

BYLAW 58-2011

A BYLAW OF STRATHCONA COUNTY IN THE PROVINCE OF ALBERTA, FOR THE PURPOSE OF ADOPTING AN AREA STRUCTURE PLAN FOR THE COUNTRY RESIDENTIAL AREA POLICY AREA.

WHEREAS it is deemed advisable to adopt an Area Structure Plan for the Country Residential Policy Area;

NOW THEREFORE, the Council of Strathcona County, duly assembled, pursuant to the authority conferred upon it by the *Municipal Government Act, R.S.A. 2000 c.M-26* and amendments thereto, enacts as follows:

1. That this Bylaw be cited as the "Country Residential Area Concept Plan".
2. That Schedule "A" attached hereto is hereby adopted as part of this Bylaw.

This Bylaw comes into effect after third reading and upon being signed.

Read a first time this 13th day of December, 2011.

Read a second time this 10 day of April, 2012.

CAPITAL REGION BOARD APPROVAL 15 day of May, 2012.

Read a third time and finally passed this 22 day of May, 2012.



Mayor



Director,
Legislative and Legal Services

Date Signed: May 29/2012

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Strathcona County

Country Residential Area Concept Plan



EXECUTIVE SUMMARY

Strathcona County is a unique municipality that offers a variety of urban and rural lifestyle opportunities. As the authority for land use, subdivision and development, the County conducts long range planning to ensure the strategy for the long-term development of the community is documented and implemented.

In March 2005, the County initiated the development of an Area Concept Plan for the Country Residential Policy Area, the boundaries of which are indicated in the Strathcona County Municipal Development Plan.

The planning process included an analysis of background information, the development of mapping materials, research into achieving sustainability, an analysis of development potential on a quarter section by quarter section basis and public consultation (see Appendix E).

The plan recognizes that Country Residential development is not normally considered a “sustainable” form of development; however, it is a land use the County has allowed in the past and will continue to allow in the future. The major focus of this plan is the manner in which future development will occur in the Country Residential Policy Area.

One of the main goals of this plan is to provide the guidance and regulatory framework required to ensure that all future development within the plan area works toward the County’s general goal of being more sustainable. Therefore, the major policy direction provided by this Plan involves consideration of the Twelve Themes of Sustainability and adherence to the concept of Conservation Subdivision Design.

This plan was initiated while the Municipal Development Plan (Bylaw 38-98) was under review. The new MDP (Bylaw 1-2007) was adopted in May 2007. Policies pertaining to Country Residential development under the Municipal Development Plan also provided direction in the development of this area concept plan.

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1.0 INTRODUCTION

1.1 PURPOSE

The purpose of this document is to provide a comprehensive sustainable land use planning framework to guide future subdivision and development for lands located within the boundaries of the Country Residential Area Policy Area as identified by the Municipal Development Plan (MDP). The Country Residential Area Concept Plan (CR-ACP) builds upon the objectives and policies of the Municipal Development Plan and provides more specific policy direction for existing and future development within this area. This document will provide guidance for orderly and sustainable country residential development within Strathcona County.

1.2 INTERPRETATION

The Country Residential Area Concept Plan is a “statutory” planning document that has been adopted by Council as an “Area Structure Plan Bylaw” per the requirements of the Municipal Government Act. This plan complies with the Municipal Development Plan and provided opportunities for public input through a statutory Public Hearing of Strathcona County Council.

The maps and figures contained with the Country Residential Area Concept Plan provide a conceptual framework for future land uses, transportation networks, potential trail networks, parks and open spaces.

Prior to consideration of plans for country residential subdivisions and associated land use bylaw amendments, more detailed area structure plans and design briefs (i.e. Traffic Impact Assessments, Geotechnical Reports, etc.) may be required to be prepared by developers and approved by Strathcona County.

This Country Residential Area Concept Plan recognizes existing uses as well as the planning approvals and development rights afforded to landowners by the current Municipal Development Plan and Land Use Bylaw. These uses and approvals are assumed to remain within the-CR-ACP area.

1.3 LOCATION

The CR-ACP area encompasses approximately 8,800 ha (22,000 acres) of land and is located south and east of the Urban Service Area within the Rural Service Area of Strathcona County (See Map 1).

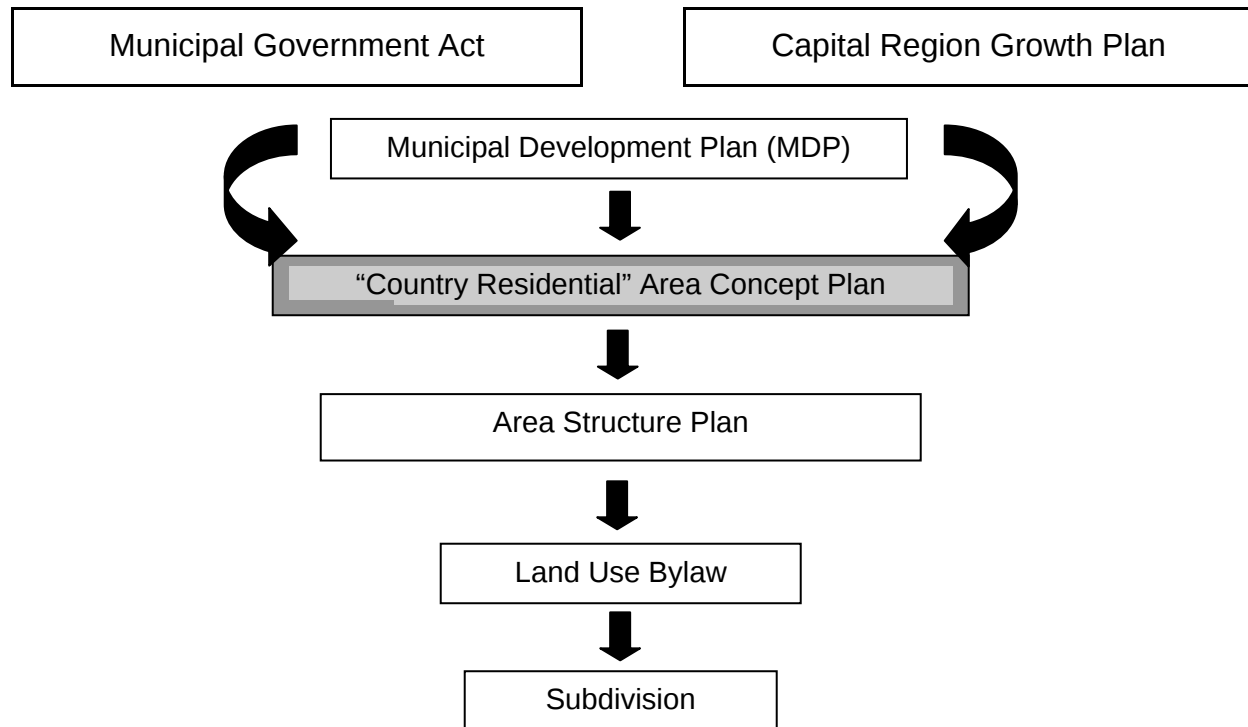
1.4 ENABLING LEGISLATION

Municipal Government Act

This CR-ACP has been prepared in accordance with the Municipal Government Act (MGA), RSA 2000 cM-26 (MGA). Section 633 of the Act enables municipalities to adopt area concept plans as higher level area structure plans which provides a framework for future subdivision and development. Figure (1) below illustrates the planning process hierarchy and where area concept plans are situated in this process. The requirements of the MGA have been adhered to in the preparation of the Country Residential Area Concept Plan.

Capital Region Growth Plan

In April 2008 the Province of Alberta mandated the formation of the Capital Region Board by adopting the Capital Region Board Regulation AR 49/2008. The Board was tasked with creating a Capital Region Growth Plan that would guide regional land use planning and transit networks; address regional affordable housing issues and coordinate a regional geographic information system. Part 3 Section 17(1) of the Capital Regional Board Regulation states, among other things, a participating municipality will not take action, which conflicts with the Capital Region Growth Plan. Strathcona County is a participating member of the Capital Region Board and is responsible for conforming to and implementing the Capital Region Growth Plan. The Country Residential Area Concept Plan is consistent with the Capital Region Growth Plan.



(Figure (1): Hierarchy of Planning Process)

2.0 PLAN VISION

COUNTRY RESIDENTIAL COMMUNITY VISION

The country residential area fosters a rural residential lifestyle while respecting and conserving the natural environmental and rural landscape.

PLAN GOAL

The goal of the Country Residential Area Concept Plan is to provide a framework for the efficient and orderly development of lands within the CR-ACP area consistent with the Capital Region Growth Management Plan and the Municipal Development Plan. Country residential development will occur in a sustainable manner which fosters development growth, social well being and environmental stewardship.

PLAN OBJECTIVES

The following objectives support the goal of the Country Residential Area Concept Plan:

1. to facilitate the development of country residential and compatible land uses that foster a rural residential lifestyle;
2. to provide a planning, infrastructure and servicing framework that progresses the sustainable development of country residential and compatible land uses that is consistent with the goals, objectives and direction of the Strathcona County Municipal Development Plan and the Capital Region Growth Plan; and
3. to provide a mechanism through which future planning and development applications can be assessed and implemented.

3.0 BACKGROUND AND CONTEXT

3.1 CAPITAL REGION GROWTH PLAN

The Capital Regional Growth Plan identifies a portion of the Country Residential Policy Area as a Cluster Country Residential Area. This area includes all the lands within the County Residential Policy Area that are located west of Highway 21. The Capital Region Growth Plan states that the country residential area west of Highway 21 shall achieve a density of 2.0 dwelling units per gross hectare. This density target translates into approximately 129 dwelling units per quarter section, provided the entire quarter section is utilized for Country residential development. The remainder of the Country Residential Policy Area is considered for traditional country residential development by the Capital Region Growth Plan to a maximum density of 50 country residential parcels per quarter section.

Implementing policy that would apply a uniform parcel size for the CR-ACP area in order to simply address the density requirements of the Capital Region Growth Plan would not address the many complex aspects of the existing natural and physical features of the landscape, social values or economic matters. Therefore, this Country Residential Area Concept Plan will balance density targets, economic, social and environmental matters through the development of comprehensive and thorough objectives, policies and methods of implementation.

The Country Residential Area Concept Plan will provide a planning framework for development that is consistent with the Capital Region Growth Plan and the associated policies related to the Country Residential Policy Area within the Municipal Development Plan.

3.2 MUNICIPAL DEVELOPMENT PLAN

The Municipal Development Plan is the County's overarching strategic land use planning document, providing high level land use, development, economic development, social and servicing policy direction for Strathcona County. The Municipal Development Plan acknowledges the community's goals for future development in the Rural and Urban Service Areas of the County. It presents background information, assumptions, planning objectives and general policies, which serve to guide the more detailed analysis and development of land use and servicing principles within the Area Concept Plan boundaries.

MDP Direction for Country Residential Development

Country residential development surrounding the Urban Service Area, and to a lesser degree Ardrossan, represents a historical residential growth pattern in Strathcona County. Country residential development beyond the physical limits of the Country Residential Policy Area identified in the Municipal Development Plan is not supported, as it is no longer considered an efficient, effective or sustainable use of land. Emphasis will be placed on conservation design principles to develop the Country Residential Policy Area as identified in the Municipal Development Plan. This will focus on conserving habitat, wetlands, upland areas, eco-systems and open space, as well as encouraging sustainable servicing options.

The Country Residential Policy Area identified in the Municipal Development Plan forms the geographic scope of the Country Residential Area Concept Plan. Determination of this scope is based on the need to transition between the higher densities of the Urban Service Area and the lower density of the agricultural lands; and to conserve the higher quality soils to the north and the higher biodiversity valued lands to the south and east. The purpose of the Country Residential Policy Area is to accommodate country residential development and related activities, while conserving the natural and environmental features of the lands. Country Residential development generally means single-detached houses on larger than urban sized parcels (typically acreages) in a rural residential setting. Natural landscape features will be maintained within the policy area with the conservation of wetlands, upland areas and wildlife corridors, forming a prominent aspect of existing and future development.

4.0 PLAN DIRECTION

4.1 AREA STRUCTURE PLAN REQUIREMENT

Area structure plans will be required to support country residential rezoning and subdivision proposals within the CR-ACP area. An area structure plan is a planning tool used to provide a planning framework for orderly and efficient development, and to ensure each development proposal is assessed for consistency with the County's overarching goals, objectives and policies. Specifically for the Country Residential Area Concept Plan area, an area structure plan will provide a planning framework that ensures future country residential development is consistent with the country residential community vision and the CR-ACP's goal and objectives. The following policies will determine when an area structure plan is required; and provide guidelines and requirements for the preparation and submission of an area structure plan for country residential development.

Objective:

Require area structure plans for development proposals in the CR-ACP area to establish a site specific development concept and policy framework that ensures all future development is consistent with and furthers the County's country residential vision, goals, and objectives.

Policies:

- 4.1.1 An area structure plan is required to be prepared and submitted to the County where a parcel of land is proposed to be re-zoned or subdivided; except
- a) where the subdivision would result in the creation of one additional parcel within an unsubdivided quarter section; or
 - b) where an additional parcel(s) would be created within an existing country residential subdivision identified on Map 10. In this case, note that a conceptual scheme may be required as per policy 4.3.1 (d).
 - c) where the subdivision would result in the creation of a public utility lot; or
 - d) where the re-districting is for the sole purpose of providing a public utility or other similar public service.
 - e) where the re-districting is for the sole purpose of providing a community service facility, see Section 4.9.
- 4.1.2 The scope of an area structure plan will be for the entire quarter section in which the land proposed for re-zoning or subdivision is located; except,
- a) where Strathcona County considers that a reduced area is justified due to unique attributes, such as a naturally severed quarter section, or a quarter section that is severed by a rail line, or a portion of a quarter section is located outside of the CR-ACP area; or
 - b) where an existing area structure plan or conceptual scheme already exists on the quarter section that is subject to the re-zoning or subdivision application. In this case the following shall be adhered to;
 - i) where the lands proposed for re-zoning or subdivision are located within the scope of an existing area structure plan or conceptual scheme, that

plan shall be revised, or may be rescinded and a new area structure plan prepared and submitted to the satisfaction of the County.

