riding arenas and equestrian centres one and two should be reviewed to identify any necessary improvements.

3.1.3.9 Opportunity: Value Added Agriculture

Value added agricultural products have been referred to a number of times and are supported as suitable uses in agricultural areas when the scale is appropriate for the area. Value Added Agricultural Products means, “the secondary uses which alter the original agricultural product or commodity grown on site by the farmer and may be supplemented by products from elsewhere for the purpose of gaining a marketing advantage¹⁷.” Value added agricultural products can range from enhancing products raised or grown on site, enhancing products grown elsewhere for sale or distribution purposes or even large scale industrial agricultural value added processing facilities. Section 3.2 discusses other more service-oriented and natural capital-related opportunities, which also fall within the broad value added provision.

3.1.3.10 Opportunity: On-farm Non-Agricultural Businesses

As indicated in the census data approximately 55 per cent of farms in Rocky View County include an off-farm income source. This includes either a non-agricultural related home based business or an off-the-farm secondary job. It is evident that secondary incomes are important for many families involved in agriculture today.

One of the opportunities identified through the AMP consultation process was to allow for a broader range of on-farm, but non-farm related business activities to occur. The current options in this regard involve applying for a home based business (type one or two permit) or in larger scale businesses where it becomes the primary use on the lands, re-designation to a business or Direct Control Land Use District. The AMP surmises a third option which can be utilized, which would provide for a greater range of home based business operations and regulations for those. The intent would be to add this as a discretionary use in the agricultural land use districts only and add development related criteria which is appropriate for these types of uses in agricultural areas. Recommendations for criteria would include:

- allowing for additional uses such as a retail component (for goods produced on site), or some small scale manufacturing opportunities (wood working, metal fabrication, etc)
- increasing the time the permit is issued for
- increasing the amount of onsite storage permitted
- allowing an increased number of vehicle trips per day and offsite employees (current maximums include eight and two)

AMP Recommendation: Special regulations should be included in the Land Use Bylaw which provide for an increased range of allowable home based business operations on agricultural lands.

¹⁷ Chris Dickinson et al. *Planting the Seeds for Farm Innovation: A Guide to Achieving Flexible Land Use Policy in Ontario's Greater Golden Horseshoe* (Ontario, 2010).



3.1.3.11 Opportunity: Culinary Tourism

Culinary tourism is defined as the pursuit of unique and memorable dining experiences from food which is often produced from the local region. It is not limited to gourmet or exclusive dining experiences, but instead is more about what is unique and memorable.

The Rocky View County Economic Development Strategy is already capturing some of the potential for further development of this market opportunity. Rocky View County is well positioned for this sector, with a significant affluent population in the area, major transportation thoroughfares, established business and commercial nodes and with the natural beauty of the countryside. There is also an opportunity for the agriculture community to capture some potential from growth of this industry in the distribution of locally grown foods and specialty crops. Some producers are already taking advantage of this market sector. More growth potential is evident, from the perspectives of local product grower suppliers, distribution and increasing the consumer knowledge base.

3.1.3.12 Opportunity: Specialty Crops, Herbs and Medicinal Plants, Organic Foods

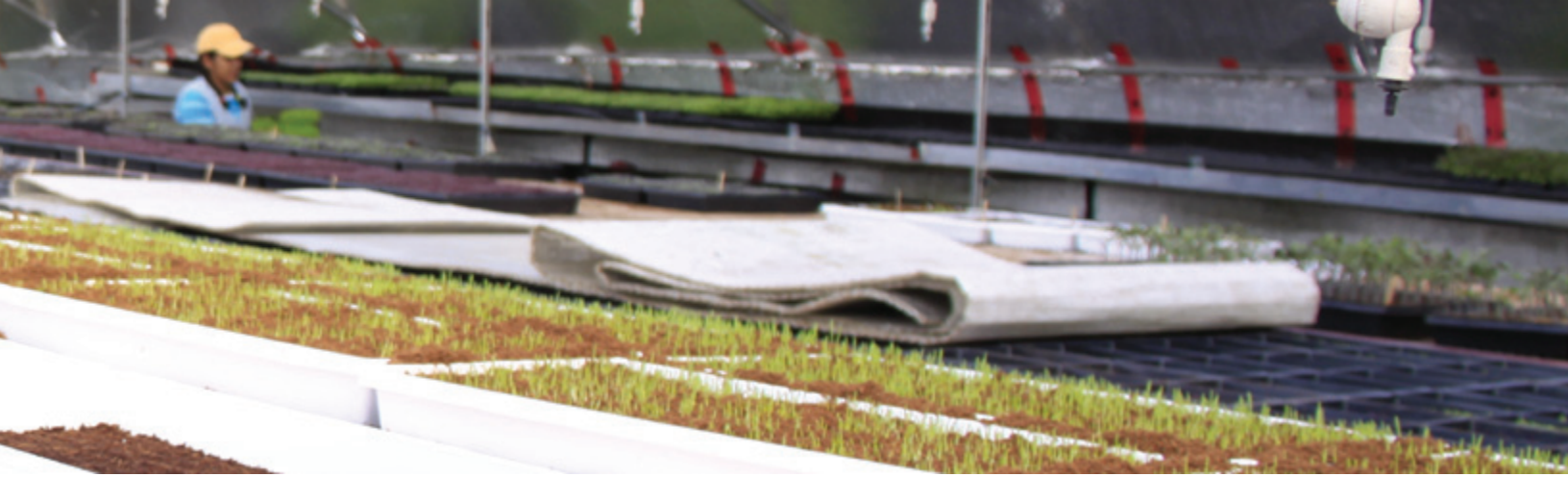
Specialty crops, culinary herbs, medicinal plants and organic foods all have the potential to increase in significance on the agricultural landscape because of the growing local consumer and restaurant industry interest, the limited land area required for production, the local irrigation infrastructure present, and the potential for year-round production when grown in a greenhouse. These food types are increasing their grocery store shelf space and huge retailers such as Walmart are now carrying an organic food line to cater to consumer interests. The restaurant industry also has significant demand for food types such as organic, specialty herbs, miniature salads and fresh locally grown produce.

3.1.3.13 Opportunity: Local Food

Agricultural production with the intent of growing food for a local market is already happening in Rocky View County and throughout the province of Alberta, with some very specialized local food based farms. Market trends also suggest consumer demand for a new smaller scale, specialty focused, local based food sector is increasing. “Local food is one piece of complex food system that is a symptom of a series of interconnected social trends such as an aging demographic, the drive for improved personal health and being ‘green’¹⁸.” The key for producers entering this segment of the industry is to focus on appealing to the consumers’ desire to reconnect with the land and producer growing the food.

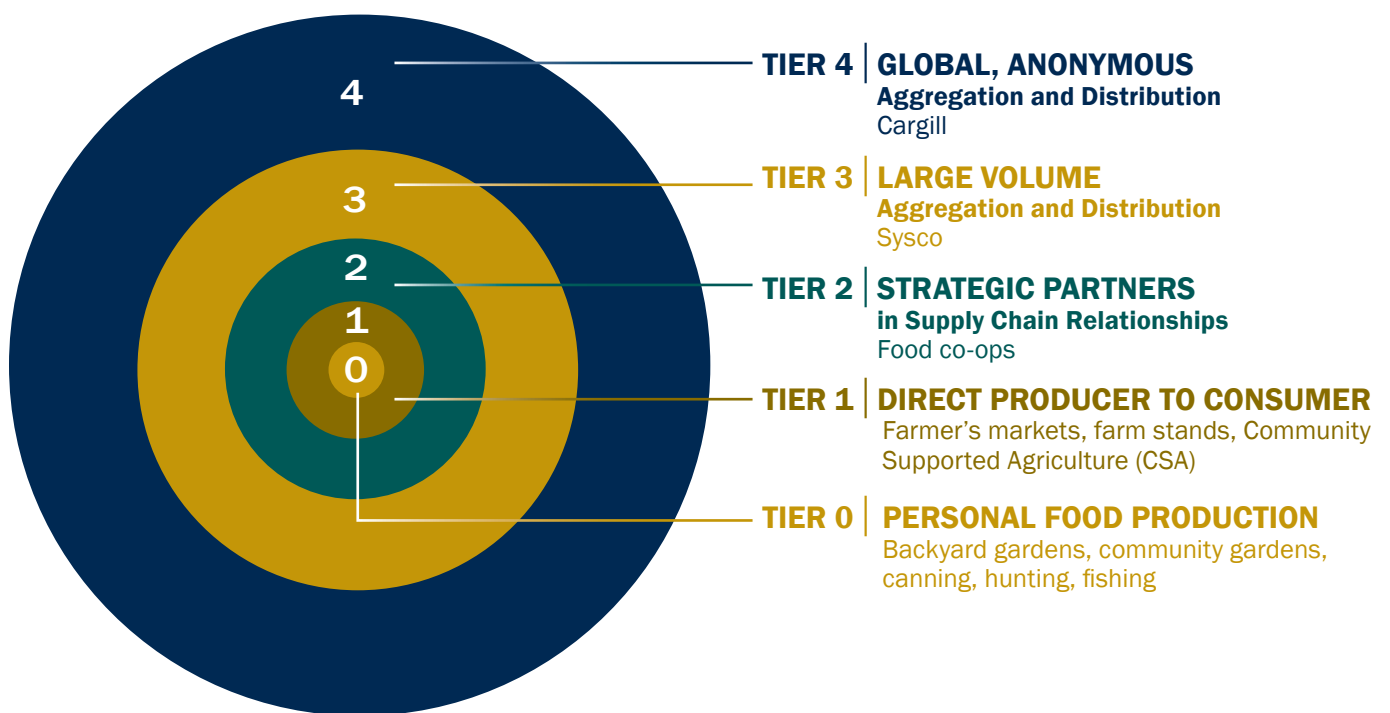
Promotion and development of a stronger local food industry does not translate into the establishment of a “100 mile diet”. In this area a 100 mile diet would be bland throughout most of the year and not economically feasible based on the limitations in climate and the growing

¹⁸ Nicole Marenick, Martin Gooch, and Abdel Felfel. *Local Food Opportunities Focusing on the Consumer* (Value Chain Management Centre, 2010).



season of the region. According to Alberta Agriculture Food and Rural Development, Rocky View's growing season (in the eastern portions of the county) averages approximately 180 to 185 days, which is one of the longest available growing seasons in Alberta. While the variety of foods grown or raised in Rocky View is quite diverse, it is not as diverse as what can be produced in some other areas of the province, Canada or globally. Instead of an independent '100 mile diet,' the role of local food can be regional based production, integrated with a tiered food system.

Figure 7 | Tiers of the Food System: A new way of thinking about local and regional food¹⁹



Personal Food Production (Tier 0) acknowledges many people grow, hunt or process at least some of their food. This tier includes backyard and community gardens, home food preservation, subsistence farming, hunting and fishing.

From an Agriculture Master Plan perspective, although this type of food production is supported, it is not considered directly agricultural in nature as it is more related to the primary (residential) use on a site. Residential gardens do support more optimal use of country residential lands contribute to the local food economic sector.

¹⁹ Jim Bower et al. *Tiers of the Food System: A new way of thinking about local and regional food* (Madison: UW-Madison Center for Integrated Agricultural Systems, 2010).



Direct Producer to Consumer (Tier 1) is characterized by direct marketing or distribution methods where farmers sell food directly to their customers. Many Tier 1 businesses embrace the values of environmental stewardship, fair trade and family farming. They often personally communicate these values to their customers. Examples of this tier include producer-only farmers markets, farm stands and Community Supported Agriculture (CSA).

Strategic Partners in Supply Chain Relationships (Tier 2) include distributors and retailers moving locally and regionally grown food from farms to consumers. A commitment to fairly sharing risks and profits across the supply chain sets Tier 2 businesses apart from their larger counterparts. Tier 2 businesses typically embrace Tier 1 values – and their customers may be willing to pay more for adherence to these values. Products can often be traced back to the farms where they were grown and farm identity and values are communicated to consumers through labeling and point-of-sale merchandising. Food co-ops are examples of Tier 2 businesses.

Large Volume Aggregation and Distribution (Tier 3) involves highly efficient transactions by companies whose brands have widespread recognition. Efficiencies and lower prices are typically more important at this level than the values embraced in Tiers 1 and 2. While relationships with farms are usually lost at this level, Tier 3 businesses often work to cultivate positive relationships with their customers. National distributors such as Sysco and national grocery chains are examples of Tier 3 businesses.

At the level of **Global anonymous Aggregation and Distribution (Tier 4)**, products are moved at an international scale and relationships with consumers are superficial. Companies representing this tier include Cargill.

Efforts to increase the production, distribution and purchasing of local and regional food are increasingly focused on Tier 2. This tier can potentially provide the connections to family farms, transparency about production systems and values at Tier 1 while accommodating higher product volumes and, in some cases, greater production and processing efficiencies. While these efforts are often referred to as ‘scaling up’ local food systems, both Tier 1 and Tier 3 businesses are emerging as leaders in the development of Tier 2 strategic partnerships.

“The burgeoning local food trend has caused many people to seek food from and personal contact with, local farmers as a way to connect with the food they eat. Consequently, small-scale, local food production is often contrasted with the anonymity of global, industrial food production, resulting in a black and white portrayal of local and global food systems.

In reality, the food system is far more complex than local versus global. Between backyard gardening and multinational food conglomerates, there are diverse food businesses that cultivate a variety of relationships with their customers and partners along the supply chain²⁰.”

²⁰ Jim Bower et al. *Tiers of the Food System: A new way of thinking about local and regional food* (Madison: UW-Madison Center for Integrated Agricultural Systems, 2010).



Whether local food trends remains as an ideological shift in the long term production and consumption patterns, or whether it is a shorter term phase currently garnering significant attention, these trends are occurring throughout the world as consumers, producers, interest groups and governments are identifying the benefits of stronger local based food economies.

There are four major benefits to local food: benefits to public health; benefits to local economic health; benefits to community development; and environmental benefits (Enns, Rose, de Vries, & Hayes).

1. The **public health** benefits gained from local foods stems directly from this sector providing alternatives for natural, fresh and unprocessed food nutrients.
2. Local **economic health** is derived from maximizing the potential for farmer profits, keeping more money in the local region and development of the secondary industries and employment to the local food sector.
3. **Community development** benefits as it creates a stronger link between the producer and consumer and the local food industry has the potential to strengthen Community health through public or farmer's markets.
4. Although there remains some debate on all the environmental implications of local food, these benefits can potentially be in the form of a reduced carbon footprint, reduced packaging and waste, more efficient use of fertilizers, pesticides and other agro chemicals and securing on-farm biodiversity²¹.

Although there are limitations due primarily to the climate and available growing days, Rocky View County is strategically located to capture some of the growing market potential in the local food sector. Some of the climate limitations can be mitigated by growing appropriate vegetables for growing season limitations and the use of greenhouses to supplement produce growth. Smaller sized agricultural parcels in areas of eastern Rocky View – with class 1, 2 and 3 soil types – generally have a longer growing season than western regions and are often located in proximity to irrigation infrastructure giving them advantages for local based food production. There are several examples in the eastern area of the county with thriving vegetable farms and businesses.

Greenhouse development in particular, has the potential to be further utilized in the County. Due to growing season limitations, many local food producers will require greenhouses to establish more optimal growing conditions and to diversify crop varieties. Greenhouse development can be on a smaller scale and sized for an individual farm or for personal use, or it can be sized to a larger more industrial scale. Local advantages for further development of this industry include access to irrigation infrastructure and an overall energy advantage. The energy advantage stems from competitive natural gas prices and supplies in the Calgary region – a major advantage

²¹ Chantal Blouin et al. *Local Food Systems and Public Policy: A Review of the Literature* (Carleton University, 2009).



for greenhouse development. On the water supply side, there is the capacity in the Western Irrigation District supply system for expanded use. Possible future water sources could include re-use of stormwater, or regionally provided-water connections.

One of the other opportunities discussed in Section 3.2 are regionally or local based energy production potential. In combination with district heating and energy sources, it would further improve the feasibility of greenhouse development and heating options available.

The intent of this plan is not to convert producers to shifting their production type to local food sources. The plan does recognize this is a growing trend in the consumer market and further development of that industry will have some benefits to public health; the local economy; community development; and the environment. It also provides mechanisms which can support further development of the industry. A plan recommendation to assist implementation of these items include:

AMP Recommendation: Foster capacity building for the agriculture community in areas of enhanced educational services, programs, website based information, support in the County Economic Development Strategy and grants for the agriculture sector in product diversification, value added opportunities, and local food growing initiatives.

AMP Recommendation: Develop a more regional perspective for broader agricultural support and local food sourcing initiatives.

An excellent new example for website based information includes the Peace Region thinklocalmarket.com website.

Mechanisms which can further support the development of a local food sector in Rocky View include:

- Include provision for farmers markets in new community plans
- Support the development of u-pick or market gardening operations
- Encourage direct marketing opportunities through farm-gate direct sales
- Encourage the use of vegetable growing on community gardens or Municipal Reserves
- Establish Specialized Agricultural Production Areas – which are concentrated areas of local food production, create distribution efficiencies in those areas and help direct consumers to them.
- Create new community plans that account for local food operations, where appropriate.
- Provide improved education and resource materials, including:
 - mapping and information pamphlets on where to buy local food
 - resources for initiation of a community supported agricultural programs or food cooperatives through workshops and materials
 - utilization of County website for providing marketing information, local growers contact information and maps, Thinkfresh award winners, and resources for consumers / restaurants looking for local food sources
- Champion a regional initiative with neighboring municipalities and provincial representatives for promotion and support for a local food industry through: (a Food Charter or Food Partnership)
- Maintain competitive property tax rates for producers involved in the agriculture industry and local food production

3.1.3.14 Opportunity: Farmers Markets

“There are more than 500 farmers’ markets in Canada today. In 2000 in British Columbia, there were 20 markets. In 2009 there were 70. According to Farmers’ Markets Canada, sales at Canadian markets total 1.03 billion a year and are growing. They are the second most frequented destination for food purchases after the big box grocery stores.

Locally, the use and economic impact of farmers’ markets has increased substantially in the last decade increasing from four to ten markets in the area. The success of local farmers’ markets in Calgary and the Calgary region demonstrate their new popularity. Farmer’s markets provide a local marketing opportunity for producers, and create a unique shopping experience for consumers. They also create other positive community and economic spin-off effects. Farmers’ markets are also an incubator for new farmers who can focus on all aspects of the operation which include: growing, harvesting, loading, trucking, and selling. Young people who want to get into farming can do it without a large amount of capital.²²”

The AMP supports the further development of farmers markets in the county; however, efforts to locate and limit the number of these markets will help facilitate their success and positive impacts on the community. While they can potentially be located in rural areas, when the appropriate infrastructure and support is in place, it would also be appropriate to locate them within the county growth areas, which are intended to be the community and economic focal points from a regional perspective.

AMP Recommendation: Based on the recommendations of the Farmers Market study, future community plans should include provisions for farmers markets in public or private space areas in new or existing communities.

AMP Recommendation: A market study evaluating the future potential for development of farmers markets in the county should be undertaken.

3.1.3.15 ‘Personal Food production’

Personal food production is another area of growing public interest. This production type is not agriculturally related, as its primary purpose is for personal use and it is often not intended for sale purposes. There are examples of small scale gardens generating some limited revenue through sales opportunities and overall this is an activity which is thoroughly supported by the AMP. Because of the amount and size of country residential lands within the county, there is enough land to pursue personal food production which can also occur on significantly smaller parcel sizes. Other opportunities also exist, through utilizing shared community gardens.

²² Elton, Sarah. *Locavore*. (Harpercollins Publishers Ltd, 2010).

Although personal food production is supported, it is important to note, the AMP does not justify the creation of new country residential parcels in agricultural areas, for the purpose of personal food production.

3.1.4 Policy Recommendations

This section of the AMP specifically looks at Rocky View County Corporate, Statutory and Regulatory Plans which are recommended to be updated as an outcome of adoption of the AMP.

3.1.4.1 Opportunity: Strengthen Agricultural Related Economic Development Strategy:

Adoption of the AMP is a significant step in identifying the importance of and the support for the agriculture industry to the county. The County Economic Development Strategy (2003) is another Corporate Strategy based plan which recognizes ‘there are many exciting agricultural related opportunities at varying stages of market development. The Economic Development Office is optimistic these opportunities will enhance landholdings, farms and ranches well into the future. The strategy highlights further potential for future development of the value added agriculture industry in the county and untapped tourism and agri-tourism potential.

The strategy can be updated to highlight the overall intent of the AMP, the attractiveness of the processing, the value added production, the local food production potential of the area and to continue to maintain its focus on the rural landscape to generate economic activity for the region. Further support and encouragement towards the development of the local food industry, in particular, can be provided in the strategy.

AMP Recommendation: The County Economic Development Strategy should continue to maintain and enhance its focus on the rural landscape and associated appropriate uses to help generate agriculture related economic activity for the region.

3.1.4.2 Opportunity: Improve County Agricultural Policy Framework (Municipal Development Plan)

The process for adoption of a new MDP is anticipated to be initiated in 2011. This will provide the statutory policy framework for the new vision for future county growth. This new vision for growth is to be supplied directly from the AMP and from other existing or currently underway Rocky View County plans.

Both within the context of conventional agricultural operations and what has traditionally been referred to as new and expanded agricultural operations, there are some County MDP policies which are unnecessarily restrictive, in need of an update or can be clarified. The recommendations in this section will focus on general MDP agricultural policy updates which should be incorporated into the new MDP. The purpose is to clarify and simplify the policy



framework for agricultural ‘first parcels out’ of quarter sections, to increase agricultural land management flexibility, to provide opportunity for new operators to enter the industry on smaller scales with appropriate criteria provided and not advocate conversion of agricultural lands to other land use types.

1. Update the existing goal of the Agricultural Policy section of the MDP to move away from a preserve, protect and regulatory viewpoint, to one which “facilitates agricultural growth, diversity and reduced regulation.”

AMP Recommendation: Amend the Agricultural Goal of the MDP to capture the intent: To provide opportunities for agriculture to flourish in the county, through pro-active agriculture development policies which support a diversified agriculture sector, a stronger agricultural economy, land stewardship and include appropriate land use integration strategies.

2. **AMP Recommendation:** Amend the ‘first parcel out’ Agricultural Policies of the MDP to:

- a. Add clarification: agricultural land use redesignation and subdivision also qualifies as a first parcel out.
- b. In conjunction with the adoption of new Agricultural Land Use Districts in the Land Use Bylaw, add a policy which supports the subdivision of an agricultural first parcel out greater than 50 acres, from a previously unsubdivided quarter section, as a subdivision that does not require land use redesignation approval.

3. **AMP Recommendation:** Add a policy which supports the subdivision of agricultural lands based on natural divisions (lands separated from larger agricultural parcels by roads, rail lines, irrigation infrastructure, or impassable environmental features). In agricultural first parcel out applications, subdivision of lands shall be encouraged to follow these natural divisions.

Recommendation 2.b would be a significant policy adjustment and it will achieve two major results. One, consistent with 2.a, it would consider these applications as first parcels out of a quarter section (currently the policy recognizes only residentially designated parcels as a first parcel out). Secondly, it provides the ability to subdivide one parcel greater than 50 acres from a quarter section, providing it meets the Municipal Government Act Subdivision and Development Regulation - without going through a land use redesignation process.



The benefits of this adjustment to the policy include:

- improvements to the administrative efficiency of processing the applications
- creates an improved, clarified policy structure to work within
- it reduces the application costs for the applicant
- it decreases the application processing times
- provides landowners the flexibility to make the necessary land management decisions

The concern would be the promotion of the subdivision of quarter sections into smaller agricultural parcels, further fragmenting the land base, encouraging further residences on the landscape making it increasingly difficult to farm. In most countries around the world, greater emphasis has been directed towards increasing rather than decreasing minimum farm size thresholds²³.

The policy is unlikely to cause a major shift in the subdivision pattern in rural areas, for these reasons: the land is worth more per acre for a small sized residential parcel than it is for an agricultural parcel; most landowners will want to minimize the amount of land they take out of their production through a first parcel out subdivision; and the lack of road infrastructure throughout significant portions of the county will still limit subdivision potential in those areas. Furthermore, the Subdivision and Development Regulation, Alberta Regulation 43/2002 7(i) indicates Subdivision Authority can consider any matter necessary to determine whether the land that is the subject of the application is suitable for the purpose for which the subdivision is intended. This leaves it up to the discretion of the Subdivision Authority to approve these applications.

3.1.4.3 Opportunity: Update New or Expanded Agricultural Policy Criteria

Rocky View County Policy already supports diversification of the agricultural industry through the MDP's new and expanded Agricultural Policies (Section 4.4 and 4.5 of the MDP). In June 2010, Council adopted amendments to this section of the MDP to provide more specific criteria for use in new and expanded agricultural redesignation proposals. These amendments have been positive changes. They have provided direction to the Applicant, regarding the type of information that is needed for their application, and to Administration as it provides the information needed to evaluate the proposal. While this policy section is predominantly appropriate as-is, an additional amendment can be made to this section of the MDP to indicate:

AMP Recommendation: Update Section 4.5 of the MDP: New or Expanded Agricultural Policies to include the requirement for a marketing and operational plan in 'new and expanded agricultural operation' land use proposal applications.

²³ Chris Dickinson et al. *Planting the Seeds for Farm Innovation: A Guide to Achieving Flexible Land Use Policy in Ontario's Greater Golden Horseshoe* (Ontario, 2010).

The purpose of this is not to evaluate the economics of the proposal, but instead to ensure there is a serious effort on behalf of the landowner or Developer to pursue that agricultural business opportunity. The requirement for a marketing and operational plan will put the onus on the Owner/Applicant to prepare and demonstrate that they have reviewed operational aspects of the new proposal, and that there are certain fundamentals which support the use in the given location. The economics of the proposal however, would not be evaluated for the purposes of making a decision on the application.

3.1.4.4 Opportunity: Improve County Agricultural Regulatory Framework (Land Use Bylaw)

The MDP provides the broad policy framework for agricultural land use and subdivisions. Often it is the regulations of the Land Use Bylaw (LUB), which create challenges during the development stages.

“Municipal policies defining which activities can take place on which land need to be updated with respect to the agri-food industry. Primary production operations are not uniform. Among them, significant variances exist in intensity and amount of land required. This needs to be reflected in local land use bylaws, allowing certain types of agricultural uses to coexist with urban development²⁴.”

The LUB currently utilizes essentially six agricultural land use districts: Ranch and Farm, Ranch and Farm*, Ranch and Farm Two, Ranch and Farm Three, Agricultural Holdings District and Farmstead District. Through the AMP consultation stages, a summarized list of issues was generated with respect to these districts:

- lack of consistent regulations and uses between the districts
- confusion to the applicability of each district
- concern regarding the number of dwelling units which are permitted on agricultural parcels
- the lack of enforcement to ensure agricultural uses occur on these sites
- the need for additional uses to be added to the districts

The following recommendations, in conjunction with others supported in the AMP, are intended to improve these regulatory framework items, decrease administrative bureaucracy, provide greater land management flexibility and entrepreneurialism and increase the potential for establishing producer to consumer direct sales opportunities.

²⁴ Environmental Policy Initiatives Project Committee, *Reviewing Land Use and Environmental Stewardship in Agriculture: Observations from the 2007 Public Consultation* (Agriculture and Food Council of Alberta, 2008).

