

Sturgeon County Agricultural Engagement Strategy

Prepared For
Sturgeon County
Morinville, Alberta

Prepared By
Serecon Inc.
in association with
Toma & Bouma Managements Consultants
Stantec Consulting

May 2018



serecon

May 15, 2018

Sturgeon County
Attn: Ms. Natasha De Sandi
9613-100 Street
Morinville, Alberta
T8R 1L9

Dear Ms. De Sandi

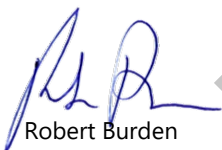
Re: DRAFT REPORT FOR AGRICULTURAL ENGAGEMENT STRATEGY

We are pleased to submit our Draft Report for the Sturgeon County Agricultural Engagement Strategy. Serecon and our project partners have found this process most interesting and believe that there are several unique factors that sets the County apart and trust we have conveyed them in the following document.

Our approach was slightly different than in the initial proposed methodology, but we believe that it has provided significant opportunity for engagement by all stakeholders and has facilitated the development of an increased level trust and cooperation. Your involvement in this process has been greatly appreciated.

Thank you for this opportunity to work with you. Should you have any questions or require further clarification on any aspect of our report, please do hesitate to contact us.

Yours truly,
Serecon INC.


Robert Burden

Enclosure

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1.0 Project Objectives & Methodology

1.1 Context

The challenge of managing growth for rural municipalities that are adjacent to urban or industrial development results in many stresses on the agriculture sector and on agricultural land. This is an issue that all the Counties in the capital region face but is particularly relevant to Sturgeon County given the high percent of agricultural land, including both highly-productive and some more marginal lands. This presents both an opportunity and certain risks that will require careful consideration as the County embarks on its participation in the EMRB's planning process.

This project and the priority placed on it by the County clearly indicates the urgency and importance for accurately documenting Sturgeon County's needs, aspirations, and positions. It is especially critical given the fact that Sturgeon County is now participating in the Edmonton Metropolitan Regional Board's process for developing the Regional Agricultural Master Plan.

Further adding to the complexity of the situation is the fact that the strategy is being developed at a time when agriculture and the agri-food industry are themselves undergoing considerable and rapid change. It is increasingly challenging to find the right balance between opportunity and tradition — in effect addressing the fundamental question: How does Sturgeon plan for the future role of agriculture in the face of competing or conflicting forces of urban growth?

1.2 Objectives

As stated in the Request for Proposal, the overall goal of the project was to design and implement a process that would help **"towards the implementation and execution of engagement activities to provide feedback to the EMRB for the Regional Agriculture Master Plan."** It was suggested that the **"feedback will also provide the County with information for future agricultural engagement, master planning and strategic direction."**

More specifically, it was suggested that the feedback and research gathered during the engagement process be targeted to:

- Give Sturgeon County a better understanding of the agricultural community and its needs; and
- Provide a voice at the regional level which is reflective of the Sturgeon County agricultural community

1.3 Approach

Our approach to the project was to focus first and foremost on developing a detailed understand of the current situation of agriculture within the County. Every municipality is unique, and it is critical to establish the base. This was followed with an extensive consultation process – both by phone and in-person.

1.3.1 Statistics & Analysis

We conducted a detailed assessment of agriculture demographics and performance over time. This information allowed our Team to understand the context of agriculture in the region and observe how it has changed over time.

This assessment included updating our existing agriculture profile of the County using data from Statistics Canada Census of Agriculture to determine both actual levels and the associated trends at play. To this end, we collected the following data:

- Number, location, and type of farms
- Levels of production (numbers of livestock, crop acreages etc.)
- History of farm cash receipts and expenditures
- Levels of farm capital and the value per acre of farm land and buildings
- Number and type of agricultural and food processing businesses and related revenues
- Other relevant and available statistics including emerging and/or new agricultural related
- Demographics of the County

This information was combined with a summary of agronomic data including land use. It is important the conversations, both in focus groups and the larger workshop be informed by accurate information on historical and current agricultural uses of land in the County. We used the most recent spatial analysis and data available to prepare a summary of this information. This included:

- Reviewing the most up to date Canada Land Inventory Mapping (CLI) data.
- Aggregating remote sensing data from Agriculture and Agri-Food Canada which identifies land use patterns from 2009 to 2017;
- Analyzing historical changes in land use, the availability and location of agricultural lands (Classes 1- 4).

Using GIS technology, we also developed detailed estimates of regions of Sturgeon County used for various cropping purposes. These estimates were derived from satellite NDVI imagery ground-truthed by Agriculture and Agri-Food Canada.

This information was further supplemented by production data, both in terms of yields and typical production, for field crops using County or township-level data - where available - supplemented by soil zone and ecodistrict datasets.

All this information provided a very useful basis of knowledge that was used during the consultation process with stakeholders from the County.

1.3.2 Consultations

The consultation process was extensive and incorporated a number approaches including:

- One-on-one discussions;
- On-line survey input (16 received to date);
- Facilitated sector group discussions (horticulture, intensive livestock, large scale field crops and value added/specialty enterprises); and
- Facilitated open house discussions at four different locations across the County (Fedorah, Riviere Qui Barre, Redwater, and Namao).

In some cases, participants attended more than one session, but input has been received by roughly 80-100 people. Participants in all the venues were asked for their input on and thoughts about following:

- Trends and developments in agriculture;

- The state and relevance of agriculture in the County;
- Opportunities and discussion of 'best fit' for the County; and
- Their opinions on the key Issues and constraints faced by the sector.

This broad-based coverage of the stakeholders in the region has resulted in the collection of a significant amount of critical input. Our assessment of that input has enabled us to aggregate this into specific findings which are presented in this report.

DRAFT

2.0 Agriculture in Sturgeon County

2.1 Alberta-wide Trends

Agriculture is a major industry both in Alberta and within Sturgeon County. When farm production and food processing are included, it is Alberta's second largest industry exceeded only by the energy sector. More relevant to this analysis, it is by far the largest user of land in most rural municipalities. This fact is made much more relevant by the fact that changes taking place are enormous, and our understanding of what agriculture is and where it is heading is less clear.

The following trends are illustrative of general trends in the province of Alberta, though these will not apply equally to all regions or even necessarily to each County or to Sturgeon specifically. Generally, across Alberta the following trends have been observed:

1. Massive rural to urban migration – a process that has been underway for the several decades continues and poses a major rural development challenge for many rural municipalities. Currently, farmers represent less than 2 percent of the Alberta population – thus their voices and concerns are becoming quieter and often misunderstood or not heard. This may not necessarily result in migration, but the overall community of active farm operators has and continues to be in decline.
2. Consolidation on all fronts – the phenomenon of fewer but larger farms both in the crop and livestock sector as well as fewer but larger processors is having a profound impact on the structure of agriculture. For example, it is not uncommon today to have crop-based farms operating over tens of thousands of acres. The number of livestock operations has also fallen drastically. For similar reasons, the processing sector has become very concentrated and in some sectors is limited to two or three plants.
3. The emerging local food economy - driven by the growing interest in sourcing and supplying local foods and related services. While this is early stage, the growth in local food interest presents new opportunities for food producers particularly those who are near a large urban area as is the case for Sturgeon County.
4. Competing uses for land – such as extraction or access for energy purposes (oil, gas coal); recreation; and country residential. Alberta is experiencing a convergence of competing interests particularly in the Highway 2 corridor that make land use planning a challenging exercise. Likewise, in Sturgeon County competing uses for land include gravel extraction and heavy industry.
5. Growing rural-urban pressures – a dynamic that is particularly at play in those rural municipalities surrounding the City of Edmonton as part of the fast-growing Capital Region. Many urban municipalities across Alberta have annexed considerable land over the last decade. Sturgeon County has been experiencing annexation from various neighbouring Counties, Cities, and Towns for the past 50 years. Managing and balancing growth is a foremost issue for the Region and for Sturgeon County.

2.2 Sturgeon Agriculture Overview

6. A changing definition of agriculture itself – in the past agriculture was largely a mixed enterprise family operation; today agriculture encompasses a much broader range of enterprises and scale from small recreational undertakings that can be found in urban setting to large multi-enterprise business operations

All these forces combined, coupled with the specific growth pressures currently present in Sturgeon County and described in the next section compound the challenge of planning for an agricultural future.

Based on the 2016 Census of Agriculture, Sturgeon County generated \$230 million in total gross farm receipts and ranks 28th out of the 72 provincial municipalities. A reported 377,722 acres were reported as being cropped in the Census. A closer analysis of this data illustrates that Sturgeon County also ranks 28th in terms of agriculture intensity defined as gross farm receipts per acre farmed.

An overview of Sturgeon County's agricultural statistics suggest that the industry includes 730 farms in 2016, and can be further defined as:

- 65% of all farms in the County are less than 400 acres in size, 24% are between 400 and 1,600 acres in size, and 11% of farms are larger than 1,600 acres.
- The total number of farms in Sturgeon County has fallen from 823 to 730. This reduction in the number of farms is noticeable in nearly all sectors of agriculture as farms continue to fall in numbers but increase in size.
- Oilseed and grain farming is the only sector to show growth with respect to the number of farms reported. The Census of Agriculture indicates that the number of oilseed and grain farms has risen from 295 in 2011 to 301 in 2016.
- Sturgeon County houses the second largest number of hens and chickens of any other municipality in the province spread across 70 farms. While there are egg layers in that total, the clear majority of these birds are broilers.

Sturgeon County has a long history in agriculture and continues to have a strong agricultural base. On the other hand, the fact that it is adjacent to urban centres means that the future of agriculture must be carefully considered in the context of other land uses, including accommodating both business and residential growth. Thus, the issue of 'balanced' growth is foremost and the need to develop clear agricultural policies that maintain farmland, facilitate diversity and provide a high quality of life.

Agriculture intensity is defined using an index and is a measure of total gross revenue per acre farmed. Lethbridge is Alberta's most intensely farmed rural municipality and generated just over \$1,500 per acre, while the Alberta average is \$226 per acre. In comparison, the intensity index for all rural municipalities in the Edmonton Metropolitan Region is significantly higher than the Alberta average. They include: Strathcona County at \$412 per acre, Sturgeon County at \$397 per acre, and Leduc County at \$288 per acre.












2.3 Sturgeon County Trends











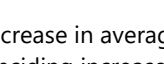
The most significant development across agriculture in Alberta is the pace of change with regards to the industry's structure. Sturgeon County has experienced

this strong trend to fewer and larger farms, as have most of the other rural municipalities across the province.

This trend is illustrated by the table below, which shows that the number of farmers over the last 15 years has declined by 31%. As of the 2016 census, there are only 730 farms in Sturgeon County, down from well over 1,000 in 2001. The number of farms in every size category under 1,120 acres has decreased, while farms greater than that size have remained increased from 2001 to 2006 and have remained relatively stable since that time. The total land in crops has remained relatively stable, however, varying between positive and negative change between census years and being an increase of 5% overall over the years 2001 to 2016.

Table 1: Changes in Farm Structure, Sturgeon County 2001-2016

Attribute	2001	2006	2011	2016	Trend	Change 2001-2016
Number of Farms	1,055	967	823	730		-31%
Average Farm Size (Acres)	474	535	585	657		+39%
Farm Size, number of farms per category						
< 10 acres	36	32	30	26		-28%
10-239 acres	532	467	402	354		-33%
240-399 acres	134	141	96	94		-30%
400 to 759 acres	171	147	124	92		-46%
760 to 1119 acres	79	63	51	46		-42%
Over 1120 acres	103	117	120	118		+15%
Financial Indicators						
Average Gross Farm Sales per Farm, \$'000	139	160	226	316		+128%
Total Gross Sales (all farms), \$'000	146,696	154,789	185,794	230,940		+57%
Average Capital per Farm, \$'000	830	1,577	2,635	3,512		+323%

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Average Capital per Farm, \$'000	830	1,577	2,635	3,512		+323%

This growth in farm size is accompanied by an increase in average gross farm sales (128% increase over the past 15 years) and a coinciding increase in average capital of 323% over those years.

Three major factors are driving these dramatic increases in farm size and the capital required on each farm:

- decreasing per unit margins (the case with most crops and livestock which are priced on world markets) – thus farms must continue to grow just to maintain income let alone increase it
- improved management practices – the most notable recent change is the definitive move to 'no-till' cultivation - this reduces the number of field operations and passes required - as a consequence, farmers can cover greater acreages in the same time period
- technology and management advancements – today's equipment is bigger, faster and easier to operate as automation becomes more dominant; livestock operating systems are also increasingly more automated such as robotic milkers and feeding or housing systems that require little or no labour – in both crop and livestock production there is a clear substitution of capital for labour.

Furthermore, farm operators are becoming sophisticated business managers (referred to in some circles as CEO farmers). These farmers typically rent large areas of land, employ a range of services such as agronomists, custom applicators and are even able to manage their farms remotely using cellular and satellite technologies.

There is, however, a category of farms where there has been an increase in the number of farms, though not always coinciding with increasing acreage overall. These include specialty crop production (vegetable, fruits and "other crops") and are the only categories where there has been an increase in the number of farms over the years 2001 to 2016. The bulk of that increase happened in 2001-2006, but declines have not been significant in number, though there have been some declines in acreage. The Table below shows the numbers of farms based on census categories.