- ii) where the lands proposed for re-zoning or subdivision are not located within the scope of the existing area structure plan or conceptual scheme, an area structure plan will be required and the scope of the area structure plan will extend to the lands proposed for rezoning or subdivision and any other lands within the quarter section not already covered by an existing area structure plan or conceptual scheme.

4.1.3 The following matters will be addressed and assessed at a scale and detail pertaining to the scope and intensity of the proposal and the significance of the perceived effect of the proposal, within each area structure plan:

- a) Land Use - indicating what land uses will be applied to lands within the plan area;
- b) Density and Population – how the proposal meets the density provisions outlined within this Area Concept Plan;
- c) Transportation System – indicating the internal road and trail network for the plan area and how the network relates to and integrates with adjacent quarter sections and the existing Strathcona County road and trail network and strategies;
- d) Subdivision Design – applying the conservation subdivision design concept and process as outlined in Appendix A;
- e) Sense of place – how the proposal design maintains or enhances a sense of community, space and character;
- f) Utility Servicing System – developing concepts for the water, wastewater and stormwater systems and other utilities for the area structure plan area and how these systems relate to and integrate with the existing Strathcona County systems and strategies;
- g) Open Space and Environmental Areas – identifying all environmental and open space areas within the area structure plan area and establishing how these areas will be protected and conserved and how they integrate into the overall development concept;
- h) Staging of Development – indicating the sequence of the proposed development, the staging of municipal and environmental dedication;
- i) Integration with the Surrounding Area – indicating how the proposed plan relates to and integrates with existing land uses and developments in the surrounding area;
- j) Public Input – indicating the public engagement process undertaken during the development of the area structure plan and how the plan has addressed any related issues/concerns to the satisfaction of Strathcona County;
- k) Wildfire Risk – identifying and indicating how wildfire risks will be mitigated through utilising FireSmart principles and practices;
- l) The objectives and policies of the Municipal Development Plan;
- m) The matters identified in the Municipal Policy Handbook pertaining to area structure plans; and

- 4.1.4 Strathcona County may at its full discretion, waive the requirement to prepare an area structure plan, that would otherwise be required, in accordance with this policy, where in the County's opinion the proposed development is minor in scale, intensity and effect and has unique characteristics that would warrant an area structure plan to be considered by the county to be onerous.
- 4.1.5 The County may require the preparation and submission of a Design Brief that outlines the servicing, transportation, geotechnical and drainage framework for detailed subdivision design. Preparation of the Design Brief may require technical reports, such as traffic impact assessments, geotechnical, and stormwater reports, to be prepared and submitted to the satisfaction of the County by a qualified professional.
- 4.1.6 A Biophysical Assessment is required, to be prepared and submitted to the satisfaction of the County by a qualified professional as per municipal policy.

4.2 SUSTAINABILITY AND GROWTH MANAGEMENT

Country residential developments are not generally considered a sustainable form of development, as they involve the development of single-detached residences at very low densities, which in turn result in large-scale conversion of natural habitat and agricultural land. However, it is a form of land use that the County has allowed in the past and will continue to allow (within the CR-ACP area limits) in the future, provided the issue of sustainability can be better addressed. This Area Concept Plan will ensure that country residential development incorporates the principles of sustainability as much as practical for this type of land use.

The manner in which country residential development occurs is very important when considering achieving a more sustainable community. The Country Residential Area Concept Plan provides a process for all future development within the CR-ACP area that will ultimately decrease the impact of country residential development on the environment. All future country residential subdivisions will be required to follow the Conservation Subdivision Design process. This process will ensure each future country residential development considers and integrates the land's natural environmental characteristics into the overall design; which will compliment the County's goal of creating a more sustainable community.

Conservation Subdivision Design

The overall goal of Conservation Subdivision Design is to protect as much environmentally significant area and/or important culturally significant features as possible within a proposed development while still allowing for conventional subdivision design densities to occur. It enables land to be developed while simultaneously preserving rural character, reducing and mitigating environmental impacts, protecting the rights of property owners, and enabling a developer to achieve economic benefits from the creation of a high-quality development.

Conservation Subdivision Design differs from traditional country residential development by ensuring the subdivision is designed respecting the natural features of the land. This process sets much higher standards for the quantity, quality and configuration of the resulting open space and developable area. Lands protected from development can also be configured, in some cases, to work toward creating an interconnected network of open space throughout the community; linking amenity areas and habitat corridors in adjoining subdivisions and providing buffers between new development and environmentally sensitive areas or features. Conservation subdivision design accommodates the protection of environmental lands and creation of a network of open space can, while facilitating further country residential development. The Conservation Subdivision Design process is outlined in Appendix A.

Objectives:

1. conserve natural features and protect natural habitat;
2. conserve wildlife corridors and biodiversity;
3. reduce cost and reduce carbon emissions;
4. increase a sense of place and/or community through the provision of open space, as well as trails and linkages between neighbourhoods; and
5. conserve the unique (natural and traditional rural) landscape.

Policies:

- 4.2.1 All proposed subdivisions requiring the preparation of an area structure plan or conceptual scheme as outlined in Section 4.1 and 4.3, shall adhere to the conservation subdivision design process as outlined in Appendix A.
- 4.2.2 All proposed subdivisions requiring an area structure plan or conceptual scheme shall be designed to ensure roads, trails and wildlife corridor linkages are provided to all abutting quarter sections, unless a natural or other feature makes it impractical or impossible to do so.

4.3 RESIDENTIAL DEVELOPMENT

The country residential area defined by this CR-ACP provides the opportunity for residents to enjoy a particular type of residential lifestyle; one that accommodates living in a rural area without necessarily engaging in agricultural activities. Country residential development is characterized by residences built on large parcels at low densities in a rural setting. The space provided for by the large parcels allows for a variety of residential, and limited “rural” activities such as the development of a secondary suite, large-scale gardening, the limited keeping of horses and other animals, as well as the development of one or more accessory buildings.

The primary land use for the CR-ACP area is country residential development, meaning single detached dwellings on large ‘acreage type’ parcels. The typical large amount of yard space provided for in a country residential parcel also allows for the consideration of the development of secondary suites. This yard space reduces the potential for negative effects to impact on neighbouring properties, making secondary suites an appropriate use for this area. The potential to develop a secondary suite is an important consideration for this area and the County as it increases housing options for residents; increases the stock of rental property; provides land owners with the opportunity to access rental income; and provides an option for land owners to “age-in-place”, or to provide a care residence for a family member. Secondary suite development plays an important role in meeting the County’s goal of providing a broad range of housing types that meet the needs of residents of various age groups, income levels, family types and life-styles.

The degree and scale to which country residential development can occur is guided by the Capital Region Growth Plan and the Strathcona County Municipal Development Plan. This Area Concept Plan area has been divided into two areas to coincide with the direction of the Capital Region Growth Plan and Strathcona County’s Municipal Development Plan; these areas are the *High Density Residential Area* and the *Low Density Residential Area* and are identified on Map 2.

The *High Density Country Residential Area* includes those lands within the CR-ACP area located west of Highway 21. The Capital Region Growth Plan identifies this particular area of the Country Residential Area Concept Plan as *Cluster Country Residential Area “S”* and has set a density target of 2.0 dwelling units/gross hectare. This CR-ACP will reflect the Capital Region density target for this area.

The *Low Density Country Residential Area* includes those lands within the Country Residential Area Concept Plan area located east of Highway 21. This area falls within the Capital Region Growth Plan traditional country residential area which sets a maximum density of 50 parcels per quarter section. The Strathcona County Municipal Development Plan also establishes a maximum density of 50 parcels per quarter section for this area and this CR-ACP will be consistent with this residential density.

Objective:

Accommodate country residential development to a degree and scale consistent with the Capital Region Growth Plan and Strathcona County Municipal Development Plan while respecting and conserving the environmental and rural landscape.

Policies:

4.3.1 In addition to the other applicable policies related to subdivision in this CR-ACP, all proposed subdivisions for residential purposes shall adhere to and address the following:

a) Conservation Subdivision Design

All proposed residential subdivisions requiring the preparation of an area structure plan as per Section 4.1 of this CR-ACP, shall adhere to the conservation subdivision design process outlined in Appendix A.

b) Maximum Parcel Density

- i) The maximum parcel density for lands located within the *Low Density Country Residential Area* identified on Map 2 is 50 residential parcels per quarter section.
- ii) The maximum parcel density for lands located within the *High Density Country Residential Area* identified on Map 2, is 129 residential parcels per quarter section.

c) Minimum Parcel Size

- i) The minimum parcel size within the *Low Density Country Residential Area* identified on Map 2 is 0.20 hectares.
- ii) The minimum parcel size within the *High Density Country Residential Area* identified on Map 2 is 0.125 hectares.

d) Subdivision within Existing Country Residential Subdivisions

No new parcel created will be smaller than the smallest existing parcel within a previously subdivided quarter section at the time of original subdivision approval, excluding first parcels out and parcels approved on appeal, unless otherwise stated within an adopted area structure plan.

Where a proposed subdivision for a parcel identified on Map 10 would result in the creation of more than one new parcel, the applicant shall be required to prepare a conceptual scheme for that parcel, in line with the County conceptual scheme policy and the policies of this CR-ACP.

e) Utility Servicing

- 1. All new residential parcels shall be serviced by municipal wastewater systems; except
 - i) where the subdivision results in one additional parcel out of an unsubdivided quarter section; or

- ii) where the subdivision occurs within a parcel identified on Map 10.
- 2. All new residential parcels shall be serviced by municipal water systems; except
 - i) where the subdivision results in one additional parcel out of an unsubdivided quarter section
- f) Internal Road Parcel Access
 Any parcel (new or existing) that is the result of a proposed subdivision is required to be accessed by an internal road, unless otherwise allowed by the County.
- g) Country Residential Transitioning
 1. All proposed subdivisions requiring an area structure plan shall ensure:
 - i) any proposed parcel abutting an existing country residential parcel two acres or greater in size has a minimum area of two acres; or
 - ii) as determined through the conservation subdivision design process, municipal reserve or environmental reserve is located between the existing country residential parcels and the proposed country residential parcels and adequately mitigates the potential for both visual and noise effects to the satisfaction of the County.
- h) Country Residential Development and Rail Lines
 The proposed subdivision of lands for the purpose of residential development within a quarter section located adjacent to railway tracks shall incorporate measures to mitigate the impact of rail operations on proposed country residential properties. In this regard the proponent will adhere to and implement the railway guidelines identified in Appendix D to the satisfaction of the County.

Strathcona County may require the submission of a noise assessment or other study by the proponent to accurately determine the appropriate level of mitigation needed for a particular residential subdivision proposal.

- i) Country Residential Development and Agricultural Operations
 1. Where lands proposed to be subdivided for residential purposes are within a quarter section located adjacent to the Agriculture Small Holdings Policy Area as identified in the Municipal Development Plan; or
 2. where a subdivision is proposing the inclusion of agriculture-type uses as part of the overall subdivision concept (see Section 4.11 Agriculture) in an area structure plan;

the proponent of the proposed subdivision will be responsible to identify and address potential conflicts with existing agricultural operations, such as noise, dust and odour, through means including any or all of the following to the satisfaction of the County:

- i) locating residential housing away from the agriculture parcel. In this regard residential parcels will not be located directly adjacent to an agricultural districted parcel wherever possible;
- ii) transitioning residential parcel size from agriculture parcels. In this regard, parcel transitioning means locating residential parcels, consisting of a minimum of two acres, directly adjacent to, and between the agricultural parcel and residential parcels with an area less than two acres.
- iii) constructing impact attenuating fencing or other impact reducing structures;
- iv) planting trees and other vegetation.

4.3.2 Residential housing forms within the *Country Residential Area Concept Plan Area* will consist of:

- a) single-detached dwellings and associated accessory buildings;
- b) secondary suites; or
- c) a single dwelling unit, developed in conjunction with a place-of-worship or other similar community facility.

A secondary suite will only be considered as a secondary use to a single-detached dwelling. A secondary suite may be incorporated into a single-detached dwelling or an accessory building.

A single-dwelling unit developed in conjunction with a place-of-worship or other similar community service facility may be considered on a case-by-case basis. No other housing forms will be considered in the plan area.

4.4 COMMERCIAL DEVELOPMENT

The Urban Service Area is the primary commercial service centre within Strathcona County and Ardrossan is identified as a minor growth community, meaning it will provide limited, “day-to-day”, commercial services to area residents. Accordingly, the Urban Service Area and Ardrossan, along with South Cooking Lake and Josephburg, will be the service centres for Strathcona County and residents living in the CR-ACP area are expected to travel to these centres to meet the majority of their commercial service needs. However, Strathcona County promotes a strong diversified and sustainable economy that provides for expanded business opportunities. In support of this objective, some commercial-type activities are contemplated within the CR-ACP area; and businesses are expected to be limited to those operated out of the home.