AMP Recommendation: The County should undertake a separate process to consider the following amendments to the LUB:

- a. The definitions provided in the AMP: Appendix C shall be amended to necessary County documents including the Municipal Development Plan and Land Use Bylaw, as required;
- b. The Land Use Bylaw Agricultural Districts should be restructured to include: greater variation in parcel size options; more standardization and consistency between Districts; and the allowance to subdivide a single parcel (greater than 50 acres) out of a previously unsubdivided quarter section without requiring land use redesignation;
- c. An expanded set of uses should be included in agricultural land use districts which include: Farm Gate Sales; Agricultural Processing (with a maximum size established); Special Events; and special expanded provisions for agricultural home based business operations.
- d. Creation of an Agricultural District, with a significantly reduced minimum parcel size (+/- 2 acres) for agricultural pursuits within growth areas or as a component of a conceptual community design and does not permit the construction of any dwellings;
- e. Water supply for horticultural development should allow for groundwater sources (in accordance with Alberta Environment Regulations);
- f. Amend Section 7.17 of the Land Use Bylaw to exempt Agriculture, General as a deemed approved use, on all agricultural parcels (not just those above 40 acres);
- g. The regulations in the Land Use Bylaw surrounding Private Riding Arenas and Equestrian Centers (I and II) should be reviewed to identify any necessary improvements;
- h. Review the provisions for issuance of permits for additional dwelling units in agricultural areas; including 7.23; and Additional Farm Dwellings in the Ranch and Farm Districts.
- i. Review the appropriateness of the 'Agriculture Intensive' use in the Agriculture Holdings and Farmstead Districts



The process to facilitate these LUB amendments will include more detailed work and will facilitate additional community consultation, input and adjustment where required.

3.1.4.5 Opportunity: To adopt a County Right to Farm Policy

In rural municipalities bordering major urban centers in Alberta, there is a concern that the agricultural voice is being overshadowed in municipal council chambers by the increased representation of acreage owners, and by municipal councilors who have no farming background, or little understanding of general farming practices ²⁵.

Right to Farm laws are in place in every state and all but one province. The general goal of Right to Farm law in both Canada and the U.S. is to protect farmers from common-law nuisance actions. In the last few years, several states have amended their legislation or enacted a separate law, to protect farmers from restrictive municipal bylaws. Some states have coupled their right to farm legislation with the creation of agricultural districts or zones, giving greater protection to farms located within areas designated for agriculture. Some areas have also developed local Right to Farm ordinances to further protect farming operations.

Alberta has “right-to-farm legislation”. The Agriculture Operation Practices Act (AOPA) is designed to protect Alberta farmers and ranchers from nuisance claims. The AOPA can impact the land use activities of municipalities in several ways. Nuisance claims cannot be brought against agricultural operations following generally accepted practices, the land use bylaws of the municipality and any provincial regulations. The AOPA defines a “generally accepted agricultural practice” as a practice that is conducted in a manner consistent with appropriate and accepted customs and standards as established and followed by similar agricultural operations under similar circumstances, and without restricting the generality of the foregoing includes the use of innovative technology used with advanced management practices. The liability protection continues to apply even if the municipal land use bylaw changes, the land switches ownership, someone else takes over the farming operation, or adjacent land use changes ²⁵.

The concern for the farming community is that their business operations are still the subject of adjacent landowner complaints, as they often do have the potential to create some offsite impacts, even when they are meeting generally acceptable agricultural practices.

During the AMP consultation stages, the county’s farming community indicated that more needed to be done at the municipal level to ensure farmers have the continued right to engage in acceptable farming practices and to continue operations without unnecessary restrictions (often put in place because of adjacent public concern). Rocky View County’s recently adopted ‘Code of the West’ is a first step in a formal establishment of ‘rights’ for the agriculture community. This plan also attempts to deal with many aspects of land use integration and mitigation strategies

²⁵Government of Alberta Policy Secretariat, Alberta Agriculture. (Updated 2007). *Loss and Fragmentation of Farmland*. Retrived 2011, from [http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/psc4786](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/psc4786)



in agricultural areas; however, the county can demonstrate further support for the agriculture industry by adopting a county ‘right to farm policy’.

AMP Recommendation: To adopt a County Right to Farm Policy which supports the unimpeded continuation of agricultural operations who follow generally accepted agricultural practices.

3.2 The Land

The land is an essential component to any agricultural operation.

The land has some limitations such as the growing season, and more increasingly the significant climatic variations to traditional weather patterns which cannot be altered. There is however a very direct relationship between the producer and the land. The producer has the ability to maximize the land’s potential, by knowing what is best to produce on it and by utilizing the best management practices. The County also has a very direct relationship with the land – through long term land use policy direction and on a shorter time frame, decisions made on individual applications for development and change of land use.

This section focuses on policies which recognize the land as natural capital; it provides supporting policies and program development to enhance and maximize utilization of that investment; it provides the structure and policy support for land stewardship, it provides a summary of the regional analysis and information contained in the census data / Appendix D; and it establishes land use planning principles in agricultural areas in four areas:

1. Agricultural related land use planning
2. Urban-agriculture interface planning;
3. Business and agriculture interface planning
4. Country residential – agriculture interface planning principles and concepts.

3.2.1 Natural Capital

Goal # 5 of the AMP provides direction to: acknowledge the land as natural capital and establish appropriate land use policies to preserve and enhance this investment. This section discusses how natural capital fits within the context of agriculture and agricultural lands.

The AMP definition for natural capital principally utilizes the Canada West Foundation definition²⁶; however it is altered to fit a local context. Natural Capital is: the land and water resources that anchor our quality of life and support economic activity such as agriculture, forestry, recreation, tourism and energy generation. It also includes resources such as minerals, timber and oil and gas as well as the living ecosystems – grasslands, wetlands, rivers and forests – that produce extremely valuable ecological goods and services.

Agricultural land is natural capital. It provides the foundation from which our food supply is grown, and underneath it lays the resources which society relies upon. Proper land stewardship protects the landscape for its best and most sustainable use, preserves that use for future generations, and provides the essential watershed protection for drinking water, groundwater recharge, and recreation areas. Land provides the essential corridors for wildlife movement; and it provides the scenic vistas and views that western Canada is known for. This capital will be maintained, as long as those lands do not get transitioned into other land uses which can render them ineffective in providing value in any of these areas. Even when adjacent lands are developed for residential housing, often the natural capital potential for a certain type of resource extraction or environmental benefit is minimized or lost completely.

The agriculture community recognizes these benefits; however, they do not agree with the presumption they should hold these lands at their cost, for the general benefit of society and the environment. This next section of the plan investigates Rocky View County tools and policy development which can be used to further develop the concept of maximizing on natural capital opportunities of agricultural lands.

AMP Recommendation: The natural capital value of agricultural lands should be recognized with appropriate criteria provided for its utilization. Future County Policy development should focus on policies and programs which allow utilization of this natural capital and fairly compensate landowners for this value. This includes utilization of: agricultural and eco-tourism based land uses; energy production; environmental enhancement and preservation; land stewardship initiatives; and appropriately located, scaled and mitigated resource extraction operations.

²⁶ Karen Wilkie, *What's In It for Me? Exploring Natural Capital Incentives*. (Canada West Foundation, 2005).

3.2.2 Maximizing on Natural Capital Opportunities

3.2.2.1 Alberta Land Use Framework and Land Stewardship Act

Alberta's Land Use Framework and Land Stewardship Act provide the provincial shift in policy direction necessary to undertake further initiatives regarding compensation for preservation and utilization of agricultural land's natural capital. There is controversy surrounding some of the policy direction included in these plans and more research and policy direction is needed before some of the concepts can be implemented. However, the overall direction the plans provide for agricultural lands and compensation related initiatives is generally supported and will enhance the existing tools available to local governments and the private industry.

Once again the county is in a strategic location in the province to become a leader in development of some of these resource tools. There is significant development industry potential and pressure and a clear strategic direction for the County is being formed. The County lies in a strategic location in the regional metropolitan area and there are administrative resources which can be utilized to further pursue and develop policy opportunities and programs.

AMP Recommendation: The AMP supports aligning Rocky View County's policies to proactively utilize and champion legislation implementation for compensation tools included in the provincial land use framework regarding land stewardship and the benefits agricultural lands provide to the general public. This includes:

- a. Market based incentives for agricultural land preservation; water and riparian area preservation and enhancement; important wildlife corridor natural areas preservation; carbon sequestration; regional stormwater catchment and compensation; or others as appropriate
- b. Use, support and appropriately compensate, through tax benefit initiatives, for agriculture and conservation easements
- c. Transfer of development credits
- d. Leasing or use of agricultural lands for other appropriate uses (natural areas, trails, low impact campgrounds; etc)

This will likely require creation of a County committee to further research policy development and possible use of pilot projects regarding some of the above concepts. Some of the more specific opportunities related to utilization of the land's natural capital are discussed below.

3.2.2.2 Eco and Agri-tourism Markets

The opportunities in the eco and agri-tourism sectors continue to expand. This expansion is due to the increasing regional population spurred with a renewed public focus and media attention on environmental sustainability, and safe, healthy, local food sources. People removed from farming are now again being drawn to it, and they are exploring opportunities to have their children and families exposed to this lifestyle, if even only on a recreational basis. The success and start up of numerous local operations attest to this. Operations already existing in or around the County include: the Calgary Corn Maze, the Chinook Arch Meadery, the Bow North Lodge (full-service lodging for fly fishing on the Bow River), and several local children's camps. Further opportunities in this regard may include small scale campgrounds, bed and breakfasts, Farm-stays, or Guest Ranches, that either provide a stepping stone for access further west into the Rockies, or as a destination location for the urban population in the area.

These relatively small scale market driven endeavors should be supported by the County, as uses related to maximizing the natural capital potential of the lands. It is always important to achieve an appropriate scale, location, and integration with adjacent land uses. Development related criteria need to be further developed in conjunction with future MDP and LUB amendments in this regard.

3.2.2.3 Energy Production

Energy production is almost always linked to utilization of the land and land resources. This includes the numerous options available in the oil and gas sectors, other mining operations, or even emerging new enterprises such as wind, solar, and agricultural waste product reuse. These uses relate to utilizing the land's natural capital production potential.

The oil and gas industry has had a strong presence in Rocky View County, predominantly in the eastern region (see Agricultural Context Study information), and more recently in the northwest region. These operations create a benefit to agricultural landowners because the lease money generated from these activities creates a reliable additional income source. These operations do however create significant conflict with agricultural uses, as they take land out of production, create obstacles on the working landscape, cause surface soil disturbances, pollution, and weed control issues.

Oil and gas lease sites are industrial related uses on agricultural lands. Agricultural landowners are compensated for these lease sites at agricultural land value rates. During the AMP consultation stages, the message from the public was that these sites should be leased at industrial rates to better account for the true industrial nature of the use, and to address the impact of that use which can often extend well beyond the site itself. This industry is and will continue to be a provincially regulated industry. However, with the spirit and intent of the Land Use Framework in mind, (Strategy 4 – Develop a strategy for conservation and stewardship on private and public lands, and Strategy 5 – Promote efficient use of the land to reduce the footprint of human activities on Alberta's landscape) fair compensation which accurately reflects the true use of the lands, and addresses the impacts from use of those lands should be supported as a regulatory change.

AMP Recommendation: The County should prepare a strategy to take a request to the province, representing the fact that oil and gas lease sites are industrial uses on agricultural lands – and the agriculture community should be compensated at industrial (and not agricultural) rates for use of their lands for those purposes.



All potential inputs into the provincial electrical system are regulated through the Alberta Utilities Commission (AUC) and Alberta Electrical Systems Operator (AESO). For development of these systems however, local jurisdictional approval is also required. The AMP focuses on additional energy production potential in the County's agricultural areas predominantly based on renewable energy sources such as wind, solar, and reuse of agricultural waste products. These can be supported through the context of the AMP, as these uses can be developed in harmony with more conventional agricultural operations and they utilize the land's natural capital. [Figure 8](#), for example, maps the annual solar radiation in the province. The data indicates that the annual solar radiation in Rocky View County does rank significantly higher than a majority of the province, and there may be an opportunity for new input into development of this industry in the County.

Types of energy production can generally be broken down into two types: micro-generation and commercial generation. Micro-generation uses are those which generally produce less than one megawatt (MW) in generation capacity, while commercial generation facilities are those which produce more than one MW in generation with the primary intention for distribution back into the electrical power grid. These can be developed on the individual scale, or through co-operative generation and distribution networks.

The only options currently available in the Rocky View County regulatory document (LUB), to allow for these uses is redesignation to a Direct Control District or Natural Resource Industrial District. Use of either district has limitations and procedural requirements associated with them. There should be a broader Corporate Policy level for support of these industries – when appropriate for the local context and area. Furthermore, the MDP and LUB should be amended to provide applicable citing criteria and regulatory information for development of either micro generation units or commercial scale facilities.

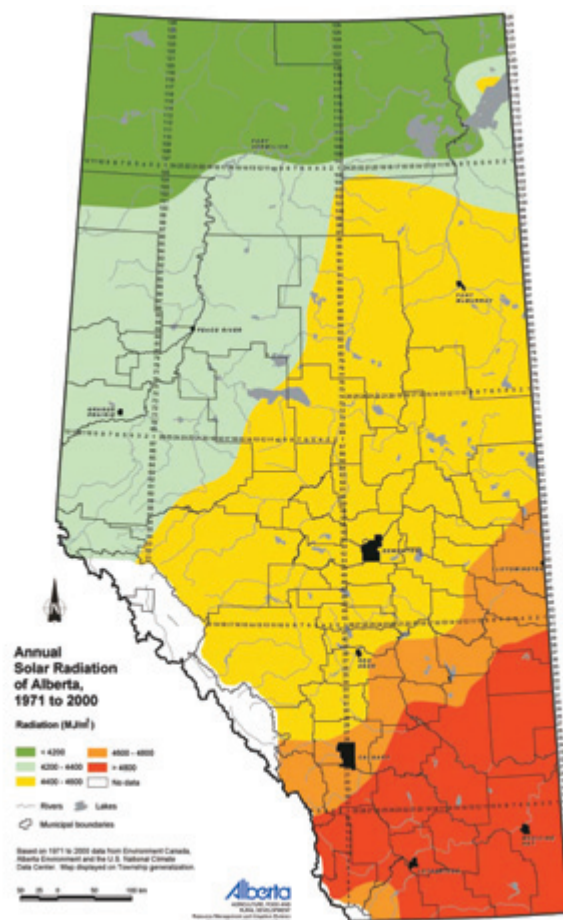
The opportunity to generate energy and heat with agricultural waste re-used in bio-digesters or similar systems, may actually be less than those in the wind and solar energy categories. This is



because of a lack of substantial available agricultural waste products at this time. Nonetheless, these opportunities should be supported as a related agricultural use and sustainable production opportunity.

AMP Recommendation: Regulations and policy development to allow for utilization of the land's natural capital in solar, wind and biomass re-use energy production need to occur. This distinct amendment process should outline these as discretionary uses and include different regulations for micro-level and commercial-level generation.

Figure 8 | Annual Solar Radiation of Alberta 1971 to 2000





3.2.2.4 Stewardship and Ecosystem Services

“As stewards of the majority of private land, producers play an integral role in protecting, maintaining and enhancing the province’s natural capital, at their own expense. Land use policies should encourage economic recognition for these responsibilities. Options for recognition include publicly funding or supported programs and payments and market based instruments and incentives²⁷.”

“Recognition and reward for stewardship in agricultural land management is already occurring at the County. These stewardship programs do however, have the potential to be expanded to incorporate a more macro spectrum of ecosystem stewardship services. One such program exists in New York State where, “New York City provides payment for ecosystem services in order to protect its drinking water supply, ensuring that the land in the watershed will not be developed²⁸.”

There is also long-term opportunity in Rocky View to create compensation tools based on ecosystem stewardship services. This could apply to the general areas of agricultural land preservation, water and riparian area preservation and enhancement, wildlife corridor or natural areas preservation. Funding options for these programs would need to be developed and in the long term extension of these types of programs to a regional setting may be possible (similar to programs used in jurisdictions in the United States). In the short term, provisions for additional grants may be possible, installation of tax incentives which more effectively reward for initiatives in this regard and the private industry may also have a role to play.

AMP Recommendation: Consolidate and expand grant programs in support of sustainable agriculture and ecosystem management.

3.2.2.5 Eco-markets / Carbon Sequestration

On a scale and timeframe similar to establishing a local Ecosystem Services market, there will likely be opportunities for market compensation related to the emerging carbon trading market. This would be realized through identifying the carbon sequestration potential of agricultural and natural land areas. There is unlikely to be any direct involvement at the local government level for this initiative; however, it could emerge as an additional compensation provision for the agriculture community.

3.2.2.6 Summary

In summary, the Agriculture Master Plan supports all these initiatives. While some of the objectives may be longer term, policy and program development in these areas should continue to be a priority for Rocky View County, as program implementation will benefit the agriculture community.

²⁷ Environmental Policy Initiatives Project Committee, *Reviewing Land Use and Environmental Stewardship in Agriculture: Observations from the 2007 Public Consultation*. Agriculture and Food Council of Alberta (2008).

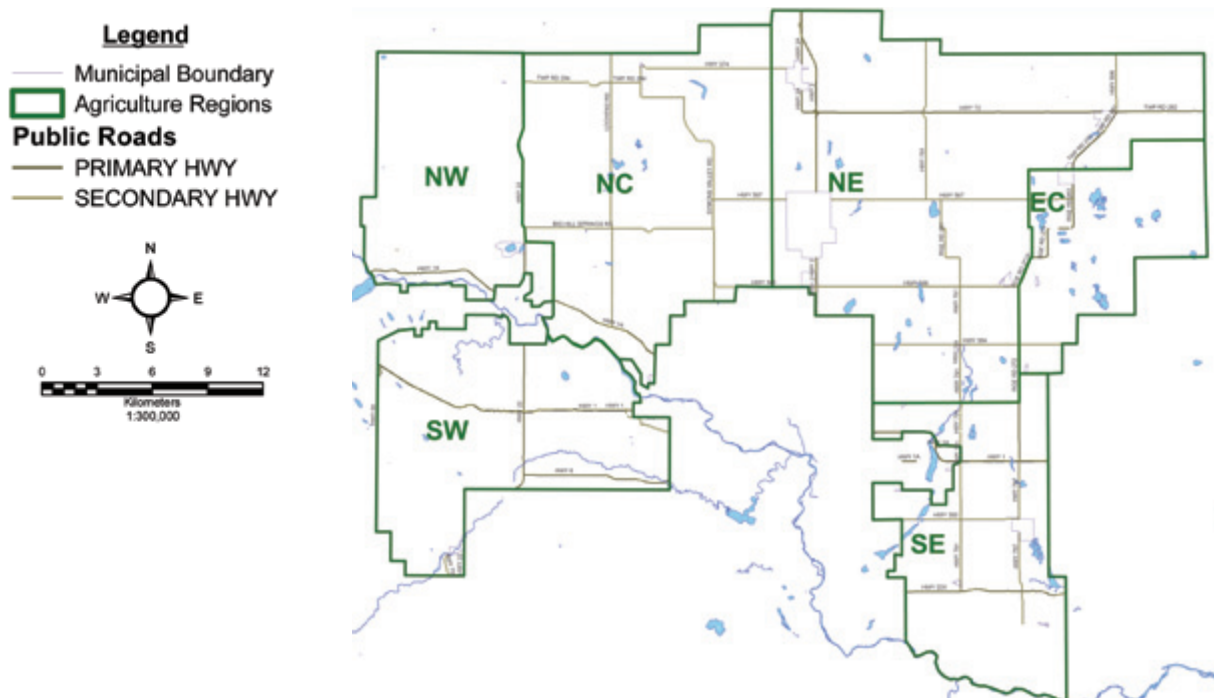
²⁸ Nadejda Mishkovsky et al. *Putting Smart Growth to Work In Rural Communities* (International City / County Management Association, 2010)

3.2.3 Agricultural Regions of Rocky View

There are a number of distinct agricultural regions in Rocky View County based on the land's biophysical attributes, soil type, climate and historical agricultural land use patterns. These regions all vary significantly in the following areas:

- type of agriculture present
- land ownership
- settlement patterns
- road infrastructure
- irrigation potential
- view-scapes
- community identity

Figure 9 | Agriculture Regions



There are also clear geographic division areas which provide further definition to the various agricultural regions. The Bow River and Stoney Indian Nation on the west side create one such barrier and the Queen Elizabeth II Highway creates a central west – east barrier. Although the highway does have crossing locations, these are limited and the funneling of traffic to those areas does create a barrier for moving of agricultural products and equipment.

It is based on these regional differences and with the recognition there are different constraints and opportunities for various areas of Rocky View County, that as part of the AMP process, customized 2006 Statistics Canada data was ordered for six regions of the county. These regions are identified as the southwest (SW), northwest (NW), north central (NC), northeast (NE), east central (EC) and southeast (SE). Ordering the Statistics Canada information based on regional analysis provides a study on existing agricultural land use trends, demographic information, farm size, farm expenses, receipts, revenues and even a return on assets. The regional analysis will also provide a detailed set of baseline data to evaluate against future trends and adjustments in the industry.

These regions are discussed in detail in Appendix D. For the discussion here, it is important to note that each region holds specific regional advantages and constraints to certain agricultural production types and related uses. Certain regions will also foster more increased opportunities for further country residential and community development than others will. The SW and NW have similar characteristics with cattle and ranching being the predominant land use form and overall, limited county road networks available. To access many of the land areas access across private land or within undeveloped road allowances is required. The distinct difference between the two areas relates to the country residential population, the anticipated development of the Harmony community and the visible nature of the SW region because of the location of the Trans Canada Highway. The other notable distinction of the SW region, is that it has the highest percentage (more than 55 per cent) of its farmers in the oldest (older than 55 years) age category. The NW has a much different land use settlement pattern, with 20 acre parcels being the generally accepted appropriate parcel size.

The NC and NE also share a similar overall agricultural production type pattern. The areas represent the best example of mixed farming in the county, as both areas have significant crop and cattle production occurring. The major distinctions between the two areas are the uncharacteristic data results of the NE area. That area has over a \$100 per acre margin (more than twice the dollar / acre value of other regions) for the highest operating expenses per acre for livestock. The NE also however, has the largest net farm revenue per acre. While it is the largest of the sub-regions identified, with over 450 farms present, there is a disproportionate number of farms in the large farm categories of over 400 acres, over 1120 acres and over 3520 acres. The data indicates these are large, diversified, relatively successful farms.

The EC and SE regions share similar characteristics in soil type, primary production type (cereal crops) and access to irrigation infrastructure. There are also a number of notable distinctions between these areas and the EC region is fairly distinct for a number of reasons when compared to all other regions in the county.

Distinct characteristics of the EC region include: the largest percentage of full time farmers at 42.9 per cent (those farmers who do not have any secondary income sources), the lowest proportion of operators in the highest age bracket of above 55 years of age (less than 40 per cent) and amongst the highest percentage of farms in the larger farm size categories (as 90 per cent of the land holdings and 43 per cent of the farms have greater than 400 acre sized farms). In essence, the EC is Rocky View's best example of younger farmers, managing larger farms as their primary or only income source.

The SE region in contrast, has only 27 per cent of its farms in those largest farm size ranges. That translates into 73% of the SE farms having a gross farm area less than 400 acres – which is the largest percentage of smaller sized farms in Rocky View. The second notable factor is the built infrastructure and existing populations in the SE region, including: the East Rocky View water and wastewater infrastructure, the Trans Canada Highway and Glenmore Trail, and the area's proximity to population centers including the Hamlet of Langdon, the Town of Chestermere, the City of Calgary, the town of Strathmore, and a number of anticipated new hamlet growth areas in the County. The combination of smaller farm sizes, existing irrigation infrastructure, established transportation networks, a longer growing season and a local population base all contribute to this area having the potential to be significant in the local food production area.

The full regional data set can be reviewed in Appendix D. The data is useful for analysis at this point and future benefits will be related to the comparison with future data sets, to assess future changes in land holdings, agricultural practices and the economics of the industry. It will also help to evaluate the effectiveness of the AMP, to inform policy recommendations for program development and to make future adjustments where necessary.

AMP Recommendation: Continue to order agricultural sub-region data sets to allow for continued monitoring and measurement for changes in agricultural practices, management and expenditures in the agricultural sub-regions.

3.2.4 Agricultural Land Use Planning

There is no area related to the agricultural land uses more directly impacted by local government than the area of land use planning. This acknowledges local government has a direct decision making authority on land use decisions in their jurisdiction and whatever decisions are made can affect land use patterns and related impacts almost immediately and over the long term.

This section of the AMP looks at four general areas of agricultural land use planning:

1. Region specific agricultural land use planning.
2. Agriculture interface planning with urban centers and growth areas.
3. Agriculture interface planning with country residential land uses.
4. Agriculture interface planning with business land uses.

3.2.4.1 Region Specific Agricultural Land Use Planning

Throughout the AMP, recommendations for broadly encompassing policy support and future program development is provided to the agriculture industry, policy support is provided to facilitate any desirable diversification of the industry and improvements for regulatory changes are highlighted which can have a positive impact on the producer's ability to conduct their business activities. Rocky View County really consists of a community of communities. Generally speaking, the west is different than the east, the north has different characteristics than the south and there are more localized distinctions than those. Rocky View agricultural land use planning needs to recognize and build upon these distinct community characteristics, to fully capitalize on the potential and related marketing opportunities these regions offer.

The concept of region specific agricultural land use planning can be captured through utilization of three basic principles. These principles must be used within the broader context of the AMP. The principle and corresponding policy amendment would not form the definitive rule in future land use application recommendations, but would rather provide part of the policy framework for review in the context of a particular proposal.

AMP Recommendation: A future MDP amendment should recognize the following three policies for region specific agricultural land use planning in Rocky View:

1. New equestrian related agricultural opportunities are strongest in the SW and NW regions

The justification for this policy recognizes these areas have the highest average of horse and pony operations per farm and there may be potential to capitalize on additional marketing opportunities related to country residential related equestrian operations in these areas.

2. The SE region is the most ideal location in Rocky View to establish a local food based Specialized Agricultural Production Area.



The SE area has advantages related to transportation infrastructure; access to a surrounding population base, irrigation supply, relatively productive soil types, a longer growing season and an agricultural land supply of smaller parcels. A further discussion on Specialized Agricultural Production Areas follows.

3. Although agricultural-based land use and subdivision use can be supported throughout the county, the aim is to focus similar type land uses and parcel sizes to areas where the land use pattern is consistent with the surrounding areas; and / or is immediately adjacent or has access to irrigation infrastructure.

The intent of the third policy is to help direct these types of operations to areas where land use pattern is already prevalent on the landscape. As discussed in the Specialized Agricultural Production Area section of the plan, there are certain competitive advantages of doing so. It also attempts to minimize further fragmentation of areas where large-parceled agricultural lands and operations are the dominant land use pattern. The intent is to help create a settlement and land use pattern which minimizes the potential for land use conflict in those areas.

3.2.4.2 Establishment of Specialized Agricultural Production Areas

One of the major limitations for producers whom are involved in local food production is the high cost associated with food distribution. Distribution costs are expected to rise as the world economy improves and oil prices reach more normal levels. Establishing related production types in a particular area can help alleviate some of the costs related to distribution as the operators can establish shared distribution networks and costs.

A Specialized Agricultural Production Area can be defined a regional clustering of small scale, low impact, specialized agricultural production types associated with growing or raising products for distribution to the local economy and includes related elements such as value added processing and distribution. This clustering of similar agricultural products not only improves the costs related to distribution, but also raises the profile of the particular product type being offered in a particular area, with the potential to bring in additional business to the farmer as a result.

AMP Recommendation: The AMP supports the clustering of operators in the local food industry with the eventual establishment of a Specialized Agricultural Production Area (which is a regional clustering of small scale, low impact, specialized agricultural production types associated with growing or raising products for distribution to the local economy and includes related elements such as value added processing and distribution).