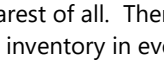
Table 2: Number of Farms, by Farm Type (Sturgeon County, 2001-2016)

Number of Farms (sorted by 2016 prevalence)	2001	2006	2011	2016	Trend	Change 2001-2016	Implications
Oilseed and grain farming	308	305	295	301		-2%	38% of all farms are oilseed & grain farms
Cattle ranching and farming	292	275	139	133		-54%	A further 18% are cattle farms, for a total of 56% between cattle and oilseeds
Vegetable farming	23	21	30	27		+17%	Vegetables, fruits, and "other crops" only categories where there are now more farms
Greenhouse, nursery and floriculture production	34	50	41	25		-26%	
Farms with Fruits, Berries and Nuts	22	20	25	18		-18%	
Poultry and egg production	32	25	23	16		-50%	The number of poultry farms has decreased, as has total production
Farms with Greenhouse Products	23	22	18	12		-48%	
Farms with Nursery Products	26	27	26	11		-58%	
Fruit and tree nut farming	4	12	10	7		+75%	There has been an increase in the number of specialty crop farms
Hog and pig farming	36	13	6	3		-92%	The number of hog farms has decreased, as has total hog production
Sheep and goat farming	13	10	6	2		-85%	
Other crop farming	100	95	140	121		+21%	
Other animal production	138	175	151	110		-20%	

In addition to these overarching structural industry changes resulting in fewer but larger farms, there have been other changes to agriculture in the county. Crop profiles, for example, have changed with canola replacing some of the previous grain and hay acreage. Canola has been particularly profitable over the past decades, driven by the development of processing capacity in Canada, relatively lucrative pricing, and increasing yields due to genetic and management improvements over past decades. Many crop rotations across western Canada, including in Sturgeon County, have therefore been focused on leveraging the profitability of this crop in chosen rotations. Pulse crop acreage has been variable, presumably based on both market forces and agronomic circumstances during the census years.










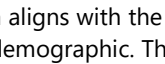
Also telling, however, is the acreage of specialty crop production. Despite an increase in the number of specialty crop farms, the acreage of all specialty crop categories decreased between the last two census years (2011-2016).

Table 3: Crop Acreages (Sturgeon County, 2011-2016)

Crop Profile (acres, sorted by 2016 acreage)						
Canola	64,576	111,367	130,518	129,182		+100%
Wheat	99,521	86,851	97,666	110,630		+11%
Barley	72,760	57,914	44,883	48,168		-34%
Alfalfa & Hay	84,286	78,507	61,243	43,246		-49%
Peas	11,234	5,400	8,400	18,107		+61%
Oats	19,457	19,563	12,318	14,353		-26%
Mixed Grains	2,995	2,390	2,244	2,377		-21%
Specialty Crops (acres)						
Potatoes	1,609	1,654	1,294	1,127		-30%
Nursery Products	404	739	909	447		+11%
Fruit, Berries, Nuts	172	115	191	149		-14%
Vegetables	71	107	89	80		+12%
Greenhouse Areas (Square Feet)	364,118	447,380	344,904	260,712		-28%





The trend in Sturgeon County for livestock is clearest of all. There was both a decrease in the number of farms and in the total inventory in every livestock category. The only exception to this was the honey industry where the number of bee colonies increased.

Table 4: Livestock Inventory by Census Year (Sturgeon County, 2001-2016)

Livestock Numbers						
Poultry	1,297,666	1,257,061	1,270,204	968,487		-25%
Cattle and Calves	50,988	47,324	27,184	32,532		-36%
Pigs	50,370	24,223	16,979	19,764		-61%
Bees	9,143	9,570	11,111	10,495		+15%
Beef Cows	17,857	17,468	9,293	10,421		-42%
Sheep	6,866	5,170	3,187	1,438		-79%
Horses/Ponies	2,472	2,678	2,444	1,433		-42%
Dairy Cows	2,074	1,842	1,719	1,147		-45%
Bison	1,608	1,581	654	728		-55%
Goats	692	913	718	360		-48%

Finally, one other trend in Sturgeon County which aligns with the general tendency across Alberta and much of Canada is the aging demographic. There has been a steady increase in the number of farm operators 55 years or older, while there has been a strong decrease in the number of younger farm operators.

Table 5: Age of Farm Operators (Sturgeon County, 2001-2016)

Attribute	2001	2006	2011	2016	Trend	Change 2001-2016
Number of Farm Operators	1,515	1,410	1,190	1,035		-32%
Age of Farmers						
Under 35	140	85	60	65		-54%
35-54	795	725	500	345		-57%
Over 54 (55+)	575	605	640	625		+9%

2.4 Sturgeon's Agricultural Land Base

2.4.1 County Soils

Land in Sturgeon County has exceptional agricultural potential, but also considerable variability in its soil characteristics. It is crucial that the soil characteristics and capability for supporting profitable agriculture be considered when making policy decisions about land use.

Sturgeon County itself contains a high percentage of Class 1 soils, which makes it one of the most arable agricultural regions within Alberta. Its predominant black chernozemic soils contain high organic matter content, are nutrient rich and have some resistance to drought.

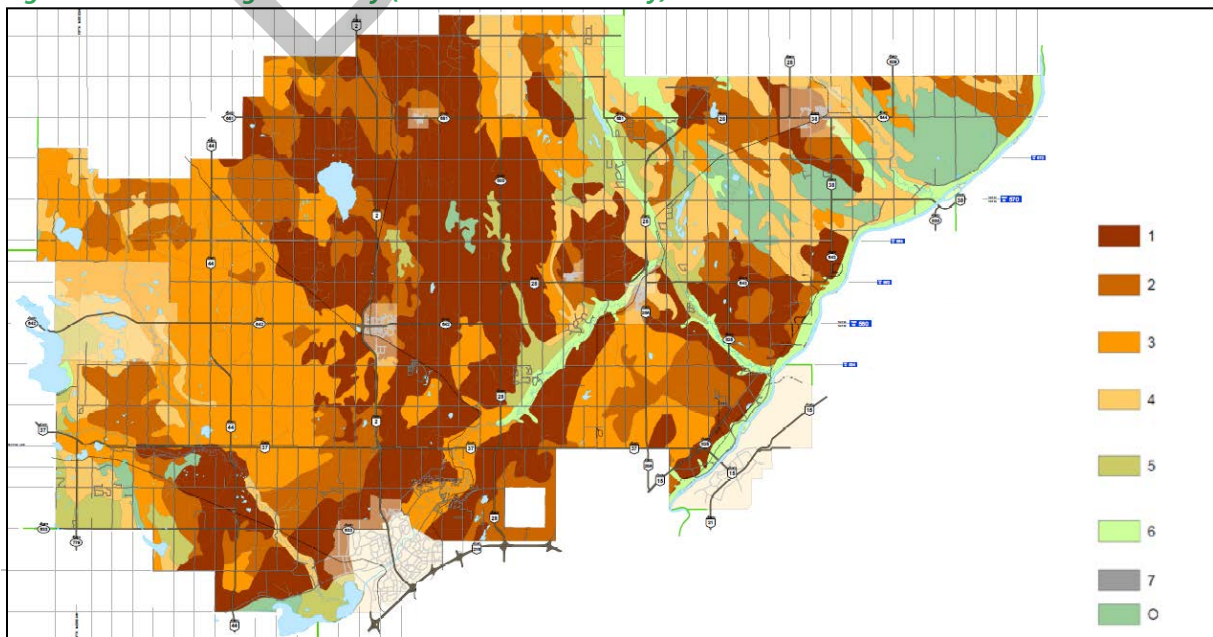
As per the Canada Land Inventory (CLI), over 30% of the soils in Sturgeon County are categorized as Class 1, 50% are Class 1 and 2, and almost 74% are Class 3 or better. The soil classes in the County are distributed as follows:

Class 1 - 73,950 ha	Class 4 - 26,803 ha
Class 2 - 39,500 ha	Class 5 - 11,380 ha
Class 3 - 53,640 ha	Class 6 - 10,044 ha
	Other - 10,985 ha

It should be noted that there are two different land rating systems currently used in Alberta. The Canada Land Inventory remains the most widely understood classification system, based exclusively on soil parameters. Soils are rated from Class 1 (no significant limitations in use for crops) to Class 7 (no capacity for arable culture or permanent pasture), with Class 4 and better typically being used for annual crop production while Class 5 and below are typically used predominantly for forages.

Over the past few decades, the Land Suitability Rating System has been developed and refined most recently in 2007. It is an interpretative approach based on expert opinion about the limitations of a location for crop production – it includes factors such as climate, soil and landscape. While the CLI remains the most widely understood, the LSRS has been favored in some cases for land use planning purposes. Both maps are included in the appendix to this report – regardless of the classification system chosen, Sturgeon County has exceptional soils and high suitability for crop production.

Figure 1: Soils in Sturgeon County (Canada Land Inventory)



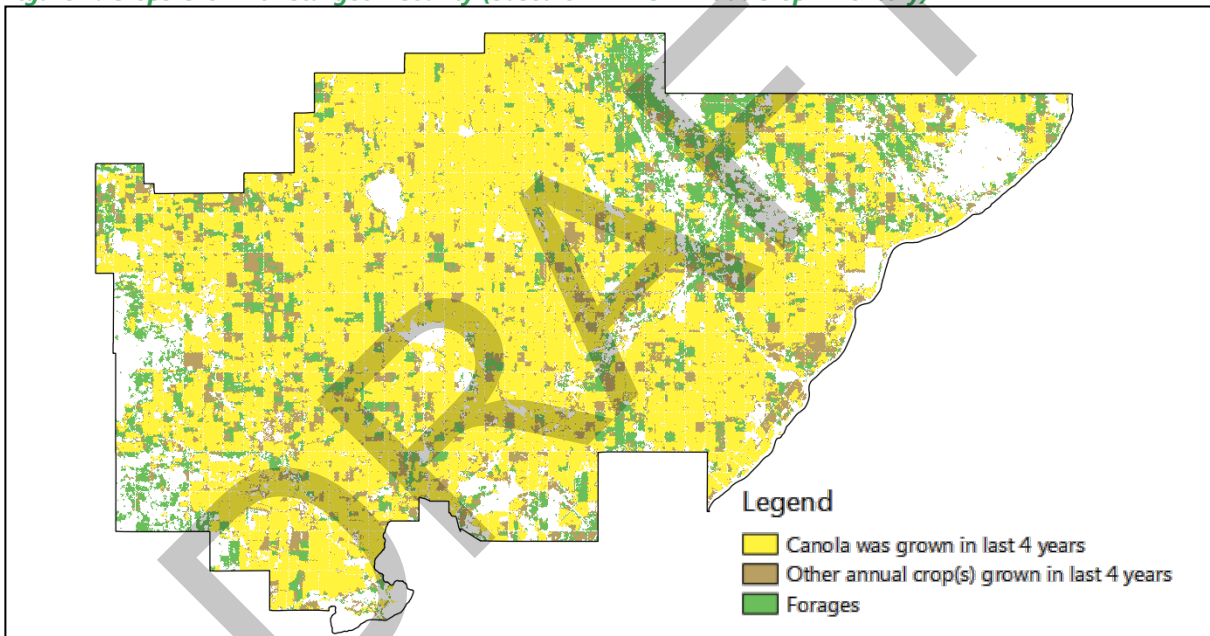
2.4.2 Crop Production

Much of the County's land base is actively being used for annual field crops, as can be seen from the map below showing the types of crops grown on Sturgeon fields in 2016. Based on remote-sensing satellite data and crop algorithms, the Annual Crop Inventory estimates which crop was grown across all of Canada's agricultural regions.

Typical crop rotations in central Alberta would include the same crop being grown on a parcel every two to four years. We have therefore aggregated this data to show land that has grown annual crops in the last four years, with special emphasis on canola as a key field crop that has been highly profitable recently.

The appendix to this report includes the Annual Crop Inventory for the past three crop years (2015 to 2017).

Figure 2: Crops Grown in Sturgeon County (based on AAFC Annual Crop Inventory)



It is clear from this data that the majority of the rural landscape in Sturgeon County is being used for annual crop production. The high suitability for crop production comes both from the productive black chernozemic soils and from the suitable climate. Residents reported during focus groups as part of the present study, for example, that they have never had a crop failure. This is partially because there is typically sufficient and well-spaced rainfall during the crop season, but also because of the water-holding capacity of these fertile soils which are relatively high in organic matter.

2.4.3 Land Fragmentation

Land fragmentation is a growing concern among many farmers in Sturgeon County. There are two major consequences. First, the increased presence of non-farm rural residents who typically have little or no knowledge of (or appreciation for) farming and the necessary practices that occur within a farming area creates problems. As a result, farmers are often subject to a range of complaints. In addition, the added traffic increases the dangers associated with the transportation large agricultural equipment on rural roads. In many cases we heard reports of non-farm residents showing little patience leading to dangerous passing while dispensing verbal abuse or gestures to the farmer moving the equipment. In effect, a double jeopardy is at play: more rural residents lead to more traffic while growing farm operations lead to more equipment being moved on a regular basis – a situation that will only increase.