Objectives:

1. Accommodate the development of small-scale commercial business activities, based out of the residence, that:
 - a. remain secondary to the primary residential land use;
 - b. are compatible with, and compliment the primary residential land use; and
 - c. do not create the potential for negative effects.

Policies:

- 4.4.1 Commercial activities will be limited to businesses based out of the residence such as, home-offices, care centres, and bed and breakfast establishments. These activities may occur within the country residential area provided the following is considered and adhered to:
 - a) the business activities are operated within the principle dwelling in a limited capacity, meaning the residence is retained as the primary land use;
 - b) any perceived effect generated by the business doesn't affect the character of the home or country residential neighborhood. In this regard, any effect generated by the business activity will not be greater than any effect that normally would be generated by the residential activity occurring on the parcel; and
 - c) the fundamental purpose of the business is not vehicle oriented.

4.5 INDUSTRY AND ENERGY

Strathcona County recognizes the importance of the industry and energy sector in economic development, but also acknowledges the need to ensure industrial and energy activities occur in a manner that reduces the potential for impacts on adjoining and nearby land uses. The CR-ACP area will primarily consist of residential and community services type uses and therefore industrial activities within the CR-ACP area will be limited to those associated within energy exploration and aggregate resource extraction. These activities are regulated by the Province of Alberta, however Strathcona County recommends that these activities occur with the least possible impact on the environment, health and well being, safety and quality of life of residents.

Objective:

Ensure exploration and recovery of aggregate resources occurs in a manner that has minimal impacts on the environment health and well being, safety and quality of life of County residents.

Policies:

- 4.5.1 New or expanded oil or gas pipelines developed within the CR-ACP area, shall be constructed to meet the requirements of the Major Industrial Accidents Council of Canada (MIACC) limits, as outlined in the Regional Pipeline Corridor and Setback Study, 2004. Following these requirements reduce and/or eliminate the need to provide additional setback distance beyond the pipeline right-of-way.
- 4.5.2 New or expanded pipeline or utility corridors occurring within the CR-ACP area will avoid crossing High or Medium Priority Environment Management Areas, wherever possible.
- 4.5.3 Trails may be considered within, or in proximity to, a pipeline/utility corridor provided safety, risk and environmental management issues are addressed to the satisfaction of the County.
- 4.5.4 Aggregate resource extraction activities will avoid occurring within High or Medium Priority Environmental Management Areas, wherever possible.
- 4.5.5 Strathcona County will encourage all aggregate resource extraction operations to prepare and submit a development master plan that includes the following information to the satisfaction of the County prior to commencement of operations:
 - a) Analysis of pre-extraction site conditions;
 - b) Magnitude and scope of proposed extraction;
 - c) Analysis of the environmental impacts on the site;
 - d) Methods of extraction;
 - e) Transportation plan outlining the movement of aggregate;
 - f) Identification of potential nuisance effects on adjacent properties and the proposed mitigation measures to deal with the nuisance effects;

- g) Reclamation plan.
- 4.5.6 Proposals for subdivision or development will be referred to the appropriate provincial agencies.
- 4.5.7 Oil and gas exploration or extraction facilities and infrastructure is recommended to locate and develop in a manner that avoids impacting adjacent residential and community service properties as well as environmentally significant areas. In this regard, it is recommended that proponents of the oil and gas exploration or extraction industry work with County staff to ensure development:
- a) does not occur on High or Medium Priority Environmental Management Areas; and
 - b) occurs as far away as possible from existing and potential country residential subdivisions and developments;
 - c) mitigates any perceived negative effect on existing and potential country residential subdivisions and developments.
- 4.5.8 Subdivisions will be designed to locate development sites away from existing aggregate extraction and exploration operations and infrastructure, wherever possible.
- 4.5.9 Large scale storage of aggregate material and soil within the CR-ACP area is prohibited without approvals from the County.

4.6 ENVIRONMENTAL MANAGEMENT

Subdivision and development in the CR-ACP area has the potential to impact environmentally significant and sensitive areas. The County utilizes conservation subdivision design and the identification of Priority Environmental Management Areas (PEMA) to ensure the environmental integrity of an area is considered when land is developed. Conservation subdivision design is a subdivision process that ensures natural features and environmental significant areas—of a parcel are conserved and protected while still allowing development to occur. PEMA were established through a high-level biophysical assessment of lands within the County. PEMA within the County is categorized as high, medium and low and is used as a general guide when determining the priority for which areas will be protected or conserved. Map 9 identifies the high, medium and low PEMA and will be used as a guide for the preparation of further detailed biophysical assessment on lands proposed for development.

Strathcona County also promotes light efficient communities by protecting dark skies in unique areas in and around the County.

Objective:

Utilize conservation subdivision design process and the identification of Priority Environmental Management Areas to conserve and protect areas of environmental value.

Policies:

- 4.6.1 Development shall be directed to previously cleared, disturbed, or isolated areas, or areas of lesser environmental sensitivity, i.e. medium and low priority environmental management area as determined through a biophysical assessment.
- 4.6.2 Municipal reserve will be dedicated in accordance with the Municipal Government Act and County Policy, and will be directed to areas identified through a biophysical assessment to have significant environmental value (i.e. wildlife habitat areas and wildlife corridors) beyond areas identified as environmental reserve or environmental reserve easement. Land dedicated as municipal reserve will be identified and included within the subdivision design of an area structure plan to the satisfaction of the County.
- 4.6.3 Environmental reserve will be dedicated in accordance with the Municipal Government Act and may be used for the following purposes as outlined in the Municipal Government Act:
 - a) conservation of the bed and shore of a water body, including but not limited to existing vegetation and wildlife habitat; or
 - b) conservation of a water drainage course;
 - c) to provide access to a water body; or
 - d) to act as a stormwater management facility; or
 - e) to remain in its natural state.

- 4.6.4 Conservation Easements may be established where municipal reserve or environmental reserve is considered insufficient or impractical by the County to conserve environmentally significant land as identified through a biophysical assessment. Lands protected and conserved through the use of conservation easements may be managed through a number of options including:
- a) Strathcona County;
 - b) Other agencies or organizations that will ensure that the land is maintained and undeveloped in perpetuity, such as non-governmental organizations and land trusts (i.e. Ducks Unlimited Canada and the Nature Conservancy of Canada, etc).
- 4.6.5 Wildlife corridors and habitat linkages between and within quarter sections, identified through a biophysical assessment, shall be conserved and incorporated into subdivision design wherever possible.
- 4.6.6 Areas identified as High Priority Environmental Management Area (PEMA) shall not be developed on unless otherwise stated with a County approved biophysical assessment.
- 4.6.7 New subdivisions shall be designed to conserve High and Medium Priority Environment Management Area in accordance with the conservation subdivision design criteria as outlined in Appendix A.
- 4.6.8 The proponent of a subdivision or development of lands containing a waterbody, water course or similar feature is required to provide a geotechnical assessment conducted by qualified professional that demonstrate to the municipality's satisfaction the following:
- a) 1:100 year flood hazard area;
 - b) Top-of-bank, including the bed and shore area; and
 - c) Wetland Conservation Plan
- 4.6.9 No development will occur within a minimum 30 metres from the top-of-bank of any lake, waterbody, creek or other watercourse; except where a professionally prepared biophysical assessment and geotechnical study otherwise provides a different development setback to the satisfaction of the County.
- 4.6.10 No permanent structures are allowed within the 1:100 year flood plain of any river, stream, lake or other watercourse. Consideration may be given to nonresidential developments, such as boat houses, and docks proposed in the 1:100 year flood plain, subject to appropriate flood proofing and the proponent demonstrating to the County's satisfaction.
- 4.6.11 Internal roads and parcel accesses shall avoid crossing wetlands or watercourse, wherever possible. If internal roads cannot avoid wetlands or watercourses, mitigation is required as per municipal and provincial policy legislation.

4.6.12 New development within the Country Residential Area Concept Plan area will reduce light spill into the sky in accordance with Light Efficient Community Policy and Strathcona County's Dark Sky and Energy Efficient Handbook.

4.7 PARKS AND RECREATION

Public open space, parks and recreation areas establishes community character and contributes to the health and well-being of county residents. It is important to ensure parks and open spaces are provided in the CR-ACP area to ensure a connected and cohesive country resident community is established. Parks and open space development will complement with the surrounding land uses and environment.

Objectives:

2. Provide recreational opportunities for residents, while protecting the natural environment; and
3. Provide opportunities for residents to pursue healthy lifestyle choices; and
4. Ensure the development of an integrated open space system.

Policies:

- 4.7.1 Land that is subject to a subdivision requiring the preparation of an area structure plan shall be designed to include areas of open space that:
 - a) conserve environmentally sensitive areas;
 - b) connect open spaces within and between neighbourhoods; and
 - c) provide recreation opportunities.
- 4.7.2 The owner of a parcel of land that is subject to a proposed subdivision is required to dedicate municipal reserve, in accordance with the Municipal Government Act. Land within the CR-ACP area will be designated as municipal reserve for the following purposes:
 - a) conserving wildlife corridors or habitat, or other environmentally significant areas; determined through a County approved biophysical assessment, provided public access is provided;
 - b) providing public open spaces and trails; determined in conjunction with County approved open space/trail strategy or plan,
 - c) any other purpose outlined in the Municipal Government Act.
- 4.7.3 Municipal reserves in the country residential subdivision shall be located in a manner which provides benefit to all residents.

4.8 SAFETY

It is important to ensure that County residents have a safe environment in which to live, work and play. The rural area is a highly desirable place to live, however a variety of safety issues exist; including wildfire, flooding, crime, and the effective provision of emergency services, given that rural areas are often also remote. Developments within the CR-ACP area need to develop in a manner that identifies and addresses these issues.

Objective:

Provide a safe community for people to live, work and play.

Policies:

- 4.8.1 Lands subject to a subdivision shall be designed to meet emergency services requirements for ingress and egress.
- 4.8.2 All municipally assigned civic addresses, streets, roads and subdivisions shall be marked with highly visible, non-combustible signs to aid protective and emergency services in locating properties. All civic addresses must conform to Strathcona County's Addressing Bylaw.
- 4.8.3 Lands subject to a subdivision shall provide road and trail linkages to all adjacent quarter sections, where possible.
- 4.8.4 Crime Prevention Through Environmental Design principles shall be addressed during subdivision design.
- 4.8.5 Residential development shall be directed away from aggregate infrastructure and facilities, wherever possible.
- 4.8.6 Subdivision of lands will not be supported in areas where the County determines the potential for wildfire to be high, until such time as the wildfire risk has been reduced in a manner and to a level that is acceptable to the County. Refer to FireSmart Guidelines, outlined in Appendix C.

4.9 INSTITUTIONAL AND COMMUNITY FACILITIES

Institutional and community facilities are integral in the formation of communities as they provide opportunities for residents to congregate and socialize. Institutional and community facilities are not the primary focus of the CR-ACP and will be considered on a case-by-case basis within the plan area.

Objectives:

1. Provide opportunities for the development of community services that are compatible with country residential land uses.
2. Reduce the distance to public amenities.
3. Provide a place for the formation of social communities.

Policies:

4.9.1 The following community service land uses may be considered in the CR-ACP area:

- a) places of worship;
- b) schools;
- c) community halls; or
- d) community libraries.

4.9.2 Community service related activities will:

- a) locate on properties that are highly accessible. In this regard community service land uses will occur on properties located at the intersections of rural roadways or highways;
- b) locate at the entrance of, and not internal to, a residential subdivision; or where the proposal is for the development of a country residential community service activity on an unsubdivided quarter section or a parcel of land that can potential be subdivided into country residential parcels, locate in a manner that will ensure it is located at the entrance of, and not internal to, a residential subdivision.

4.9.3 In assessing any application for community service activities, the County will consider a range of matters to ensure the compatibility of the proposal including the following:

- a) the scale of the proposal, building size and number of patrons;
- b) potential effects arising from incompatible activities and the ability of the proposal to integrate and be compatible with country residential residences within the surrounding area;
- c) landscape, visual and amenity effects;
- d) accessibility to the site;
- e) utility servicing;
- f) anticipated building location on the site;
- g) potential impacts on County infrastructure;
- h) potential accessory uses and their effect; and,

i) the overall intent of the Country Residential Area Concept Plan.

4.9.4 Where an application for re-zoning is proposed for a parcel of land not already identified for that activity within an area structure plan, technical reports, such as traffic impact assessments, geotechnical and biophysical assessments, and stormwater reports as well as any other information the County deems necessary to adequately assess the proposal, may be required to be submitted by the applicant to the satisfaction of the County.

4.10 SOCIAL DEVELOPMENT

Country residential development offers a particular rural residential lifestyle choice that is characterized by the larger lots with single detached residences in a rural setting. The widespread configuration of lots represents a more traditional form of rural country residential living; however this type of development makes the formulation of an integrated, inclusive community difficult. One way to achieve a higher sense of community is designing subdivisions in a manner typically established in urban settings.

Connectivity of open spaces, parks, trails and community facilities also provides opportunities for residents to interact and promotes *eyes on the street* leading to safer communities. Community facilities can be utilized to provide for unique character for country residential developments. Social interaction and neighbourhood character increases community pride, quality of life and a sense of belonging. Country residential area concept plan provides a balance and diverse range of opportunities such as social, conservation, health and recreational.

Objectives

1. Promotes healthy, social, emotional and physical development within the country residential area concept plan area.
2. Establish a sense of community.

Policies

- 4.10.1 Trail design shall maximize opportunities for connectivity within and between development sites.
- 4.10.2 Community services uses such as equestrian centers, place of worship, community centers or other similar uses that are rural in character and secondary to residential use can be used to provide a central theme/focal point to/for country residential development.
- 4.10.3 Support the development of businesses based out of a residence, such as bed and breakfast operations, home offices, minor care centres, and other minor businesses to occur within the residential districts of the CR-ACP area. Specific policies guiding the development of this use in the plan area are outlined in Section 4.4 – Commercial Development of this plan.