3.2.4.3 Agricultural Interface Planning with Urban Centers and Growth Areas

Rocky View County shares borders with six rural municipalities, two First Nation Reserves, two cities, and five towns. Most of these shared boundaries have, or are in the process of developing new or amended Intermunicipal Development Plans (IDP). IDPs are statutory plans which provide guidance for coordinated planning between two or more municipalities in areas where there are shared municipal interests. Community Development Strategies (CDS) or Area Structure Plans (ASP) are other commonly used plans to help guide development activities in these interface and often high-growth pressure areas. This section of the plan focuses on providing a land use integration strategy for agricultural lands which are in proximity to the County's urban neighbors, or hamlets or future growth areas which lie within the County's jurisdiction.

AMP Recommendation: New IDPs, Community Development Strategies, or Area Structure Plans in urban interface areas, should include policies which align with the purpose and intent and recommendations of the AMP.

Within intermunicipal areas (those areas where County lands abut a city or town), or within those areas that lie adjacent to identified growth areas, the opportunities and conflicts for the agriculture industry are different than other more rural areas. This is because of the increased residential densities existing in these areas, the general public conception that these are more 'urban' areas, and because there is the potential for more people to be affected by an active agricultural operation. Furthermore, because of the population densities in these areas, a higher level of road infrastructure and traffic exist in these areas. Even though agriculture is generally the pre-existing condition in these areas, it is often the agriculture operators who are forced to adapt. An overall more integrated approach to land use planning must occur to mitigate the conflict between agriculture and other land uses in the area.

More intensive operations and the livestock industry in general are often less compatible in these areas because of the conflicts these operations can generate. Even conventional cropping operations will sometimes have to adjust farming techniques in order to minimize impact on urban neighbors; however, they can still function in these areas. There is however, the potential for a stronger focus on more specialized aspects of the agriculture industry. For instance, greenhouse development, community supported agriculture programs and market garden type operations can sustainably work in these areas, be generally compatible with surrounding land uses and potentially take advantage of local marketing and infrastructure opportunities.

Use of buffering techniques in these areas can help to mitigate the different land uses and the conflicts each create. If successfully developed, they can protect farm operations from the noise, odor and dust complaints generated from nearby residents. They can also help protect the operators from trespassing, littering, vandalism and livestock harassment related issues. Development of the buffering techniques should be a joint responsibility between the producer and nearby residents; however, when a new residential development is proposed to be located in



close proximity to active agricultural operations, the responsibility should lie with the developer. The buffering techniques most supported by the AMP are listed in the Smart Growth Criteria (following section) as item #10.

AMP Recommendation: The AMP supports continued agricultural activities in interface areas with urban neighbors and growth areas. Appropriate agricultural practices in accordance with the Agricultural Operations Practices Act (AOPA) and recognized best management practices should be utilized to mitigate potential offsite nuisances.

AMP Recommendation: Where appropriate, new County Community or IDP plans should recognize the potential for subdivision of agricultural parcels into smaller holding agricultural parcels in urban interface areas to provide a transitional land use. Land use and subdivision must still be based on a provision for a new and expanded (and appropriately located) agricultural activity, provision for a local food growing operation, or through another community supported agricultural land use.

AMP Recommendation: Add a policy in the new MDP which indicates that the use of buffering techniques in agriculture-urban interface areas is appropriate. When a new residential development is proposed to be located in close proximity to active agricultural operations, the responsibility to create an adequate buffer area should lie with the developer.

3.2.4.4 Interface Planning in Rural Areas between Agriculture and Residential land uses

Interface planning for agricultural land uses in the county is also needed in areas where country residential land uses abut agricultural operations. During the public consultation stages, there was consensus country residential land uses have an impact on running successful, unimpeded agricultural operations. Areas of conflict were identified and these conflict areas do affect both land use groups.

A summary of the conflict areas between country residential and agricultural land uses raised during community workshops include:

Conflicts for agriculture:

Livestock disturbances, lack of understanding, problematic pets, harboring of pests and weeds, liabilities to operators, bio-security concerns, water usage, littering, trespassing, increased traffic, and higher speeds on roads.

Conflicts on Country residential:

Odors, dust, hours of operation, slow moving equipment on roads, pesticide and herbicide applications, pest poisoning, firearms use.



There will always be a certain level of conflict between these different groups; however appropriate citing, design and spatial separation can help to mitigate these conflict areas to a manageable degree. The aim should be to direct new country residential land uses to areas which will cause the least amount of disturbance to agricultural operators. The AMP recognizes County growth plans will attempt to direct the majority of new country residential uses to strategic locations and growth areas. It also recognizes there will continue to be country residential growth pressure in rural agricultural areas. To help provide guidance for future MDP policy development related to the appropriateness of new country residential development in agricultural areas, smart growth development principals have been developed from an agricultural perspective and incorporated into the AMP.

Smart Growth is a term increasingly being used in planning and development growth philosophy. There are a multitude of definitions all generally attempting to describe approaches to managing growth and development of communities with a triple bottom line perspective: based on the economic, environmental and social spectrums. Smart growth often carries a connotation for more urban forms of development featuring high densities and mixed use communities. From a rural Rocky View perspective, this was unacceptable and a term more sensitive to the needs of rural residents, more specific to the context of the region and one which would capture the precise intent of its use was needed before general acceptance could be garnered from the rural public.

Smart growth from a rural Rocky View agricultural perspective aims to achieve a triple bottom line perspective for directing and managing country residential growth. It does so by including the following principles:

- aim to reduce the financial burden on the county
- improve the business and operation environment of the agriculture community
- provide direction to preserve environmentally sensitive areas and encourage land stewardship
- reduce areas of conflict for people who live and conduct their businesses in these areas

AMP Recommendation: Smart Growth from an agricultural perspective is a term used to help define the appropriate citing, scale and density for new country residential development occurring in agricultural areas. The aim is to direct growth which promotes efficient use of the land by preserving working landscapes and the natural environment, minimizing and mitigating conflict areas and results in new residential sites that are fiscally responsible for the County.

Smart growth philosophy relies upon the use of principles to establish development related criteria which can be used to assist in the evaluation of future applications. The intent is to establish criteria which emphasize a triple bottom line perspective and can be used to help mitigate conflicts between the country residential and agriculture communities.

AMP Recommendation: Smart growth development principles should be adopted to help guide new country residential development in predominantly agricultural areas. 10 Smart Growth development principles, from a rural Rocky View perspective include:

1. Direct new country residential development to areas of existing road and servicing infrastructure. Construction of new road infrastructure in agricultural areas to gain access to new country residential sites is not appropriate.
2. Direct new country residential parcels as close as possible to existing (or new roads) to minimize the length of private driveway and disturbance to agricultural lands.
3. Minimize the amount of residential property line borders with agricultural lands. This is accomplished through directing new country residential parcels to locations which lie adjacent to or abut other existing residential parcels.
4. Direct new country residential parcels to infill existing pockets of country residential areas when the land's carrying capacity can handle the additional development.
5. New country residential parcels should be context sensitive and as small as possible to minimize the amount of land taken out of agricultural production but density must be based on the lands carrying capacity.
6. Separation and land use change of remnant, unusable, or difficult to access lands from an agricultural perspective, is preferable to new country residential development proposed on large agricultural parcels. These include fragmented lands from the larger land holding by: roads, rail lines, environmental features, irrigation infrastructure or development.
7. Concentrate new country residential growth to defined growth areas.

8. Environmentally sensitive areas are not appropriate for new country residential development.
9. New country residential parcels should integrate into the existing landscape and provide spatial separation from surrounding adjacent agricultural operations through the use of natural or improved buffer areas.
10. The eight buffering techniques supported by the AMP are listed below. Others can be implemented on an individual application basis through context sensitive design, consultation with neighbors and through County Administration.
 - a. barrier fencing (no access)
 - b. vegetated berms
 - c. Municipal Reserves (with appropriate fencing, signage and spatial and vegetative barriers)
 - d. community agricultural plots
 - e. stormwater management facilities
 - f. ecological / vegetative buffers
 - g. clustered subdivisions isolated to a small portion of overall land area which provide a natural topographic or environmental barrier, or an infrastructure barrier (such as roads or rail lines) which lead to spatial separation
 - h. increased setback requirements from new country residential dwellings to agricultural operations

Examples of buffering techniques and other smart growth concepts are included on the following pages.

These principles should be captured within the context of the new MDP. They can be developed as Rocky View County Policy, principles for development, or through the use of a smart growth score-card. The use of the score card could be a non-binding numerical score, providing a measure of how the proposal relates to the criteria. It would have to be used in conjunction with other County policies, but would provide another evaluation tool for use in applications.

Figure 10 | Common Subdivision Plan²⁹

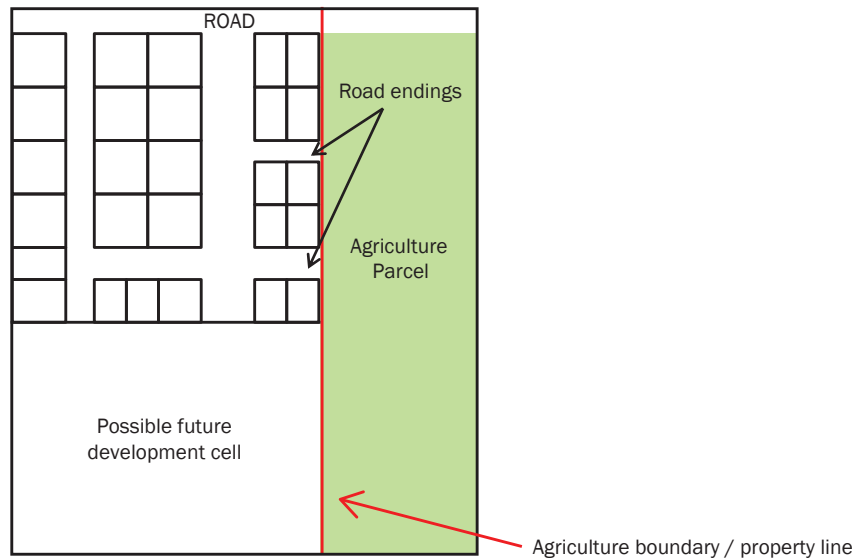
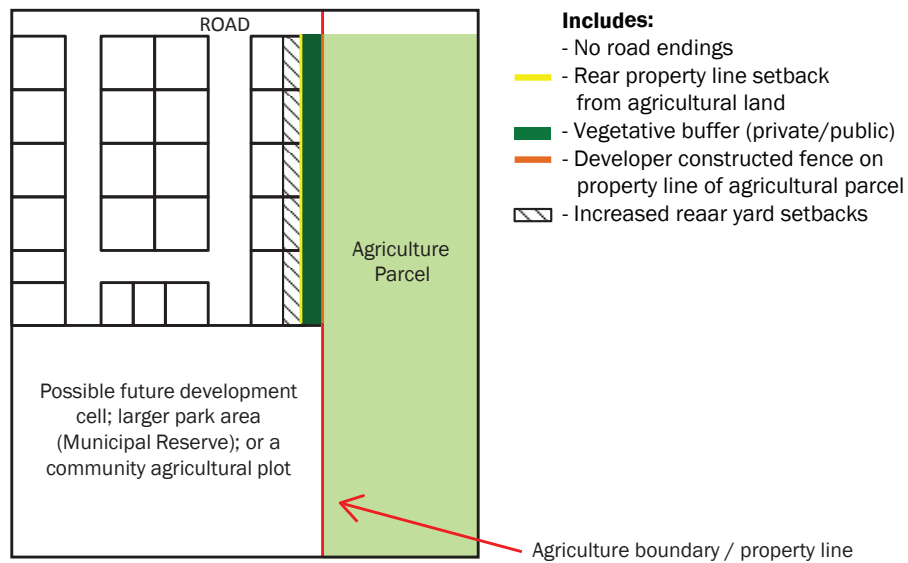


Figure 11 | Improved Subdivision Plan²⁹



²⁹Adapted from *Guide to Edge Planning*, British Columbia, Ministry of Agriculture and Lands, July 2008

Figure 12 | Vegetative Buffer Example³⁰

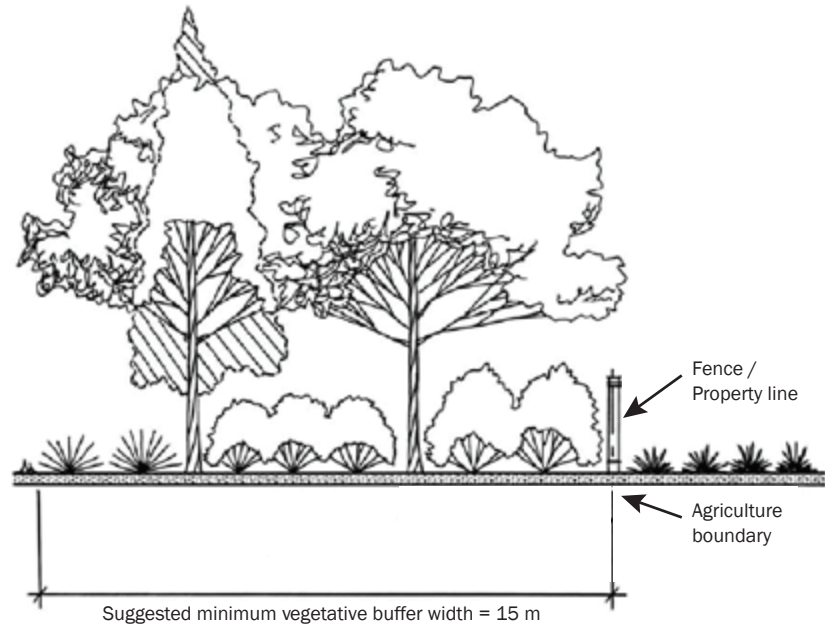
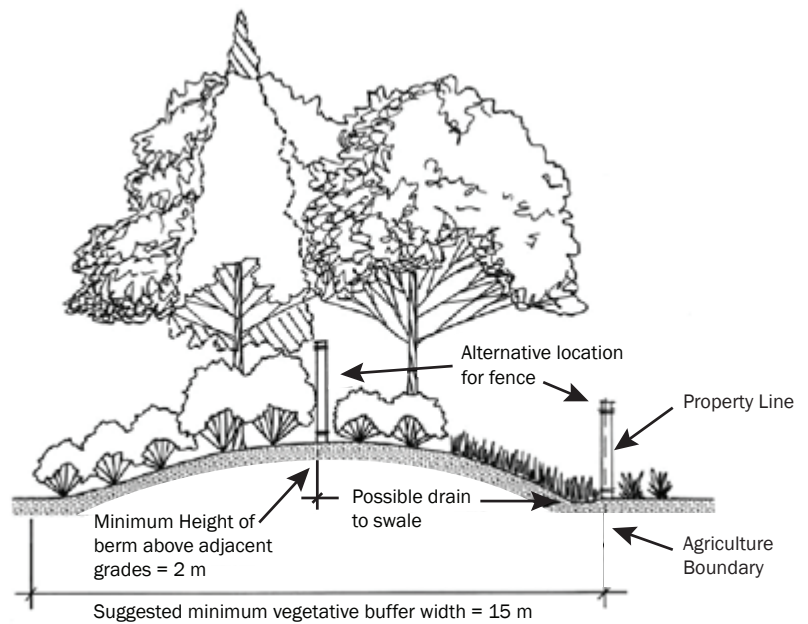


Figure 13 | Vegetative Buffer and Berm Example³⁰



³⁰Adapted from *Guide to Edge Planning*, British Columbia, Ministry of Agriculture and Lands, July 2008

Figure 14 | Conceptual example of traditional vs. Context sensitive Subdivision design

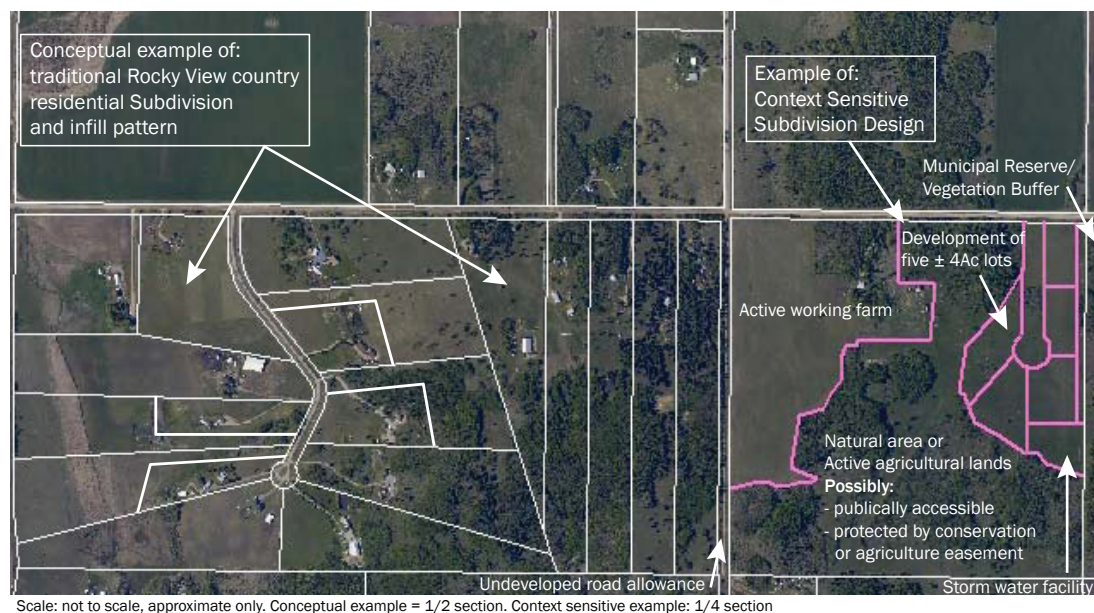


Figure 15 | Urban subdivision pattern next to rural/agricultural lands



3.2.4.5 Agriculture Interface Planning with Business land uses

It is generally accepted that agriculture can more easily coincide with business development than with country residential. This is mainly because the business community are not permanent residents who reside in the area and the primary concern with both agriculture and business is to conduct their business activities. Conflicts can still emerge between these land uses, such as issues related to: increased traffic, pressure for expansion of business uses onto other surrounding agricultural lands, and depending on the nature of the business – the effects of drawing more customers into a rural area. The agricultural practices occurring in the area can also cause effects which can be deemed to be undesirable from the business community perspective. For these reasons, there is justification to concentrate business activities to certain defined areas.

AMP Recommendation: The AMP supports the continued establishment of business parks to predominantly concentrate business land uses to nodes and corridors.

The AMP also recognizes that some types of business activities can be located in agricultural areas without creating unnecessary hardship for the agriculture community. These include business that: are related to agriculture, operations which do not draw a lot of traffic and are located on paved or provincial road systems, and those that are secondary business activities operated from the homes of agriculture community members. The recommendation to include expanded opportunities and provisions for home based businesses in agricultural areas has already been highlighted. The intent is to provide an agricultural specific home based business to allow for an increased range of opportunities and different set of regulations to allow more operators to pursue their secondary (or primary) business activities from their homes, as an appropriate use in agricultural areas. This could be an important aspect for the next generation of farmers. It can potentially keep more families involved in agriculture, while allowing them to conduct their other business needs from home, ultimately better utilizing the full potential of their land base.

3.3 The People

The AMP is a plan for the people of the agriculture community. For Rocky View, these people are the ancestors of the original settlers of the area, they are the producers of our food, they are committed stewards of our important agricultural and natural land and water resource areas and they represent the fabric which creates our rural communities. Community, heritage, lifestyle and family commitments are all significant attributes of the people involved in the agriculture industry



and they all contribute to the success and diversity of Rocky View County. These attributes should be celebrated as part of Rocky View's rich history and rural culture.

This section of the AMP focuses on what can be done to identify, celebrate, preserve and enhance various elements which are important to the people of agriculture. This includes three parts:

1. **The Agriculture Community** – which includes people, culture, heritage and distinct agriculture communities of the county
2. **Education** – with a number of different objectives focused on educational aspects
3. **Administrative Requirements** – highlighting what can be done at an administrative level

The recommendations in this section are intended to specifically capture policy and program development beneficial for the people and families involved in agriculture; however, it must be read in context with other opportunities and recommendations highlighted throughout other areas of the plan as those areas will also have a positive influence.

3.3.1 The Agriculture Community

3.3.1.1 Culture

The agriculture community forms an integral part of the historical settlement patterns in western Canada and Rocky View County. Many of the existing agriculture families in the county have their roots embedded to the original settlement families of the area creating a strong historical tie to the lands and way of life. Promoting and facilitating the ability for these families to have continued involvement in agriculture, with their passion and knowledge is integral to the success of this plan. Recommendations are included throughout the plan, which aim to achieve this purpose.

There is also a distinct western heritage culture amongst agricultural landowners in the county. This has factors which date back to the original ranching heritage of the area somewhat attributed to the rodeo culture which has emerged in the region from the Calgary Stampede. The agricultural landowners include a broad, diverse group of people which are identifiable from the more recently settled country residential populations. They have different needs and different purposes for living in the country and there is a distinct culture and community which they belong to.



3.3.1.2 Community of Communities

Rocky View County is a community of communities. This plan has already highlighted some benefits of region specific land use planning from an agricultural perspective. The census information in Appendix D confirms the vast differences in land and farming type which is occurring in the county in the various sub-regions identified. Not only are the agricultural practices different in these areas, but the external influences, the infrastructure, the geography and the people are different from region to region. People within each of these sub-regions identify their community as a smaller entity within the region. For instance, a few of the more identifiable communities on the western portions of the county include the Springbank, Jumping Pound, Bragg Creek, Grand Valley and Dogpound communities.

Rocky View County is a community of communities. It is difficult to mass all the land use planning issues into a County-wide Municipal Development Plan (MDP). It is for these reasons the AMP recommends future County MDP amendments should attempt to account for some of these sub-region differences and follow the general boundaries established in the AMP Census information, and create more region specific policy guidance.

AMP Recommendation: The future County MDP should provide a framework which accounts for some amount of region specific planning policy. The boundaries included in Appendix D: Census Data and Regional Analysis should be one tool to help establish these future boundaries.

3.3.1.3 Estate Planning and the Next Generation of Farmers

Census information indicates in 2006, the average age of a farmer in the county was 54 years old³¹. Agriculture practices and lands are often passed from generation to generation and estate planning is a major concern for agricultural producers as they transition into their retirement years and try to keep their land holdings and traditional family enterprises active.

This concern not only relates to families being able to secure the appropriate land holdings for their estate planning, but it also creates some question as to who the next generation of farmers will be. Some of these land holdings will be consolidated into even larger family and corporate farms, as average farms continue to increase. However, provisions to allow smaller scale farms in less conventional, more diversified farming practices can also be a component when planning for the next generation of farmers. These operations can often be done on smaller scale and, ensuring land holdings are available for smaller scale farm entrepreneurs, will help facilitate new investment in the industry.

Estate planning is not a valid consideration under the Municipal Government Act (MGA) when considering land use planning redesignation and development proposals. The AMP recognizes

³¹ Rocky View County, *The Agricultural Context Study* (Rocky View County, 2009).



this and does not include any direct recommendation to account for estate planning provisions in the land use planning decision making process. The AMP does recommend a number of shifts in the existing policy framework for agricultural land use and subdivision activity which should aid in private estate planning considerations. Examples in this regard include: changes to the ‘first parcel out of a quarter section’ provisions in the MDP; agricultural land management and subdivision policies which are more directly tied to the efficient use and access to those lands (subdivision of agricultural lands based on natural divisions); and smart growth criteria which should better direct new country residential sites on the agricultural landscape. These policy adjustment recommendations are an attempt to allow for more landowner land management flexibility, which is more closely associated to the best land use of the lands.

These provisions combined with the full support towards more specialized and diversified farming opportunities, will create new investment opportunities on a smaller scale in the industry. Commodity prices and overall optimism in the farming industry are also on the rise. Public attitude and perception on what ‘appropriate’ food sources are also changing. There have not been many new entrants into the industry in the last 30 years because the farming industry was facing unprecedented economic challenges. In the next 20 years we will see a new generation of farms and farmers. One of the more micro-level determinants on what farming will look like and who will be involved, will be the success of implementation of the AMP and its medium and long term recommendations.

3.1.3.4 Agriculture and Community Development

Rocky View County’s growth areas can do a better job of incorporating agriculture into their plans. This is not only from the perspective of both location selection and interface mitigation criteria, but also through encouraging agricultural components into these communities. The following information is a brief summation of some agricultural related components which can be utilized in new community design which will strengthen the local agricultural economy and generate benefits from a community design, health and environmental perspective.

A) Farmers Markets and Local Food

As discussed earlier, a successfully located, built and managed farmers market is a community draw, creating spinoff effects both from a community interaction perspective as well as positive economic effects. There is a maximum threshold on the number of these which can be viable in the county and it will take time for more producers to transition to local-food sourcing products before these create the type of interaction and positive effects which can be realized. There is long term potential and new community design should account for the possibility of these markets in their design.



B) Community Gardens

Many of the county's Municipal Reserves are underutilized. The County does not currently have a Park's Maintenance Department to maintain these parks and the result is often reserve sites which are overgrown and under maintained. There is an opportunity to use a percentage of the county's reserve sites for community gardens for use in the growing of vegetables amongst members of the community. These should be encouraged as appropriate uses on some of these sites, dependent on the location, design, infrastructure and integration with the rest of the community. These are not appropriate everywhere and many of the county's country residential areas consisting of lot sizes of greater than two acres will likely not find these useful as there is already ample land available to accommodate any gardening needs. A more ideal location for these is in more concentrated growth areas where lot sizes are reduced and there may be an increased need for a jointly managed and shared garden site. While there may be no direct benefits to the agriculture community in community gardens, it raises general awareness to agriculture and food production and they do have other positive effects such as healthier, more socially responsible communities and revitalization of underused areas³².

AMP Recommendation: Community shared lands, Municipal Reserves, common properties, open space areas, etc, can sometimes support local community food growing programs. Future Rocky View County community plans and MDP amendments should discretionarily allow for these types of uses in new and existing communities on public or private lands with further criteria provided.

C) Community Supported Agriculture

Community Supported Agriculture (CSA) is a form of an alternative food network that generally consists of a community of individuals who pledge support to a farming operation where the growers and consumers share the risks and benefits of food production. CSA generally consists of the following elements:

- A system of weekly delivery or pick-up of produce in a 'vegetable box' and sometimes includes dairy / meat products;
- A transparent, whole season budget for producing a specified wide array of products for a set number of weeks a year;
- A shared risk and reward agreement, i.e. the consumers receive what the farmers grow even with the vagaries of seasonal growing.

³² Jan Enns, *A Seat at The Table: A resource guide for local governments to promote food secure communities* (Provincial Health Authority, British Columbia, 2008).



photo courtesy of Darrell Mussatto

Figure 16 | Queen Mary Community Garden

This means individuals, families and / or groups do not directly pay for a certain amount of produce but rather support the budget of the whole farm and receive weekly what is seasonally ripe. This approach eliminates the marketing risks, reduces costs and time for the producer and allows producers to focus on quality care of the soils, crops, animals and co-workers as well as on serving the customers. There is financial stability in this system by providing a guaranteed market through prepaid annual sales from consumers, which allows for thorough planning on the part of the farmer. CSA farms are typically small, independent, labor-intensive family farms. The cost of a share is usually competitively priced when compared to the same amount of vegetables conventionally grown partly because the cost of distribution is lowered.

The role for Rocky View County in CSA systems is in promotion and through education of the farming community to help aid in the development of these types of systems.

3.3.2 Education

This plan identifies a significant amount of new opportunities in the agriculture industry. A key component to promote and implement the opportunities discussed is education of the farming community. This section discusses the various education components needed to help implement the intent and full potential of the plan.