The second concern pertains to the actual availability and suitability of the farmland once a sub-division has taken place. If subdivisions are small, rectangular and in corner lots, the disruption to farming is minimal. However, if the subdivision is large and oddly shaped, the remaining lands may or may not be of interest to the farmer – particularly those lands that are being rented to crop producers since operating equipment in such land parcels may be challenging. Plus, the presence of neighbours raises concerns with respect to dust (in the case of tillage and harvest), drift (in the case of spraying of crop protection products), and noise that accompanies most field operations.

However, it should be pointed out that small parcels as a result of subdivision can also lead to the establishment of diversified and/or more intense agricultural operations. There is an increased interest in responding to the growing demand for local food and services. Many of the opportunities do not require large parcels of land and small parcels are better suited for these pursuits.

The appendix to this report includes a map of the extent to which land has been fragmented in Sturgeon County since 2006.

2.4.4 Existing County Land Use Policies

The Integrated Regional Growth Strategy (IRGS) of the Sturgeon County Municipal Development Plan (Bylaw 1313/13) places Primary Industry as its largest land base. Underpinning objectives of the IRGS encompass land-planning directives that aim to position Sturgeon County as an industrial and agricultural leader in the Edmonton Metropolitan Region (see IRGS map in appendix to this report). Key supportive agricultural policies within the Sturgeon County Municipal Development include the following:

- Responsible Growth - Developing and Adopting Management Plans, Master Plans and Strategies. Policy 1.3.3 states that Sturgeon County *"Should develop and implement an Agriculture Viability Strategy in close conjunction with the local agricultural community to strengthen and enhance agricultural viability across Sturgeon County. The Strategy is to recognize the importance of agriculture as a food source, an environmental resource, a heritage asset and as a significant contributor to the local economy"*.
- Responsible Growth - Enacting Responsible Subdivision and Development Practices. Policy 1.4.4 states that Sturgeon County *"shall support "right-to-farm legislation" by applying the requirements outlined within the Province of Alberta's Agriculture Operations Practices Act (AOPA). When referred to*

by the Natural Resources Conservation Board (NRCB), Sturgeon County will apply the objectives of the Integrated Regional Growth Strategy (IRGS) in the referred evaluation (i.e., new or expanding Confined Feeding Operations)".

- Economic Health - Promoting an Integrated Economy. Policy 5.2.1 states that Sturgeon County *"Shall promote the growth and expansion of value-added agriculture, manufacturing, advanced energy, transportation and logistics, where the associated development is strategically located and supportive of the Integrated Regional Growth Strategy (IRGS)".*

The implementation of the Sturgeon County Municipal Development Plan is supported by a series of Neighbourhood Development Strategies which identify neighbourhood specific needs. As an example, Neighbourhood C encompasses approximately 1,290 quarters (38% of County lands) and includes large un-subdivided parcels on prime agricultural soils. Its distinctive role is to *"Secure Sturgeon County's position as an agricultural leader and facilitate subsequent agricultural activity that sustains its provincial importance"*. Sturgeon County is committed to support this role through the following key outcomes.

- C.1 Supporting the agricultural industry by acknowledging the unique features of the working landscape.
- C.2 Building on the symbiotic relationships that exist between the agricultural community and neighbouring municipalities.
- C.3 Supporting agricultural sustainability by promoting best management practices that contribute to healthy land, water and air.
- C.4 Encouraging value-added initiatives that recognize and contribute to agricultural industries.

The Sturgeon County Land Use Bylaw (Bylaw 1385/17) was updated in 2017 based upon the changing needs of industry, new provincial requirements and changes in the way people live. The Agriculture - General district, which encompasses over 80% of the County's lands, has the general purpose to accommodate *"traditional agricultural operations and the supportive services that are essential to grow and sustain the agricultural industry"*. Key highlights of the Agriculture – General district include the following:

- Gradation of agricultural parcel sizes includes AG-Major 16ha (39.5ac) or larger, AG-Minor 4ha (9.8ac) to 15.9ha (39.3ac) and AG-Residential parcels smaller than 4ha (9.8ac).
- Quarter section 64.7ha (160ac) has a permitted maximum combined density of four parcels.
- Allowances exists for farm help accommodations, secondary dwellings and secondary suites.

While there may have been some positive elements incorporated in the recent bylaw update initiative, mediating conflicts between different land uses through policies and regulations is a difficult endeavor. As every property in the County is in an assigned district, developing a land use bylaw that reflects today's needs (including changes in Provincial regulation), while not causing significant disruption to how residents live and use their lands needs be approached in a consultative manner.

Given the amount of feedback that was received from the agricultural community in the bylaw update process, Sturgeon County Council passed a motion in March 2017: “where agri-business be removed from the Land Use Bylaw 1385/17 and that further work affecting agricultural industries, be suspended until such time that Sturgeon County develops in full consultation with residents and stakeholders, an Agricultural Master Plan or other such visioning document”. While the current report is in itself not a vision document, this Agricultural Engagement Strategy was initiated as a direct response to the County’s commitment to better understanding impacts on agriculture.

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2.5 Sturgeon in EMR Context

While it is beyond the scope to get into details on the statistics of other Counties in the Edmonton Metropolitan Region (EMR), it became clear that Sturgeon is similar to the other counties in most of the macro trends but may differ in some other respects. It is relevant to an understanding of agriculture to examine how Sturgeon County is unique.

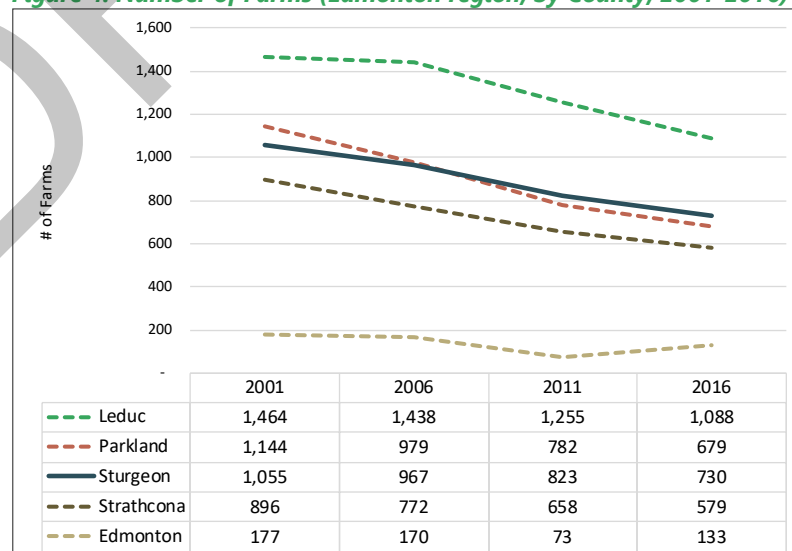
All Counties in the region align in terms of the overall trend of having fewer, but larger farms. Sturgeon County has the largest average farm size in the region and is growing steadily, as are the other.

Sturgeon County has the largest average farm size in the region

Figure 3: Average Farm Size (Acres, by County, 2001-2016)¹



Figure 4: Number of Farms (Edmonton region, by County, 2001-2016)

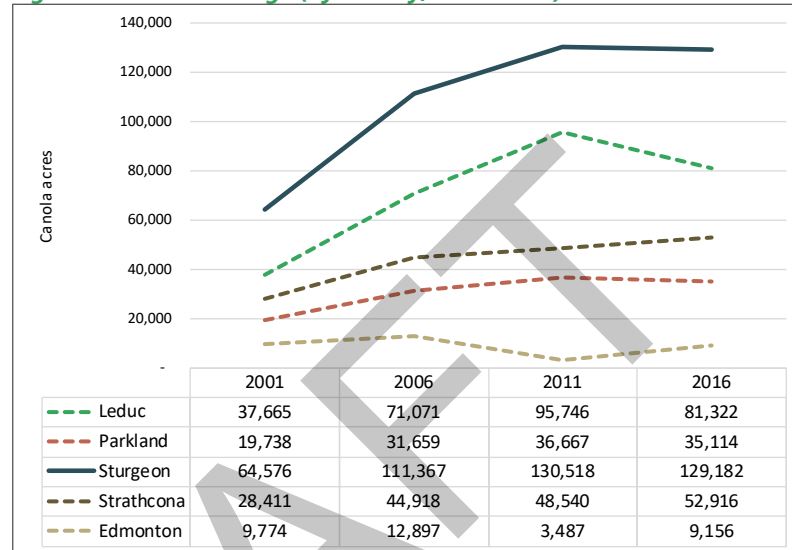


Sturgeon and others in region are on the same trend: fewer, larger farms.

¹ It is assumed that the 2011 Edmonton statistic is an anomaly due to the way data was collected.

In terms of the large farms, there is one crop where Sturgeon County has seen a drastic increase in production, with approximately 129,000 acres of canola far exceeding the other counties such as Leduc which has the second largest canola acreage at 81,000 acres. Canola has been, in most of the recent years, the highest-grossing conventional field crop in central Alberta.

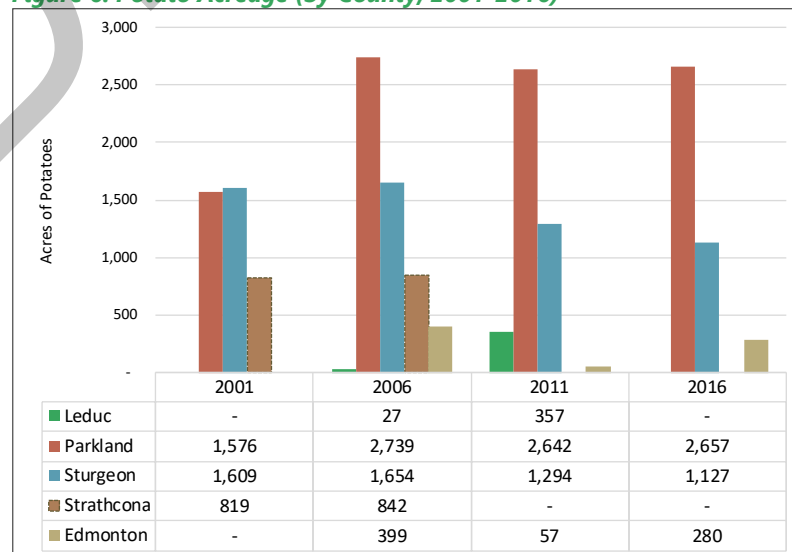
Figure 5: Canola Acreage (by County, 2001-2016)



Sturgeon has 50% larger canola acreage than any other county in the region

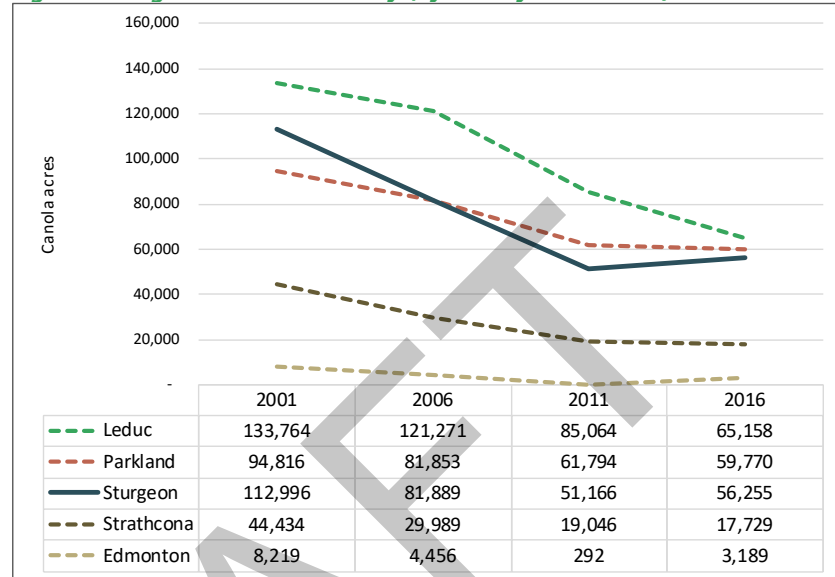
One other crop where Sturgeon and Parkland County play a major role is the production of potatoes. While there are larger acreages in southern Alberta, these two Counties together had approximately 7% of the Alberta potato acreage due to the climate and soils of these Counties being particularly well suited for seed potatoes and benefiting from development of specialty markets for smaller table potatoes. The trend in Sturgeon County, however, has been downward since 2006.

Figure 6: Potato Acreage (by County, 2001-2016)



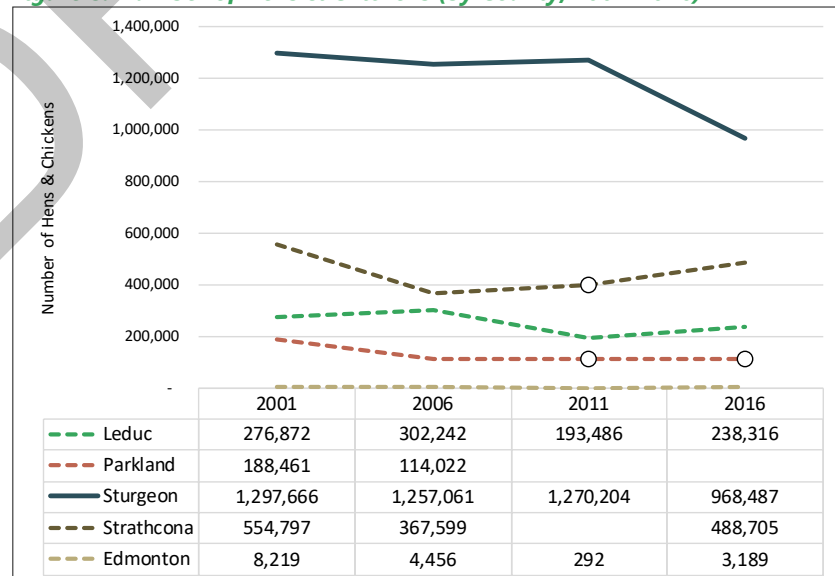
The general Alberta trend is also reflected in Sturgeon's livestock numbers. The figure below includes an inventory of the total of all the large livestock species including cattle, pigs, sheep, goats, horses, and bison.