4.11 ECONOMIC DEVELOPMENT

Strathcona County promotes a balanced economy that provides a diversity of employment, recreational and social choices. The Municipal Development Plan identifies that Strathcona County's economy consists of five key economic sectors: oil and gas, manufacturing, agriculture, service, and tourism. The CR-ACP area is able to support two of the County's five key economic sectors; tourism and service, while upholding the primary residential role of the area. There is potential to accommodate the formation of commercial services by enabling residents the ability to establish a small business within their residence. Strathcona County's tourism can be supported in the plan area by providing accommodation for travelers, since this area has convenient access to regional tourist sites, such as Elk Island National Park.

Objective:

Accommodate the development of limited commercial activities based out of the residence that are compatible with, but secondary to, the primary residential uses found within the plan area.

Policies:

- 4.11.1 Support the development of businesses based out of a residence, such as bed and breakfast operations, home offices, minor care centres, and other minor businesses to occur within the residential districts of the CR-ACP area. Specific policies guiding the development of this use in the plan area are outlined in Section 4.4 – Commercial Development of this plan.

Business proposals within the plan area may be required to provide technical reports to support their application if the County considers the scale of the activity or the potential for effect beyond the application site requires it.

4.12 AGRICULTURE

Agricultural activity forms the historical foundation of Strathcona County's identity. Over the last few decades, population growth along with lifestyle changes has contributed to agricultural operations diminishing throughout the County. Country residential development has replaced large tracts of agricultural land throughout the rural area; this is especially prominent in close proximity to the greater population base of the Urban Service Area. The continued loss of prime agricultural land (class 1 and class 2), combined with an acknowledgement of a demand for country residential lifestyle, resulted in the delineation of the Country Residential Policy Area to specifically accommodate this type of residential land use within the County.

A number of agricultural operations still exist within the CR-ACP area, however, it is anticipated that existing agricultural operations within the CR-ACP area will be replaced by country residential development. As new country residential development continues it will be important to provide a transition between the Country Residential Policy Area and the surrounding Agriculture Small Holdings Policy Area in order to mitigate conflict that may result from the close proximity of agricultural and residential land uses.

Agriculture uses that are compatible with and contribute to a rural residential lifestyle, and do not negatively impact residential developments, will be considered in this area.

Objectives:

1. Minimize potential conflicts between agricultural and country residential uses.
2. Allow for limited agricultural uses that compliment a rural lifestyle while protecting the primary residential role of the CR-ACP area.

Policies:

- 4.12.1 New country residential parcels will transition from land located within the Agriculture Small Holdings Policy Area to the satisfaction of the County. In this regard, residential development will be directed away from the boundary any lands located within the Agriculture Small Holdings Policy Area (refer to Map 6), See Section 4.3 Residential Development.
- 4.12.2 Allow existing agricultural operations to continue.
- 4.12.3 Minor agriculture uses, such as community gardens, or local neighbourhood-scale equestrian centres may be considered within the Low Density Country Residential Area, as shown on Map 2, provided any potential negative effect that could cause a negative impact on residential developments by way of odour, noise, light or vibration, is mitigated on-site to the satisfaction of the County by any or all of the following:
- a) spatial buffering – spatially separating the agriculture use from residential developments;
 - b) construction of earthen berms, impact attenuating fences or other impact reducing structures; or
 - c) planting trees and other vegetation.

- 4.12.4 Continue to allow all existing confined feeding operations to exist, per the Agricultural Operation Practices Act–Standards and Administration Regulations as updated from time to time.
- 4.12.5 Consider the results of a minimum distance separation (MDS) calculation using the Agricultural Operations Practices Act-Standards and Administration Regulations when considering:
- a) the subdivision of agricultural parcels for residential purposes;
 - b) the re-designation of a parcel to a district that may allow uses that are sensitive to confined feeding operations; or
 - c) any proposed development.
- 4.12.6 New applications for confined feeding operations within the Country Residential Policy Area will not be supported.

4.13 TRANSPORTATION

As growth continues and population increases within the Country Residential Area Concept Plan area, the County and the region, so too does transportation demands; and in order to effectively meet these demands, it is important to establish an efficient, safe and sustainable transportation network. The effectiveness of this network is largely dependant on the consistency of road standards within and between different areas of the County, establishing a road network and a trail strategy that accommodates active modes of transportation, and establishing connectivity within the region.

At the local municipal level, it is important to coordinate with the regional and provincial agencies to ensure the localized transportation network established in the country residential area integrates with and contributes to the regional transportation system. The road network, which includes the intended road classification for the Country Residential Area Concept Plan area, is shown on Map 5. Transportation issues related to developments within the CR-ACP area will be assessed during the subdivision design stage and Plan users will be required to demonstrate how their proposals align with the County requirements and address any other matters relating to the regional transportation network. In this regard, regional transportation matters will include any studies, plans or requirements that the County, Alberta Transportation or the Capital Region Board may have.

Objective:

Provide an efficient, safe and sustainable local transportation system within the Country Residential Area Concept Plan area that meets the needs of County residents while integrating into the larger regional transportation network.

Policies:

CR-ACP users will be required to assess, analyse and solve any road network issues resulting from their proposed subdivision to the satisfaction of the County. In this regard, the design, construction and land acquisition requirements associated with the country residential road network shall adhere to the following policies.

- 4.13.1 Proponents of a proposed subdivision or development will be required to upgrade any rural grid road (Rural Range and Township Roads) benefiting their proposed subdivision or development to the satisfaction of the County. Grid road upgrades will occur in accordance with the County rural road classification as established in the *Sustainable Rural Road Master Plan* and current County Standards for rural roads. Road classifications are shown on Map 5 and are subject to change as the *Sustainable Rural Road Master Plan* is amended from time to time. The proposed subdivision of lands that may impact a Provincial Highway will be subject to Alberta Transportation plans and requirements.
- 4.13.2 Proponents of a proposed subdivision of land located adjacent to a County road will be required to dedicate land for the purpose of road widening to the satisfaction of the County. Such lands will be identified during the preparation of an area structure plan and dedicated at the time of subdivision with the exception of a first parcel out of an unsubdivided quarter section. In this case lands required for road widening will be identified and taken at the time of subdivision.

The proposed subdivision of lands located adjacent to a Provincial Highway will be subject to Alberta Transportation plans and requirements.

- 4.13.3 All new roads shall meet or exceed Strathcona County's rural road standards.
- 4.13.4 Internal roads will be required for any subdivision requiring the preparation of an area structure plan or conceptual scheme as per Section 4.1 of this CR-ACP.
- 4.13.5 A proposed subdivision may require a traffic impact assessment (TIA) if the volumes are in excess of the allowable amount of vehicle trips in the peak hour, as identified in the County's Engineering Servicing Standards. In cases where the development is adjacent to or within the standards outlined in AT's guidelines, AT's standards with respect to TIA shall apply. The proponent will be responsible to address any transportation issues arising from the TIA to the satisfaction of the County, and when required Alberta Transportation.
- 4.13.6 Parcel access points and approach design will be in accordance with Strathcona County standards.
- 4.13.7 All proposed subdivisions requiring an area structure plan shall design and construct trails:
 - a) in conjunction with County approved trail strategies and initiatives;
 - b) to maximise opportunities for connectivity within and between new and existing parcels;
 - c) to the satisfaction of the County.

4.14 UTILITY SERVICING SYSTEMS

Providing reliable, safe and efficient utility services is important for the continued growth and development within the Country Residential Area; however the cumulative effects of development have the potential to negatively affect and contribute to the degradation of the environment. To become a more environmentally responsible community, methods of alleviating the potential effects of development at increased densities needs to be established. Upgrading the method in which utilities such as water, wastewater and stormwater are managed is a major step towards achieving this goal of reducing negative cumulative effects on the environment.

Objective:

Avoid the potential negative impacts on the natural and physical environment arising from country residential growth and development through the safe, effective and efficient provision of utility services.

Policies:

4.14.1 General

- a) Utility services will be designed and routed to ensure environmentally sensitive or significant lands are not impacted or encroached upon.
- b) All on-site and off-site costs, including offsite levy fees, associated with servicing new developments with roadways, utilities and other infrastructure shall be borne by the developer through development charges, levies or cost contribution agreements in accordance with specific development agreements. The costs associated with servicing shall be determined by the County at time of subdivision.
- c) All existing development within the Country Residential Policy Area will be required to connect to and be serviced by a municipal water system after a municipal water line is installed in the municipal roadway that forms the access point to the parcel. In this regard the County will develop a water servicing strategy to guide how this will be accommodated.

4.14.2 Wastewater Servicing

- a) Any subdivision that results in the creation of a new parcel within a quarter section shall extend and connect to the County's *Septic Tank Effluent Pump (STEP)* wastewater sewer system; except where the subdivision results in:
 - i) the first parcel out of an unsubdivided quarter section; or
 - ii) the creation of an additional parcel within an existing country residential subdivision identified on Map 10.
 - iii) the development of a community service facility that precedes residential development for the subject quarter section as defined in an ASP. An existing community service facility will be required to connect to municipal wastewater services at the time of residential development.

The route, design and construction details of the wastewater sewer systems will occur to the satisfaction of the County and will be supported through subsequent detailed analysis during the development of an area structure plan.

- b) The CR-ACP area is divided into six *Wastewater Sewer Basins*. All new parcels required to connect to the municipal *Septic Tank Effluent Pump* system will connect to the wastewater system in the wastewater sewer basin in which the lands proposed for subdivision are located in. The Wastewater Sewer Basins are shown on Map 7, and are subject to change. CR-ACP users will be responsible to contact the Strathcona County Utilities Department to confirm the actual basin location.
- c) Wastewater Servicing shall be in accordance with the Strathcona County Municipal Policy Handbook SER-001-027, which is periodically amended.

4.14.3 Water Servicing

- a) Any subdivision that results in the creation of a new parcel within a quarter section shall extend and connect to the County's piped water system; except where the subdivision results in:
 - i) the first parcel out of an unsubdivided quarter section; or
 - ii) the creation of an additional parcel within an existing country residential subdivision identified on Map 10 .
 - iii) the development of a community service facility that precedes residential development for the subject quarter section as defined in an ASP. An existing community service facility will be required to connect to municipal water systems at the time of residential development.

The route, design and construction details of the water system will meet Strathcona County's engineering service standards and will be determined through subsequent detailed analysis during the development of an area structure plan. It is important to note the County does not provide fire protection in the County Residential Policy Area through the water distribution system.

- b) Water servicing shall be in accordance with the proposed Strathcona County Municipal Policy Handbook SER-001-026, which is periodically amended.

4.14.4 Stormwater Management

- a) Subdivision requiring the preparation and submission of an area structure plan will be required to submit a stormwater management study, completed to the satisfaction of the County. The findings and recommendations of the study will be reflected in the applicable area structure plan or stormwater management strategy and the proponent will be responsible to address any stormwater issues arising from the study to the satisfaction of the County.

The proponent will be aware of the following:

- i) The size of the study area should encompass the entire drainage basin including existing and future drainage from adjacent properties.
 - ii) Stormwater shall be contained on-site through methods agreed upon by the County for events up to a 1:100 year event.
 - iii) Stormwater shall be released at a rate that is to the satisfaction of Strathcona County and Alberta Environment and Water. If a drainage basin study exists for the area subject to the proposed development then the release rates cited within the study shall apply.
 - iv) Peak runoff shall be controlled for the critical duration of the event which shall be a minimum of 24 hours. An emergency overflow route shall be provided except where it is not practical to do so (ie. a land locked wetland).
 - v) Stormwater management facilities must provide sedimentation and contaminant filtration to the satisfaction of the County prior to release. Stormwater management facilities should be designed to ensure a minimum of 85% removal of sediments of particle size 75 microns or greater. Techniques to provide this treatment is at the discretion of the applicant but usually will include a sediment forebay.
 - vi) The natural drainage basins for the CR-ACP area are shown on Map 4.
- b) The County may require lands utilized for drainage basin stormwater management facilities or drainage channels to be designated as municipally owned Public Utility Lots (PUL).

5.0 IMPLEMENTATION

5.1 INTERPRETATION

The adoption and preparation of new area structure plans within the CR-ACP area shall adhere to the policy frameworks in the Country Residential Area Concept Plan and Municipal Development Plan as adopted by Council.

Nothing in this Area Concept Plan shall be interpreted as relieving a person from complying with Federal or Provincial statutes or regulations. It is the responsibility of the CR-ACP user to ensure conformance with any applicable Federal and Provincial regulations.

5.2 THE CAPITAL REGION BOARD

The Country Residential Area Concept Plan is consistent with the Capital Region Growth Plan; all subsequent subdivision and development within the CR-ACP area will adhere to and be consistent with this Plan and the Capital Region Growth Plan.

5.3 AREA CONCEPT PLAN AMENDMENT

1. Any changes to the Country Residential Area Concept Plan must be consistent with the Municipal Government Act, Capital Region Plan and the Municipal Development Plan.
2. Applicants applying to amend the Country Residential Area Concept Plan will provide any supporting information, analysis and technical data at the request of the County in order for the merits and impacts of the proposed changes can be properly determined and evaluated.