3.3.2.1 Education and the Next Generation of Farmers

A primary consideration for this plan is planning for the next generation of farmers. This generation of farmers will include further consolidation and expansion of corporate farms, working adults who shift to agriculture because of personal interest, family backgrounds in the industry and overall improvements to the economics of the industry and from the youth currently in our education systems.

Focusing on the youth in planning for the farming future was a predominant theme during the community consultation stages. The youth of today are the consumers and entrepreneurs of



tomorrow. A stronger link needs to be made in the production and consumption cycle. Youth programs and services can be created and expanded to create this link.

AMP Recommendation: Focus agricultural and food education programs on youth.

The scope of these programs can potentially be wide in scale and includes different age groups and areas of focus. Opportunities include: working with Rocky View Schools to foster improved linkages between children and farming and food information in school curriculum; working with post secondary institutions such as Olds College and the University of Calgary for improved industry relations; and establishing a stronger link with the local 4H community through proving agricultural growing or grazing sites for management.

Another area of educational program development and service delivery expands to the broader agriculture community. It is needed to help existing producers optimize on potential industry opportunities which may go beyond their existing practices and knowledge base. This is already occurring to some degree through the County Agricultural Services Department. An expansion of these programs, educational information sessions, grants and the expansion of website based information can all further aid the industry. An excellent new example for website based information includes the Peace Region thinklocalmarket.com website.

AMP Recommendation: Foster capacity building for the agriculture community in areas of enhanced educational services, programs, website based information, support in the County Economic Development Strategy. Grants and recognition programs for the agriculture sector in product diversification, value added opportunities and local food growing initiatives should be encouraged and expanded.

Specific deliverables include items such as:

- Developing information materials for establishing food cooperatives or community supported agriculture systems;

- Expansion of the County website devoted to agriculture information related services;
- Establish further grant or funding initiatives in business diversification and environmental stewardship.

The Farmstart initiative, based out of Guelph, Ontario is an excellent example of the type of educational services which can be provided to potential farmers.

“This not-for-profit program was started by an individual named Christie Young, who identified a huge gap in the food system between aspiring farmers and the reality of farm life. She wanted not only to focus on providing an apprenticeship program for young would be farmers, but also to help inductees rethink agriculture in Canada to help create a more ecologically, and economically, sustainable way of farming. Farmstart offers a wide range of services, such as technical courses on how to build soil naturally or business planning to help people figure out how to improve their profit margins. They have an online land-matching system for potential farmers, teach new immigrants who have farming backgrounds on how to farm here, and they run two incubator farms where new farmers can put their business plans in place and start to farm without taking on the initial risk and expense of buying land.³³”

3.3.2.2 Agricultural Service Board

The Agriculture Service Board (ASB) is another area where existing expertise can be utilized to help implement the intent of this plan. The role of the ASB is defined in the Agricultural Service Board Act as:

- To act as an advisory body and to assist the council and the minister, in matters of mutual concern;
- To advise on and to help organize and direct weed and pest control and soil and water conservation programs;
- To assist in the control of livestock disease under the Livestock Diseases Act;
- To promote, enhance and protect viable and sustainable agriculture with a view to improving the economic viability of the agricultural producer; and
- To promote and develop agricultural policies to meet the needs of the municipality.

AMP Recommendation: Empower the Agricultural Service Board by utilizing their expertise for support and implementation assistance of the AMP and to support the development of partnerships to deliver educational programming through the Agriculture Services section.

³³ Elton, Sarah. *Locavore*. (Harpercollins Publishers Ltd, 2010).

The AMP has been developed in close consultation with the ASB members. The intent is to continue to utilize this group of individuals to help create general public awareness of the plan and aid in future plan implementation.

3.3.2.3 Provide More Rural Living Awareness for Neighbours of Agriculture

To help the agriculture community continue to live in harmony with their country residential neighbors, more rural living awareness needs to be developed. This relates to both the level of services which can be expected in rural areas of the county, as well as information packages highlighting the general aspects of rural living and living adjacent to active farming operations. This helps the farming community continue their business activities without surprising country residential neighbors as well as providing proactive awareness to new acreage owners in the county.

AMP Recommendation: Develop an educational program / information package for new acreage owners who have moved into agricultural areas regarding rural living awareness.

3.3.3 Administrative Requirements

Administrative requirements involve implementation aspects of this plan which primarily involve an administrative adjustment to deliver upon the recommendation.

This plan recommends expanded service and program delivery in areas which have historically been the responsibility of the Agricultural Services Section of the Planning and Community Services Department. Some implementation aspects may go beyond the current potential of this department and evaluating their service delivery potential and appropriate adjustments based on evaluation, may be necessary to deliver upon the important recommendations of this plan.

AMP Recommendation: Evaluate the needs of the Agricultural Services section in order to provide the enhanced service and program delivery anticipated by the AMP. Future budget adjustments and staff resourcing may be needed to reflect the outcome of the evaluation.

Appendix D of this plan includes a regional data set based on Canadian census information which provides a useful analysis of existing agricultural operations and practices, farm sizes, demographics, land use information, and financial analysis. This information is a snap-shot in time and to help evaluate future trends in the industry, continued monitoring through ordering future census information data sets based on the existing analysis will be necessary. This will not only track industry changes, but will also be a useful tool to evaluate the success of the recommendations of this plan.

AMP Recommendation: Track use of the new redesignation and subdivision policy framework for agricultural lands and conduct a five year assessment of the effectiveness of their use and impact on the rural land use pattern.

3.3.3.1 Taxation

Based on recent tax rate comparisons, tax rates in Rocky View County are lower than other comparable Alberta municipalities. The agricultural community should fairly contribute for the improved service and program delivery this plan recommends and be accountable to the adopted 2011 to 2013 Corporate Strategy which identifies a need for financial sustainability.

AMP Recommendation: Continue to update the tax rate comparison for agricultural lands between Rocky View County and other municipalities in Alberta which surround urban centres. Phase in a slow adjustment to Rocky View tax structure for agricultural lands to be equal to the comparable Alberta municipality's average tax rate for agricultural lands.

These tax rate adjustments are intended to be a phased in slow adjustment and not be a major financial burden on the agricultural landowners. Based on current information, the adjustments will not be a significant tax increase. Adjustments can also be justified based on other cost saving devices that the AMP proposes. For instance, one deliverable will be restructuring the Land Use Bylaw and Municipal Development Plan's policies and regulations surrounding first parcels out. Those changes will have positive land management and cost saving benefits to the agriculture community.

These tax adjustments are also intended to coincide with improved service delivery, infrastructure development for the agriculture community, and more potential funding initiatives available to agricultural landowners. Some specific deliverables include:

- Amendments to the Land Use Bylaw improving the regulatory framework; expanding on the ability to develop agriculturally related businesses; and facilitating a more diverse range of first parcel out applications (some of which do not require land use redesignation approval);
- Inclusion within the new County MDP for an improved agricultural policy framework;
- Improved educational services provided by the County Agriculture Services Department which focus on better utilization of the website; training and resource materials for the farming community; and further enhancement of the rural living awareness information package;



- Expansion of financial incentives to agricultural producers who promote land stewardship and environmental preservation. Examples include:
 - Decommissioning of old water wells;
 - Riparian area enhancements: establishment of buffer zones, planting of native vegetation, and fences along water ways;
 - Conducting range and riparian area health assessments.
 - Land conservation and stewardship initiatives and compensation programs.
 - Compensation for granting public access to key corridors or natural areas.
- Resources diverted to broader scope / long range initiatives in implementation aspects of the Land Use Framework.



4 Recommendations and Implementation Strategy

4.1 Rocky View Support for the Agriculture Industry

This plan provides numerous recommendations to help support agriculture (agricultural programs, land use planning, and regulatory deficiencies, etc.) However, the County has and does already support agriculture in many of its policy initiatives, and programs through the Agricultural Services Section and other County departments. A summary of these achievements and ongoing programs is worth highlighting, both as a baseline measure and to recognize the commitment to support agriculture in the County.

Agricultural Service Board: Rocky View County maintains an active advisory board comprised of both farm members and Council whose role is to advise Council and help organize agricultural programs, to promote and enhance viable and sustainable agriculture for local producers, and to develop agricultural policies to meet the needs of the County. The board works closely with the Agricultural Services Section to fulfill its role.

Access to Agricultural Grants: Farmers and ranchers have access to Growing Forward grants with direct assistance from Agricultural Services staff. These sustainability grants allow producers to offset the cost of implementing beneficial management practices on their farms, improving economic viability and reducing environmental impact.

Weed and Agricultural Pest Control: Enforcement of provincial weed and pest legislation is delegated to the County. Strong policy and programs exist on prevention and control of regulated weeds and pests impacting agriculture, with active controls implemented on County roadsides and lands. Annual field surveys and inspections are undertaken to identify and monitor infestations.

Education and Awareness: A wide range of educational courses and workshops are offered each winter for both agricultural producers and other landowners in the County. Subjects range from agricultural sustainability to growing a garden and are marketed under the banner “Get Set to Grow”.

Code of the West: This brochure is available to help residents better understand the agricultural context of living in rural Rocky View. It describes how they can assist the agriculture sector in remaining viable by actions they take to be a good neighbor.

AgriConnection: This free, easy to use County provided web-based service connects producers seeking additional land to rent, with those who have land to lease.

Agri-View Newsletter: A quarterly newsletter with articles that are timely and interesting, aimed at agricultural producers with diverse interests, from ranching in the foothills, to farming and crop production on the prairies.

Awards and Scholarships: To recognize local achievements in agriculture and to promote careers in the agri-environmental field, an annual \$500 scholarship is awarded to a County

student attending Olds College. In addition, the Rocky View Master Farm Family Award and BMO Stampede Farm Family Award are presented to deserving families each year.

Growth Management Strategy: Founded on the principles of sustainability, smart growth and triple-bottom-line decision-making, the Growth Management Strategy (June, 2010) established a long-term vision that best accommodates anticipated growth in the next 50 years. The vision supports substantial nodal growth and a targeted development footprint associated with increased residential and business development in focused areas throughout the County. It also indicates that Rocky View's overall land base will remain predominantly rural and recent fragmentation and speculative pressures on agricultural land will be diminished through the improved definition of future development areas.

Municipal Development Plan Goals, Land Use Strategies, and Agricultural Policy: The MDP has several goals and land use principles which aid land use planning in agricultural areas, and provide support of the agriculture industry. Goals which relate to agriculture include:

- To preserve the agricultural land base of the Municipality.
- To facilitate and enhance agriculture and agricultural related industries in the Municipality.

The current MDP's Land Use Strategies provides a guide for growth and change in the County in accordance with sound land use planning principles, including:

- Predominantly unsubdivided areas with an agricultural land use designation hold the lowest potential for future non-agricultural development.
- Isolated areas of designated and subdivided lands hold a moderate potential for non-agricultural subdivision and development through infilling in keeping with the nature of the immediate area.
- Concentrated areas of designated and subdivided lands hold the highest potential for non-agricultural subdivision and development due to transportation and servicing efficiencies that can be achieved.

These strategies focus on new development to areas where there is already existing development with the aim to reduce conflict and land use development pressure in agricultural areas.

The Agricultural Policies of the MDP support the preservation of agricultural lands; discourage incompatible uses in agricultural areas; and facilitate growth opportunities for agricultural uses in the County by encouraging the development of a wide range of agricultural land uses, or uses which service the agriculture industry. Criteria were recently included to the new and expanded

section of these Agricultural Policies which were positive in clarifying the expectations for proposals of these types of applications.

Economic Development Strategy: Rocky View County's Economic Development Office, in the Economic Development Strategy of 2003, considers the agriculture sector a priority for development, growth and expansion. This includes the following:

- Networking facilitation and introductions to potential processors, wholesalers, investors, site selectors, developers and company executives who are looking to do business with producers in Rocky View County.
- Small business advisory and consultation, in collaboration with Community Futures, Industry Canada, Prairie Farm Rehabilitation Administration, Alberta Agriculture, Olds College, AVAC, Business Development Bank, and other organizations that support agriculture, innovation and value added processing.
- Facilitate and encourage the enhancement of transportation, warehousing and logistics of agricultural products or value-added products for export.
- Encourage development of biofuel production.
- Encourage development of farmers market organizations and direct-to-consumer or "gate to plate" agriculture product marketing initiatives.
- Encourage development of niche-market agricultural opportunities such as organic production, greenhouse production, woodlot development, small fruit production, agri-tourism, etc.
- In general, encourage economic development and growth opportunities with ranchers and farmers in Rocky View County who are actively pursuing new business and industrial ventures.

Favorable taxation structure for agricultural lands: Even with the plan's recommendation to increase taxes to equal the Alberta average of other comparable municipal tax rates, the tax structure at Rocky View County for agricultural lands is very favorable for agricultural landowners. It is important to maintain this favorable tax structure, as the services provided to this portion of the community are less intensive than other land use types, and as the industry continues to rebound from consistently difficult economic challenges.

4.2 Plan Recommendations

Adoption of the Agriculture Master Plan will establish the vision moving forward for agriculture in the County, and a strategic direction for land use planning in agricultural areas. This is only a first step. In order to implement the plan, additional measures are required which include: adjustment to the supporting County policy framework; regulatory changes; service delivery; and program development. The plan provides 35 recommendations for Council consideration which will ultimately direct further administrative work and resources on these initiatives.

The following sections summarize the various timelines required for recommendation implementation, and establish eight general categories based on implementation area and responsibility.

4.2.1 Implementation Timeframes

Three general timelines have been established as reference timeframes for completion of subsequent implementation measures for the plan's recommendations. These are:

Short term: refers to a timeframe for recommendation implementation within the next 1 to 3 years.

Medium term: refers to a timeframe for recommendation implementation within the next 3 to 5 years.

Long term: refers to a timeframe for recommendation implementation within the next 5 to 10 years.

Within each of these timeframes, a number of successive changes must occur to implement the intent and vision of the plan. County resources will need to be directed to these implementation recommendations to ensure the vision of the AMP is realized.

4.2.2 Summary of Plan Recommendation Categories

Appendix A provides a complete summary of the AMP's 35 recommendations. Appendix A should be referenced for a complete review of all recommendations in these categories. Appendix A also includes a detailed discussion on the purpose and justification of each individual recommendation.

The recommendations are divided into 8 categories. These categories consist of related recommendation items and inputs, items which are to be delivered by a specific administrative department, and generally include items which can be delivered in a similar timeframe. For the purposes here, each category will be referenced, with a summary of the information contained within that category and a timeframe provided for implementation.



Category 1: Recommendations which provide an immediate function as non-statutory guiding principles.

These recommendations are considered in effect upon adoption of the AMP as non-statutory guiding principles with no further implementation measures required. It is likely that the future anticipated changes to the County MDP will include elements related to these recommendations; however, no further implementation work is required for these to take effect.

Category 2: Policy recommendations to be incorporated within the new County MDP.

The process for development and adoption of a new County MDP is anticipated for 2012. Incorporation of the AMP policy recommendations into the new MDP is essential to implement the purpose and intent of the plan. These recommendations are short term implementation items to be included within the policy framework of the anticipated new County MDP.

Category 3: Policy recommendations to be incorporated within future Intermunicipal Development Plans (IDPs), Area Structure Plans (ASPs), and Community Development Strategies (CDSs).

IDPs are statutory plans prepared between two or more municipalities. ASPs and CDSs are grouped into 'community plans' for AMP discussion purposes. There are numerous examples of adopted IDPs and ASPs in the County, numerous amendment processes currently underway and future community plan development processes anticipated. It is on this basis, that these recommendations are classified in the short to medium timeframe for implementation.

Category 4: Recommendations for incorporation in the Land Use Bylaw (LUB)

In the latter stages of 2011, the County will be initiating the process to undertake amendments to the LUB. Many of these amendments are minor clarification items. The AMP included a comprehensive public consultation strategy which provided a detailed set of regulatory recommendations for inclusion in the LUB. Although some further consideration, study, and consultation is required, it is appropriate to consider these items within the anticipated LUB amendments. It is possible that the scope of the recommendation may exceed the more minor amendments proposed for the LUB update. If this is the case, consideration of some of these items may be more appropriate after adoption of the new County MDP. The timeframe for implementation of this category is therefore, short to medium term.

Category 5: MDP recommendations which will require longer term implementation through additional corporate study, policies, or programs

The process for development and adoption of a new County MDP is anticipated for 2012. Recommendations in this section; however, are not straight forward adjustments to existing MDP policy. Instead, they involve new concepts and policy direction for the County. The recommendations identify land as natural capital; they aim to preserve, maximize, and compensate for the natural capital value; they align with the direction of the Provincial Land Use Framework; and some rely upon additional provincial legislation and program development. These are recommendations anticipated to be implemented in the medium to long term.

Category 6: Administrative recommendations which are to be delivered by the Infrastructure and Operations Department

Recommendations in this section are to be implemented by administration within the Infrastructure and Operations Department. Two very distinct recommendations are provided. The first is a clarification item to an existing Bylaw / procedure. The second involves an adapted road infrastructure planning program. This item will require future allocation of County budget money to implement. Recommendations in this section are intended to have a first phase implementation in the short term (Bylaw amendment and road infrastructure planning), while construction of suitable road infrastructure is a medium to long term timeframe objective.

Category 7: Administrative recommendations which are to be delivered by the Planning and Community Services Department

Recommendations in this section are to be implemented by administration within the Planning and Community Services Department. The recommendations generally require only a change in program focus, practice, or strategic service delivery. Some of these items will require future allocation of County budget money to implement. The implementation timeframe of the recommendations vary; therefore, the specific timeframe for each item has been highlighted and organized in terms of the shortest timeframe to implement to the longest.

Category 8: Recommendations which are related to corporate initiatives

These are corporate initiatives which require follow up Council decisions to implement and longer term strategic alliances. The implementation timeframe of the recommendations vary; therefore, the specific timeframe for each item has been highlighted and organized in terms of the shortest timeframe to implement to the longest.



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Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
Category 1: This category includes a summary of the plan recommendations which provide an immediate function as non-statutory guiding principles.	County plans are anticipated to change in the near future (MDP). These changes will likely include provisions which can also help implement / clarify the recommendations included in this category; however, these recommendations can be considered to be immediately effective, as non-statutory guiding principles with no further implementation measures required. These recommendations are considered in affect upon adoption of the AMP.
1. The AMP supports the general diversification of the agriculture industry, including the broad categories of: diversified livestock and crop production and management techniques; value added agricultural products, services, and industry, and the development of a more significant local food sector.	Purpose: To provide general overall support for the diversification of the agriculture industry. Justification: There is a growing trend towards smaller, more specialized agriculture operations. There appears to be potential in this area for alternative production types. Producer pursuit of these alternative uses is encouraged and supported by the AMP to help facilitate growth and sustainability of the agriculture industry into the future.
2. The AMP supports the clustering of operators in the local food industry with the eventual establishment of a Specialized Agricultural Production Area (which is a regional clustering of small scale, low impact, specialized agricultural production types associated with growing or raising products for distribution to the local economy and includes related elements such as value added processing and distribution).	Purpose: To aim to consolidate producers involved in the local food industry to a particular region (without disallowing development of the industry in other areas). Justification: This has the potential to improve economies of scale, establish more cost effective distribution networks, and to raise the consumer awareness and purchasing potential of that product type being offered to a particular region.
3. The AMP supports continued agricultural activities in interface areas with urban neighbors and county growth areas. Appropriate agricultural practices in accordance with the Agricultural Operations Practices Act (AOPA) and recognized best management practices should be utilized to mitigate potential offsite nuisances.	Purpose: to support continued (appropriate) agricultural uses in areas located in proximity to urban neighbors with appropriate best management practices utilized by the producers. Justification: These areas require special attention to best management practices to help minimize disturbances to nearby residences; however, the continued operation of agricultural activities is supported.
Category 2: Includes recommendations for Policies to be incorporated into the new County Municipal Development Plan (MDP)	The process for development and adoption of a new County MDP is anticipated for 2012. Incorporation of the AMP policy recommendations into the new MDP is essential to implement the purpose and intent of the plan. Category 2 Recommendations are short term implementation items to be directly included within the new MDP's existing policy sections.
4. Amend the 'first parcel out' Agricultural Policies of the MDP to: <ul style="list-style-type: none"> a. Add clarification that agricultural land use redesignation and subdivision also qualifies as a first parcel out. 	Purpose: to clarify and simplify the policy framework for agricultural first parcels out of quarter sections, to increase agricultural land management and ownership flexibility; to not advocate conversion of agricultural lands to other land use types; and to provide opportunities for new operators to enter the industry on smaller scales.

<p>b. In conjunction with the adoption of new Agricultural Land Use Districts in the Land Use Bylaw, add a policy which supports the subdivision of one agricultural first parcel out greater than 50 acres, from a previously unsubdivided quarter section, as a subdivision that does not require land use redesignation approval.</p>	<p>Justification: first parcel out subdivisions currently only include residential land uses. This is inappropriate, as it does not allow for transition of larger portions of land to potential operators or family members who may be interested in farming those lands. By not allowing larger agricultural subdivisions, it encourages further country residential sites on the agricultural landscape or 'new and expanded agricultural applications' which are more difficult to assess from a policy perspective. This amendment will also decrease application costs, processing times, and improve administrative efficiencies and consistency between policy and practice.</p>
<p>5. Amend the Agricultural Goal of the MDP to read: To provide opportunities for agriculture to flourish in the County, through pro-active agriculture development policies which support a diversified agriculture sector, a stronger agricultural economy, land stewardship, and includes appropriate land use integration strategies.</p>	<p>Purpose: to align the Goal of the Agricultural Policy section of the MDP with the overall purpose and intent of the AMP.</p> <p>Justification: removal of over regulation of the agriculture industry is encouraged. The goal should be adjusted to reflect opportunities, and the facilitation of growth of sustainable agriculture, diversity, and land stewardship.</p>
<p>6. Add a policy to the agricultural portion of the MDP which supports the subdivision of agricultural lands based on natural divisions (lands separated from larger agricultural parcels by roads, rail lines, irrigation infrastructure, or impassable environmental features).</p>	<p>Purpose: to allow for a landowner to pursue separation of title based on natural divisions.</p> <p>Justification: This is another landowner land management option which is appropriate. These lands are often physically separated from the larger holdings, and often require different / awkward access points. These divisions form acceptable property boundaries. Former legislation included this as a 'right', and an automatic registration process at Land Titles.</p>
<p>7. Update Section 4.5 of the MDP: New or Expanded Agricultural Policies to include the requirement for a marketing and operational plan in 'new and expanded agricultural operation' land use proposal applications.</p>	<p>Purpose: the purpose is not to evaluate the economics of the proposal, but instead to provide Administration and Council with the information that demonstrates there is a legitimate new and expanded agricultural proposal, and that details surrounding the new operation have been considered.</p> <p>Justification: Insufficient information is often provided in support of these applications. If a landowner is serious about starting a new and expanded operation, and permanently fragmenting the land base to support it, they should be required to demonstrate sufficient information in these areas. These will assist Administration in making appropriate recommendations and Council in making appropriate decisions in these applications.</p>
<p>8. The future County MDP should provide a framework which supports some amount of region specific planning policy.</p>	<p>Purpose: to recognize that Rocky View County has significant regional differences and to provide a policy framework that accounts for these distinctions.</p> <p>Justification: It is difficult to provide a county wide policy framework that recognizes the regional distinctions in land use types and development patterns throughout the county. Policy which may be applicable in some areas may not be applicable in others. Development of some region specific planning policy can help account for some of these regional differences, and thereby provide for a more appropriate planning framework county wide.</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<p>9. These three policies for region specific agricultural land use planning in Rocky View should be recognized:</p> <ul style="list-style-type: none"> a. New equestrian related agricultural opportunities are strongest in the SW and NW regions. b. The SE region is the most ideal location in Rocky View to establish a local food based Specialized Agricultural Production Area. c. Although agricultural-based land use and subdivision can be supported throughout the County, the aim is to focus similar type land uses and parcel sizes to areas where that land use pattern is consistent with the surrounding areas; and / or is immediately adjacent or has access to irrigation infrastructure. 	<p>Purpose: to direct new equestrian related investment and attempt to build on marketing advantages particular to these regions. The policy identifies that this is the strongest area for new opportunities in that sector, but it does not disallow new equestrian related investment elsewhere.</p> <p>Justification: The SW and NW regions have the highest average of horse and pony operations per farm. Those regions can capitalize on marketing opportunities related to country residential related equestrian operations located in those areas.</p> <p>Purpose: to adopt a policy that will direct new investment in the local food industry to the SE region (while not disallowing it elsewhere).</p> <p>Justification: The SE region has advantages related to transportation infrastructure; access to a surrounding population base, irrigation supply, productive soil types, a longer growing season, and an agricultural land supply of smaller parcels. This is an attempt to capture marketing benefits and competitive advantages of grouping local food based production types together.</p> <p>Purpose: the intent is to provide policy which encourages a land use pattern consistent with the surrounding area.</p> <p>Justification: Large areas of relatively unfragmented lands generally contain more traditional, large scale operations. Fragmentation of the land base can impact machinery maneuverability and the more conventional, large scale activities which can occur in these areas. Likewise, in areas where the land base is fairly fragmented, further fragmentation of the land base causes less of an impact to large scale or adjacent operations.</p>
<p>10. Add a policy in the new MDP which indicates that the use of buffering techniques in agriculture-urban interface areas is appropriate. When a new residential development is proposed to be located in close proximity to active agricultural operations, the responsibility to create an adequate buffer area should lie with the Developer.</p>	<p>Purpose: to establish that buffers are a supported tool to mitigate impacts from agricultural and other land use types, and to identify where the responsibility lies in development of the buffer.</p> <p>Justification: Buffers provide a spatial barrier and do mitigate some of the potential land use conflicts which occur. If a Developer is building a community adjacent to an active farming operation, the responsibility should lie with the Developer to mitigate the conflict areas their development might create for an existing operator or future community residents.</p>