Figure 7: Large Livestock Inventory (by County, 2001-2016)



In poultry, Sturgeon has by far the largest inventory of hens and chickens, but it has also experienced the largest drop in overall flock size. This is largely due to a decrease in the number of operations, from 32 poultry farms in the County in 2001 down to only 16 in 2016.

Figure 8: Number of Hens & Chickens (by County, 2001-2016)



Note: O denotes data not disclosed by Statistics Canada

Sturgeon has more than twice as many hens and chickens as any other EMR county

Overall, Sturgeon County has the highest overall gross farm sales compared to all the other counties, and the trend continues to be upward. It truly is the “Heart of Agriculture” in the Edmonton capital region, as was heard during the Agricultural Engagement Strategy, and outlined in the coming section.

Figure 9: Total Gross Farm Sales (\$ million, by County)



3.0 What We Heard

3.1 Introduction

The meetings, interviews and questionnaires generated a host of comments, insights and points of view. These are summarized and presented in the following themes. Please note that not every view point expressed by every individual has been captured. A complete compilation of input received will be produced separately, but the present report outlines the key themes which represent the major body of comments and capture the most commonly expressed views by the Sturgeon County agricultural community.

3.2 Sturgeon County – The ‘Heart’ of Agriculture for the Region

The most distinctive theme emerging from the group discussions is the deep sense of history and pride exhibited by the Sturgeon County agricultural community. This sentiment was expressed in a variety of ways, attested by the following quotes:

“We have some of the richest (deep black) soils that can be found anywhere in this province. Where can you find it any better?”

“Our family has been here for over 100 years - five generations! And we have never had a crop failure!”

“Being on the confluence of two rivers, makes Sturgeon County a rich area for agriculture.”

“We have the most frost-free days – essentially a micro climate with the rivers running through the County.”

There was considerable discussion about the quality of the soil, the favourable climate, and the sufficient rainfall experienced by Sturgeon farmers year after year. In the minds of many farmers, the County is richly blessed specific to its ability to produce a wide range of field crops (grains, oilseeds, pulses and forages) as well as specialty and horticultural crops (berries, Saskatoons, vegetables, potatoes, peas, lentils etc.).

One particularly poignant comment was expressed by a seed potato grower. He has been told by two of his international customers (one from the Netherlands; the other from Washington State) that their Sturgeon County operation was a preferred source since year after year, his farm is a consistent supply of high quality seed potatoes.

Another characteristic unique to Sturgeon County which we heard repeatedly is the strength and depth of the agricultural community itself. Historically, Sturgeon County is home to some of the original homesteaders in Alberta. Significantly many of these families continue to farm the very same properties from where their ancestors began. To be sure, these families were attracted to the area for two main reasons: a) high quality soils; and b) location – proximity to the river system as well as St. Albert and Edmonton as emerging major urban centers. These factors have not changed. To quote one attendee:

“We have the best of all worlds – some of the best soils and close to a major urban market (the Edmonton region).”

3.3 Agriculture – Changing Dramatically and Changing Fast

The location attribute drew additional comments that further affirm the favourable status of Sturgeon County as an agricultural municipality:

“We can grow a lot of food here. If you consider the issue of food security, this will be more important into the future.”

“Everything that can be grown in the region or Alberta for that matter can be grown here!! We can feed Edmonton!”

“There are new opportunities. We are close to a big city; we have waste heat and CO₂; we can generate biogas from manure – lots of new avenues to consider.”

To summarize and based on the body of work we have done with several neighbouring counties on similar projects, we would offer this observation:

- Within the Edmonton Metropolitan Region, the pride and a sense of destiny with respect to agriculture being an important part of the future runs deepest in Sturgeon County.

In a sense, not only is Sturgeon County the heart of agriculture in the region, but it is also true that historically, agriculture is the heart of Sturgeon County. While this appears to be changing, the stakeholders seem to feel that the focus on agriculture and food production needs to return.

The face and structure of agriculture has changed dramatically and continues to change rapidly. The idyllic picture of a family farm with a few hundred acres and a diverse range of enterprises living peacefully in the undisturbed country side has long passed. Instead today's agriculture and the associated food industry bear little resemblance to what was commonplace just one or two generations ago.

Perhaps the significant point to be made is the changing definition of agriculture itself. When farms were relatively homogeneous, the definition may have been more straightforward. This is no longer the case with the advent of specialized farms, the focus on business versus ‘a way of life’, the now wide array of agricultural and food production enterprises combined with an even wider array of services ranging from agri-tourism, special food events and food experiences.

Some of major changes² expressed by the discussions and comments made at group sessions are summarized as follows:

1. **The continued decline in the number of full time farmers** - mainstream (or traditional) farming has become large scale with individual farmers or family farms now farming thousands of acres or operating large livestock production enterprises. This trend has been in motion for the past 50 years and continues. Overall the number of producers in agriculture represents a small proportion of the population.
2. **The emergence of specialty and diverse operations and enterprises** – in response to the growing interest in local food, food experiences and

² This overview of the changes in agriculture is in no meant to be comprehensive. It is meant simply to illustrate the degree of change that is taking place.

related activities such as agri-tourism which includes a broad set of activities ranging 'corn mazes' to serving specialty summer evening dinners on white cloth tables in a field setting. The growth of this 'specialty' sector is dependent upon local demand, strong marketing programs, management skills and superb execution.

3. **Novel enterprises that in some cases are new to agriculture** – these include such examples as one farmer who has converted a hog production facility to the rearing of crickets as source of food protein; another producer converted a broiler chicken facility to the rearing ducks for the specialty Asian market; and the newly emerging cannabis sector. The growth of this sector remains unknown and is very much dependent of the emergence and support of an entrepreneurial class of individuals interested in starting new businesses.

Rapid change is accompanied with numerous issues many of which were readily identified and articulated at the input sessions:

- **Succession** – the question of 'who will take over the farm' is a pressing concern with many farmers. This is especially true for those who have not grown to become larger operations and are close to retirement. For example, at the Fedorah Hall meeting, growers in attendance called a vote – only one of eight in attendance had a son or daughter likely to take over the farm operation. The issue of succession is not limited to the traditional farming sector. Specialty operations such as greenhouse and market garden operators are also facing this concern. In many cases, the children of these operations do not want to take on the risk or have decided for other reasons not to continue the operation.
- **Access to or the ability to attract labour.** This is a complex issue: first it is difficult to match wage rates being offered by industry and/or urban job opportunities situated nearby; second, the very nature of the work itself makes the attraction of labour to work on farms a perennial challenge; and third, finding or providing accommodation for seasonal labour. Further to this latter issue, it appears based on the comments provided, that the regulations allowing for the provision of seasonal housing and/or additional residences on a farm property is not an easy task. While this may be possible, the comments on this subject suggest that the many requirements make this quite difficult.
- **Future viability (and profitability) are key issues.** Establishing and maintaining profitable farm businesses is far from easy. Instead the sector is characterized by narrow margins, rising costs and no lack of competition. Generally, there are three responses to these challenges: a) expansion – a direct reaction to declining margins thus the only way to maintain or increase farm income is to spread costs over a larger production base - hence the growth of the large acre crop producer sector. It is not unusual to find farm families who farm 10,000 acres and, in some cases, up to 60,000 acres. Typically, much of this acreage base is rented. Also, these farmers will seek out land in relative proximity to their home base, they increasingly secure land at great distances such as neighbouring counties or even the next province; b) adding new value added or related enterprises - such as an agri-

tourist venture, the establishment of a high valued specialty crop (U-Pick or market garden); and c) off farm employment - to quote one contributor:

"There is more money to be had by working in industry versus working in agriculture. If you have a choice between working in the oil and gas sector vs. the family, the choice is quite simple – working industry gives you more money and you have the weekends off!!"

- **An assured or clear future** – many questions are being raised about the availability of farm land for farming. The growth of the Edmonton Region and the growing presence of acreages or country residential properties are considered as major impediments to a long-term future - a major concern among those full-time producers in the process of expanding their operations. Specialty (or non-traditional) operators are very concerned about the regulatory environment and how this will impact what they may be able to do as they consider alternative enterprises to find new ways to remain viable. We heard the following comments:

"Land for agriculture in the future is uncertain - what will the County do?"

"It seems easy to build houses or know what areas are dedicated to industry? What about agriculture?"

Both these concerns are discussed in more detail in this report.

The changing nature of agriculture is also impacting support services or agricultural infrastructure. One producer noted that Sturgeon County has recently lost several agri-service businesses: a grain elevator; cattle buying station; and an egg grading station that used to be in St. Albert. The reasons behind this are not complex, but simply the result of the overall consolidation in the agrifood industry. This increased consolidation of the entire food supply chain is being experienced right across North America and is not unique to Sturgeon County.

To summarize with the words of another attendee:

"Not many people farm full time. Farming is not feasible for most small farms. It's hard to make a living. Selling to a developer looks attractive. People need off farm jobs. Don't quit your job to be a farmer."

3.4 Increasing Rural-Urban Conflicts

The most common discussion point across all the groups revolved around what can be termed as the rural-urban divide. This issue has several dimensions presented as follows with accompanying quotes:

- **The lack of appreciation for and understanding of agriculture particularly among those recently arrived rural residents with such comments as:**

"More and more people living in the country who don't understand or appreciate agriculture."

"People need to know what they are moving into - the country is for farming!"

"People don't understand agriculture; acreage owners are not often longtime residents – they come and go."

▪ **Actual complaints or conflicts with non-farm neighbours:**

"Increased complaints about noise, dust, harvesting after 6 pm or at night. For example, farms in the area will operate 24/7 during the seeding and harvest periods – this generates complaints about the noise and in some cases the RCMP have forced farmers to shut down."

"People complain about noise, dust and equipment operating after 6 pm or on weekends. But what did they expect when moving to the country."

"Too much traffic on the rural roads – people driving too fast making it very dangerous."

"Acreages move in and then complain about manure and feedlots and hinder our operations."

"There are lots of complaints about noise, smell and dust, etc."

▪ **The declining influence of the agricultural/farm community:**

"We are outnumbered - do we need 'Right to Farm' regulations? "

"As a producer you are not important – there will be continued consolidation and then you'll only have a handful of farmers."

"There are now so few farmers, we are easily out voted."

"The urban residents essentially have a veto – real agriculture doesn't have much of a voice anymore"

▪ **The changing nature of the rural community:**

"People don't know what to expect when they come to live in an agricultural area – new people are not always as community minded and don't appreciate agriculture."

"People used to wave when we met; now we get the finger!"

▪ **Lack of appreciation of how urban growth impacts farm operations:**

"Annexation may be inevitable; we preserve land and then the urbans develop it, as if they always have a trump card"

"Good quality soil should stay in farming; the city should grow up instead of out because both dense and country residential development cause similar problems for our farm"

"We need to slow the pressure to subdivide, we already have such a large urban footprint and need to manage sprawl"

3.5 Many Regulations Create Complexity and Uncertainty

There were numerous comments on the need to “educate” those non-farm residents/acreage owners when moving into rural areas. Additional suggestions to address this growing concern include:

“There needs to be clearer rules for people when they move into the country – if you live in a farming area, they have to accept farming practices are taking place. People need to sign off that they understand this.”

“We need some type of conflict resolution or mechanism for neighbourhood disputes instead of the County enforcement of rigid bylaws.”

“A Code of the West is needed. There is a lack of continuing education.”

“There is a real need for an educational component for those who move out into the country.”

Clearly the agricultural community is feeling outnumbered and undervalued. Perhaps their biggest concern is a growing sense of vulnerability with respect to their voice within the local political arena and their very futures as farmers in a changing community. Some are openly questioning: “Are we going to face a voting body that may actually restrict our ability to farm?”

The subject of ‘regulation’ raised a legion of strong opinion and frustration from the farming community. Farmers and particularly those who are original settlers have a history and culture of doing things their own way and in their own time. Thus, any constraint on these ‘freedoms’ generate strong opinions and reactions. Representatives from the Sturgeon County farming community are no different.

The comments about regulations fall into several distinct areas.

First there are concerns about the number of regulations, the different jurisdictions and the complexity in general:

“The complexity of regulations from the differing levels of government is difficult to manage and understand. There are too many overlapping government rules.”

“Regulation is the number one hindrance on agriculture viability.”

“Some of the regulations proposed last year was like putting a nail into agriculture! Why would you do that??”