5.4 LAND USE BYLAW AMENDMENTS

To implement the policies outlined in this Area Concept Plan, the Strathcona County Planning and Development Department will amend the Land Use Bylaw as follows:

1. Add a new Country Residential Community Services (RCS) Zoning District that would be applied throughout the Country Residential Area Concept Plan area to accommodate the development of community service related activities as noted in Policy 4.9.1.
2. Add a new Low Density Country Residential Zoning District (RC1) that would be applied in the Low Density Country Residential Area that reflects the land use activities and minimum parcels sizes indicated in the CR-ACP for this area.
3. Add a new High Density Country Residential Zoning District (RC2) that would be applied in the High Density Country Residential Area that reflects the land use activities and minimum parcels sizes indicated in the CR-ACP for this area.
4. Amend the purpose of the existing Country Residential Zoning District (RC) to reflect that the district is only to accommodate the continuance of existing country residential development within the County.
5. Revise the home-based business land uses and regulations to ensure any business occurring within a residence located within the CR-ACP area meets the provisions and intent of this Plan.

5.5 COMPREHENSIVE TRICKLE WATER DISTRIBUTION STRATEGY

Strathcona County will undertake an investigation into the provision of trickle water supply and, as a result of this investigation develop a servicing strategy for the CR-ACP area to address new and existing development. This strategy will identify and establish specific actions, any capital works required to achieve the servicing of the policy area and how capital expenditure and maintenance costs will be distributed. The investigation and the strategy will be completed within three years of the adoption of this CR-ACP.

5.6 HIGH DENSITY COUNTRY RESIDENTIAL AREA REDEVELOPMENT STRATEGY

Strathcona County will undertake an investigation and develop a strategy for the future redevelopment of existing developments in the High Density Country Residential Area. This strategy will evaluate the success of the policies of this CR-ACP and will investigate further options available to the County to increase the density of this area to more closely reflect the 129 parcels per quarter section target of the Capital Regional Growth Plan. This strategy will address;

- land-use and subdivision re-development;
- transportation; and
- municipal utility servicing.

This investigation will be undertaken by the Planning and Development Department with support from the Capital Planning and Construction Department, Utilities Department and Transportation and Agriculture Services Department after the policies of this Area Concept Plan have been in effect for 3 years.

5.7 DEVELOPMENT AGREEMENTS

Development agreements may be entered into with the County for land development within the Country Residential Area Concept Plan area at the time of rezoning, subdivision or development. Matters to be addressed within the development agreement will relate to the construction of municipal infrastructure and will include, but not be limited to, the following:

- construction/upgrades of roadways;
- utility servicing infrastructure;
- shallow utilities;
- stormwater management related infrastructure;
- trails;
- parks and associated equipment;
- landscaping and earthworks.

5.8 AREA STRUCTURE PLAN POLICY

Planning and Development Services will amend the Area Structure Plan Policy to include the following:

- ensure a comprehensive and collaborative planning process is adhered to when preparing an area structure plan;
- details defining when an area structure plan is required, and under what conditions the County would consider an area structure plan is not required;
- linkages to the aspects required to be addressed within an area structure plan for the Country Residential Policy Area.

5.9 COUNTY ADVOCACY

Strathcona County shall continue to promote Conservation Subdivision Design and green building practices with the construction industry through education and incentive programs.

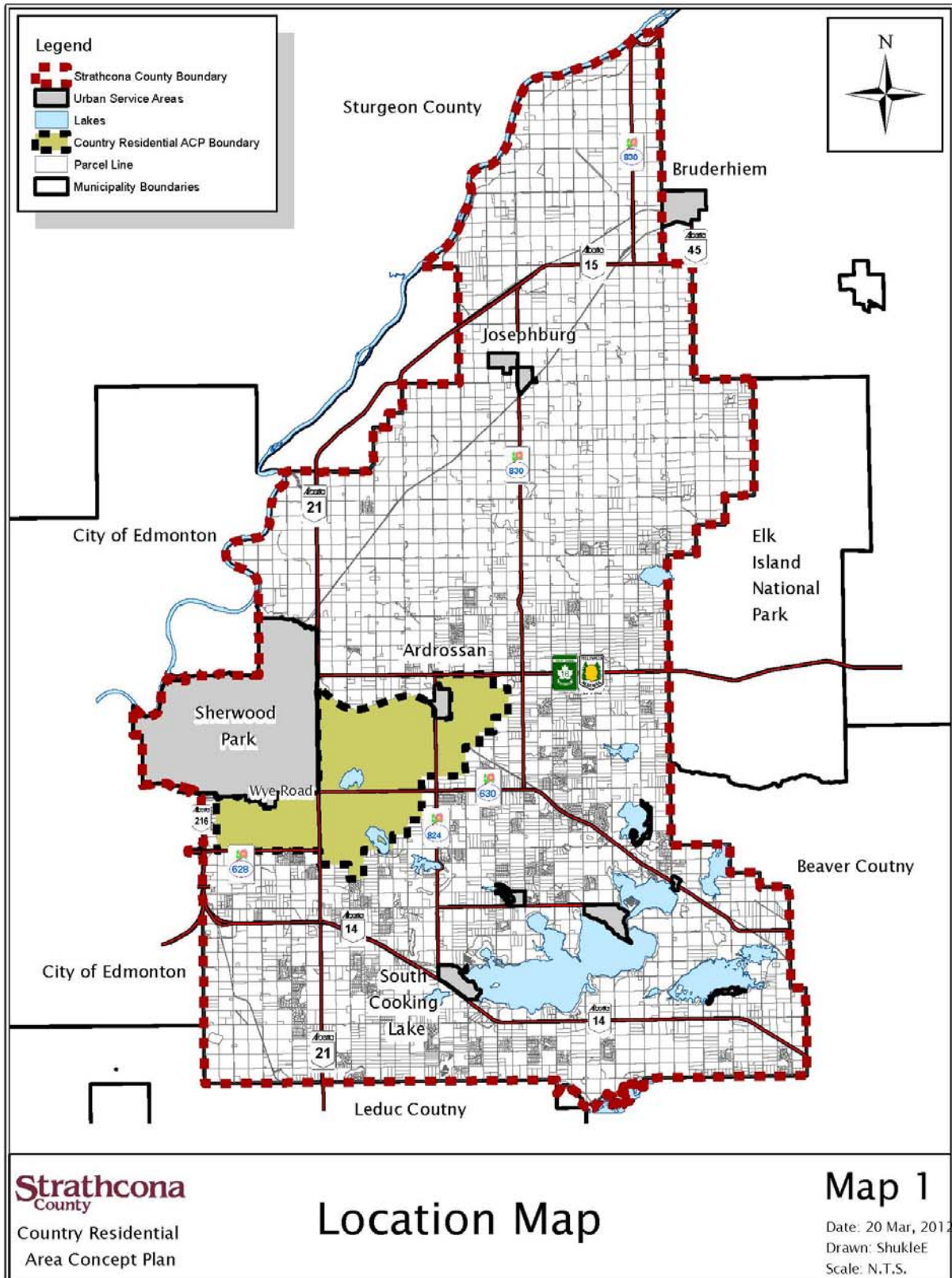
5.10 PLAN REVIEW

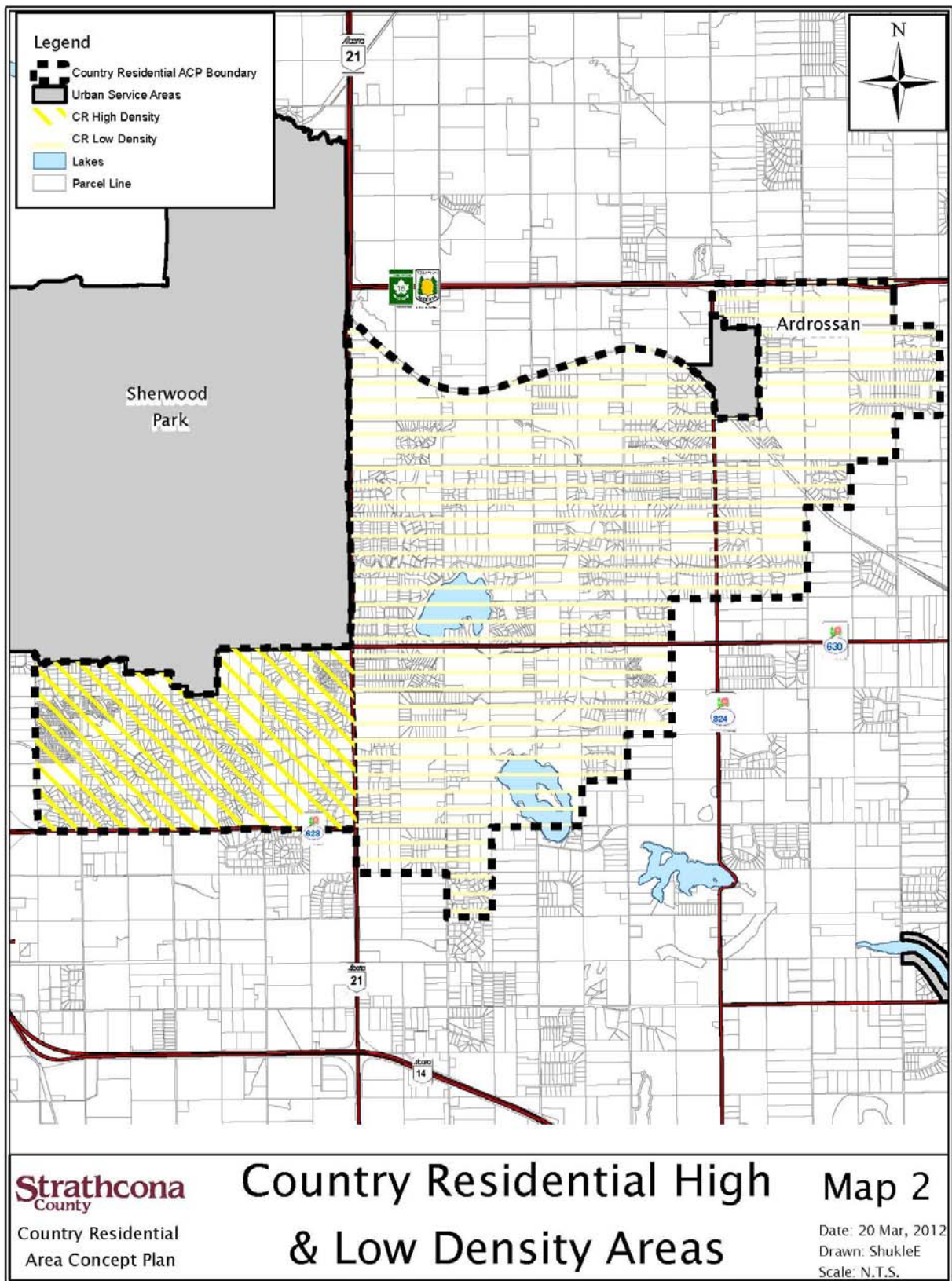
This CR-ACP may be reviewed:

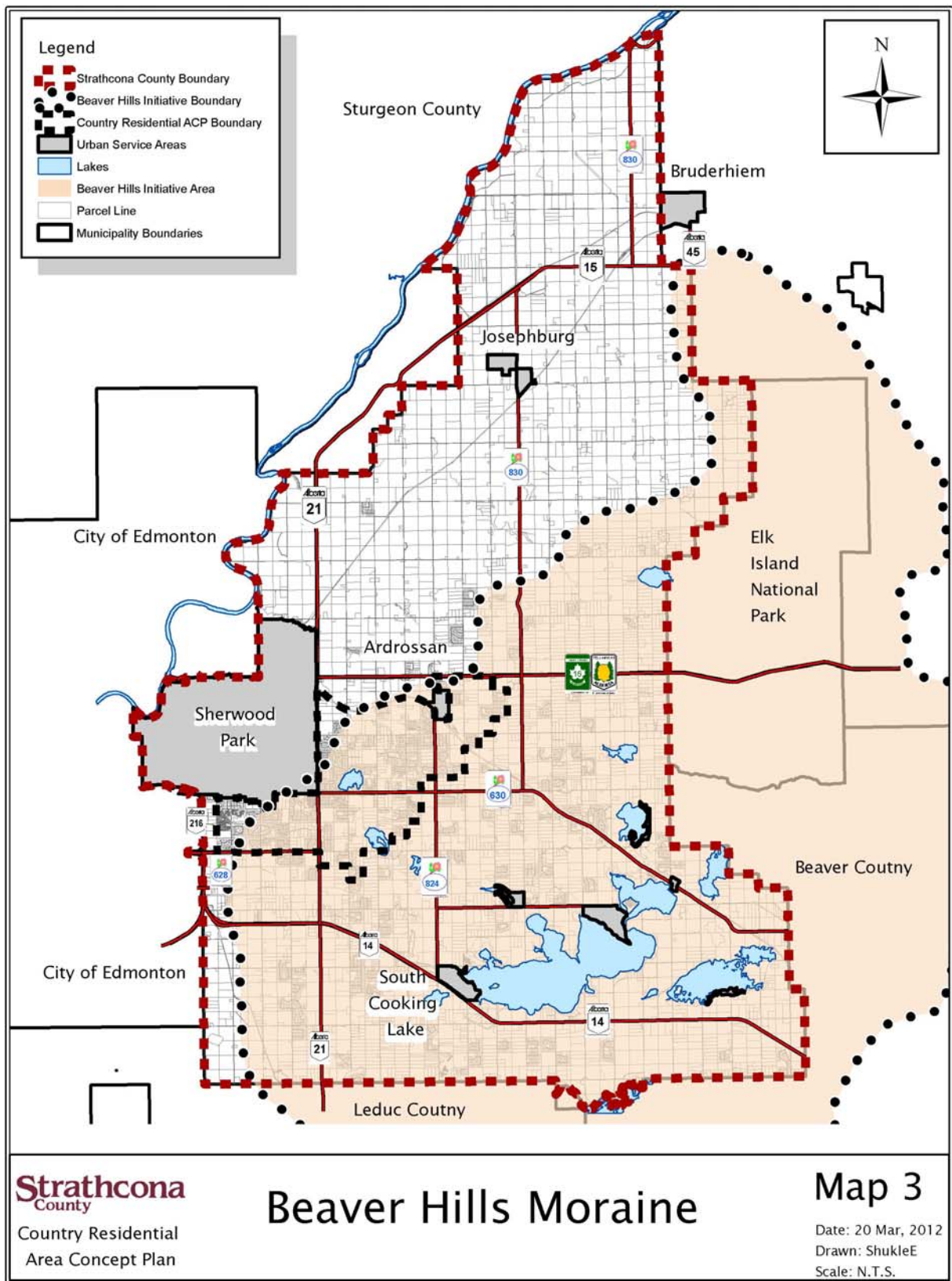
- a) At the request of Council; or
- b) Upon amendment of the Municipal Development Plan or Capital Region Growth Plan to ensure consistency; or
- c) After a period of five years to ensure that the policies remain applicable, that no new technology is available that may change the direction of the policies and that the overall environment and market remain the same.