<p>11. Smart Growth from an agricultural perspective is a term used to help define the appropriate citing, scale, and density for new country residential development that may occur in agricultural areas. The aim is to direct growth which promotes efficient use of the land by preserving working landscapes and the natural environment, minimizing and mitigating conflict areas, and results in new residential sites that are fiscally responsible for the County.</p>	<p>Purpose: To establish a definition for smart growth from an agriculture context, meets the general principles for smart growth, and overall strategic direction of the County.</p> <p>Justification: Smart growth often carries a connotation for more urban forms of development featuring high densities and mixed use communities. The County's GMS establishes smart growth as a priority for the County; however, from a rural Rocky View perspective, a more specific defined term for smart growth was needed which was more sensitive to the needs of rural residents, more specific to the context of the region, and one which would capture the precise intent of its use.</p>
<p>12. Smart growth development principles should be adopted to help guide new country residential development in predominantly agricultural areas. Ten Smart Growth development principles, from a rural Rocky View perspective include:</p> <ul style="list-style-type: none"> a. Direct new country residential development to areas of existing road and servicing infrastructure. Construction of new road infrastructure in agricultural areas to gain access to new country residential sites is not appropriate. b. Direct new country residential parcels as close as possible to existing (or new roads) to minimize the length of private driveway and disturbance to agricultural lands. c. Minimize the amount of residential property line borders with agricultural lands. This is accomplished through directing new country residential parcels to locations which lie adjacent to or abut other existing residential parcels. d. Direct new country residential parcels to infill existing pockets of country residential areas when the land's carrying capacity can handle the additional development. e. New country residential parcels should be context sensitive, and as small as possible to minimize the amount of land taken out of agricultural production. 	<p>Purpose: To provide smart growth development principles from a rural Rocky View perspective, to be used in the future as guiding principles to help evaluate new country residential development applications in agricultural areas.</p> <p>Justification: The GMS attempts to direct new growth to strategic, defined areas. From an agricultural perspective, minimizing new country residential growth in agricultural areas is appropriate, and should be the overall direction of the County; however, it is acknowledged that some new country residential development is likely to continue to occur in agricultural areas. These principles provide a set of criteria to evaluate these new applications with to help direct this growth to areas which minimize the impact for agricultural operators, account for appropriate levels of servicing and development in relation to the land's carrying capacity, and do not disturb sensitive environmental areas. They also aim to reduce overall servicing costs to the County, by discouraging the development of new roads, and directing new country residential development to more concentrated or defined areas. In essence, they attempt to achieve the triple bottom line perspective of smart growth – the social, environmental, and economic considerations and make new country residential development applications accountable for achieving these principals.</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<ul style="list-style-type: none"> f. Separation and land use change of remnant, unusable, or difficult to access lands from an agricultural perspective, to other land use types is preferable to new country residential development proposed on large agricultural parcels. These include fragmented lands from the larger land holding by roads, rail lines, environmental features, irrigation infrastructure, or development. g. Concentrate new country residential growth to defined growth areas. h. Environmentally sensitive areas are not appropriate for new country residential development. i. New country residential parcels should integrate into the existing landscape and provide spatial separation from surrounding adjacent agricultural operations through the use of natural or improved buffer areas. j. The eight buffering techniques supported by the AMP include the following techniques. Others can be used on an individual application basis through context sensitive design, consultation with the neighbors, and County Administration. <ul style="list-style-type: none"> i. Barrier (no access) fencing ii. Vegetated Berms iii. Municipal Reserves (with appropriate fencing, signage, and vegetative and spatial barriers) iv. Community agricultural plots v. Stormwater management facilities vi. Ecological / vegetative buffers vii. Clustered Subdivisions isolated to a small portion of overall land area which provide a natural topographic or environmental barrier, or an infrastructure barrier (such as roads or rail lines) which lead to spatial separation viii. Increased setback requirements from new country residential dwellings to agricultural operations 	<p>Environmentally sensitive areas can be classified as those lands within the MGA that qualify as Environmental Reserve. This includes: a swamp, gully, ravine, coulee or natural drainage course; land that is subject to flooding or unstable; or the riparian area of lands directly adjacent to a lake, river, or stream.</p> <p>Buffering techniques are a proven tool to help mitigate conflict areas between different land uses as they provide a spatial and visual barrier. These are particularly important in agriculture, as if they are successfully developed; they can protect farm operations from the noise, odor and dust complaints generated from nearby residents. They can also help protect the operators from trespassing, littering, vandalism, and livestock harassment related issues.</p>

<p>13. The AMP supports the continued establishment of business parks to predominantly concentrate business land uses to nodes and corridors.</p>	<p>Purpose: to confirm that the AMP supports concentrated business park areas</p> <p>Justification: To help decrease development speculation and the number of business land uses in predominantly agriculture areas. This will better facilitate undisturbed agricultural operations, and concentrate business uses to certain areas, while also recognizing that certain types of businesses have limited impact in agricultural areas.</p>
<p>Category 3: Includes recommendations for Policies to be incorporated into future Intermunicipal Development Plans (IDP), Area Structure Plans (ASP), or Community Development Strategies (CDS).</p>	<p>IDPs are statutory plans prepared between two or more municipalities. ASPs and CDS's are grouped into 'new County community plans' for AMP discussion purposes. There are numerous examples of adopted IDPs and ASPs in the County, numerous amendment processes currently underway and future amendment processes anticipated. It is on this basis, that these recommendations are classified in the short to medium term implementation timeframe.</p>
<p>14. New IDPs, Community Development Strategies, or Area Structure Plans in urban interface areas, should include policies which align with the purpose and intent and recommendations of the AMP.</p>	<p>Purpose: to align future intermunicipal and policy plans with the purpose and intent of the Agriculture Master Plan.</p> <p>Justification: The Agriculture Master Plan is a high level Corporate strategy document which will need to be implemented through more specific policy plans if it is to be effective and utilized in those more detailed policy plan areas.</p>
<p>15. Where appropriate, new County community or IDP plans should recognize the potential for subdivision of agricultural parcels into smaller holding agricultural parcels in urban interface areas to provide a transitional land use. Land use and subdivision must still be based on a provision for a new and expanded (and appropriately located) agricultural activity, provision for a local food growing operation, or through another community supported agricultural land use.</p>	<p>Purpose: To provide general support for smaller holding agricultural parcels in urban interface areas but also indicates that the proposals should meet the 'new and expanded criteria'.</p> <p>Justification: Smaller scale, more specialized agricultural operations may be more appropriate in some urban interface areas. They can often serve as a transitional (and interim) land use, and take advantage of unique marketing opportunities in these areas.</p>
<p>16. Based on the recommendations of the Farmer's Market study, future community plans should include provisions for farmer's markets in public or private space areas in new or existing communities.</p>	<p>Purpose: In new community plans, to support and account for the development of farmer's markets, where appropriate, based on the market study.</p> <p>Justification: Farmer's markets are proven to be an attractive community amenity. While they can be supported in new community plans, there should be some guidance to where and how many are actually needed.</p>
<p>Category 4: Includes AMP recommendations which require consideration for amendment in the County Land Use Bylaw (LUB).</p>	<p>In the latter stages of 2011, the County will be initiating the process to undertake amendments to the Land Use Bylaw. Many of these amendments are minor / clarification items. The AMP included a comprehensive public consultation strategy which provided a detailed set of regulatory recommendations for inclusion in the LUB. Although some further consideration, study, and consultation is required, it is appropriate to consider these items within the anticipated LUB amendments. It is possible that the scope of the recommendation may exceed the more minor amendments proposed for the LUB update. If this is the case, consideration of some of these items may be more appropriate after adoption of the new County MDP. The timeframe for implementation of this category is therefore, short to medium term.</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<p>17. The County should undertake a separate process to consider the following amendments to the LUB:</p> <ul style="list-style-type: none"> a. The definitions provided in the AMP shall be amended to necessary County documents including the Municipal Development Plan and Land Use Bylaw, as required; b. The Land Use Bylaw Agricultural Districts should be restructured to include: greater variation in parcel size options; more standardization and consistency between Districts; and the allowance to subdivide a single parcel out of a previously unsubdivided quarter section without requiring land use redesignation; c. An expanded set of uses should be included in agricultural land use Districts which include: Farm Gate Sales; Agricultural Processing (with a maximum size established); Micro-generation Energy Production; Special Events; and special / expanded provisions for home based business operations in agricultural areas. d. Creation of an Agricultural District, with a significantly reduced minimum parcel size (+/- 2 acres) for specialized agricultural pursuits within growth areas or as a component of a conceptual community design, and does not permit the construction of any dwellings; e. Water supply for horticultural development should allow for groundwater sources (in accordance with Alberta Environment Regulations); f. Amend Section 7.17 of the Land Use Bylaw to exempt Agriculture, General, as a deemed approved use, on all agricultural parcels; 	<p>Purpose:</p> <p>To improve the regulatory framework surrounding the agriculture industry. Justification for each of the sub-points is provided below, using the alphabetical cross reference. Note: these require further analysis which is more appropriate during the future Land Use Bylaw amendment stages.</p> <ul style="list-style-type: none"> a. Definitions for terms should be consistent throughout all County documents; therefore, these should be included in other documents, where necessary. b. The restructuring of the Districts will allow for increased landowner land management options, more easily understood regulations, more administrative consistency, reduced overall costs for 'first parcel out' agricultural subdivisions, and improved processing times. c. The allowable uses in the Agricultural Districts should be expanded to include some additional opportunities for appropriate uses in agricultural areas to increase the potential for value added agricultural types and direct sales and marketing opportunities. A Home Based Business Type 3 provision would allow for an increased range of home based business operations on agricultural lands / areas. d. This is a new concept for an Agricultural Districts in Rocky View as it is contained on a small parcel size and does not permit a residence. Recent inquiries have suggested there may be development interest to pursue this type of opportunity. It is intended to be located within more urban settings, or as a key component of a community design. e. Water for agriculture related development should be in accordance with Alberta Environment Regulations, as the approving authority for this type of water license, and not superseded by County regulations. f. This is the exception, as included in the Land Use Bylaw. Agriculture, General, as a use – should not require a permit, even on parcels less than 40 acres.

<p>g. The regulations in the Land Use Bylaw surrounding Private Riding Arenas and Equestrian Centers (I and II) should be reviewed to identify any necessary improvements</p> <p>h. Review the provisions for issuance of permits for additional dwelling units in agricultural areas; including 7.23; and Additional Farm Dwellings in the Ranch and Farm Districts.</p> <p>i. Review the appropriateness of the 'Agriculture Intensive' use in the Agriculture Holdings and Farmstead Districts</p>	<p>g. Private riding arenas and equestrian centers can have impacts in agricultural areas. The regulations should be reviewed to determine if improvements to the regulatory framework are possible.</p> <p>h. Concerns were expressed pertaining to the number of dwellings permitted on agricultural lands. Review of the regulations may identify some improvements to the regulatory framework in this regard.</p> <p>Purpose: To evaluate the appropriateness of intensive operations on small agricultural parcels.</p> <p>Justification: Recognizing that the Natural Resource Conservation Board (NRCB) is the ultimate approving authority for intensive operations, the appropriateness of these operations on small sized agricultural parcels should be reviewed given the regional setting context of the County, and to help alleviate concerns from neighboring municipalities. The review would involve further detailed review of the matter, with consultation with the NRCB, and amendments provided, if necessary.</p>
<p>Category 5: Includes recommendations for policies to be included within the new County MDP but also requires additional corporate study, policies and programs which may need to be developed.</p>	<p>The process for development and adoption of a new County MDP is anticipated for 2012. Recommendations in this category; however, are not straight forward adjustments to existing MDP policy. Instead, they involve new concepts and policy direction for the County. The recommendations identify land as natural capital; they aim to preserve, maximize, and compensate for the natural capital value; they align with the direction of the Provincial Land Use Framework; and some rely upon additional provincial legislation and program development. These are recommendations are anticipated to be implemented in the medium to long term.</p>
<p>18. The natural capital value of agricultural lands should be recognized with appropriate criteria provided for its utilization. Future County Policy development should focus on policies and programs which allow utilization of this natural capital and fairly compensate landowners for this value. This includes utilization of: agricultural and eco-tourism based land uses; energy production; environmental enhancement and preservation, land stewardship initiatives and appropriately located, scaled, and mitigated resource extraction operations.</p>	<p>Purpose: To recognize that agricultural lands hold value as natural capital – which is the land and water resources that anchor our quality of life and support economic activity such as agriculture, forestry, recreation, tourism, and energy generation. It also includes other resources such as minerals, timber, and oil and gas as well as the living ecosystems – grasslands, wetlands, oceans and forests – that produce extremely valuable ecological goods and services. The purpose is not only to recognize these values, but also provide a supporting policy structure which allows landowners to utilize this potential.</p> <p>Justification: Agricultural land holds intrinsic value for uses other than strictly agricultural purposes. These uses can often be (and must be) developed in harmony with a primary agricultural related uses. With the economic difficulties surrounding the agriculture industry, these complimentary uses should be supported.</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<p>19. Regulations and policy development to allow for utilization of the land's natural capital in solar, wind, and biomass re-use energy production need to occur. This distinct amendment process should outline these as discretionary uses; and include different regulations for micro-level and commercial-level generation.</p>	<p>Purpose: to provide appropriate regulations for use of the land's natural capital in solar, wind, and biomass energy production.</p> <p>Justification: this is part of the utilization of the land's natural capital. There is currently no opportunity within the County's Bylaws to pursue these uses. Appropriate regulations must be provided; however, lands within the County have potential for energy generation, creating an additional income source, and providing a societal good in the process. They must; however, be developed as complimentary uses to agriculture and sensitive to the area context.</p>
<p>20. The AMP supports aligning the County policies to proactively utilize and champion legislation implementation for compensation tools included in the provincial land use framework regarding land stewardship and the benefits agricultural lands provide to the general public. This includes:</p> <ul style="list-style-type: none"> a. Market based incentives for agricultural land preservation; water & riparian area preservation and enhancement; important wildlife corridors or natural areas preservation; carbon sequestration; regional stormwater catchment and compensation; or others as appropriate. b. Use, support, and appropriately compensate through tax benefit initiatives for agriculture and conservation easements; c. Transfer of Development Credits d. Leasing or use of agricultural lands for other appropriate uses (natural areas, trails, low impact campgrounds; etc). 	<p>Purpose: To recognize that some of the concepts of the Provincial Land Use Framework, and supporting legislation are supported by the AMP. To recognize that the County is strategically located and has sufficient resources to potentially become a Provincial leader with implementation of this policy.</p> <p>Justification: utilization and implementation of these compensation based initiatives can potentially provide additional opportunities and funding mechanisms for agricultural landowners.</p>
<p>Category 6: Administrative: Includes recommendations to be delivered by the Infrastructure and Operations Department</p>	<p>Recommendations in this category are to be implemented by administration within the Infrastructure and Operations Department. Two very distinct recommendations are provided. The first is a clarification item to an existing Bylaw / procedure. The second involves an adapted road infrastructure planning program. This item will require future allocation of County budget money to implement. Recommendations in this section are intended to have a first phase implementation in the short term (Bylaw amendment and road infrastructure planning), while construction of suitable road infrastructure is a medium to long term timeframe objective.</p>

<p>21. The applicability of the Transportation levy for agricultural developments should be reviewed and clarified within the Bylaw.</p>	<p>Purpose: To review, clarify, and reference with the Bylaw, the applicability of the Levy for agriculture development.</p> <p>Justification: The levy is currently unclear on how it relates to agriculture development. For long term consistency, this should be clarified, and included within the Bylaw.</p> <p>Timeline for implementation: Short term</p>
<p>22. The County should include enhanced sub-grade priority planning for use as agricultural priority roads, with improved levels of service and connectivity. This include:</p> <ul style="list-style-type: none"> a. Identification of roads that classify as agricultural priority roads b. Road infrastructure built and maintained to a level of service that will support safe and timely movement of agricultural equipment and products; with signage highlighting the agricultural priority use of these roads. 	<p>Purpose: To research, identify, and over the long term establish and construct a portion of the County road network for use as an agriculture priority road system.</p> <p>Justification: The County functional road planning network focuses on the efficient movement of traffic and an appropriate level of infrastructure to support that. Agriculture operators have a different level of service need – and there are often conflicts associated with other traffic types. A supporting road system for agriculture will help alleviate some of those issues.</p> <p>Timeline for implementation: Item 21.a - short term. Item 21.b - medium to long term</p>
<p>Category 7: Administrative: Includes recommendations to be implemented by the Planning and Community Services Department</p>	<p>Recommendations in this category are to be implemented by administration within the Planning and Community Services Department. The recommendations generally require only a change in program focus, practice, or strategic service delivery. Some of these items will require future allocation of County budget money to implement. The implementation timeframe of the recommendations vary; therefore, the specific timeframe for each item has been highlighted and organized in terms of the shortest timeframe to implement to the longest.</p>
<p>23. Develop an educational program / information package for new acreage owners who have moved into agricultural areas regarding rural living awareness.</p>	<p>Purpose: To provide a better understanding of what living in rural areas means for new acreage owners.</p> <p>Justification: rural living awareness for the country residential population can help alleviate some of the conflict areas which are created out of lack of information for new country residential landowners.</p> <p>Timeline for implementation: Short term</p>
<p>24. Utilize the Agricultural Service's Board (ASB) expertise for support and implementation assistance of the AMP; and to support the development of partnerships to deliver educational programming through the Agriculture Services Department.</p>	<p>Purpose: to utilize the ASB's expertise to help implement the recommendations and develop further partnerships which can help enhance the effectiveness and intent of the AMP.</p> <p>Justification: The ASB consists of producer expertise and landowners who are passionate and have livelihoods in the agriculture industry. This knowledge base should be relied upon and utilized to help implement further agriculture policy development and program and service delivery.</p> <p>Timeline for implementation: Short term</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<p>25. Evaluate the needs of the Agricultural Services section in order to provide the enhanced service and program delivery anticipated by the AMP. Future budget adjustments and staff resourcing may be needed to reflect the outcome of that evaluation.</p>	<p>Purpose: Is to assess what particular adjustments and level of skill is needed to the staffing resources of the Agriculture Services area in order to deliver the recommendations of the AMP.</p> <p>Justification: The AMP identifies a pronounced level of service for the agriculture community. This may require adjustments to the level of staffing in the Agriculture Services Department in order to provide a different level of service.</p> <p>Timeline for implementation: Short term</p>
<p>26. Continue to order agricultural sub-region data sets to allow for continued monitoring and measurement for changes in agricultural practices, management, and expenditures in the agricultural sub-regions.</p>	<p>Purpose: To order future sub-region data sets based on the existing defined boundaries to allow for continued monitoring.</p> <p>Justification: Building on the current information data set will be important to track and highlight changing trends and land use patterns in the sub regions for future policy analysis and adjustment.</p> <p>Timeline for implementation: Short term - Continuous</p>
<p>27. Consolidate and expand grant programs in support of sustainable agriculture, land stewardship, and ecosystem management.</p>	<p>Purpose: To consolidate and expand the grant opportunities so that they can be promoted and more easily understood and located for potential producers to utilize.</p> <p>Justification: The AMP encourages sustainable agriculture, land stewardship, and ecosystem management. This will be achieved through working with individual landowners interested in pursuing these objectives, and through providing financial compensation initiatives.</p> <p>Timeline for implementation: Medium term</p>
<p>28. A market study evaluating the future potential for development of farmer's markets in the County should be undertaken.</p>	<p>Purpose: To provide an analysis on how many, and what locations are best suited for farmer's markets in the County.</p> <p>Justification: There are market limitations to the maximum numbers of farmer's markets which can be economically sustained. This analysis will help determine an approximate number and the best locations for these so the County can maximize their effectiveness. A private industry prepared market study would be acceptable to meet the intent of this recommendation.</p> <p>Timeline for implementation: Medium term</p>
<p>29. Track use of the new redesignation and subdivision framework for agricultural lands, and conduct a five year assessment of the effectiveness of their use, and impact on the rural land use pattern.</p>	<p>Purpose: To assess the impact of the new policy framework for agricultural lands and its effectiveness and impact on the rural land use pattern.</p> <p>Justification: Some of the new policies for agricultural related land use and subdivision significantly alter existing policy framework. The impact of these changes should be monitored – with potential future adjustments where required.</p> <p>Timeline for implementation: Medium Term</p>

<p>30. Foster capacity building for the agriculture community in areas of enhanced educational services, programs, website based information, support in the County Economic Development Strategy. Grants and recognition programs for the agriculture sector in product diversification, value added opportunities, and local food growing initiatives should be encouraged and expanded.</p>	<p>Purpose: To provide support and information resources to the agriculture community for diversification and specialization opportunities in the agriculture industry.</p> <p>Justification: The recommendation recognizes that there will be a transition period necessary for producers to gain expertise in alternative production types and diversification opportunities. Further diversification of agriculture can help aid the economic sustainability of the industry, and development of certain sectors (the local food sector) has additional benefits to public health; the local economy; community development; and the environment. Providing enhanced information in these areas can help assist in the development of this industry.</p> <p>Timeline for implementation: Medium Term</p>
<p>31. Focus agricultural and food education programs on youth.</p>	<p>Purpose: To build and focus future educational programs on the youth.</p> <p>Justification: The youth of today are the consumers and entrepreneurs of tomorrow. A stronger link needs to be made in the production and consumption cycle. Youth programs and services can be created and expanded to create this link. Opportunities include improved linkages between children and farming and food information in junior school curriculum; working with post secondary institutions including Olds College and the U of C, and establishing stronger linkages with local 4H community.</p> <p>Timeline for implementation: Medium to Long Term</p>
<p>Category 8: Includes recommendations which are related to higher level corporate initiatives</p>	<p>These are corporate initiatives which require follow up Council decisions to implement and longer term strategic alliances. The implementation timeframe of the recommendations vary; therefore, the specific timeframe for each item has been highlighted and organized in terms of the shortest timeframe to implement to the longest.</p>
<p>32. To adopt a County Right to Farm Policy which supports the unimpeded continuation of agricultural operations who follow generally accepted agricultural practices.</p>	<p>Purpose: to further demonstrate County support for agriculture and to highlight the fact that farming operations that follow acceptable agricultural practices will not be the subject of enforcement resulting from complaints made by adjacent country residential landowners.</p> <p>Justification: During the AMP consultation stages, the county's farming community indicated that more needed to be done at the municipal level to ensure farmers have the continued right to engage in acceptable farming practices and to continue operations without unnecessary restrictions (often put in place because of adjacent public concern).</p> <p>Timeline for implementation: short term</p>

Agriculture Master Plan (AMP) Recommendation	Purpose and Justification Implementation timeline: (immediate, short, medium, long term)
<p>33. Continue to update the tax rate comparison for agricultural lands between Rocky View County and other Municipalities in Alberta which surround urban centers. Phase in a slow adjustment to Rocky View tax structure for agricultural lands to be equal to the comparable Alberta Municipalities average tax rate for agricultural lands.</p>	<p>Purpose: To continue to assess tax rate comparisons with any necessary adjustments being a slow phased in adjustment to equal the comparable Alberta average rates.</p> <p>Justification: Current tax rate comparisons indicate that tax rates in Rocky View are lower than other comparable Alberta Municipalities. The AMP recommends improved service delivery, infrastructure development, and programs and educational services for the agricultural community. The agricultural community should fairly contribute for the improved service and program delivery. It is stressed that this is a longer term adjustment with the objective of being equal to other comparable municipalities.</p> <p>Timeline for implementation: short to medium term</p>
<p>34. The County should prepare a strategy to take a request to the province, representing the fact that oil and gas lease sites are industrial uses on agricultural lands – and the agriculture community should be compensated at industrial (and not agricultural) rates for use of their lands for those purposes.</p>	<p>Purpose: To prepare a strategy and take a request to the province which requests that oil and gas lease sites are industrial uses on agricultural lands – and lease compensation for those uses should be based on industrial land values.</p> <p>Justification: Oil and gas lease sites are industrial uses, and cause significant impact to areas outside of the immediate lease area. Fair industrial-rate compensation for use of these areas would better account for the true disturbance of the site, would meet the intent of compensation principles in the Land Use Framework, and would provide a useful additional income source to the farming community.</p> <p>Timeline for implementation: short to medium term</p>
<p>35. Develop a more regional perspective for broader agricultural support and local food sourcing initiatives.</p>	<p>Purpose: To develop a more regional perspective and over the long term secure a healthy, regional, local food system.</p> <p>Justification: development of a reliable local food sector has regional interest and benefits. Collaboration with neighboring municipalities can build on common interests and strengths of each to achieve broader agricultural policy support and food sourcing initiatives.</p> <p>Timeline for implementation: medium to long term</p>





Public Consultation

Public consultation was a key component to the development of the Agriculture Master Plan, and was instrumental in its success. The purpose of this consultation was to:

1. engage and learn from the public during the development stages of the Plan;
2. increase the overall awareness for agriculture among residents of the County;
3. highlight and celebrate the importance of the agriculture industry to the County.

The main components of the consultation process

Establishment of a Focus Group

One of the first priorities was to establish a focus group, consisting of volunteer members of the agriculture community with whom Administration could regularly consult on detailed aspects of the Plan. The role of the focus group was clearly identified to serve as a forum for Administration to obtain specialized knowledge of the agricultural community and business, provide policy guidance and technical input, and provide practical working knowledge of the existing challenges within the County regulatory framework surrounding agriculture.

Approximately 35 people volunteered as members, and they represented a broad cross-section of agricultural producers in the County. Regular and frequent communication with the focus group via email was part of the ongoing process. Six focus group meetings were held throughout development of the Plan. These meetings involved detailed working sessions and discussions, and provided a forum for an initial review of the plan's contents prior to full public release. Details of these meetings are summarized in the following Summary of Public Consultation Events.

Development of a uniquely themed and branded title for the project, entitled thinkfresh

This not only provided an identifiable brand for the project but also captured the new and innovative thinking for agriculture encouraged within the plan.

thinkfresh.

Development and utilization of a project website

This was a distinct micro-site linked to Rocky View County website on which all related messaging, information, surveys and updates for the project could be displayed.

www.thinkfreshrockyview.ca

The full draft version of the Agriculture Master Plan was available on the above website (and the main County website) since July 27 for public review/comment.

Three Public / Community Workshops

During the early preparation stages of the plan, the use of community workshops, as opposed to open houses, was incorporated into the consultation strategy. This approach was chosen as a more appropriate method to engage the agricultural public, who are generally hands-on, solution-oriented people. Two workshops were held at the project onset in April 2010, and a further workshop was held in February 2011 which primarily confirmed the direction and stated vision and goals of the plan. These workshops were hands on, working sessions, and provided detailed information on which specific adjustments to the plan were made. The community workshops as well as the open house included direct mail out invites to approximately 1000 members of the agriculture community through the Rocky View Agri-View newsletter.

Direct public input to Council was deemed essential to the success of the Agriculture Master Plan and was built into the process. All community workshops included the invitation for Council members to be present, both to hear presentations from Administration and to hear direct input from the public. The public was encouraged to talk to their Councillors at any time regarding development of the Plan.

One Public / Community Open House

The open house was held in July 2011 to provide a complete overview of the draft plan, highlighting the plan's recommendations and implementation measures.

Use of public surveys and correspondence list

Three questionnaires / surveys (paper form and web based) were developed to facilitate and encourage broader public input into the plan. Following each community workshop and open house, questions posed at the workshops were posted on the website and sent to members of the email list asking for input. Total responses from all surveys exceeded 300, providing essential information on details such as the plan: vision, goals, local food elements, and recommendations.

Use of miscellaneous communication and media forums

As highlighted, public consultation and overall awareness of the plan were important objectives for Administration in development of this plan. Several miscellaneous events and media forums provided these opportunities for consistent public updates on the plan. These included:

- VantagePoint magazine: The County's bimonthly news magazine featured a full page 'thinkfresh' award winner in each edition. This acknowledgement was assigned to an agriculture producer in the County who was conducting agriculture business in a new / innovative way. It was designed to solicit new production and marketing ideas from producers, draw attention to new ideas in the market place, and to encourage them to participate in the plan's development.
- Rocky View Agri-View newsletter: Approximately 1,000 members of the agricultural community receive a quarterly newsletter from the Agricultural Services section. This technical publication was also used to describe the purpose and process to develop the Plan, advertise community involvement options for the Plan and to raise the profile of agriculture.
- Annual Agricultural Tour: Each summer, a tour of local farms and ranches is hosted by Agricultural Services. As part of development of the Agriculture Master Plan, the tour's itinerary was modified to include examples of producers "thinking fresh" and implementing new or different production options to augment their income. This included market gardens, specialty livestock and meat operations, equestrian / training and boarding operations, herb and flower production and sales, as well as a wide variety of more traditional approaches. The tour also provided a unique opportunity to highlight the plan and provide updates to members of the agriculture community.
- The tour was rebranded in 2011 as "AgVenture Tour", and will retain a similar approach following implementation of the Agriculture Master Plan, to increase the awareness of agriculture among residents of Rocky View.
- Rocky View County's website and the Rocky View Weekly newspaper are recognized by the agricultural community as the most read information sources for county business. Notices of upcoming meetings and input opportunities were posted in advance of each session.