“There so many regulations: federal, provincial, municipal – they are complex, confusing, and disjointed. For example, traffic, access and parking on provincial roads are a provincial jurisdiction.”

Secondly, regulation in light of the changing nature of agriculture, how it is defined, what qualifies as ‘agriculture’ vs. commercial is another major area of concern:

“What is agriculture? When does an agriculture business become commercial? What can be done re: agri-tourism without being onerous?”

“How do you define agri-tourism? Is it 8 people visiting your place or is it 8,000?”

"Should we be able to develop something like Butchart Gardens in Sturgeon? Why not?"

"Last year, there was lots of misinformation – this created uncertainty and as a result some farmers chose not to invest in new enterprises (agri-tourism)."

"There is uncertainty on what is allowed? Or if or when the rules will change. Both these factors are disincentives for investment. "

"When your operation becomes discretionary, then you have lost the right to farm"

"I have concerns with "over-reaching" bylaws that propose to limit greenhouse and direct farm marketing hours"

"We face rising costs such as taxation and how a new enterprise will be taxed? For example, is a greenhouse agriculture or commercial?"

"How many employees are you allowed?"

Finally, there are concerns about new regulations, many of which are provincial. Some of these comments may be related to a need for change in regulations, while some may simply reflect a lack of adequate extension / explanation of the current rules. For example, concerns raised included:

"What will be the impact of new Alberta labour code on greenhouse operations?"

"Why can't we add a second home? There are houses on every quarter!"

"The city is deciding our future!"

"We preserve the land. Then the 'urbans' develop it!"

Several individuals commented that there is a need for more awareness and/or education about regulations and policies at the municipal, regional, provincial and federal levels. Clearly there is a level of confusion as well as frustration.

In summary, there appears to be lack of certainty regarding the regulations specific to new or different enterprises on existing farms. This will need to be clarified before farmers will be willing to invest in new opportunities or enterprises – certainty with respect to permit requirements, operating hours, traffic and parking, health and safety to name some.

3.6 Need to Find a "Balanced" Approach to Growth

The agriculture community in Sturgeon County is accurately aware of the fundamental challenge facing the County – in effect how to facilitate an agenda that generates growth (including increased tax revenues) without unduly limiting or restricting agriculture. This is a complex challenge indeed – a challenge that might be simpler if agriculture itself was assured of a positive economic future and the ability to make a living by farming the way it had been done in the past. But that is not the case.

Consider these comments:

"Farmers are so few in number and without growth and more residents, who is going to pay the taxes?"

"Agriculture is changing but growth will happen. But we need to find new solutions and ways to grow up and not out. We also need to value food, food production and land that produces food."

"Growth is going to happen - we can't stop progress!"

But as many attendees commented, this will not be an easy task:

"There is a need to support agriculture but allow for flexibility - don't be overly restrictive."

"Flexibility and options for agricultural operations are one of the key needs."

"Allow secondary businesses and value added; continue these as options."

"We need flexibility in the way our farm operations will develop. This may include such elements as agri-tourism, events or new enterprises that are not strictly production agriculture. But these will be essential to the future viability of our businesses."

There is general agreement that supporting or attracting more value-added agriculture and food business would be a "good thing." But while this is seen as positive, it is also a challenge:

"Value added/processing is good, but it is a tough business. Note the loss of Sturgeon Valley Pork which seemed to be a good business, but they could not compete with the big processors."

"More value-added opportunities would be great. And we have some good examples: Champion Pet Foods; the oat processing plant and the alfalfa dehydration plant. We need more of these."

"Value added agriculture has not been doing well especially with respect to livestock farming. Few livestock producers are expanding. For example, there are only two pork producers left. And Sturgeon Valley Pork which was a great value-added initiative, failed to make it."

3.7 Protect Good Agriculture Land but...

No issue is more contentious or as potentially divisive than the subject of conserving agricultural land. Two major questions prevail:

1. Should agricultural land be preserved?
2. If yes, how should this be done?

There are two and very distinct sides to the land preservation issue. On the one hand, farmers who are committed to the long term favour the preservation of good agricultural land – in other words, limit fragmentation, small land parcels and the encroachment of non-farm rural resident. On the other hand, there is considerable support to maintain the current subdivision policy (four parcels out per quarter) and not restrict land owners from doing so. Interestingly many who favor preservation are also likely to support the continuation of the current subdivision policy.

Overall, there is general agreement that "the best land should be preserved, and good land is worth protecting." We heard this sentiment expressed at all the meetings. The following is the range of comments expressing this point of view:

"Building on #1 soil is foolish!!"

"There is no vision for agriculture!! It's a case of preserving land until it is needed for something else!"

"Keep the good land and keep the farms going."

"Agriculture is not valued!!"

"Good land is worth protecting."

"Number 1 soil is important, but Number 3 or 4 soils are also good for pasture/beef."

"It really matters what the County thinks about land!"

"Good land never seems to get mentioned. The region should develop up and in not out! You are not getting the good land back!!"

"I have no stability. It seems to be easy to build houses anywhere. But what kind of future is that for me as a farmer?"

However, we quickly heard another set of comments, some from the very same people who made the previous comments:

"Don't limit 4 parcels out. We need to maintain flexibility."

"The only way you can buy land to farm is to sell of an acreage."

"A lot of farmers are counting on being able to sell acreages as a way to fund their retirement."

"Farmers are land rich and cash poor."

The major point of contention (and contradiction) revolves around the right to sub-divide. Very few farmers object to the four parcels per quarter policy – most farmers arguably support this policy. Yet many expressed little or no desire for neighbours particularly acreage owners who present nothing but problems, complaints and future conflicts specific to their farming operations.

Furthermore, the right (and opportunity) to sub-divide is an important financial matter – those farmers who wish to retire, regard the opportunity to maximize the value of their property and the ability to sell off parcels as an essential source of funds for their retirement.

But what is to be done? Again, we received a host of comments:

"The County needs to control development. It's out of control. Lots of developments have flooding problems. Developers do what they want—leave problems for County and our taxes to fix. County doesn't get it."

"Sturgeon needs a long-term vision—100 or 200 years. Have a balance—is it possible? A challenge. We're close to the opportunity of Edmonton market."

"Acreages in every quarter—it's a large problem. Too much traffic to move our equipment. City people drive too fast."

"There's talk about preserving land, but no one does anything. Urbans keep annexing."

"Competition for land is fierce – too expensive for those wanting to start."

"Change, development is inevitable. "

"There is a lot of speculative growth. Also, annexed farmers move out and create more competition for less land making land very expensive."

And some opposing points of view:

"We've had lots of ag preservation but where did that get us? Market would have been better than central planning. If it's in the public good, why should the farmers have to pay for it?"

"Let the market decide. Governments should not be imposing restrictions on farmers and what they chose to do with their land."

"Don't want a BC Land bank approach."

The idea of transferring development credits attracted interest at the Namao meeting. Perhaps this is a tool for consideration that could be used to cluster development and at the same time enable farmers who don't want to subdivide to capture the development value of their land.

"What if you don't want to subdivide. If you could transfer your development credits, that may help put subdivisions in the right place."

"Credits that would move subdivisions to other areas outside of agricultural land – you would get a better arrangement. Cluster development where you get better amenities, schools etc."

Clearly the subject of agricultural land zoning, subdivisions, fragmentation are front and centre. Dealing with these issues will be challenging.

3.8 Other Issues Impacting Agriculture

There were several comments made that address specific concerns. Some can be remedied easily. Others are much broader in nature. The comments include:

- County roads and bridges are inadequate for both agriculture and general use due to farm equipment getting larger and other increases in traffic
- The standard for ditches is too low for modern equipment.
- The ditches are not being properly maintained and/or are being designed properly. They are growing up with brush and weeds – as a result water isn't draining and this creates new obstacles, and/or we are unable to work the field in those areas
- We need better field access.
- We need better infrastructure;
- Taxation is an issue now with more limits on income splitting
- Rules for subdivision and development make it difficult to keep labour on the farm
- We need better access to water in rural locations, both for general farm operations and specifically for horticultural operations or value-added processing

3.9 What Makes Sturgeon Unique?

The fact is that Sturgeon County is unique from other municipalities around it. While there are similarities, it has become obvious that the County has the following features that make it unique in the Edmonton Metropolitan Region.

1. **A deep sense of “roots” in history and culture of agricultural community**

Living within a region that contains some of the most arable agriculture land in Alberta has historically attracted and sustained residents who specialize in agricultural and farming pursuits. As such, the lifestyle of farm living has long developed traditional roots within Sturgeon County.

With long sustained history in an area, there exists extensive knowledge of the landscape that these residents hold. A shared agricultural history for Sturgeon families informs everything from childhood rituals to notable cultural events. For many, the sense of rootedness in agriculture extends as well into the future in that agriculture is also seen as the County's destiny?

2. **The most favourable climate and soils**

Sturgeon soils and climate together combine to provide a remarkable ability to produce a wide range of crops. The black chernozemic soils are forgiving and residents report never having experienced a complete crop failure in 100 years.

3. **Robust experience in developing value-added agrifood businesses**

There have been numerous instances of businesses enhancing the value of the raw agricultural commodities produced in the County. Examples include Sturgeon Valley Pork, Alberta Oats, St. Denis Seeds, Prairie Gardens, Little Potato Company, and Edmonton Potato Growers. The University of Alberta Research Farm being located between St. Albert and Morinville currently conducts field crop research which could also be leveraged to enhance expertise in value-added production in the future, in addition to innovation in crop production.

4. **Advantageous location**

The benefits of proximity to Edmonton as a large urban market for agricultural products goes without saying, but Sturgeon County is also particularly advantaged with respect to other infrastructure related to its location.

Examples include excellent transportation such as having several rail lines (connecting Sangudo, Westlock, and Coronado subdivisions), several grain elevators which provide opportunities to market field crops without the logistics and cost of long-distance truck transportation; and easy highway access across the County (80% of parcels in the County are within two miles of a provincial highway).

The locational benefits also include the proximity to several other large urban centres including Edmonton, St. Albert and Fort Saskatchewan, in addition to 10 hamlets and numerous neighbouring towns (such as Morinville, Gibbons, Redwater, Bon Accord and Legal).

5. **Commercial areas could be leveraged for value-added agrifood business**

Both the Industrial Heartland the Villeneuve Airport are already zoned

commercial and have seen the development of many industrial businesses. For example, the Industrial Heartland with several major processing plants, is a source of waste heat and CO₂ – essential inputs to a competitive greenhouse sector. The pressing challenge will be to develop a set of business conditions including assured long-term supply agreements for these inputs, that are able to attract investments.

Another example would be the area around the Villeneuve airport, which could include a groundside business park that could serve as a place to add value to agricultural commodity crops. This site is well positioned adjacent to the major transportation routes and able to attract raw materials (grains, oilseeds) from the Region as well as the Peace Country.

6. Opportunity for strategic land use decision-making

Sturgeon has maintained significant lands for primary industry for many years, but it has been prudent in situating country residential development on less favourable soil quality. Sturgeon County is the lone municipality in the Edmonton Capital Region that has not pre-districted large areas for future country residential. This is a position further supported by the County's Municipal Development Plan, with an Integrated Growth Strategy that emphasizes clustering development to already identified key residential and non-residential area.

This provides the opportunity for flexibility in future decision-making to ensure that primary industry has an adequate land mass for both agricultural and industrial development at a variety of scales.

4.0 Implications and Directions

4.1 Agriculture as a Priority

The most significant finding generated by the Agricultural Engagement Strategy is the need for Sturgeon County to clearly commit that agriculture is a priority.

Indeed, those individuals attending the various meetings and/or contributing to the engagement process, expressed the consistent view that agriculture is seemingly a very low priority for the County and may not be a priority at all. Rather, the focus appears to be on other priorities such as the attraction of industry to the Industrial Heartland, increasing the residential population or some other lesser known pursuits.

Generally, these individuals indicated that County officials (both political and administrative) do not have a good understanding of agriculture and very few really understand the complexities, the resource requirements and/or the business realities associated with running a modern-day farming operation. This sentiment is most prominently held by full time farmers who operate either large areas for crops or intense livestock operations.

The significance of the commitment to agriculture cannot be overstated. Currently the prevailing forces specific to development and growth appear to be taking place without consideration for agriculture. Hence the impacts of development proposals on agriculture and its future is not being considered

A clear commitment to agriculture has several dimensions including:

- Sending the message to residents, businesses and the Region that Sturgeon County **values food and agriculture** and it will continue to be a leading jurisdiction as a provincial and regional food and agriculture supplier.
- Establishing clear **guiding principles** on how Sturgeon County agriculture will operate on land; conserve water; and focus on the attraction and/or facilitation of new value-added opportunities.
- Committing to the principle that **agricultural land is important**, it values good soil and will not allow indiscriminate development to the detriment of food and agriculture production.
- Ensuring a **process to review the impact** of all industrial, commercial and residential development proposals through the lens of how these will impact the viability of surrounding food and agriculture production.
- Including **agriculture in governance processes** by ensuring that both the impact and opportunities for the agrifood sector are considered in municipal decision-making processes.

While supportive agricultural guiding principles and policies are found within the Sturgeon County Municipal Development Plan, opportunities exist for Sturgeon County to be a more proactive organization in ensuring agricultural interests are

understood and taken into consideration. Decisions made on a County-wide basis should seek to promote agricultural viability, consider the impacts on agriculture on a variety of scales and need to be made in a consultative manner.