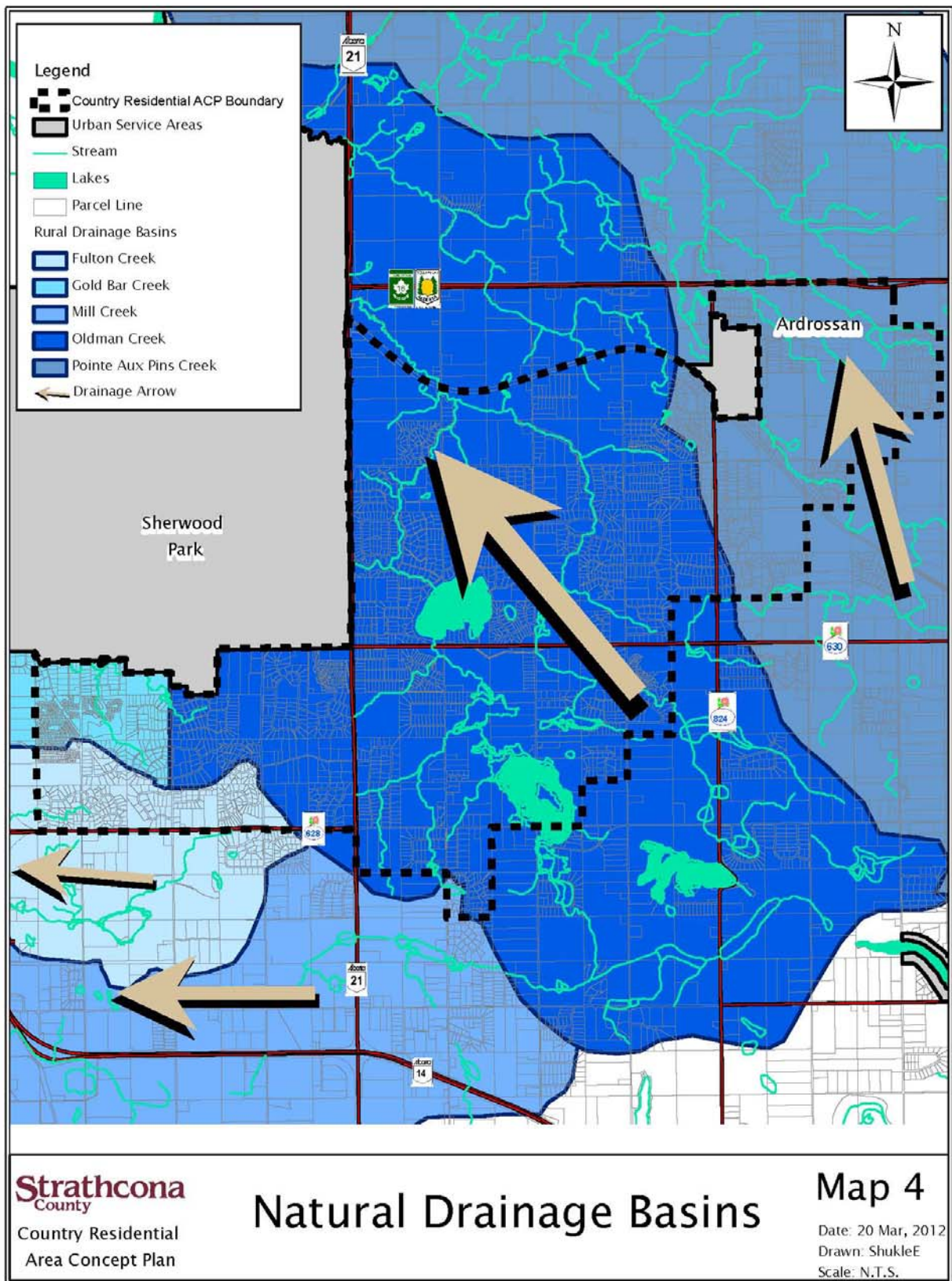
5.11 PHASING

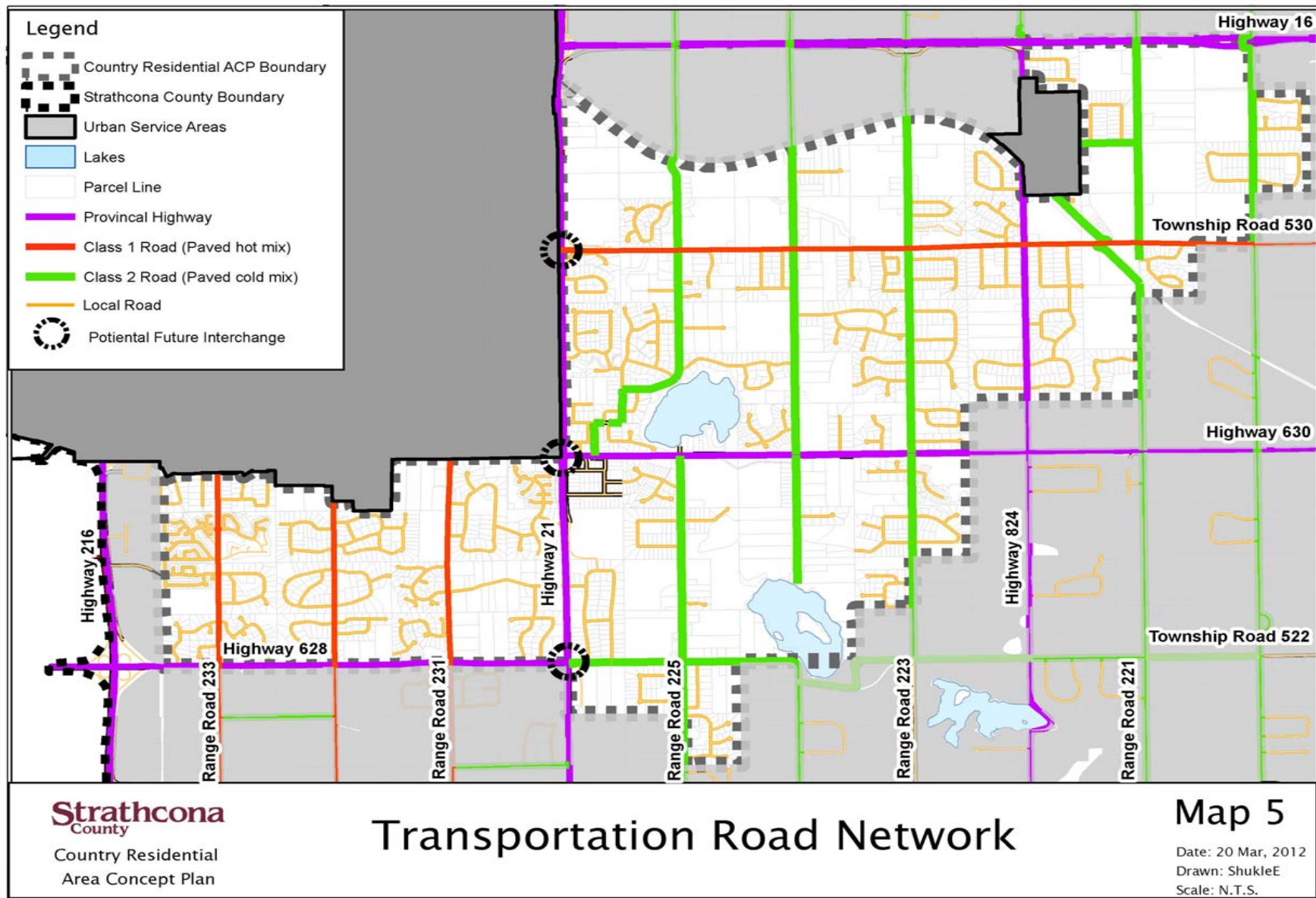
All remaining development shall, wherever possible, occur in an orderly manner by means of logical extension of County piped water and wastewater sewage systems.