Stakeholder Consultation

This included consultation with industry specialists, provincial representatives, and neighbouring municipalities involving a variety of approaches. Informal personal meetings were arranged with related agricultural industry and commodity groups who may have a stake in development of the Plan. 4-H, educational institutions, the Horse Industry Branch of Alberta Agriculture, Alberta Lamb Producers, Alberta Beef Producers and Alberta Egg Producers were among the many

industry and commodity groups involved. Localized in-house meetings with interested garden clubs and community groups provided a very candid opportunity to gain local input into the plan. Invitations were extended to producers of local food to engage their perspectives as well. Neighbouring urban and rural municipal neighbours were formally circulated the draft plan for their input during the fall of 2011.

Reports to the Agricultural Service Board (ASB)

Frequent communication with the ASB was utilized to gain more specialized input and validate communications from the focus group, and the general public. ASB farm members and Council members alike had the opportunity to attend all community workshops and focus group meetings throughout the process.

All Agricultural Service Board meetings were open to public attendance.

Reports / updates to Council

These were important opportunities to communicate both progress and perspectives from the agricultural community to members of Council. Four Public Services Committee reports were provided by Administration to Council. In addition, Council members had the opportunity to attend all community workshops and open house events during the plan.

Non-statutory public hearing

The preferred method for final adoption of this non-statutory plan included a non-statutory public hearing. This provided a final public input forum to voice viewpoints on the plan's contents. The Agriculture Master Plan was intended to be presented to the Public Services Committee prior to any decision by Council on the Plan.

Development of the Agriculture Master Plan was designed to be inclusive, transparent, comprehensive, and as representative of the agricultural community as possible. The table below summarizes in chronological order the key events in the development of the Agriculture Master Plan.

Summary of Public Consultation Events

Date	Event	Attendance / Respondents
January 21, 2010	Update to Agriculture Service Board	
February 16, 2010	Public Services Committee (Terms of Reference adoption)	
March 11, 2010	Focus Group Meeting.....	28
April 12, 2010	Community Workshop.....	32
April 19, 2010	Community Workshop.....	20
May 5, 2010	Focus Group Meeting.....	14
June 15, 2010	Public Services Committee (update)	
June 28, 2010	Focus Group Meeting.....	12
July 22, 2010	Update to Agriculture Service Board.....	15
Summer 2010	Public Survey RE: Food.....	211
September 16, 2010	Update to Agriculture Service Board	
November 24, 2010	Focus Group Meeting.....	10
February 15, 2011	Public Services Committee (update)	
February 16, 2011	Community Workshop.....	28
February 16 – March 15 , 2011	Public Survey RE: Plan Goals.....	71
April 7, 2011	Update to Agriculture Service Board	
April 13, 2011	Focus Group Meeting.....	11
June 21, 2011	Public Services Committee (update)	
June 29, 2011	Focus Group Meeting.....	6
July 27, 2011	Community Open House.....	32
August 6, 2011	Update to Agriculture Service Board (farm member only) for detailed plan review.....	3
July 27 – September 5, 2011	Public Survey RE: Draft Plan and Recommendations.....	14
September 9 – October, 2011	Circulation of Draft Plan to neighboring municipalities.....	15
November 3, 2011	Update to Agriculture Service Board (final plan review)	
November 15, 2011	Public Services Committee (presentation of plan to committee including a public meeting with a recommendation for Council approval)	
November 29, 2011	Council approval of Agriculture Master Plan	



Glossary

Agriculture – the business of growing, raising, managing and sale of: livestock, crops and directly-related value-added processing, products and services on farms within Rocky View County

Agricultural Processing – means the use of the land or a building for the upgrading of a product, for distribution or for sale, that is originally produced in an agricultural operation.

Agricultural Support Services – means development providing products or services directly related to the agricultural industry.

Carrying Capacity – refers to the land's ability to appropriately provide essential site servicing such as potable water and household wastewater management without negatively effecting existing adjacent neighbors; account for stormwater management in accordance with County standards and master drainage plans; and demonstrate overall developability of the lands which provides appropriate building sites and does not negatively impact environmental features in the area.

Commercial Generation Energy Production – forms of energy production that produce more than 1 MW in generation with the primary intention for distribution back into the electrical power grid.

Community Plans – is a term used for a general grouping of two commonly used planning documents in the County, consisting of Area Structure Plans (ASP) and Community Development Strategies (CDS) for ease of reference within the AMP.

Community Supported Agriculture (CSA) – a form of an alternative food network that generally consists of a community of individuals who pledge support to a farming operation where the growers and consumers share the risks and benefits of food production.

Culinary tourism – is the pursuit of unique and memorable eating and drinking experiences from food which is often produced from the local region. It is not limited to gourmet or exclusive dining experiences, but instead is more about what is unique and memorable.

Environmentally Sensitive Areas – means those lands within the MGA that qualify as Environmental Reserve. This includes: a swamp, gully, ravine, coulee or natural drainage course; land that is subject to flooding or unstable; or the riparian area of lands directly adjacent to a lake, river, or stream.

Farm – consists of an agricultural operation with a gross annual sales of at least \$10,000.

Farm Building – means a building exclusively used for the housing of livestock, the storage and repair of farm machinery, the storage (and growing) of farm produce, or the storage of feed for livestock;

Farmers Market – a farmers market operates on a regular occurrence and is organized for the purpose of facilitating sale of locally grown produce, products, and related goods, in a setting which enhances personal connections between the consumer and retailer which in turn creates mutual benefits for local farmers, shoppers and communities.

Generally accepted agricultural practice – an agricultural practice that is conducted in a manner consistent with the appropriate and accepted customs and standards as established (in AOPA) and followed by similar agricultural operations under similar circumstances, and without restricting the generality of the foregoing includes the use of innovative technology used with advanced management practices.

Land stewardship – the practice of responsible land usage to ensure that natural capital is maintained or enhanced for future generations.

Micro-generation Energy Production – forms of energy production which generally produce less than 1 MW in generation capacity.

Natural Capital – the land and water resources that anchor our quality of life and support economic activity such as agriculture, forestry, recreation, tourism, and energy generation. It also includes resources such as minerals, timber, and oil and gas as well as the living ecosystems – grasslands, wetlands, rivers and forests – that produce extremely valuable ecological goods and services.

Natural Division – are lands separated from larger agricultural parcels by roads, rail lines, irrigation infrastructure, or impassable environmental features.

Regional Food System – a food production and delivery system which focuses on producing items which can be distributed within a regional scale in an attempt to minimize transportation and distribution costs and utilize the product within the local region.

Smart Growth (from the Agriculture Master Plan perspective) – is a term used to help define the appropriate citing, scale, and density for new country residential development that may occur in agricultural areas. The aim is to direct growth which promotes efficient use of the land by preserving working landscapes and the natural environment, minimizing and mitigating conflict areas, and results in new residential sites that are fiscally responsible.

Specialized Agricultural Production Area – a regional clustering of small scale, low impact, specialized agricultural production types associated with growing or raising products for distribution to the local economy and includes related elements such as value added processing and distribution.

Value Added Agricultural Products – secondary uses which alter the original agricultural product or commodity grown on site by the farmer and may be supplemented by products from elsewhere for the purpose of gaining a marketing advantage.



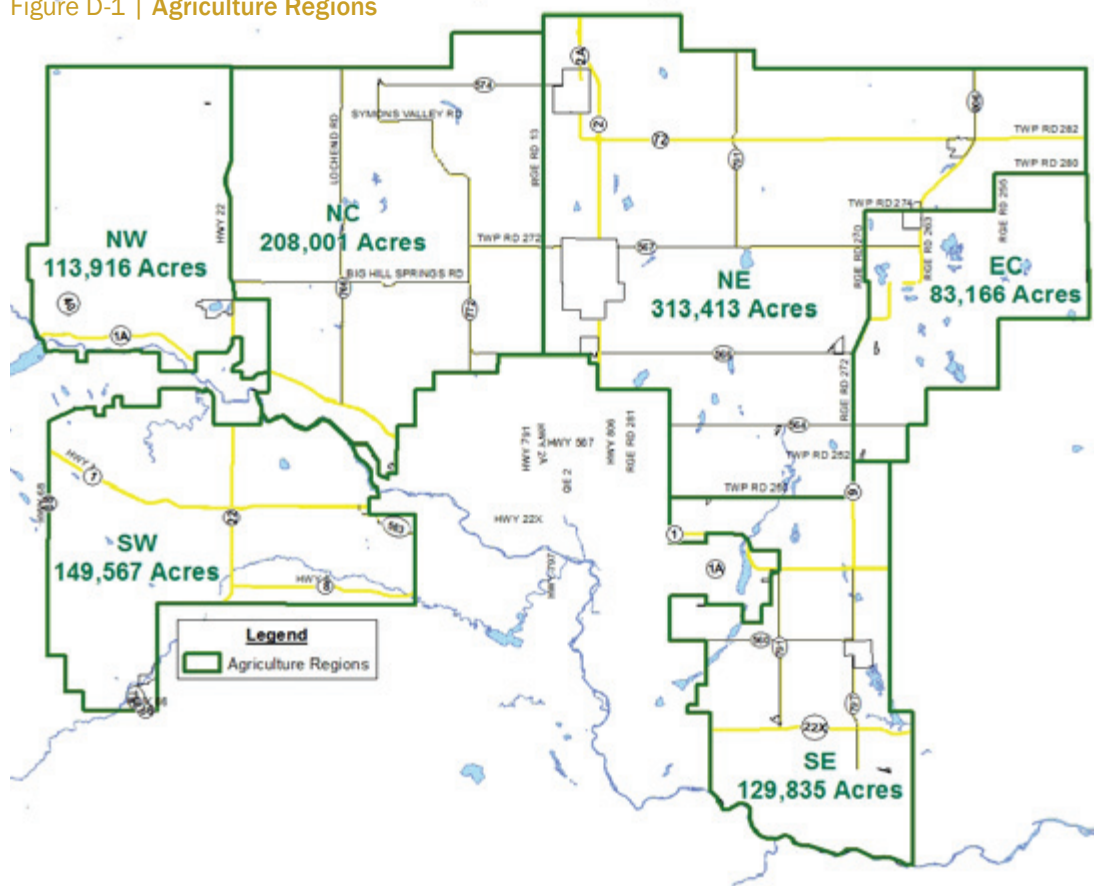
Census Information and Agricultural Regional Analysis

1.0 Introduction

The Agricultural Context Study (September 2009) was the County's first assessment of historical trends and changes in the agriculture industry. It looked at census information based on the 1981, 1991, 2001 and 2006 census data sets, from a County wide perspective. It considered things like: biophysical resources, changes in agricultural production types, demographic trends, land / parcel inventories, land uses, impacts from surrounding urban growth, and legislative considerations. The Context Study helped confirm that Rocky View County (RVC) has major distinctions in its agricultural land use pattern, biophysical attributes, and socio-economic characteristics – and a County wide perspective did not accurately depict what was happening in various regions within the County.

To assist in this regional analysis and to aid in development of the AMP, a different approach was utilized in the Statistics Canada census information data request. The intent was to identify distinct Agricultural Regions within the County boundaries, and order region specific census information based on these.

Figure D-1 | Agriculture Regions



1.0.1 Data Background

The statistical geographic research conducted for AMP divided RVC into six Agricultural Regions. The final delineation of the Agricultural Regions was intended to show areas that had similar patterns of land resources and land use activities and distinguish these characteristics from other Agricultural Regions.

Information in the context study was used to develop the agriculture boundaries. Soil class, vegetation, land use patterns, eco-regions, irrigation availability, oil and gas development, sand and gravel resources, dividing natural or physical barriers such as major roadways or water ways, and growth planning areas were all considerations for region identification. Interviews were conducted with county agriculture staff to confirm the nature of agriculture activities within the county. Methodology guidance and data insight was developed in conjunction with staff from Agri-Environment Services Branch, Agriculture and Agri-Food Canada. There were six regions identified, which are: South West (SW), North West (NW), North Central (NC), North East (NE), East Central (EC), and South East (SE).

Data for this project was acquired from Statistics Canada. Demographic information is from the 2006 Census of Population. The 2006 Census of Agriculture was also used, and this is where the customized approach was applied. By Statistics Canada definition, a 'farm' is any agriculture operation that has gross revenue of \$10 000 or more per year. The census data within the Agriculture Regions, used Geographic Information System (GIS) software, and spreadsheet applications to assist in region identification and analysis.

1.0.2 Data Limitations

The data included in this report represents a moment of time, being May 2006. Dollar values are reflective of the previous year (2005), and have not been adjusted for inflation.

During custom processing, Statistics Canada may suppress some data. This is to protect the confidentiality of respondents, where a limited sample size was available. Data aggregation methodology was used to fill in the missing values. This is when values are estimated by dividing the unassigned totals by the number of farms with suppressed data. All aggregated information has been indicated.

The demographic data is displayed by Statistics Canada 2006 rural dissemination areas. These areas do not follow the same boundaries as the 'Agriculture Regions'. The Statistics Canada data was not adjusted to match the custom regions boundaries, as this would assume a uniform population in that area. Therefore, numerical data is reported for the whole county, and regional demographic data is made by a visual reference only. The county wide data includes those areas that were not previously annexed by Calgary and Chestermere (as those events occurred post 2006 census). Nor does the data include information within the Cities of Calgary or Airdrie, the Towns of Chestermere, Cochrane, Crossfield, Biesieker or Irricana.

2.0 Data Analysis - Demographic Information

The demographic data discussed in this section is in terms of “per 100 people”. This is per 100 people living within that rural dissemination area. This methodology displays the information in a uniform way that is not affected by region size or population concentration.

2.0.1 Employment Information

Employment in Agriculture (Figure D-2) represents the number of persons employed in primary production (farming). This is one indication of the importance of the agricultural industry to the local economy in an Agricultural Region. In the County, there are 1465 people employed in the agriculture business of which 965 are male and 500 are female. This number excludes general laborers.

The NW, NE, EC and SE regions employ a greater degree of the population in agriculture pursuits, than other regions. The further the distance from more densely populated areas (City of Calgary, Airdrie, Chestermere), the greater is the increase in agriculture employment.

Figure D-2 | Agriculture Employment

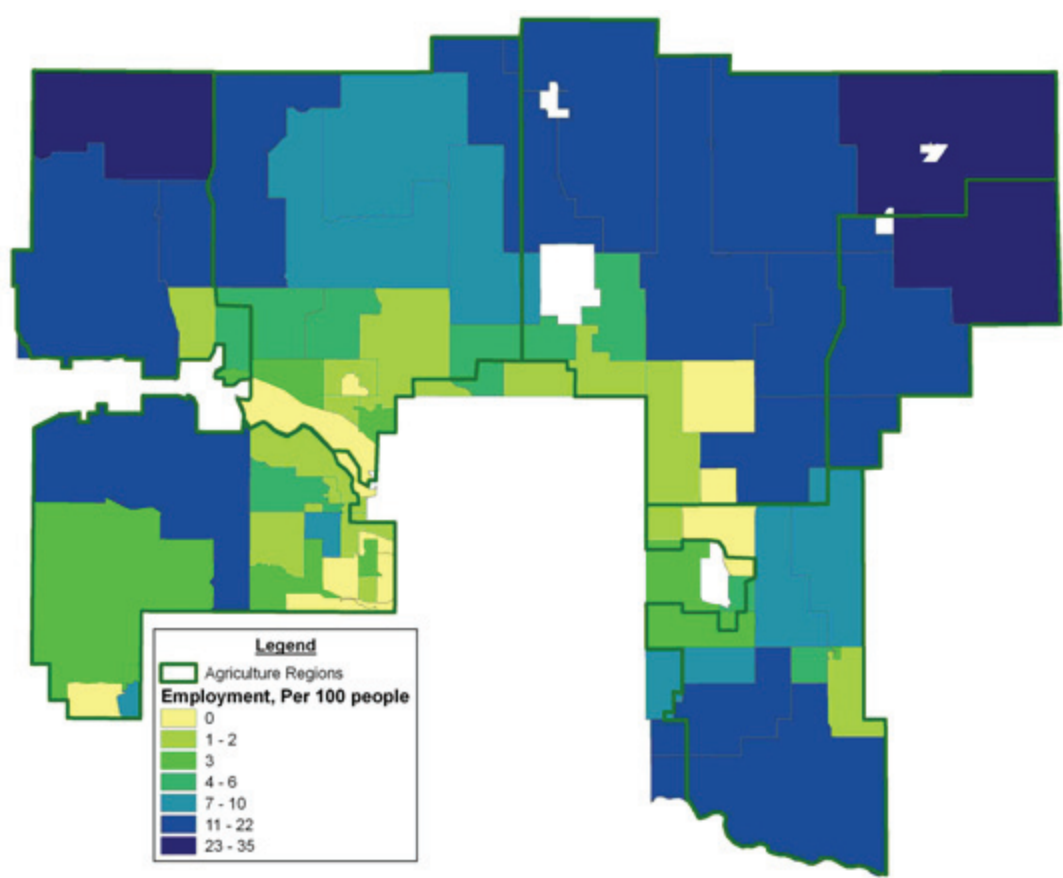
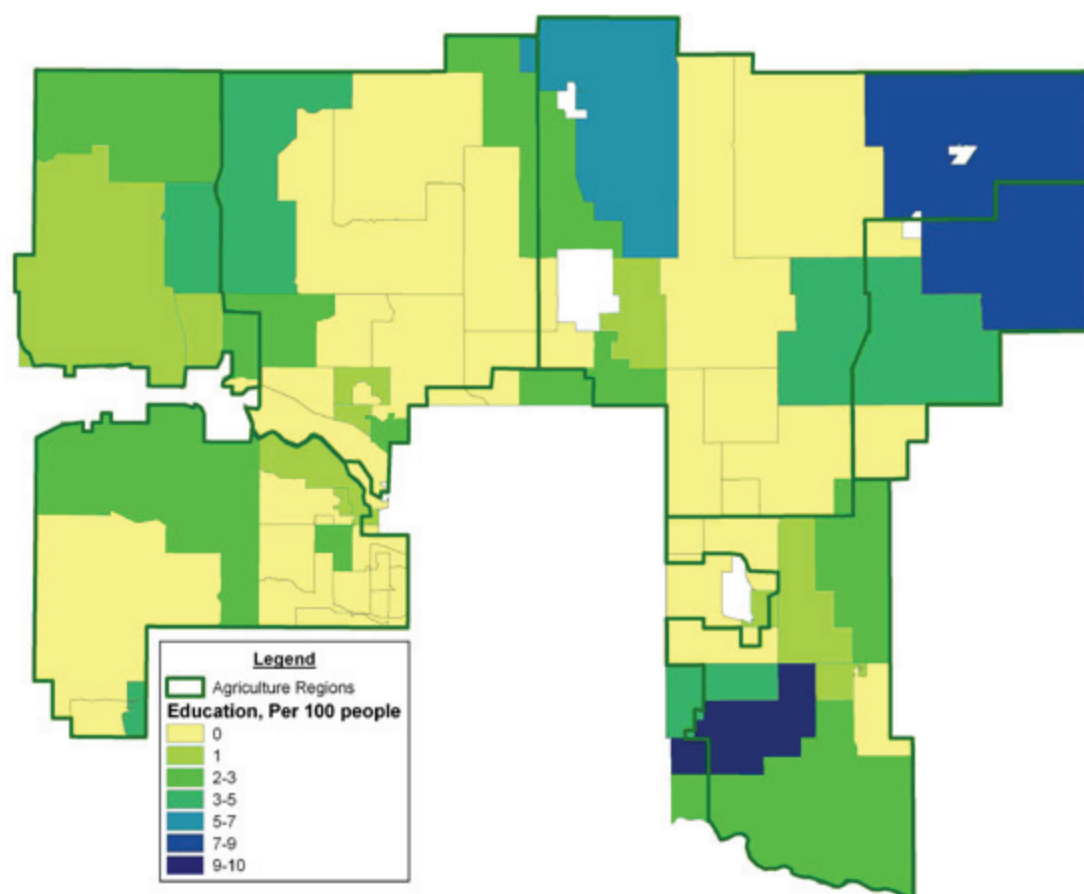


Figure D-3 | Agriculture Education



2.0.2 Education

Figure D-3 represents those who have completed post secondary education in the field of 'natural resources and conservation' as defined by Statistics Canada. This is one indicator of the intent an individual has in pursuing the agriculture industry as their career.

The NE and EC regions, and pockets of the SE region, show the highest degree of those with post secondary, agricultural related education. Of the 390 people in Rocky View with this type of education, 220 are male, and 170 are female.

2.0.3 Age of Farm Operators

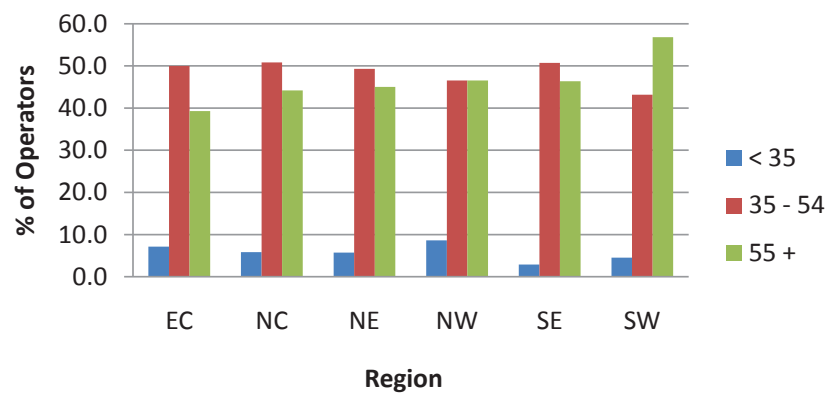
The total number of farm operators in Rocky View County is 2295 persons. On average, there are 1.5 operators per farm (this is consistent across Rocky View). General trends respecting the age of farm operators throughout the regions is also generally consistent.

For instance, farmers under the age of 35, make up between 3 to 8.5 % of the operators. 43 to 51 % of operators are between the age of 35 and 54, while the percentage of operators in the 55 + age range makes up between 40 to 46.5 % of the population. Overall, the number of operators over 35 years of age makes up 91.5 to 97 % of the overall population. Data (Context Study, 2009) also suggests that the percentage of people in this age grouping is on the rise. Succession planning for the next generation of farmers remains an issue.

There are some aspects of this farm operator demographic information worth noting. The highest percentage of young operators (< 35 years old), are located in the NW Region. Meanwhile, the lowest percentage of oldest operators (> 55 years old) are located in the EC region at approximately 39% of the total population.

The regional assessment of demographics will be interesting to track in the future to assess if / where new young operators are entering the industry.

Table D-1 | Per cent of Farm Operators by Age



2.0.4 Farm Operators Performing Non-Farm Work

Table D-2 highlights the amount of off farm work each farming operator conducts, by region. This is an indicator of how much an operator supplements their agricultural income, and how much time they spend working off the farm to do so. The hours reported are per week.

The percentage of farm operators that do not work outside of agriculture is fairly consistent amongst the regions, ranging between approximately 40 to 46 % of operators. The EC, NE, SE and SW regions show least amount of off farm work, ranging between 45 to 46 % of all farms not working outside the farm to any degree. This demonstrates that over ½ of all farms in Rocky View supplement their farming income with some outside income source.

For the purposes of this discussion, we have grouped the 0 to 20 hours and 20 to 40 hour categories together – into a ‘part time’ off farm income. The EC region is significantly lower than all other regions in this category, with only approximately 21% of its operators working off farm part time. The other comparable regions are the NE, SE and SW – all of which have approximately 28 to 30% of their operators working off farm part time.

Table D-3 provides a breakdown of ‘Full Time Operators’ who are those operators that put more than 40 hours of work into their agriculture operation per week. The EC region has the highest percentage of full time operators at approximately 43 %. The opposite is also true – as this region also has the least amount of operators working off of the farm. The NW region in contrast, has the lowest percentage of full time operators, and also the highest number of operators who work off of the farm.

Findings of all demographic data suggest that: the EC region has the highest percentage of operators under 55 years old, the highest percentage of full time operators, and the highest percentage of operators who do not supplement their farm income with off farm income sources.

Table D-2 | Hours of Off Farm Work

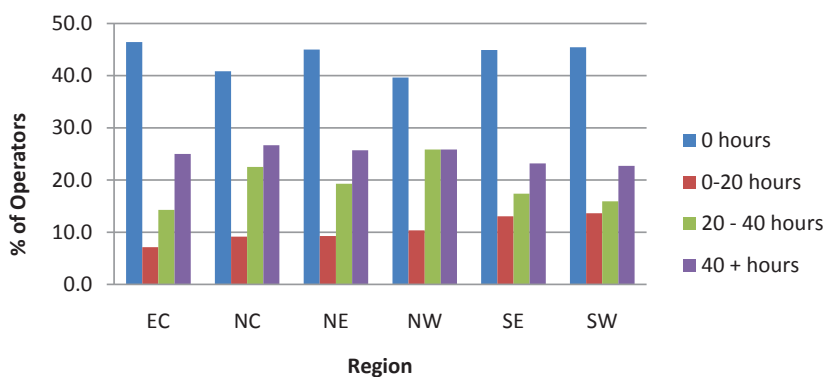


Table D-3 | Full Time Operators

Region	% of Full Time Operators
EC	42.9
NC	30.0
NE	37.9
NW	29.3
SE	40.6
SW	36.4

3.0 Data Analysis – Farm Operation Information

3.0.1 Farm Sizes

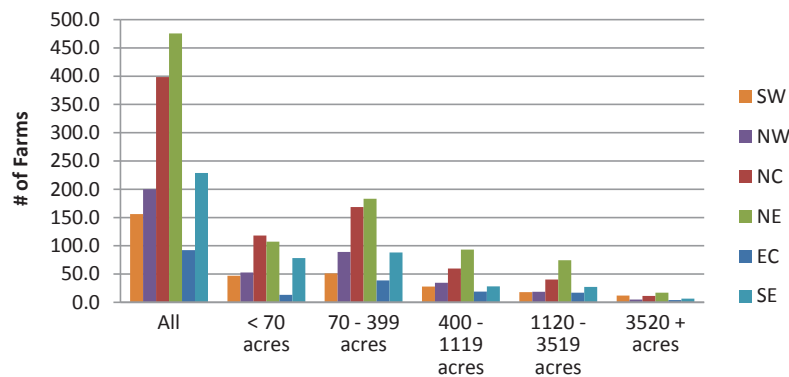
Tables D-4 and D-5 provide an assessment of farm sizes by region. There are 1551 farms in Rocky View County. The total land operated by the RVC agriculture industry is 1 081 670 acres. This total acreage is larger than County agricultural lands because it includes lands farmed outside of RVC borders.

The 70-399 acre farm size category has the highest percentage of farms in all regions. These are relatively small farms and represent the type of land holding pattern now in the County. These farms do; however, represent a fairly small percentage of overall land area, ranging between approximately 6 to 14 % of the total land area in any region. As farm size increases, the percentage of farms in that category decreases.

The large number farms in the small farm size categories (all farms less than 400 acres) hold a low percentage of the overall land area in any given region. For instance, in all regions, only 1% of the total land area is within the less than 70 acre farm size category (while they generally represent between 25 to 30 % of the overall number of farms). The EC region is the exception – with only 14% of the farms in that smallest farm category. When looking at all farms less than 400 acres in size; the highest percentage of overall land in those combined categories is in the NC region at 15%. The data suggests that while Rocky View County has a large number of smaller farms, they still represent a fairly small portion of the overall land area.

Intermediate sized farms (400-1119 acres) see a general increase in the percentage of land, and a decrease in percentage in the numbers of farms in that category. The pattern between this

Table D-4 | Farm Size by Region



category and the Large farm category is quite similar in the number of farms in each category, and the general percentage of overall land area they encompass.

Analyzing the results from the two largest farm categories identifies some interesting points. This is accomplished by combining the last two categories on [Table D-5](#). These two largest categories combined, constitute 66 % or more of the overall land area in any given region. The SW has the largest percentage of land in these categories at 82%. The EC region meanwhile, has the highest percentage of its farms in those two categories – with 22%.