At a minimum, agriculture needs the support of the Sturgeon County – namely the commitment to listen, to protect, to keep agriculture viable, and (to quote one of the contributors to the engagement process) “not allow agriculture to get weeded out.”

4.2 Directions for Consideration

Further to the statement of commitment of agriculture, we offer several specific directions for consideration. These are presented below. However, it must clearly state that without the overriding commitment that agriculture is a priority for Sturgeon County as a condition precedent, none of these directions will be effective in ensuring the long-term future of the food and agriculture industry.

4.2.1 Education & Awareness

A significant and immediate response to supporting agriculture as a priority sector is the development and implementation of a comprehensive education and awareness program. We heard numerous suggestions including:

- a. **A clear declaration** that Sturgeon County is an agriculture and food producing County (and proud of it). Such a declaration recognizes the quality of the County’s soil and climate and sets the stage for an on-going communications plan that speaks to the agriculture taking place in the County, the farm families and a host of subject matter that emanates from the wide range of food and agriculture activities that is taking place.
- b. **Educating people** about food and where it comes from is important! We received repeated suggestions of the opportunity (and the need) to focus on school children in particular, to ensure that programming as well as site visits to farming and food producing operations become part of their curriculum.
- c. **Non-Farm Resident Orientation Programs** – much could be done via real estate agencies and/or other community welcoming groups to ensure that new residents moving into the countryside, know and appreciate what goes on in a farming area. This is taking place to some extent, but the comments suggest that these efforts need to be amplified.
- d. **Signage** upon entering an agriculture area. While producers accept the presence of non-farm neighbours, these residents must be made aware of the realities they are entering when residing in a farming region. Thus, a set of essential farming activities must be expected and accepted.
- e. **Value-added and community engagement activities** – one benefit of increased value-added enterprises taking place on the farm or in rural areas, is the opportunity to introduce non-farm residents to learn more about food and agriculture. A host of possibilities could be considered including destination sites (on farm markets; bed and breakfasts; in-field dinners or barbecues; tours; attractions for families etc.). In addition, smaller communities might consider developing special food/agriculture related events. All of these provide opportunity to celebrate Sturgeon County as a food and agriculture community as well as bridge the large

4.2.2 Regulatory Review to Facilitate Business

and growing divide between non-farm residents and the farming community.

- f. **Regional commitment** from urban municipalities, residents, restaurants, retailers, grocery stores, etc to support local farmers/agricultural communities

Agriculture continues to undergo rapid change. Two major dynamics are at play: a) full time farmers who are farming larger and larger areas which necessitates working around the clock during such peak seasons as seeding and harvest as well as the ability to move large equipment from location to location; and b) specialized operations that are typically providing an array of products and services that target the local market. In the case of the latter and as new opportunities emerge, the traditional definition of agriculture may no longer apply.

In view of its favourable location near a large urban market, Sturgeon County has the opportunity to foster and facilitate new food and agriculture business opportunities. To be clear, this is not an easy exercise but a necessary one. On the one hand, Sturgeon County will want to implement a regulatory regime that is favourable to new/nontraditional food, agriculture and related service business. On the other hand, Sturgeon County will need to ensure that these business (and particularly unrelated businesses) do not unduly limit or prevent the more traditional livestock and crop farms from operating.

We heard many comments and complaints about the multiple layers of regulation as well as their complexity. A host of questions are being asked including:

- What is defined as 'agriculture'?
- What is defined as 'agri-business'?
- When or at what scale does an agriculture related business become commercial and therefore subject to higher tax load?
- How do you prevent someone from buying an acreage and setting up a major commercial enterprise that has little or nothing to do with agriculture?
- What are the limits with respect to the number of employees?
- What are traffic and/or parking requirements?
- What are the allowable hours of operation?
- How can we run viable rural businesses selling direct to consumer if we need to comply with business rules designed for an urban setting?

To grow or even maintain a vibrant agriculture community, the regulatory review is perhaps one of the most sensitive but important initiatives that needs to be addressed. This needs to be an iterative process involving a great deal of consultation and input. Furthermore, detailed knowledge of other jurisdictions where a wide range of permitted uses in an agriculture zone would be beneficial.

A review could go beyond considering the removal of regulatory barriers to examining ways in which innovation could be actively fostered for the agrifood

4.2.3 Nuanced Land Use Strategy

industry, including in production, marketing, and processing. An environment for innovation typically requires regulatory transparency and certainty.

The assured long-term presence and vibrancy of agriculture requires a clear long-term land use strategy with associated policies supported by the agricultural community.

Sturgeon County currently allows a four-parcel policy for each quarter section (160-acre parcel). The policy which has been in place for over 20 years has several direct and indirect consequences. On the positive side the policy enables land owners/farmers to capture equity from their farm properties – particularly those who approaching retirement, while enabling other farmers to use this equity to purchase farmland further afield and distant to urban development thereby expanding their farm operations. On the negative side, the policy drives up the price of land putting it out of reach for many farmers. It has also resulted in an increase in the number of non-farm rural residents and accordingly an increase in rural-urban conflicts.

Land use and changes to existing land use policies is a very difficult and contentious issue. It is also a two-sided sword: on one side many farmers (and particularly younger farmers) feel very strongly about preserving top agricultural land and will argue that this should be the overarching principle for Sturgeon County; on the other side, farmers do not want to lose their ability to exercise the four-parcel-out option. Any change or restriction to this would be perceived as a direct loss of value (or equity).

The issue of subdivision on agricultural land is common throughout the Edmonton Metro Region. To this end, Sturgeon County together with the other municipalities will need to tackle this issue and address the following issues:

- a. What areas or lands should be designated as priority agriculture and be such for the long term or even perpetuity?
- b. What areas or lands should be designated as priority agriculture but regarded as shorter term or transitional as urban development and the local population continues to grow?
- c. What can be done to direct development to seek out new solutions such as the clustering of development and increased density?

In response to these questions, Sturgeon County may wish to consider a more **nuanced land use strategy** which defines priority agriculture areas both long term and short term. This would be supported by new tools such as the establishment of development credits that can be sold from long term priority areas to areas more suitable for development and/or the clustering of development (more than 4 parcels on a quarter section). This would require the developer to purchase development credits from other land owners.

4.2.4 Value-Added / Clustering

The legacy of Sturgeon County as the 'heart' of agriculture for the Edmonton Metropolitan Region, combined with its location and its superb transportation infrastructure, places it in a strong position to pursue a long-term value added economic development strategy. Two general strategies are proposed:

- Commit to building a **food and farming cluster** as an engine for economic growth - complete with infrastructure, business incubation, marketing and branding support.
- Build long term economic development capacity designed to **attract/pursue** more value-added opportunities.

Further to the two strategies, the following areas of focus might be considered:

Agriculture processing – the Industrial Heartland is potentially an excellent location to attract a new plant that has the capacity to process the rapidly emerging pulse crop sector (peas, lentils, chickpeas). Currently investment is being placed in Manitoba, but it is reasonable to presume that there will be new long-term opportunities as the global demand for these products grow. Another opportunity that may re-emerge as forest stock declines, is the processing/production of fibre from straw and other crop residue. Business development in this commercial zone may offer opportunities to leverage resources such as waste heat or carbon dioxide, for example, in addition to the other benefits of centralized industrial capacity.

Local food and food experiences – development of opportunities will be consonant with the growth and support of entrepreneurs as well the emergence of definitive market channels within the Edmonton Region. The development of agri-tourism initiatives, for example, will not happen by accident but will require leadership and the allocation of dedicated resources.

4.3 Conclusion

In summary, this engagement exercise has given some very clear directions for agriculture in Sturgeon County. Agriculture's roots run deep, with its proud history and unique advantages offering opportunity for a robust agricultural future.

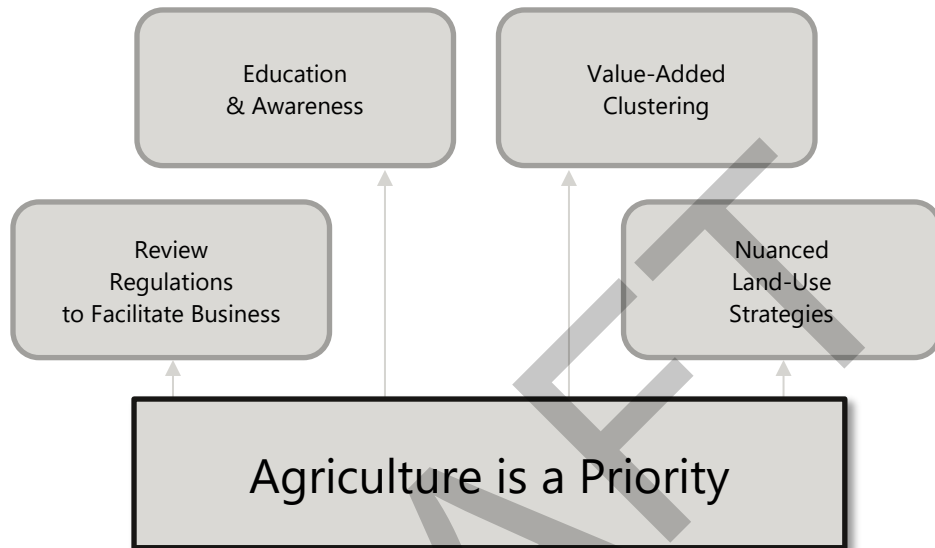
There must be an explicit affirmation that **agriculture is a priority** for the County and that all planning and policy should be viewed through the lens of how decisions impact or foster a future for food and agriculture in the County.

Several key areas of action were identified for consideration:

1. **Education and Awareness** to address the rural-urban conflict
2. **Regulatory Review** to make it easier to do business in a variety of ways
3. **Nuanced Land Use Strategies** to ensure availability of agricultural land
4. **Value-Added Clustering** to foster the development of new businesses

Next steps related to further work and implementation of any of the above identified 'Directions for Consideration' will require continued commitment from the County, agricultural community, industry partners, and the public. In addition to expressing a vision that makes agriculture a priority, further development of associated strategies, policies, initiatives, partnerships and advocacy will be needed to action the input received from the Sturgeon agricultural community.

Engagement with the County's agricultural community is an ongoing process and will need to include continued opportunities for input, with a view to developing a shared vision for agriculture in the County.