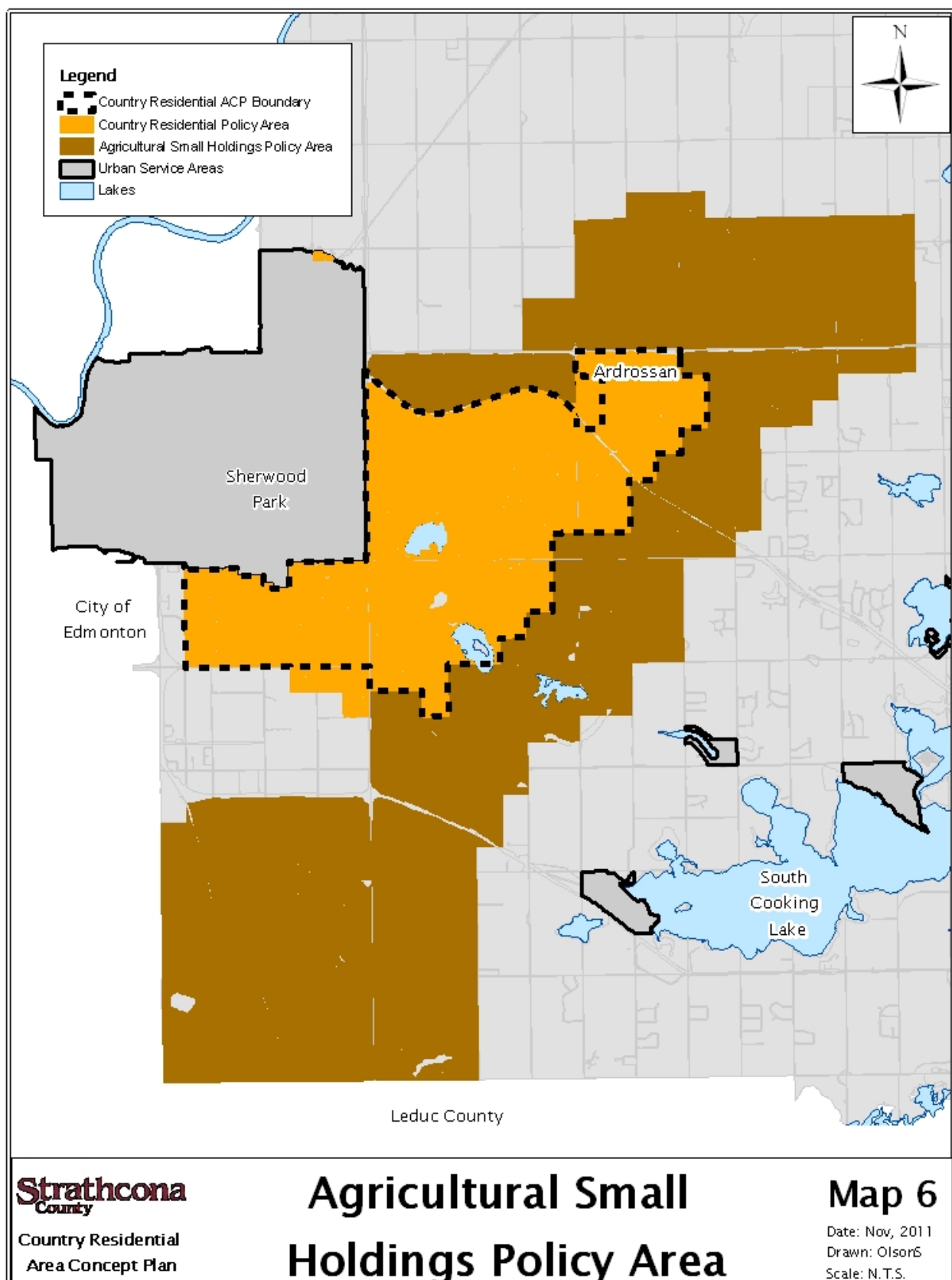


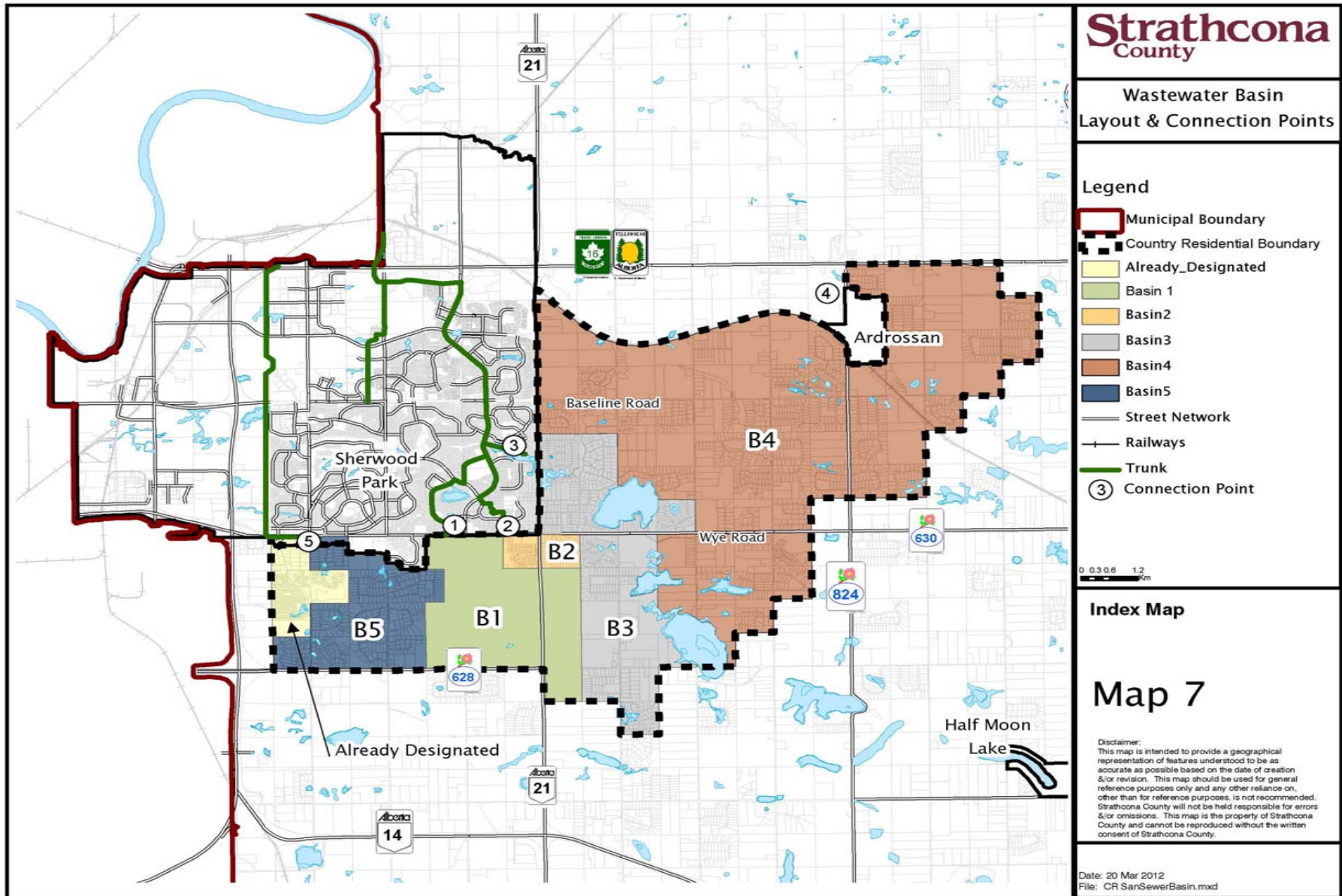












Strathcona County

Strathcona County Country Residential Area Concept Plan

Wastewater Servicing and Policy Area

Legend

-  Municipal Boundary
-  Country Residential ACP Boundary
-  Urban Service Areas
-  C.U FRANCHISE
-  JOSEPHBRG WATER CO-OP
-  RURAL WATER
-  URBAN SERVICE
-  Highways
-  Existing Water Systems
-  Future Water Systems (2010 Construction)
-  Existing STEP Sanitary Sewer Systems
-  Country Residential Policy Area

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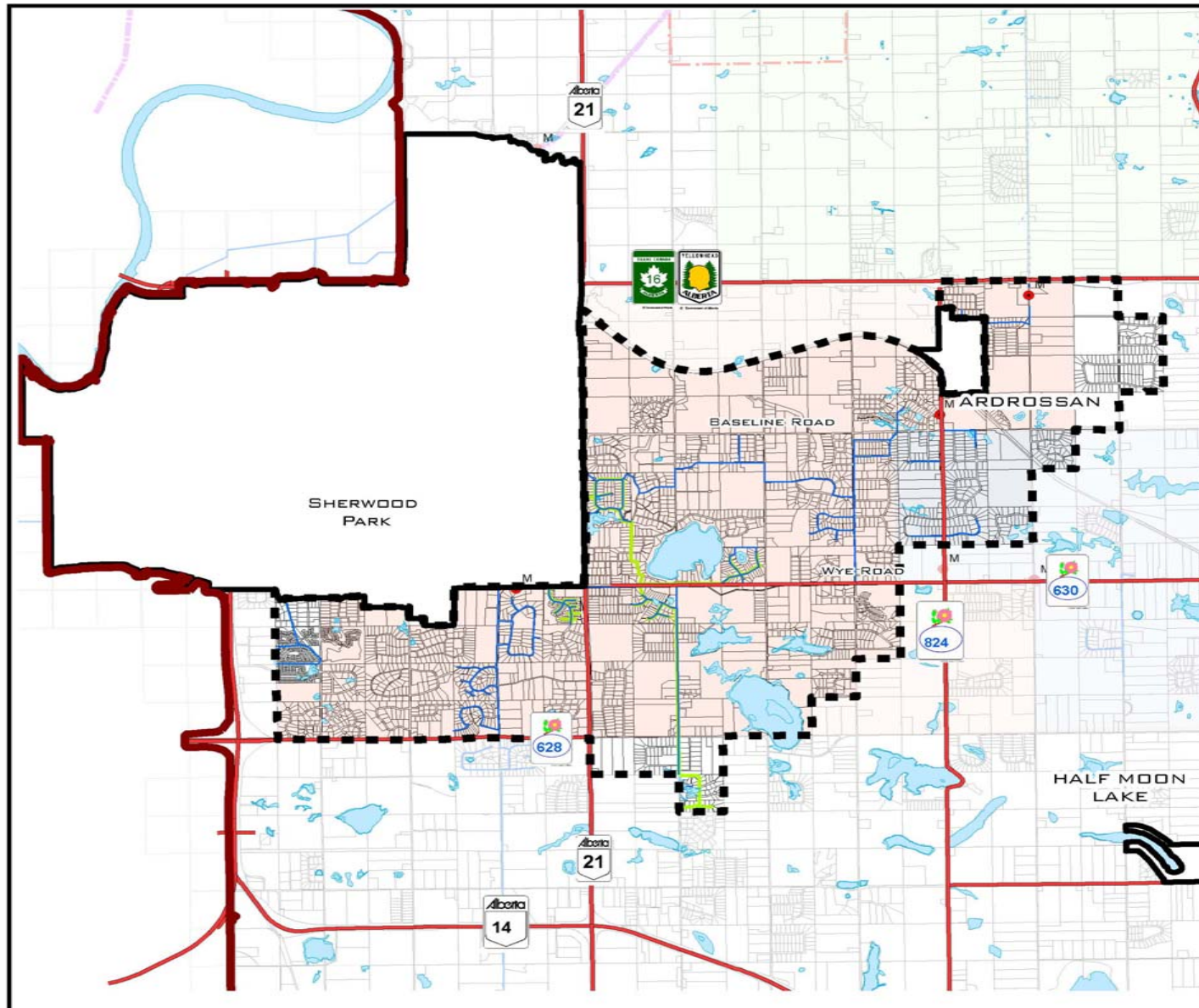
Index Map

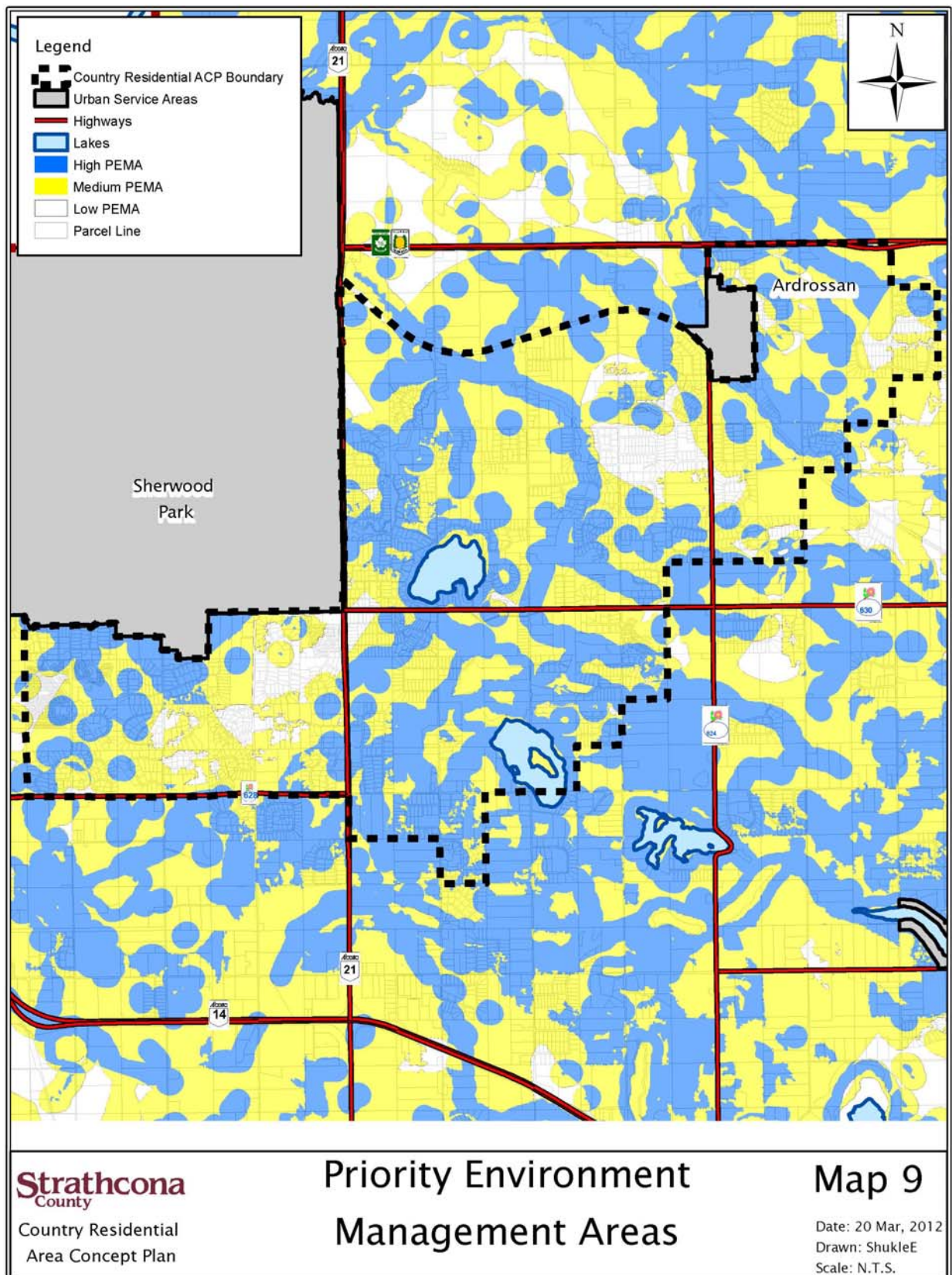


Disclaimer:
This map is intended to provide a geographical representation of features understood to be as accurate as possible based on the date of creation &/or revision. This map should be used for general reference purposes only and any other reliance on, other than for reference purposes, is not recommended. Strathcona County will not be held responsible for errors &/or omissions. This map is the property of Strathcona County and cannot be reproduced without the written consent of Strathcona County.

Map 8

Date: 20 March 2012
File: CR_ACP_WastewaterServicing.mxd





Strathcona County

Strathcona County
Country Residential
Area Concept Plan

**Parcels within existing
Country Residential
subdivisions that could
potentially subdivide
without connecting to
municipal piped
wastewater system**

Legend

-  Capital Region Growth Plan Priority Growth Area 'S'^{***}
-  Lots exempted from connecting to municipal wastewater system
-  Country Residential Area Concept Plan Area

^{***} Capital Region Growth Plan requires that Cluster County Residential Developments utilize municipal water and sanitary services.

0 0.5 1 2 km

Disclaimer:
This map is intended to provide a geographical representation of features understood to be as accurate as possible based on the date of creation &/or revision. This map should be used for general reference purposes only and any other reliance on, other than for reference purposes, is not recommended. Strathcona County will not be held responsible for errors &/or omissions. This map is the property of Strathcona County and cannot be reproduced without the written consent of Strathcona County.

Map 10

Date: 20 Mar 2012

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APPENDIX A: Conservation Subdivision Design

Conservation Subdivision Design (CSD) is a relatively new development concept that enables land to be developed while simultaneously preserving community character, reducing environmental impacts, protecting the rights of property owners, and enabling a developer to achieve economic benefits from the creation of a high-quality development.

Conservation Subdivision Design differs from traditional country residential development in a number of different ways. First, it sets much higher standards for the quantity, quality and configuration of the resulting open space and developable area. CSD also allows communities to exercise greater influence on the design of new subdivisions and also benefit from much more than just dense pockets of housing. Lands protected from development can also be configured, in some cases, to work toward creating an interconnected network of open space throughout the community, linking amenity areas and habitat corridors in adjoining subdivisions and/or providing buffers between new development and environmentally sensitive areas or features.