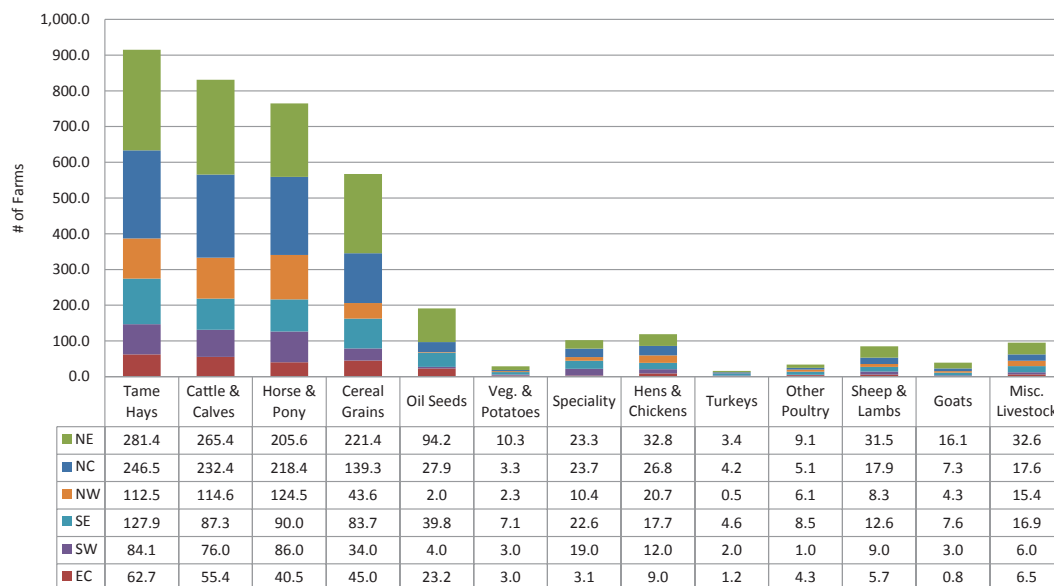
Table D-5 | Size by Region Compared to % of Land

Farm Size	< 70 acres (Small Farms)	70-399 acres (Medium Farms)	400-1119 acres (Intermediate Farms)	1120-3519 acres (Large Farms)	3520 + acres (Very Large Farms)
EC % of Farms	14	42	21	18	4
EC % of Land	1	9	17	41	32
NC % of Farms	30	42	15	10	3
NC % of Land	1	14	17	33	34
NE % of Farms	23	39	20	16	4
NE % of Land	1	10	19	42	27
NW % of Farms	26	45	17	9	3
NW % of Land	1	13	20	30	36
SE % of Farms	34	39	12	12	3
SE % of Land	1	10	13	40	35
SW % of Farms	30	33	18	12	8
SW % of Land	1	6	11	24	58

3.0.2 Overall Farm Production Types

Table D-6 provides an analysis of the type of farming activity occurring in each region. It highlights the big 4 production types in the County as being: tame hays; cattle and calf operations; horse and pony farms; and cereal grains. Production in oil seeds were not heavily planted (in 2006 census).

Table D-6 | Number of Farms by Farm Type per Region



Tame hay: Alfalfa and alfalfa mixtures, other tame hay and fodder crops, forage seed for seed, triticale

Cereal grains: Wheat, oats, barley, mixed grains, corn, rye

Oil seeds: Canola, flaxseed, dry field peas

Speciality: sod, nursery products, Christmas trees, fruit, berries and nuts, and greenhouse products

Other poultry: geese, ducks, roosters, ostriches, emus, pheasants, quail and wild turkeys

Misc. livestock: Pigs, Bison, Llamas, Deer, Elk

Note: one operation may be included in several farm types

Of the 1551 farms in Rocky View County, more than 900 of them have some production in tame hay. This does in part, support the extensive cattle/calf and horse/poney operations of the regions and provide a local market for their yields. The NE and NC Regions have the most number of farms that are involved in tame hay production. Topography, climate and soil types are main drivers in supporting the farm type in this region (see Context Study for more information). There is an extensive acreage population in Rocky View, many of whom enjoy equestrian recreation activities. While many of the recreation activities are more directly related to county residential, they can potentially benefit the farming industry through providing a local market for their products.

Cereal and oil seed crops are also significant on the RVC agriculture landscape. There are 567 and 191 operations (respectively) involved in this type of farming in Rocky View. Again, the majority of them are located in the NE and NC Regions.

All other remaining production types are significantly lower than the main 4. The data does however suggest that there are nearly 100 operations in several of these speciality categories, and when compared with the Context Study information, they also appear to be on the rise. Further tracking of the changes over the census periods will provide an interesting assessment of changes in the industry.

Table D-7 provides an overview of the area of land dedicated to a particular crop type (versus the number of farms with that crop type in **Table D-6**). It shows the extent to which different types of farming are occurring in each region and clearly illustrates the predominant farming activities as being cereal grains and tame hay production.

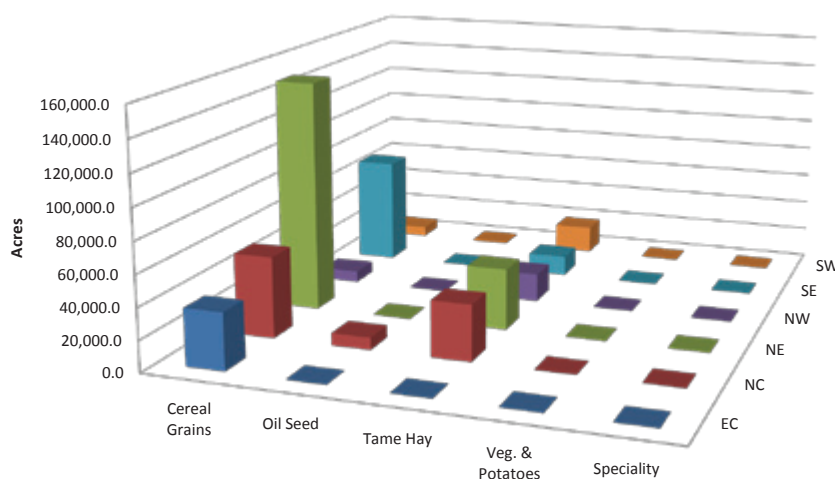
The NE Region does not have the highest number of farms with cereal grain crop type (the NC region does), but it does have the highest dedicated land base to this crop (149 624 Acres). These are large farms focusing on cereal grain production. Acres dedicated to cereal grain production are also very significant in the EC, NC and SE regions. In total, 321 640 acres are used for cereal grain production in Rocky View, which is over 1/3 of the total area of RVC.

Cereal grains far exceed the tame hay crop type in terms of area, which is the second largest dedicated to a specific crop type. In total, 124 471 Acres are used for tame hay in Rocky View, with the NE Region dedicating the most at 39 536 Acres, closely followed by the NC Region, at 35 962 Acres.

There are only two regions that dedicate lands to oil seed production, the NC and SW; with 7 852 and 630 acres respectively. Although other regions reported farms with this crop type, the amount was insignificant to register any acres dedicated to this crop type.

Vegetables and potatoes have limited land dedication with the production occurring in the more eastern regions of the County. The EC and NE Regions dedicate the most lands to each type,

Table D-7 | Acres by Crop Type per Region



	Cereal Grains	Oil Seed	Tame Hay	Veg. & Potatoes	Speciality
EC	36,436.6	0.0	0.0	231.5	44.7
NC	52,259.3	7,851.6	35,962.2	10.1	0.0
NE	149,624.2	0.0	39,536.4	190.6	379.0
NW	7,260.4	0.0	18,226.7	5.0	0.0
SE	69,492.2	0.0	12,986.9	14.9	0.0
SW	6,567.2	629.6	17,758.9	5.0	0.0

231 and 190 acres respectively. These two regions are the only ones that reported acreage to specialty crops, at 44 and 379 acres each. These regions have the opportunity to utilize the extensive irrigation network, which helps facilitate production.

3.0.3 Field Crop Production

Figure D-4 shows the amount of lands in field crop production and the field crop production type in each region. Field crops are defined as cereals, oil seeds and hay. There is limited hay production on the eastern side of Rocky View. Likewise, cereal crops become more limited on the western side. Oil seeds are the least produced field crop in Rocky View.

The percentage of land dedicated to field crops in each region is displayed in the Table D-8. The percentage of land per farm dedicated to crops varies significantly throughout RVC. This describes the variability of operations on farms. The average acres per farm in crops, is an indicator of the degree of dependence a particular operation has on field crop production. Those with a higher dedication of land would typically invest and specialize more in this type of operation.

Figure D-4 | Field Crops

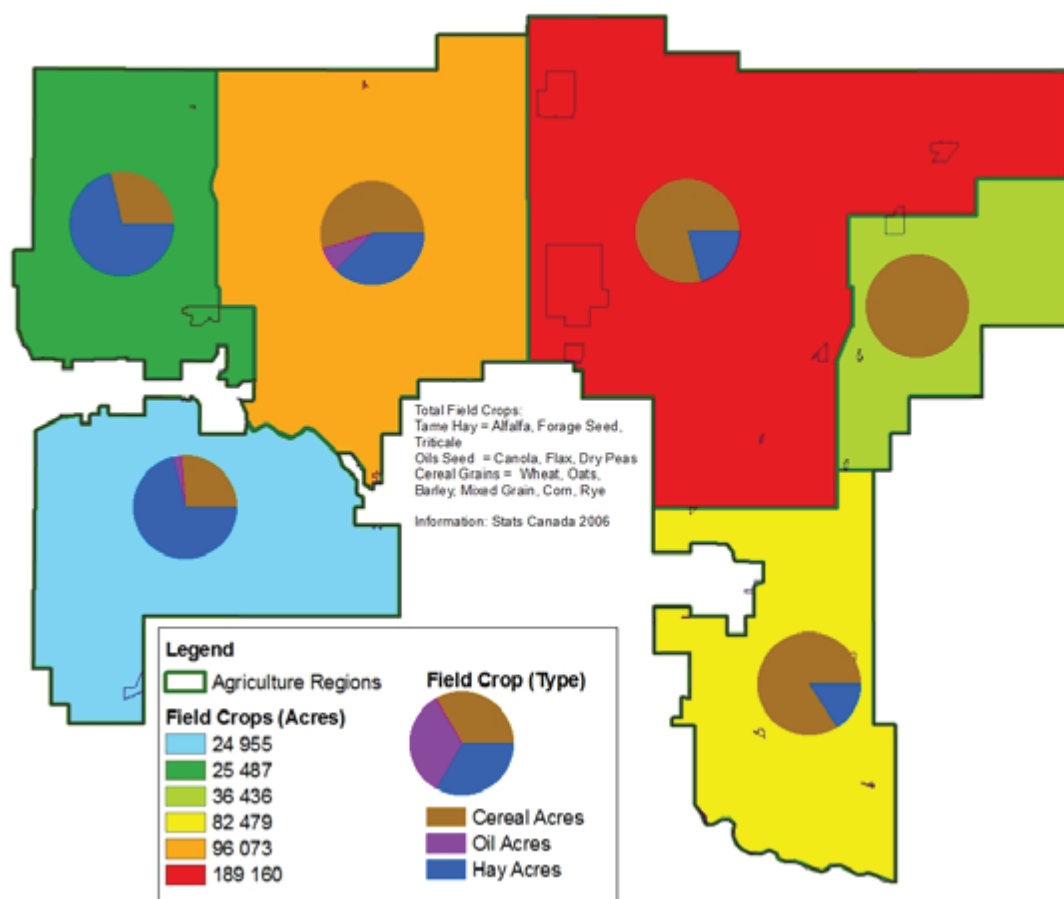
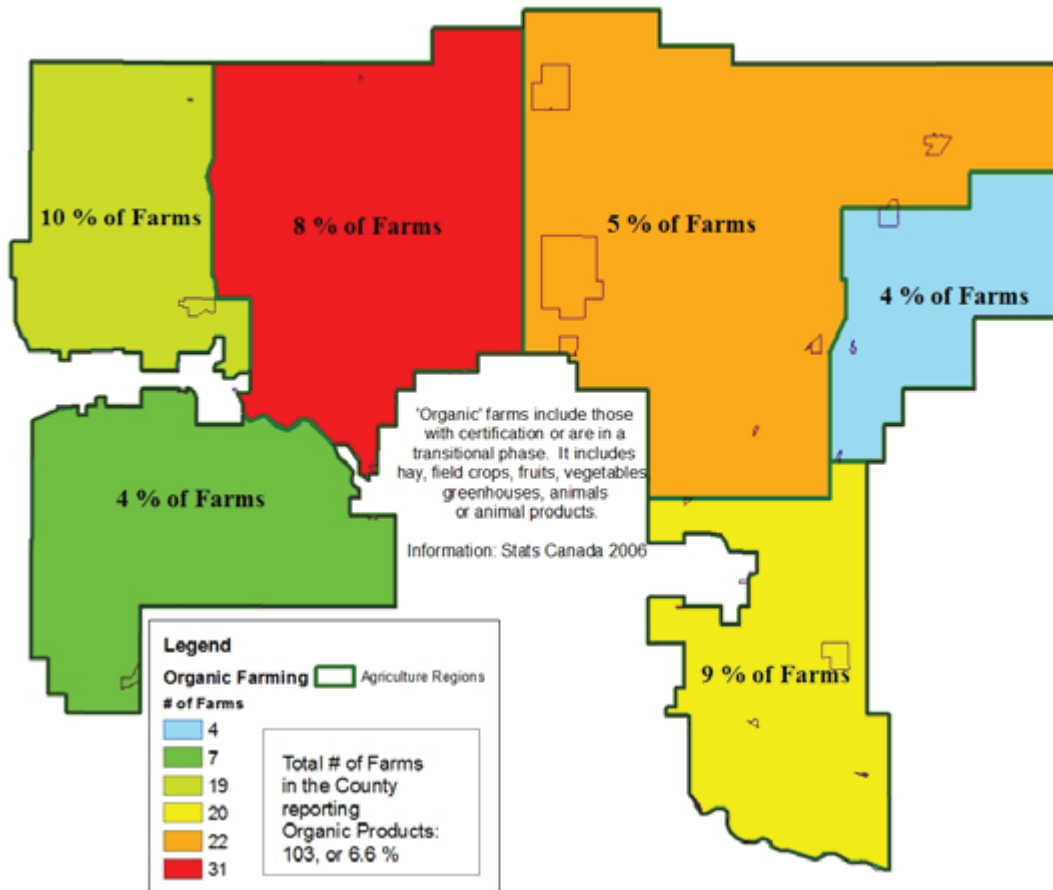


Table D-8 | Percentage of Land Dedicated to Field Crops

Region	% of Full Time Operators	Average # of Acres in crops per farm
EC	46	394
NC	41	131
NE	57	315
NW	21	36
SE	58	304
SW	15	42

Figure D-5 | Organic Farming



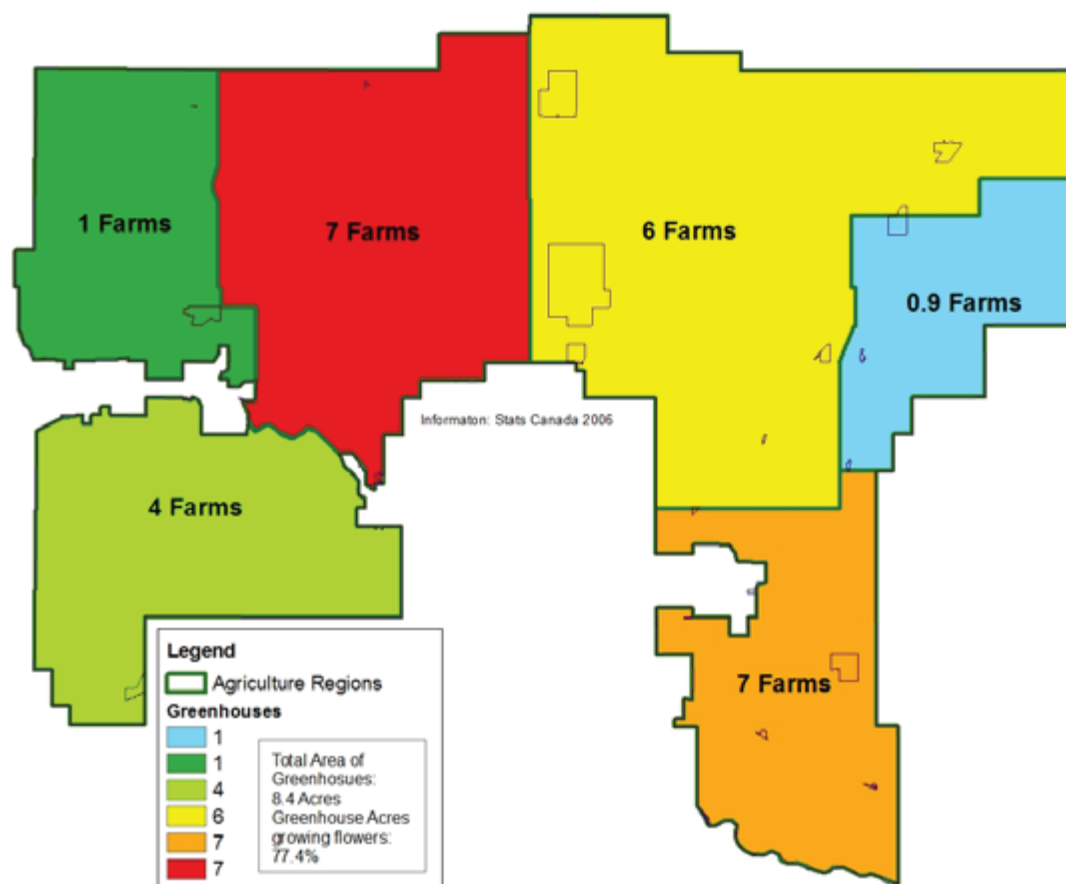
3.0.4 Organic Farming

Organic designation by Statistics Canada is defined as those operations that have organic certification or are in a transitional phase. The highest % of farms with organic status is the NW Region, and the least is the EC Region. The highest number of farms in RVC with organic status is in the animal or animal product industry (at 64 / 103 farms). The next is hay or field crops (45/103 farms), last is fruit, vegetables and greenhouses (15/103 farms). Of the 103 'organic' farms in RVC, 64 are fully organic and 39 are in the process of obtaining organic status. Supplemented with information found in the Context Study, one concludes that organic practices are an increasing trend in RVC.

3.0.5 Specialty Production

For the purposes of Figure D-6, specialty production means production within a greenhouse. There are only a limited number of greenhouses in Rocky View. A total of 8.5 acres of land is occupied by the 26 greenhouse operations reported. The majority of greenhouse enterprises grow flowers. The SE and NC Regions have the most number of greenhouses. The largest size green houses are in the SE and SW at an average of 0.5 acres per operation. In proportion to the overall number of farming operations in RVC, the SE has a disproportionate number of farms and overall area of greenhouse development.

Figure D-6 | Greenhouses



3.0.6 Cattle and Calf Operations

Cattle and calf operations have a major role in the agriculture industry in Rocky View. The total number of cattle in Rocky View (in 2006) was 166,269.

The highest numbers of animals are located in the NE and NC regions. Combined, they have over 110,000 animals, representing 67% of total cattle numbers for the County. The SE region has the lowest number of cattle of all regions.

Table D-9 provides an overview of the number of farms with cattle, the percentage for the region, and average cattle numbers per farm. The percentage of farms with cattle in all regions ranges from a low of 38% in the SE region to a high of 60% in the EC region. Based on the number / percentage of farms involved in the cattle, this portion of the industry clearly plays a major role for agriculture in the County. The SW (followed by the NE) have the highest number of cattle per farm by a fairly significant margin.

Figure D-7 | Cattle and Calf Operations

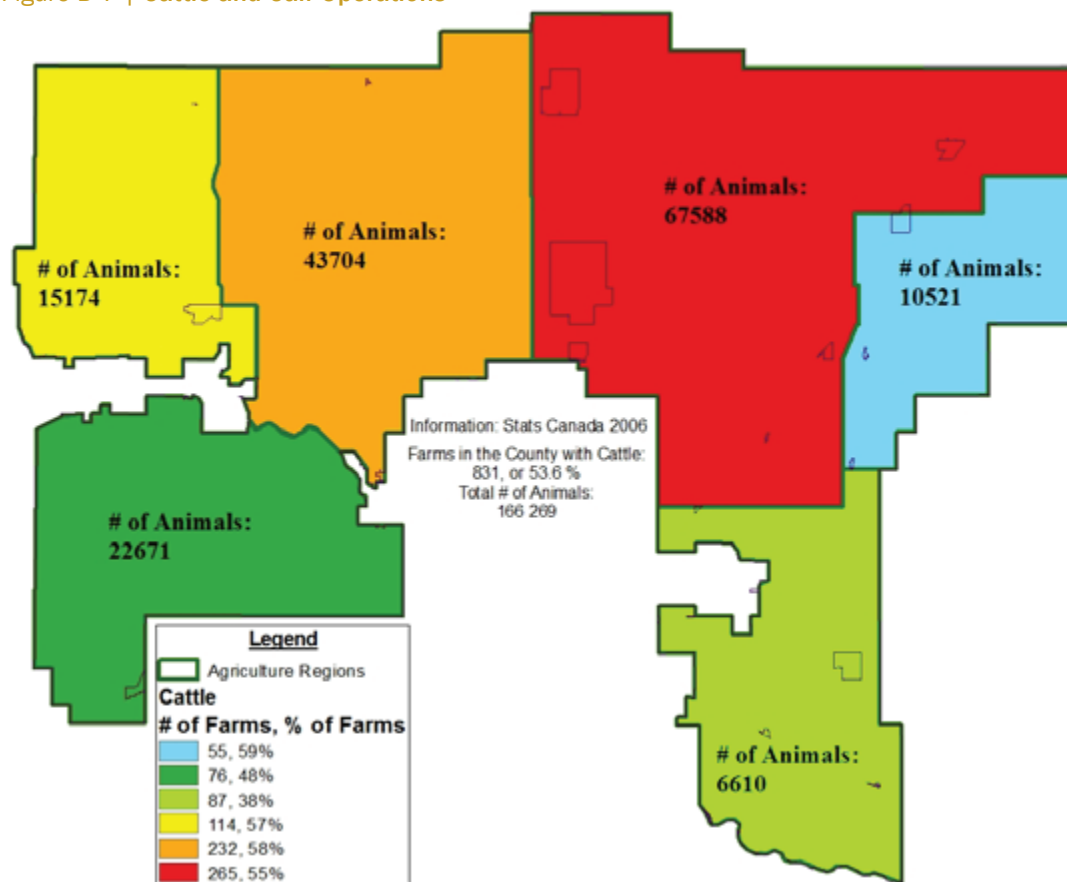
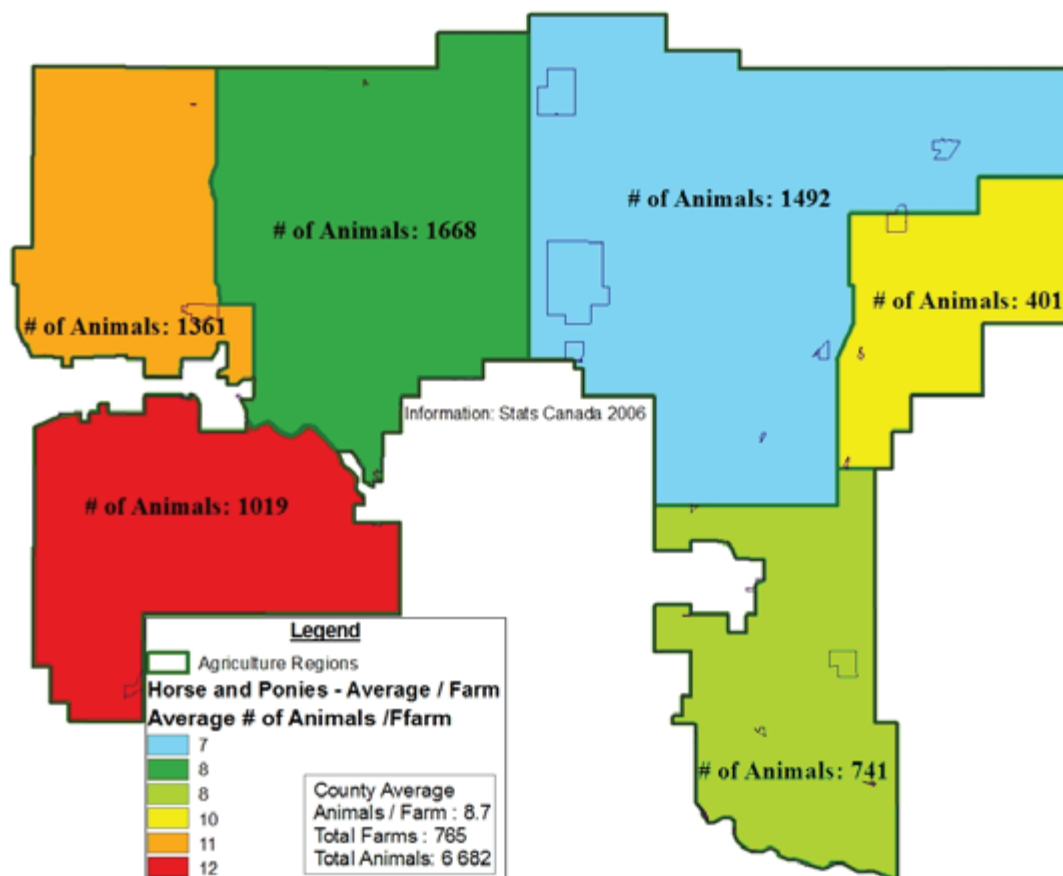


Table D-9 | Cattle and Calf Operations

Region	# of Farms with Cattle	% of Farms with Cattle	Total # of Cattle and Calves	Average # of Cattle per Farm
EC	55	60	10,521	190
NC	232	58	43,704	188
NE	265	56	67,588	255
NW	115	57	15,174	132
SE	87	38	6,610	76
SW	76	49	22,671	298

Figure D-8 | Horses and Ponies



3.0.7 Horse and Pony Operations

There are 765 farms in Rocky View that are involved in raising horses and ponies. In total, there are 6682 horses and ponies in RVC. It is acknowledged that some of these animals are raised and used in ranching operations; however, a significant number are also more directly linked to recreational related uses.

The majority of farms with these operations are located in the NC and NE regions at 218 and 205 farms respectively. The least number of farms raising horses and ponies are located in the EC and SW Regions at 40 and 86 farms respectively.

The recreational use of horses is an expanding sector in the county (Context Study, 2009). Development of country acreage residential homes and smaller agricultural holdings parcels facilitates this lifestyle. Riding trails are also becoming more common in the county.

The average number of horses and ponies per farm (Figure D-8) is per horse and pony producing farm; not per farm in general. The average is from 7 to 12 animals per producing farm. These numbers suggest that this is a supporting business, and that an agriculture venture is not solely dependant on the production of horses and ponies. Specialized breeding is also a significant horse operation in the County, and is often done on a small scale.

3.0.8 Poultry Operations

Poultry production includes a number of different animal species (chickens, turkeys, and ‘other’ birds). Of all poultry production in the county, the animal units of hens and chickens far exceed any other species.