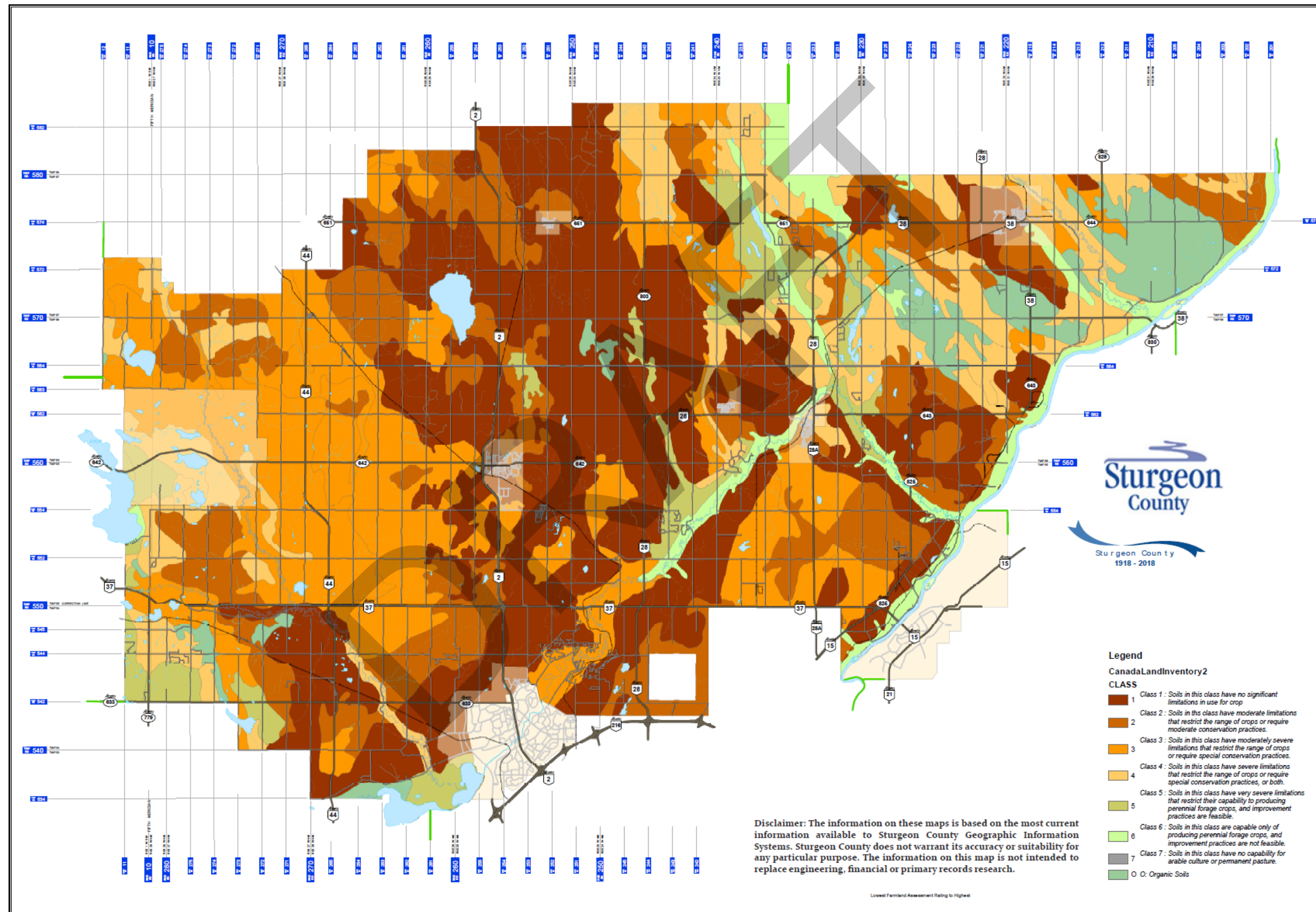


5.0 Appendices:

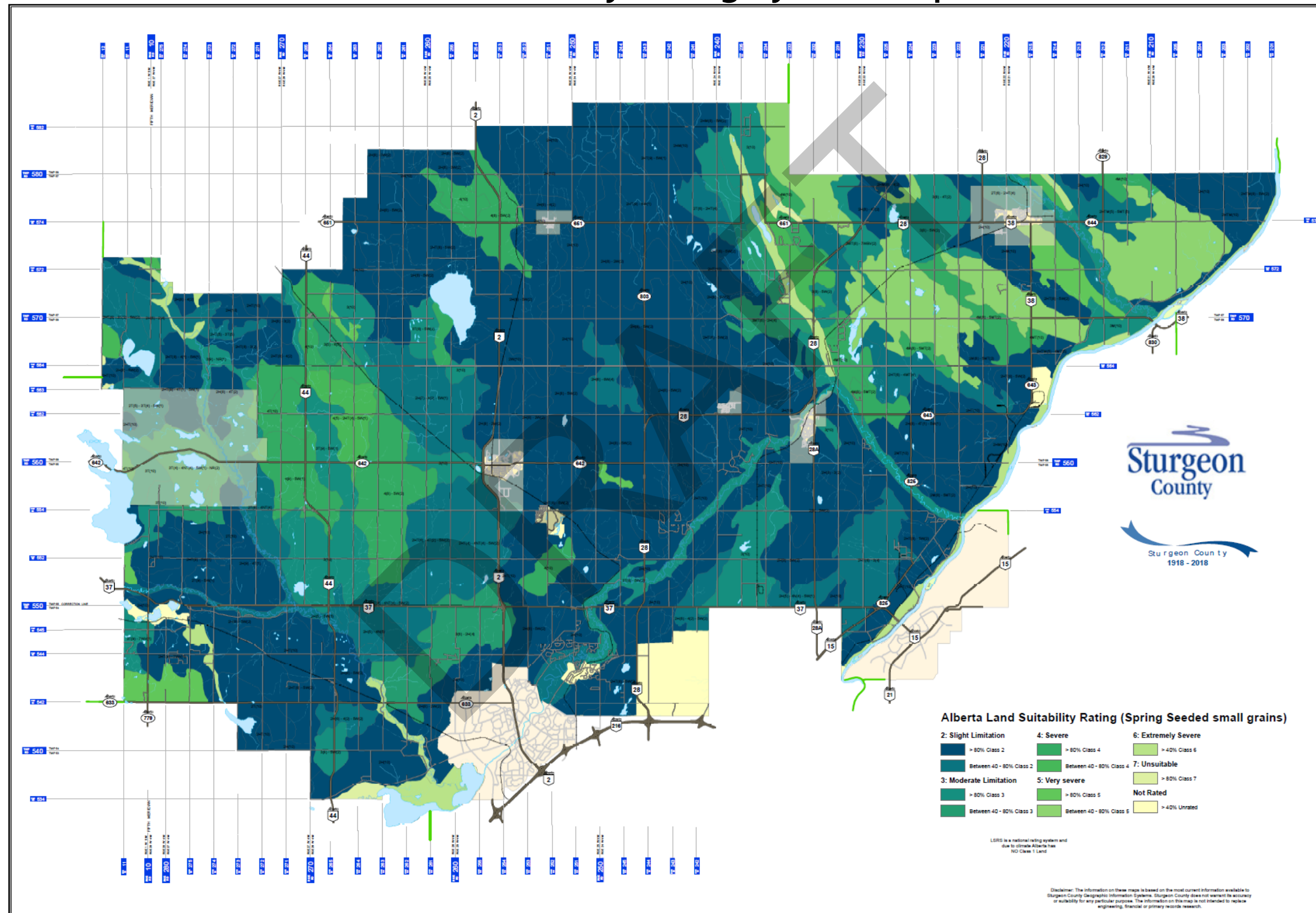
- Canada Land Inventory Soils Map
- Land Suitability Rating System Map
- 2015 Annual Crop Inventory
- 2016 Annual Crop Inventory
- 2017 Annual Crop Inventory
- Land Fragmentation Map
- Integrated Regional Growth Strategy (Sturgeon MDP)

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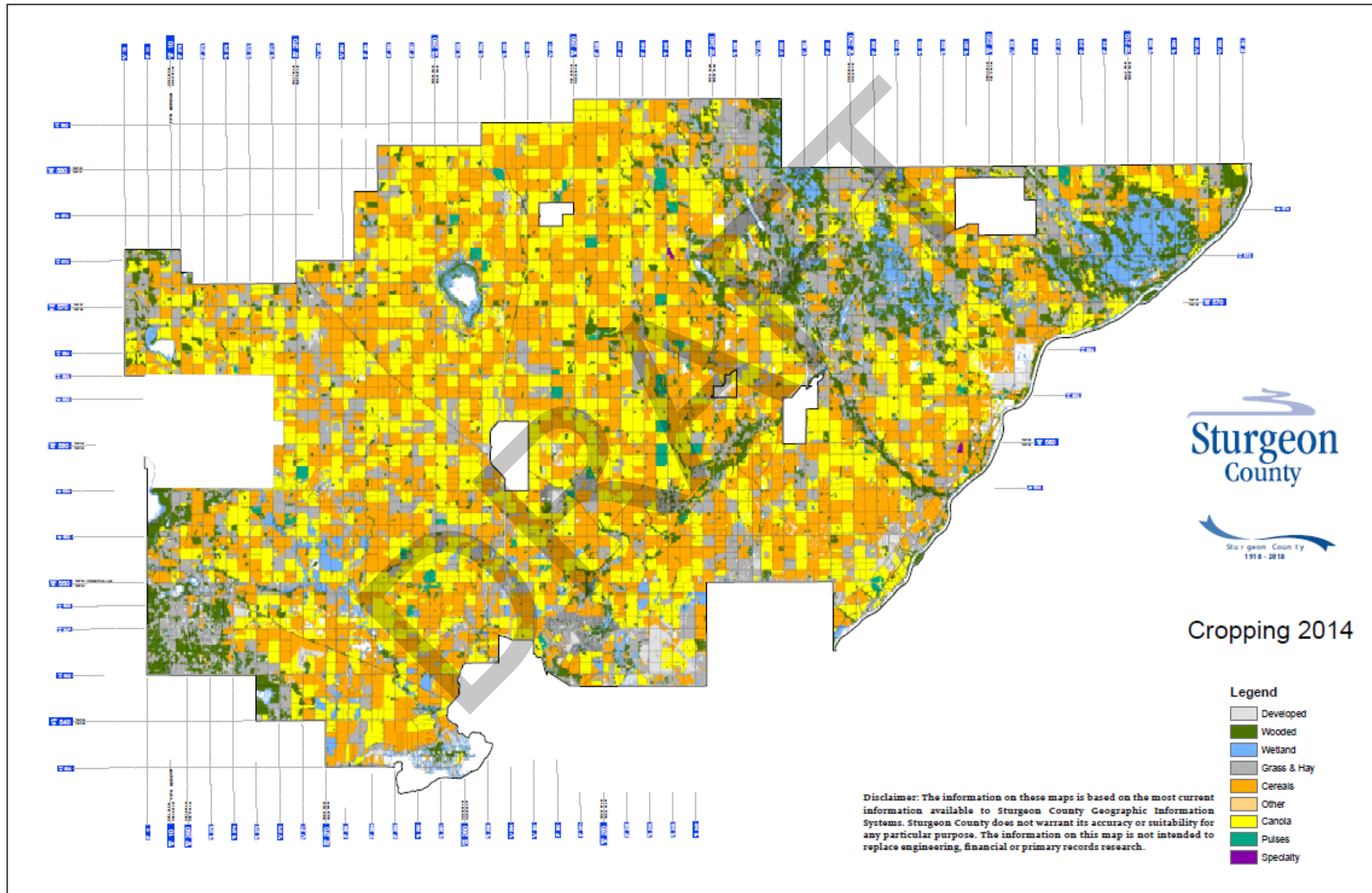
Canada Land Inventory Soils Map



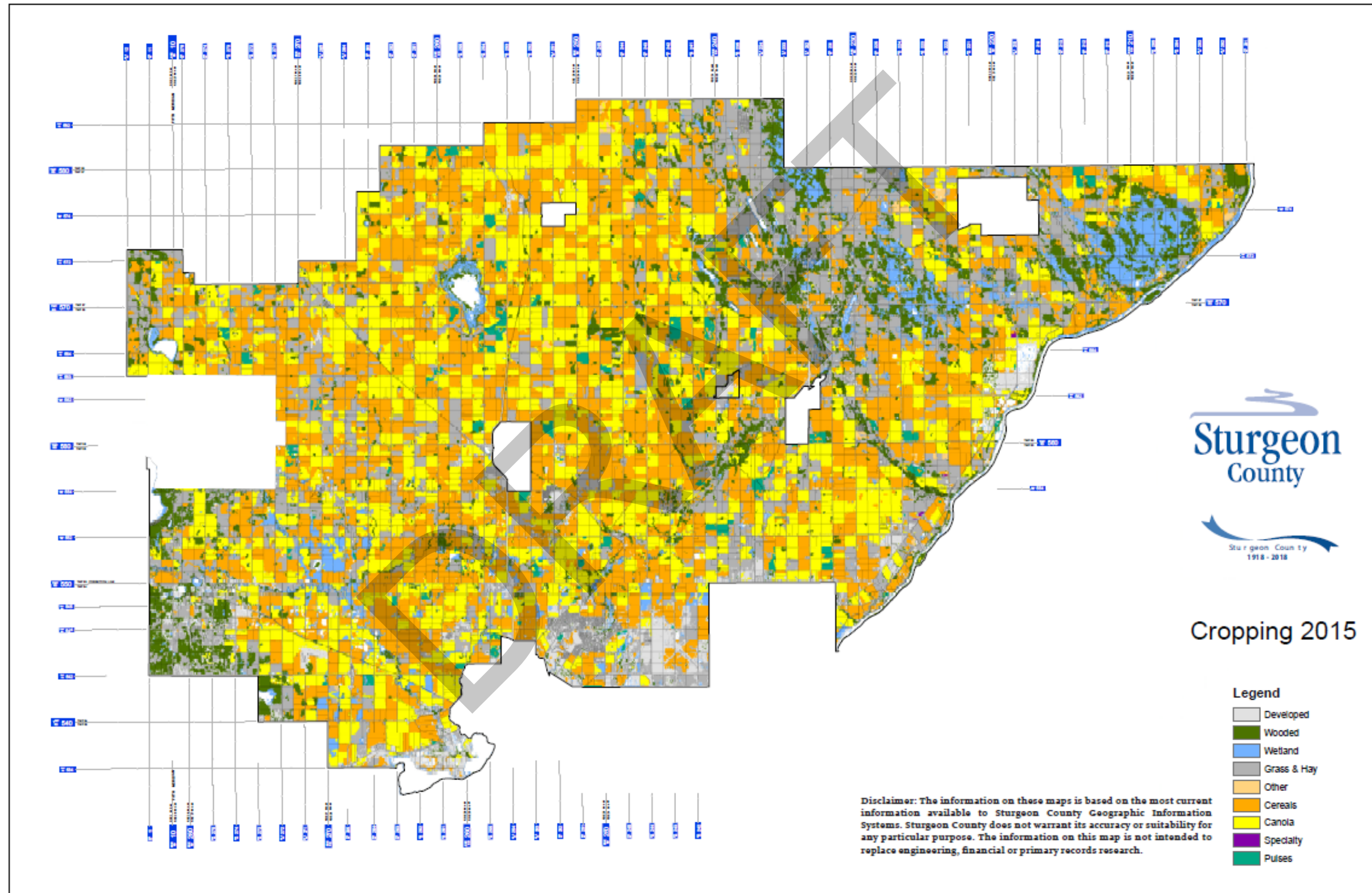
Land Suitability Rating System Map



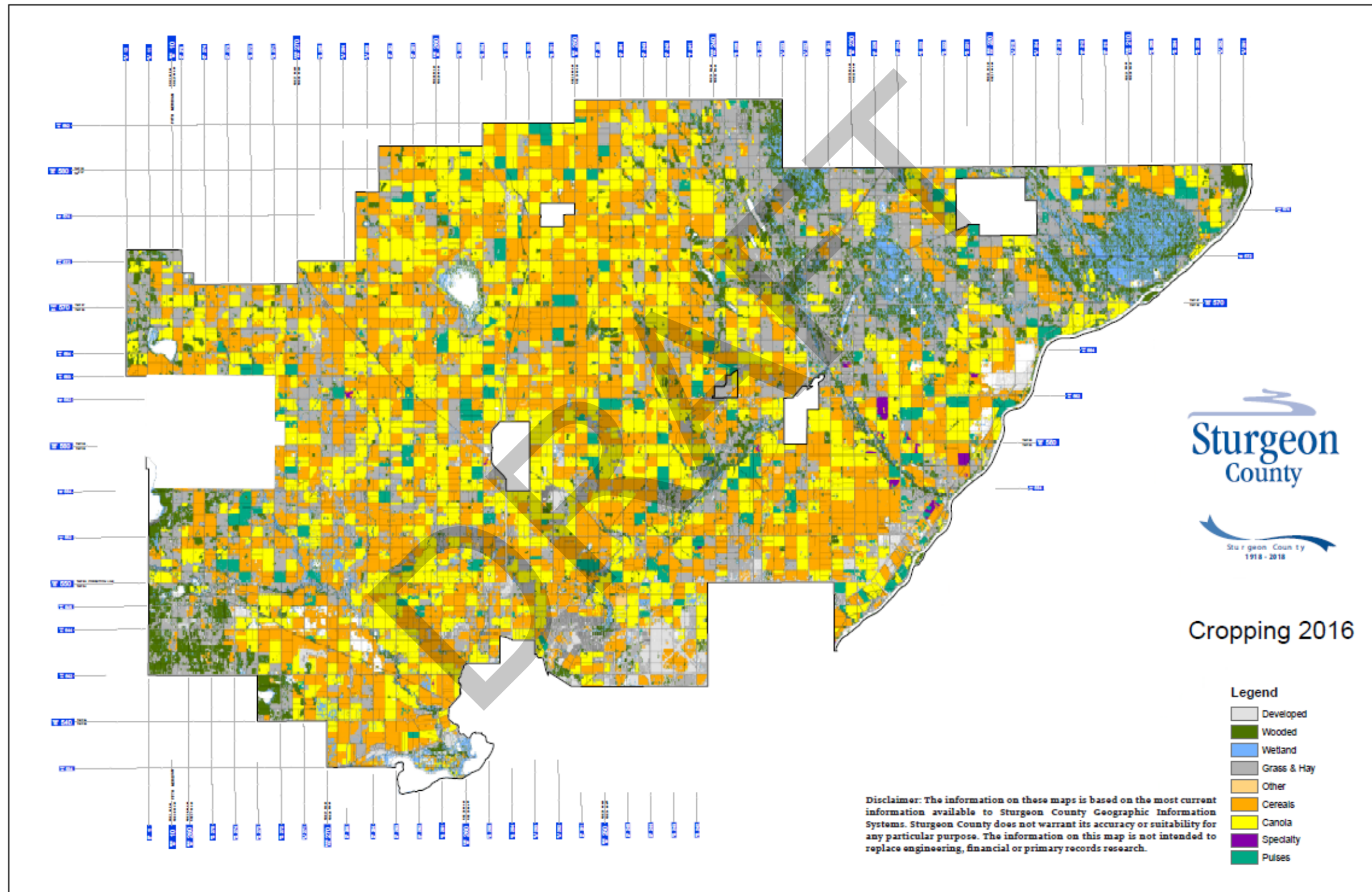
2014 Annual Crop Inventory



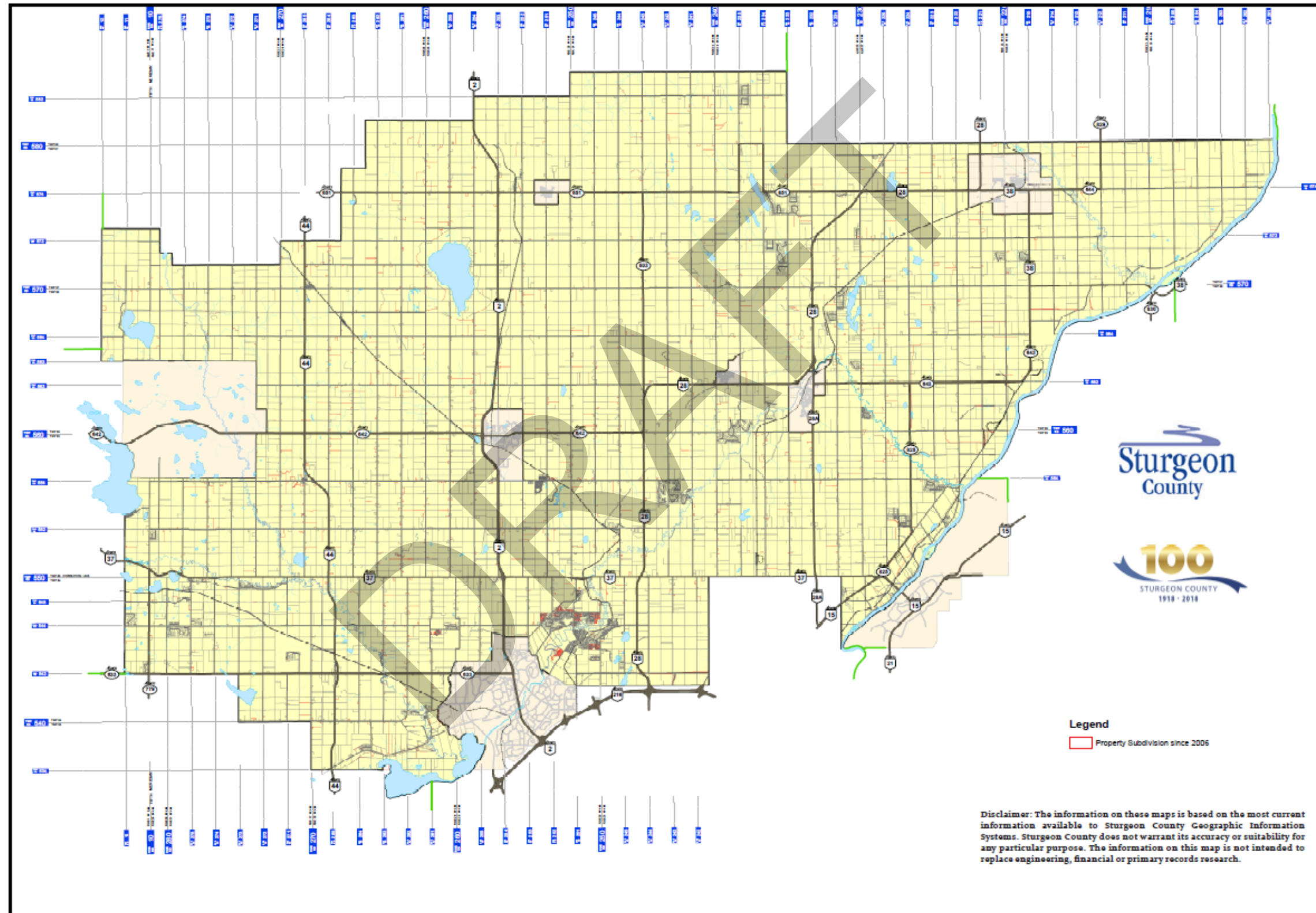
2015 Annual Crop Inventory



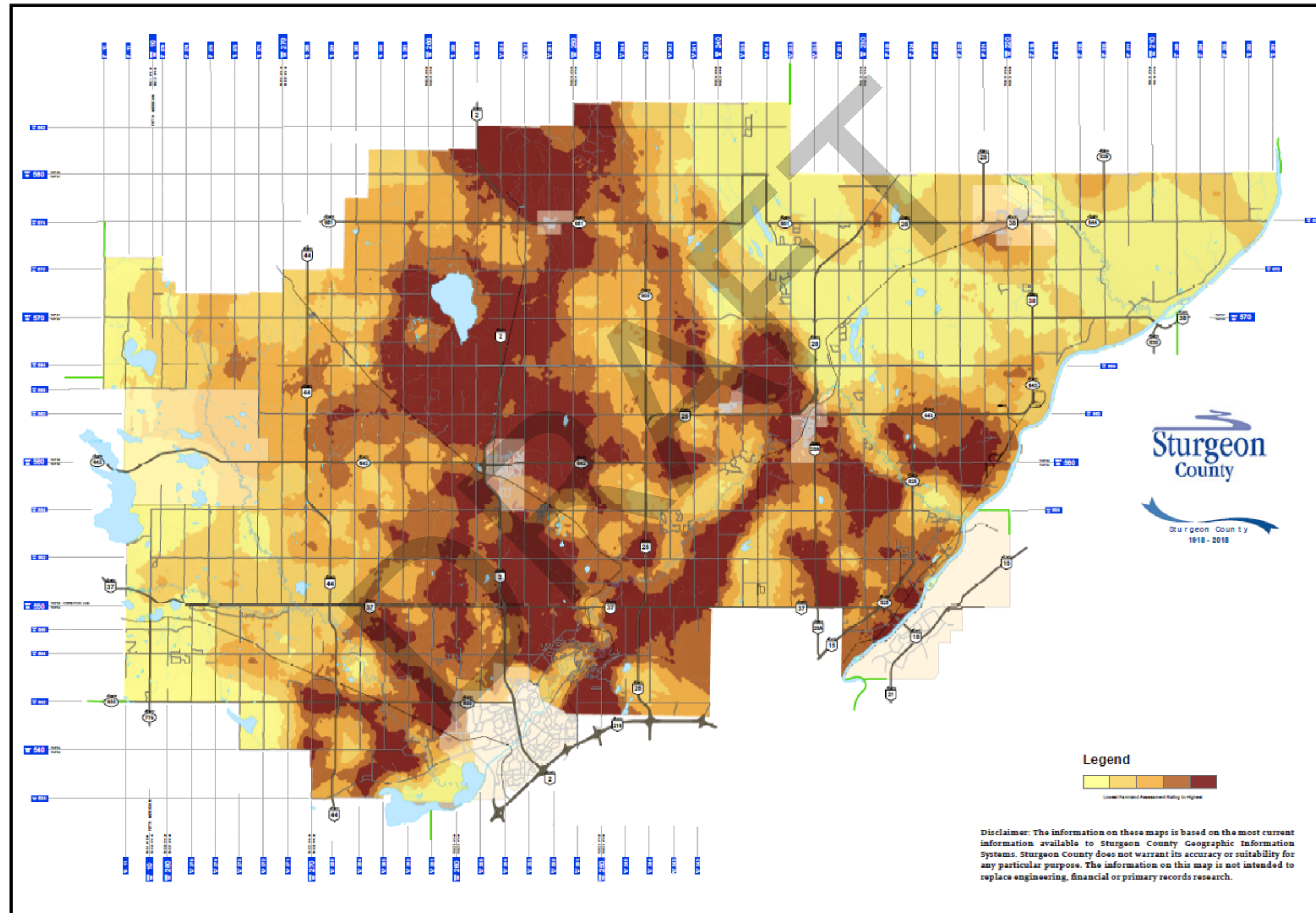
2016 Annual Crop Inventory



Land Fragmentation Map



Farmland Assessment Rating



Integrated Regional Growth Strategy (Sturgeon MDP)

Residential Types

Residential



Type 1

- Situated where development pressures are most imminent.
- Locations include the Priority Growth Area B (PGA-B) and the Sturgeon Valley.

Type 2

- Situated in existing residential areas (with current infrastructure investment). Also includes planned growth areas.
- Locations include the Hamlets of Cardiff and Villeneuve.

Non-Residential Types

Industrial



Industrial: Type 1

- Situated in the Alberta Industrial Heartland Area Structure Plan boundaries.

Industrial: Type 2

- Situated on lands already zoned industrial, in areas with existing Area Structure Plans, CRB regional employment areas and planned growth areas.
- Locations include the Sturgeon Industrial Park, ProNorth, Legal Crossroads and the Villeneuve Airport.

Commercial



Type 1 Commercial

- Situated in the CRB Priority Growth Area B (PGA-B)

Type 2 Commercial

- Situated in the existing community of the Sturgeon Valley and the Villeneuve Airport

Institutional



Type 1 Institutional

- Refers to CFB Edmonton and the University of Alberta

Type 2 Institutional

- Refers to the existing recreation facility of Cardiff Park

Institutional refers to land uses which serve a community's social, educational, health, cultural and recreational needs. This also includes government owned and operated facilities/entities.

Primary Industry



Primary Industry

- Sturgeon County does not regulate Confined Feeding Operations, agriculture farming operations or lease sites.
- Land uses relative to sand and gravel extraction and heavy industry is further defined through existing statutory plans such as the Alberta Industrial Heartland Areas Structure Plan and the Calahoo-Villeneuve Sand and Gravel Extraction Area Structure Plan.

Primary Industry refers to land use activities that harvest or extract raw material from nature such as Agriculture, oil and gas extraction, forestry, mining, fishing and trapping

Development Influences



See Neighbourhood Development Strategies for additional information



Sturgeon County Hamlet

See Neighbourhood Development Strategies for additional information