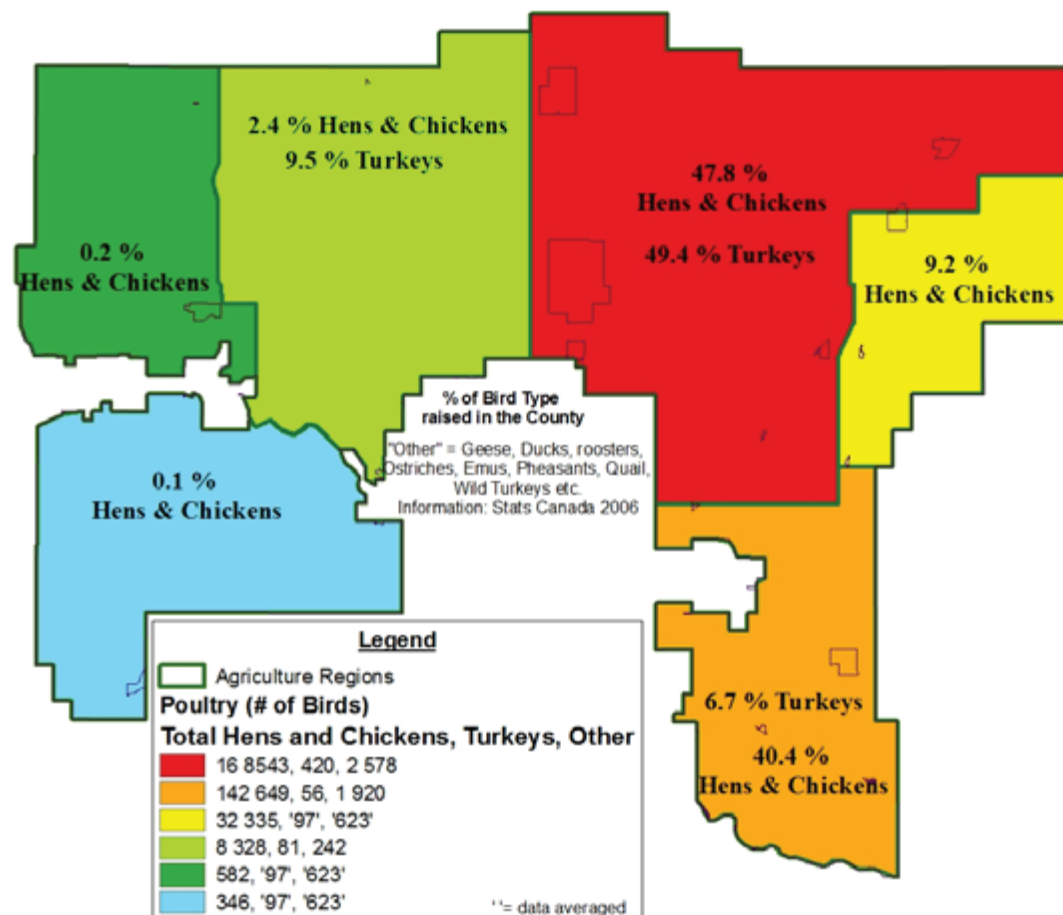
Figure D-9 shows the percentage of bird type raised within a region, compared to other county regions. The majority of large hen and chicken operations are located in the NE and SE regions, with a combined +/- 88% of the county’s production in this area. Although there are fewer farms in the SE region than the NE, they produce more animals; at an average of 8041 per farm vs. 5138 per farm.

Turkey production is not as widespread as chicken and hen production. The highest number of farms producing turkeys is in the NE region, with 3 farms producing a total of 421 animals. The rest of the operations in RVC produce between 57 and 98 animals, with 1 to 4 farms in any region (the EC, NW and SW Regions are averaged due to low reporting volumes). In total, in 2006, only 16 farms produced a total of 852 turkeys.

Table D-10 | Hens and Chickens

Region	Farms reporting	Number of Birds	Animals per Producing Farm
EC	9.0	32,335.7	3,608.9
NC	26.8	8,329.0	311.2
NE	32.8	168,543.0	5,138.5
NW	20.7	583.0	28.1
SE	17.7	142,649.1	8,041.1
SW	12.0	346.1	28.8

Figure D-9 | Poultry Farms



3.0.9 Sheep and Goat Operations

A total of 109 farms are managing 7865 sheep and goats in the county. Figure D-10 shows the percentage of farms in a region with an element of sheep and goat production. Although this industry comprises a small percentage of total farms (between 5 to 9 %), this is on the increase – and the Table and Figure indicates that these operations are fairly evenly spread throughout the county regions. Sheep and lamb enterprises exceed goats by almost 7:1.

The NE region has the highest number of farms and sheep/lamb production, at 31 farms producing 3357 animals. The SE region is a distant second place, producing only approximately 1/3 of the NE region. However, the number of animals produced per farm is similar, suggesting the farms are generally of equal size.

There are a limited number of goat operations in RVC. The NE region produces the highest number of animals, being 472 animals on 16 farms. The SE region is the next largest producer, at 7 farms producing 283 animals. There may be a pattern emerging in the NE / SE regions with respect to this type of production, as operations may be catering to local dietary specifications.

Similar to the sheep and lamb operations, based on the number of animals being raised / per farm, these operations would likely be considered supplementary to other endeavors.

Figure D-10 | Sheep and Goat Farms

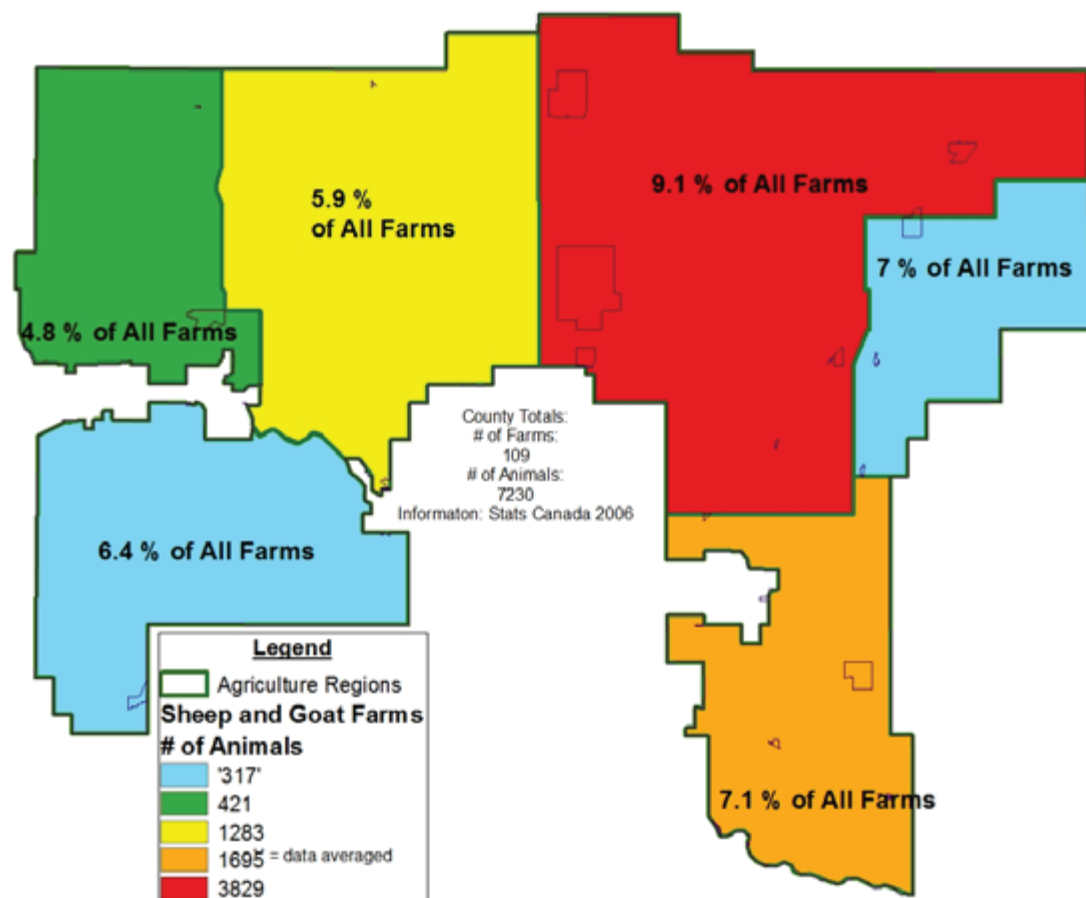


Table D-11 | Sheep and Goat Farms

Region	Total Sheep and Lamb Farms Reporting	# of Sheep and Lambs	Animals per Producing Farm	Total Goat Farms Reporting	# of Goats	Animals per Producing Farm	% of Farms with Sheep/Goats/Lambs
EC	5.7	216.2	38	1.0	64.0	32	7.0
NC	17.9	1,179.4	66	7.3	104.5	14	6.3
NE	31.5	3,357.6	107	16.1	472.0	29	10.0
NW	8.3	360.6	43	4.3	60.9	14	6.3
SE	12.6	1,412.2	112	7.6	283.5	37	8.8
SW	9.0	291.0	32	3.0	64.0	32	7.7

The red numbers indicate averaging due to low volumes reported

4.0 Data Analysis - Farm Revenues and Capital Investment

This section reviews farm revenues and capital investment, on a county regional analysis.

4.0.1 Operating Expenses

Four tables are used in this section to highlight operating expenses. These include analysis on: expenses per acre, total expenses, livestock related expenses, and crop related expenses.

‘Livestock related expenses’ includes total feed, supplements, hay purchases , livestock and poultry purchases , veterinary services, drugs, semen, breeding fees, etc. ‘Crop related expenses’ includes fertilizer and lime purchases , herbicides, insecticides, fungicides, etc, and seed and plant purchases. ‘Other operating expenses’ include repairs and maintenance to farm buildings and fences , rental and leasing of land, buildings, farm machinery, equipment and vehicles, electricity, telephone and communication services, and all other expenses (excluding depreciation and capital cost allowance).

The expenses per acre vary significantly for production type and from region to region. The NE region has the highest per acre operating expense at \$410, whereas the NW region has the lowest at \$111. This significant variation will be due to production type, and the amount of inputs contributing to that production – which allows for operator discretion. The differences in operating expenses for the NE region compared to other regions appear to be more directly associated with the difference of input costs in the livestock operations, as that region has

Table D-12 | Expenses (\$) per Acre

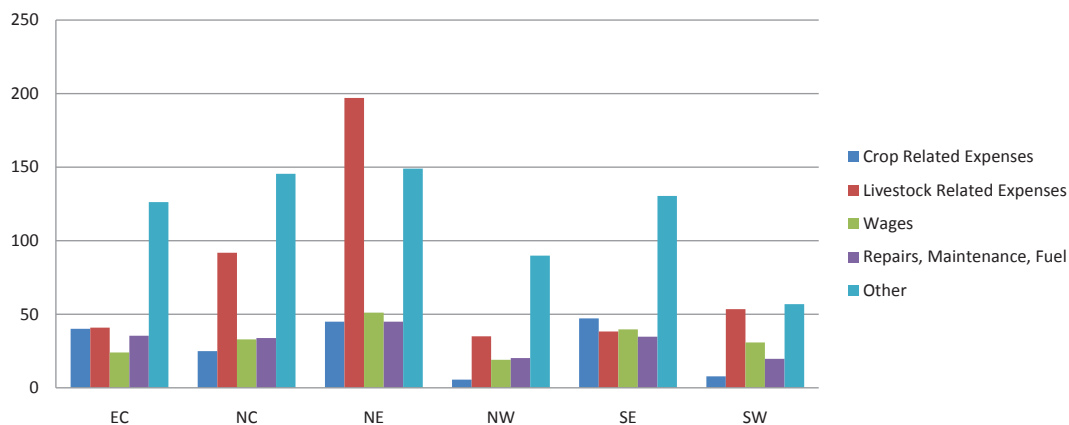


Table D-13 | Total Expenses

Region	Farms reporting	Total Amount (\$)	\$ per Acre
EC	92	15,658,738	188
NC	398	49,324,730	237
NE	475	128,595,468	410
NW	200	12,605,630	111
SE	229	28,704,982	221
SW	156	21,475,412	144

Table D-14 | Livestock Related Expenses

Region	Livestock Related Expenses (Total \$)	Total number of Cattle and Calves	\$ per Animal
EC	3,400,716.8	10,521.5	323.22
NC	19,106,062.8	43,703.9	437.17
NE	61,733,691.0	67,588.3	913.38
NW	3,981,159.5	15,174.4	262.36
SE	4,968,431.4	6,610.3	751.62
SW	7,991,144.9	22,670.6	352.49

Table D-15 | Crop Related Expenses

Region	Crop Related Expenses (\$ per Acre)	% of Crop Related Expenses
EC	40.1	21.3
NC	24.9	10.5
NE	45.0	11.0
NW	5.6	5.0
SE	47.1	21.3
SW	7.7	5.4

double the operating expenses of any other region. Furthermore, when comparing crop related expenses, the SE region has the highest related expenses per acre in that category.

In all regions other than the SE, the input costs are higher, on a per acre basis, for production in the livestock sector compared to grains, seed or hay businesses. This does not suggest that one venture is more profitable than the other.

The livestock related expenses per acre are closely associated with the number of livestock in that region; however, the expenses per animal varies in each region. The NE region (which has the highest number of animals and the highest expenses), has the highest expense per animal ratio, at \$913.38. Whereas the NW region has the lowest expense to animal ratio at \$262.36. The NW region, does however have the highest % of organic farming, which would mitigate some of the animal care costs. Also this region's farms purchase the least amount of feed off farm compared to other regions – producing most of their feed on their own land.

Crop related expenses also vary from region to region. Again, the NW region has the lowest expenses (per acre) in this area, and the SE region has the highest. The NW also spends the lowest percentage of their budget towards crop related expenses, however, the SE and EC regions have allocated more of their budget to crop related expenses then any other region. These two regions have different percentages of crop related expenses due to the focus of their operations. The SE and EC have more crop related operations than natural pasture, which has generally lower input costs associated with it.

4.0.2 Gross Farm Receipts

Gross farm receipts are the total incoming dollar revenue of a farm, (excluding forest products). [Table D-16](#) isolates the gross farm receipts per acre, based on the farm sizes within a given region. There is also a comparable table ([Table D-17](#)) which shows the total of all farms, by region, and the gross farm receipt \$ / per acre.

Table D-16 | Gross Farm Receipts (\$) per Acre by Region

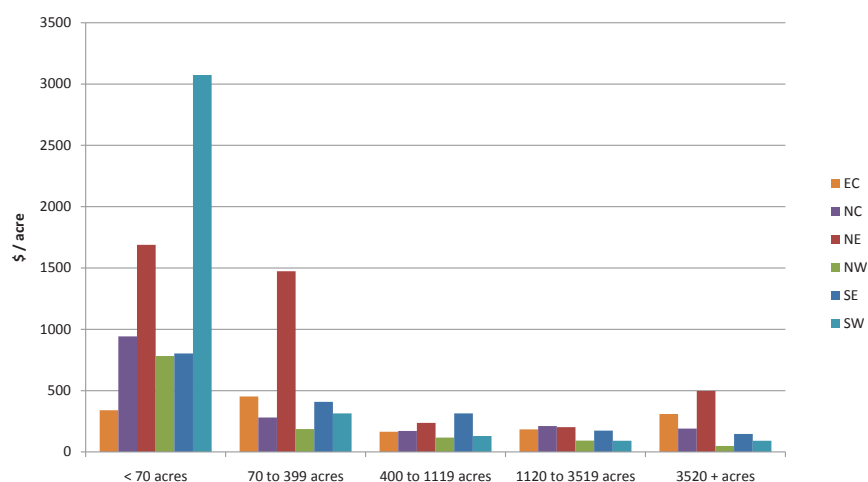


Table D-17 | Gross Farm Receipts (\$) per Acre

Farm Size	EC	NC	NE	NW	SE	SW
< 70 Acres	340	942	1689	782	803	3074
70 to 399 Acres	452	281	1474	187	409	314
400 to 1119 Acres	165	172	237	117	314	130
1120 to 3519 Acres	184	211	202	93	174	91
3520 + Acres	310	190	498	48	147	91
All Farms	246	217	436	104	217	126

Overall, gross farm receipt results for the NE region (\$436 / acre) indicate that it is the highest generating region for farm receipts in nearly every farm size category (with a notable exception in the smallest farm size category). There is a difference of \$1385 per acre revenue between the SW and NE region in this farm size class. Therefore, a statistically significant percentage of the 30 small farms in the SW region are raising the average revenue of those farms – substantially greater than small farms in all other regions. For this small farm type, the SW and NE regions have developed operations that produce high revenue to acre ratio.

In comparison, the least revenue generating region is the NW (\$104 / acre) in almost every size class, except for the smallest farms, where the EC is the least generating.

Separated by farm size and compared by acre, the NE region clearly collects the most revenue in the very large farm size category, at \$498 / acre, which is \$188 more than the next closest region.

4.0.3 Net Farm Revenue

Net Farm Revenue is the difference between expenses and gross receipts (net \$ / acre).

The table (Table D-18) displayed assesses net dollars per acre by region. It is averaged for all farms in a region, and is not separated by farm size class. Due to the Freedom of Information and Protection of Privacy Act (FOIP) regulations, Stats Canada will not release this detailed information.

Regardless of operation type and size, the EC and NE regions are the highest net revenue producing farms in RVC. At \$49 and \$48 per acre, they are producing \$37 per acre more than the next highest profit generating region, which is the SE region at \$17 per acre.

On a per farm basis (Table D-19), the profitability *value* (actual \$ value) also varies significantly; however, farms are ranked the same as the per acre comparison. The NE and EC are still the top two net earners (at \$42,333 and \$33,268), however the farms within the EC region, are substantially greater net earners (by \$9065 per farm over the NE region farms). On average, farms in the SW region faced net loss in 2005.

Table D-18 | Net \$ per Acre by Region

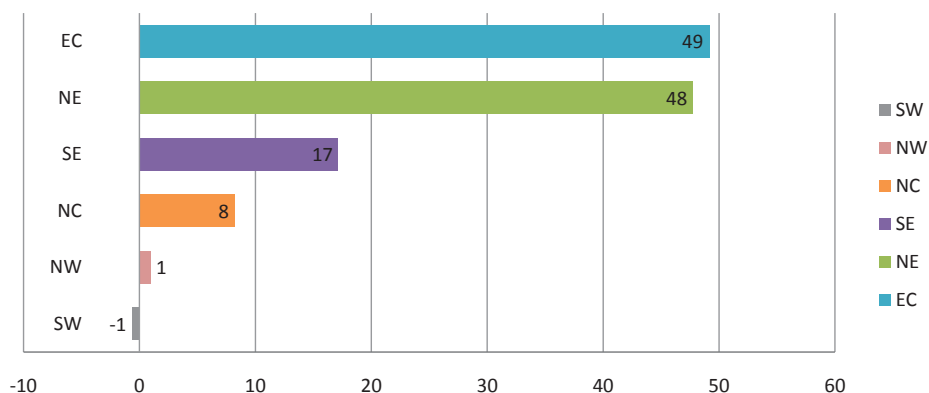
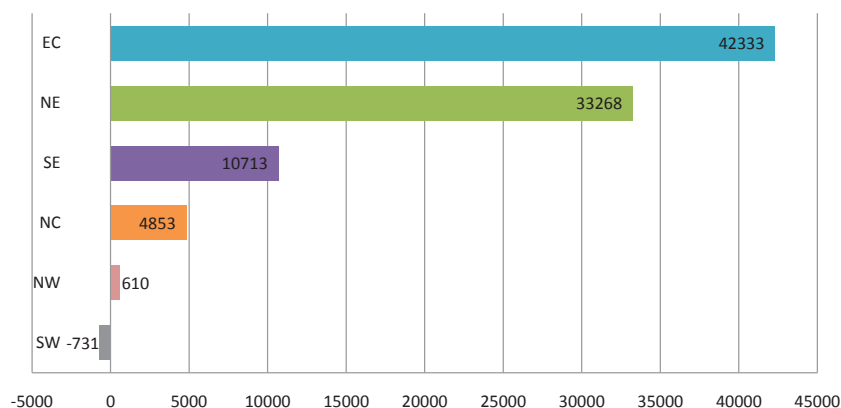


Table D-19 | Net \$ per Farm



4.0.4 Profitability Ratio

The ratio of total income to total expenses is an indication of the profitability of farms in an Agricultural Region. A ratio of 1.20 suggests that a farm is generating \$1.20 for each dollar of expenses. Farms with a ratio of 1.05 to 1.20 indicate farms earn between \$1.05 and \$1.20 for every dollar spent. For ratios less than 1.05 they earn \$1.05 or less, for every dollar spent. Based on Statistics Canada information, farms with a profit ratio of less than 1.05 are *not considered profitable*. Farms which have a ratio between 1.05 and 1.2 are *somewhat profitable*, but are considered to be in a marginal state. Farms with a ratio of 1.2 or greater, are considered the *most profitable* farms in agriculture, and should have access to sufficient financial resources, should conditions change.

The data points to some interesting results. Farms that are in the non profitable range account for more than half of the farms in RVC, and are fairly evenly located throughout all regions of the County. This information does not tell us how many are close to the breakeven point, or how many operations are in serious financial trouble. It is also only a snap shot of 2005 financial status, we do not know if there was a one time, large investment that may have affected their bottom line for that year.

The information also indicates that all regions of the county have a significant percentage of farms in the highest profitability category (between 25 to 34% of all farms). This suggests that: there is significant discretion in the incomes of farms, and it is not necessarily production type or location which determines the profitability of a farm, but other factors are the largest determinants. These would include elements like: production techniques, farming area, inputs, use of appropriate technologies, expense management, yields, and overall entrepreneurship which are the biggest factors. Based on the information obtained, no direct factors to link profitability in these various ranges can be obtained.

The 'somewhat profitable' range includes between 8 to 13% of farms in the County, with again no separation based on location factors. When the somewhat profitable and the most profitable farm categories are combined, between 36 and 44 % of all farms in the County fall within this profitability range.

Compared to the net \$ per farm or acre assessments, this information changes the perspective on how *much* of a profit or loss each farm incurs. For example, 28% of the SW region's farms are very profitable, with a ratio of 1.2 or greater; however, on an average net revenue per farm or per acre basis, this region was negative in 2006. In this region in particular, there is a significant variation between profitable and non profitable farms.

Overall, the profitability information on farms is an indicator of the economic challenges the industry has had to face in recent decades. It does however suggest that there is significant variation between farms and farming types for their specific profitability even within the same regions. This leads to speculation that management practices are a significant factor in determining this profitability.

Table D-20 | Per Cent of Farms in Profit Ratio Range

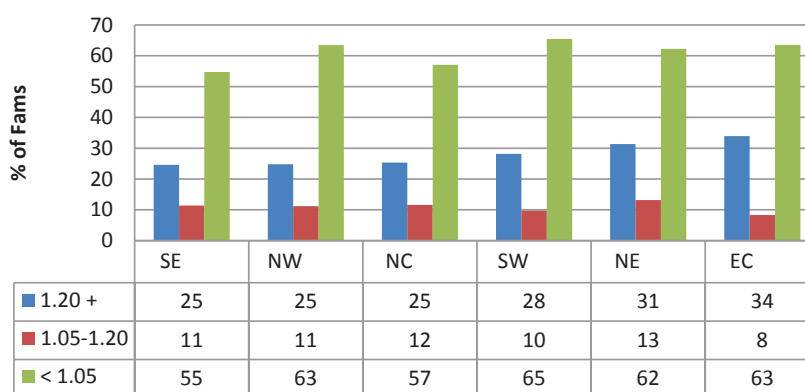


Table D-21 | Capital Investment (\$)

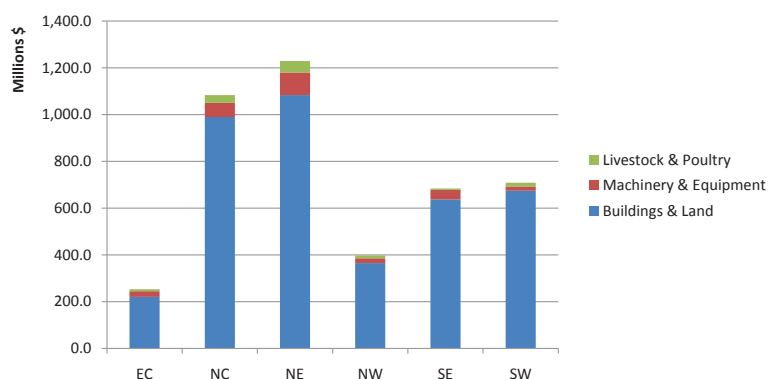
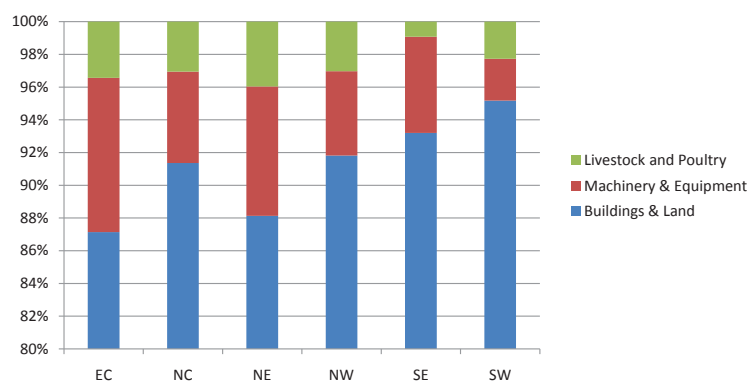


Table D-22 | Capital Investment (%)



4.0.5 Capital Investment

The following graphs display the dollar value of capital investment; and the category percentage of total investment for each region.

This information highlights the major capital investment for agriculture in the county being the extremely high value of land. This includes land as well as built improvements (buildings on it). The county's proximity to urban centres, developemnt speculation, and general increase in property values are drivers to the increased value of agriclutre land in the area.

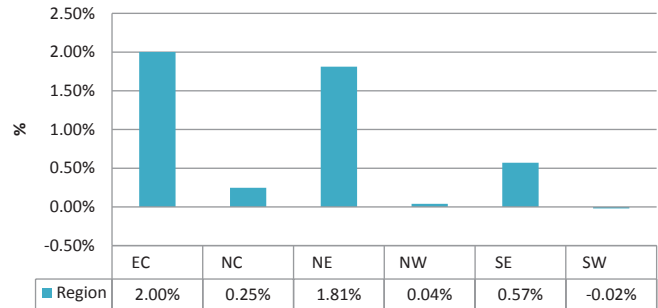
It is important to note that many of the investments can be made on a local basis, providing a market for expanded agriculture pursuits and extended services to the current operations. In total, county farms have invested more than \$260,346,000 in machinery and equipment, \$124,682,110 in livestock and poultry, and the land and buildings are estimated at \$2,792,119,581.

4.0.6 Return on Assets

Return on Assets (ROA) is a financial marker often used to describe the financial health of an agriculture based business. It is defined as net income / assets. It recognizes that agriculture pursuits require heavy capital investment. Assets include owned buildings, land, livestock, poultry, machinery & equipment. The higher the ‘return’, the more effective the investments have been.

The EC and NE regions have the highest rates of return, and they are the most profitable (section 5.3). These regions also have the lowest investment amounts, and the highest net incomes. The SE has a greater return on assets than the NW and NC, even though they have similar profitability stats. The SW region, has a negative rate of return, but has 38% of its farms in a ‘profitable’ state. The SW and SE have similar dollar values in capital investment, but allocate them differently; the difference of these two regions is their net incomes.

Table D-23 | Return on Assets





AGRICULTURE MASTER PLAN

Prepared by Rocky View County, approved by Council on November 29, 2011.

Rocky View County | 911-32 Avenue NE, Calgary, AB T2E 6X6

TEL 403.520.1271 | **FAX** 403.277.5977 | **EMAIL** agservices@rockyview.ca



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