Perhaps the greatest strength of Conservation Subdivision Design is the process involved in determining the final layout of the land being developed. The process intends for land conservation to become the central organizing principle around which house lots and streets are sensitively designed. The design process identifies natural, historical, and cultural resources, potential open space corridors, habitat patches, views, etc. that should be protected from development. The development process excludes these areas from development and builds what can be accommodated on the rest of the parcel. The process consists of four steps:

1. Identifying natural features, conservation areas and developable areas;
2. Identifying key views and vistas;
3. Determining location of roads, trails and stormwater management facilities; and
4. Drawing lot lines.

Step 1

Step 1 involves a biophysical assessment of the overall site in order to identify natural features, primary conservation areas and development constraints, such as floodplains, steep slopes, wetlands, streams, wildlife habitat, unstable soils, geology, etc. A plan indicating connectivity between habitat patches would need to be provided. The assessment also includes the identification of development opportunities or cultural features (i.e. an old barn or tree stands) that could be incorporated into the site plan in order to enhance the character of the development. Features, such as mature forests, and areas where landscaping mitigation (for screening or to offset biodiversity or habitat loss) are also identified. External influences such as infrastructure, adjacent land uses and wildlife corridors are also highlighted.

Step 2

After the Biophysical Assessment outlined in step one is complete, the topography of the site is then analysed to identify any significant views and vistas that may exist. Preserving the vistas and views of the site is important in terms of maintaining the land's original natural character as well as providing residents with scenic landscapes that might otherwise have been lost.

Step 3

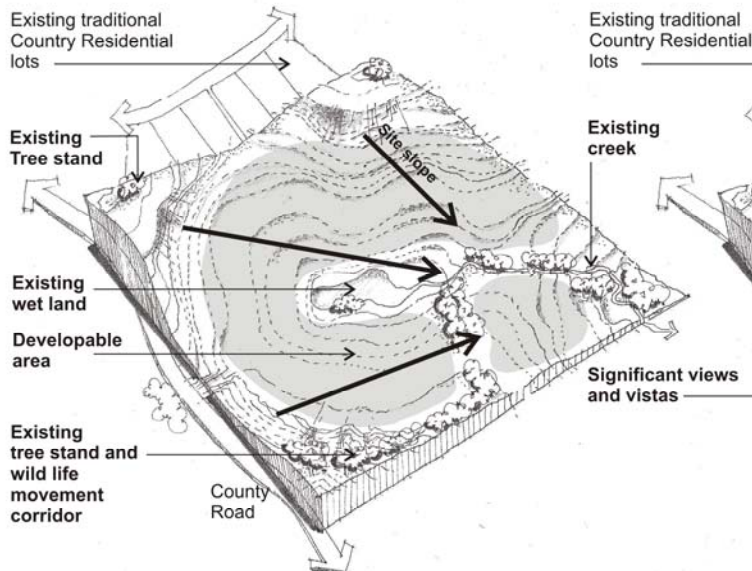
Once an assessment of the site is complete, and the vistas and views have been established, the next step is to identify the location of required stormwater management facilities and drainage channels, as well as alignments for roads and trail networks, which would extend logically throughout the area to provide access to all properties and connection(s) to adjacent lands. Consideration must be given at this point to the configuration and number of accesses the development will have to the existing road network, access location, and impacts on existing adjacent public roads. A Traffic Impact Assessment (TIA) may be required at this stage depending on the magnitude of the development. It should also be noted that any developments in proximity of provincial highways would have to meet the requirements of the Province (Alberta Transportation), which may exceed those of Strathcona County with respect to the TIA requirement triggers.

Step 4

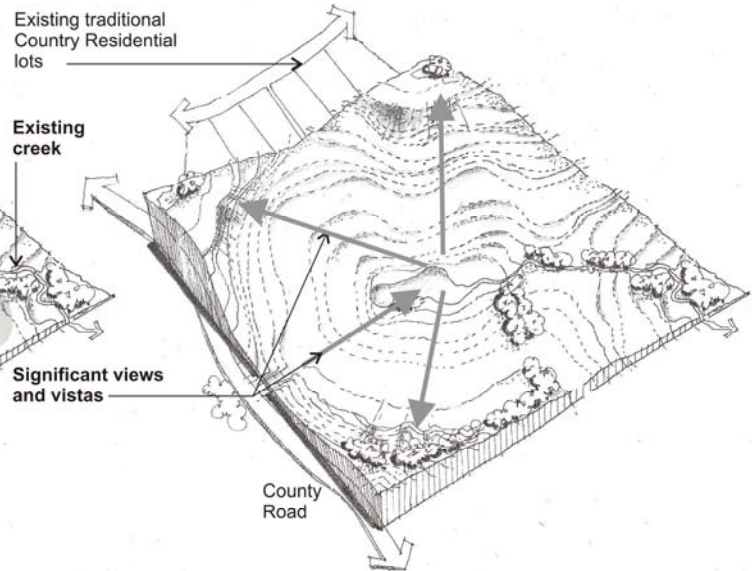
The final step is the creation of the parcel layout, which involves determining where the parcels will be located and establishing the lot lines. The parcel layout must conform to land use regulations governing such things as minimum parcel area and utilize the information gathered in the previous steps as guidelines to ensure protected areas are not infringed upon.

The following figure illustrates the conservation subdivision design process where a piece of undeveloped land is developed into country residential subdivision based on the above Conservation Subdivision Design principles.

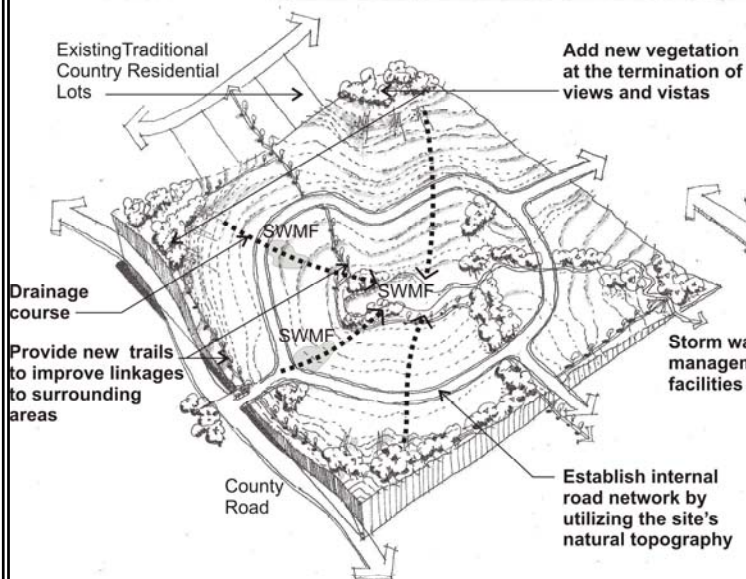
Conservation Subdivision Design Principles



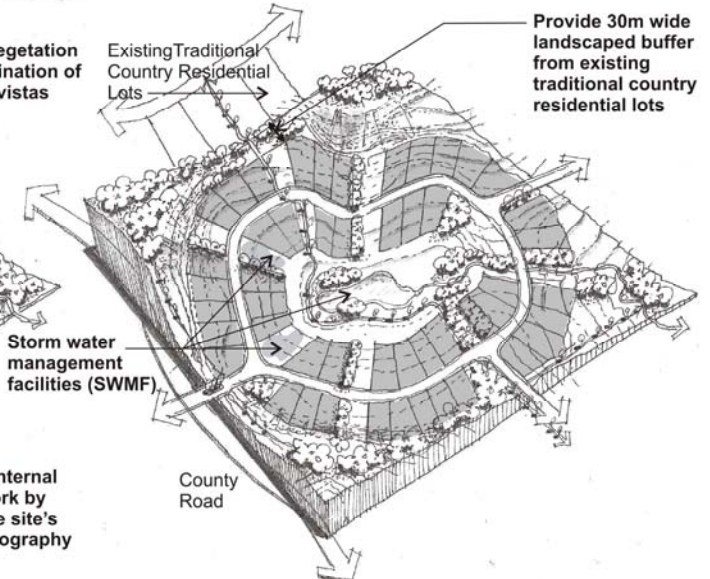
1. Identify key natural features and developable areas.



2. Identify key views and vistas



3. Strategic location of internal roadway, trails, parks and open spaces



4. Lot layout shall preserve key views and vistas and improve connectivity within the site as well as between the site and surrounding areas

The Application of Conservation Subdivision Design

The degree to which conservation subdivision design can be applied in a given situation is influenced by several factors including site conditions, access, surrounding land uses, and the amount of environmentally sensitive lands on the site. However, regardless of the site characteristics, existing legislative and regulatory frameworks limit the ability for municipalities to attain the land required to achieve true conservation subdivision design. Currently, the Municipal Government Act provides municipalities with powers or tools that allow them to acquire a certain percentage or portion of land that is subject to a proposed subdivision. These tools include environmental reserve and municipal reserve dedication as well as conservation easement and land conservation trusts.

Environmental reserve is generally considered land that cannot be developed because it poses a risk to human health or property. In many instances land that may be dedicated as environmental reserve may also be land that would be considered environmentally significant or sensitive (i.e. swamps, gullies, ravines, natural drainage courses, flood plains, and areas immediately adjacent to water bodies).

Environmental reserve, however, is not a tool that municipalities can rely upon to protect all the environmentally significant features that may be identified within a site. For instance, upland area which may serve as a habitat patch, may also be considered developable (i.e. on high, flat, well drained ground, no creeks or water bodies), therefore, it would not likely meet the criteria for environmental reserve dedication set out under the Municipal Government Act. Under those circumstances the municipality would have to utilize other planning tools to ensure the protection of these areas.

At present the one major tool available, as provided for by the Municipal Government Act and the Municipal Development Plan, is the required dedication of municipal reserve. The County currently requires land that is the subject of a proposed subdivision, to dedicate 10% of developable land as municipal reserve. In some instances over dedication of municipal reserve land can occur however any over dedication is at the discretion of the landowner. Municipal reserve land has and will continue to be used in the Plan area primarily for the conservation of wildlife habitat and open spaces that may include public gathering places, trails and trail connections as determined by the County in conjunction with the Open Space and Recreation Facilities Strategy (OSRFS).

In many areas, especially within the Beaver Hills Moraine, the amount of municipal reserve or environmental reserve is usually not enough to protect all the environmentally sensitive areas or features that may exist within the parcel being subdivided. In those situations the County encourages the use of planning tools such as conservation easements and land conservation trusts as a method of conserving additional environmentally sensitive areas.

With a conservation easement, a landowner relinquishes certain rights in order to protect the ecological values of all or part of their land. Those "rights" or that interest in the land is granted to an eligible conservation organization (i.e. Ducks Unlimited Canada) or government agency (i.e. Strathcona County). That easement is typically negotiated in perpetuity, and is registered on the title of the land. The landowner retains title, and is free to sell, gift or Will that property, but the easement binds future landowners to the same land use restrictions. If the landowner does not want to retain ownership of their land he/she could sell or donate those lands to a land conservation

trust such as the Nature Conservancy of Canada which is a charitable organization that works to protect natural heritage through the purchase or donation of land.

Benefits of Conservation Subdivision Design

Environmental and Ecological Benefits

In addition to preventing development within areas that would ordinarily be cleared, graded, and covered with homes, lawns and driveways in conventional development, there are many other environmental and ecological benefits, including wildlife management and habitat conservation, water quality protection, greater aquifer recharge, and environmentally sensitive sewage treatment and disposal.

Natural areas conserved in conservation subdivisions provide important habitat for wildlife to dwell and travel through. The greenways that are a hallmark of the design process, provide cover and naturally sheltered corridors for various species. Conservation subdivisions provide larger areas of natural vegetation that act as buffers to help filter stormwater flowing into wetlands and waterbodies, trapping pollutants and excessive nutrients contained in stormwater runoff. Buffers also offer important infiltration and “recharge” benefits because they help maintain adequate flows of filtered water to underground aquifers. Reduced impervious surfaces found in CSD-type development significantly reduce the size and number of stormwater detention basins needed on the site. This lowers infrastructure costs and frees land for other uses. Conservation subdivisions also offer greater opportunities to implement environmentally sensitive sewage treatment and disposal systems known as “alternative systems.” Because of reduced parcel sizes, individual septic systems may no longer fit on each parcel – alternatives must be found. It is possible to use shared septic systems and/or common leach field, and to locate that leach field outside of lot lines. Alternative systems are a well documented technology that is superior to conventional mechanical systems in many ways because they produce only very small amounts of sludge-by-products and they help to replenish local aquifers.

Social, Cultural and Recreational Benefits

Conservation subdivisions can create pedestrian friendly neighborhoods where residents are provided with “inviting places to walk” and “interesting destinations” to meet one another. Placing homes closer to the streetscape by reducing front-yard setback requirements reduces isolation and better connects each home with the neighborhood. Common open space provides space for community activities, such as picnics and block parties. Recreationally, conservation developments can create a community-wide system of greenways and trails and often create active recreation areas such as soccer and baseball fields. Additionally, open space conservation can be targeted so that it protects areas of natural and cultural heritage.

Fiscal and Economic Benefits

Fiscally, sprawl development has been shown to result in increased public costs for the construction and maintenance of public infrastructure such as water and sewage facilities and providing services such as fire and police protection. Put simply, “it costs more to run school buses and emergency vehicles, to repair roads, and to collect garbage when homes are spread out over more miles of roads than when houses are located more closely together”(Arendt, *Rural By Design*, p. 282). CSD offers an opportunity to reduce infrastructure engineering and construction costs not only for the developer, but also to the public sectors’ long term maintenance costs by enabling shorter street and utility systems. At this time developers can capitalize on open space amenities within the development. Additionally, homes in conservation subdivisions tend to appreciate faster than their counterparts in conventional developments. Homebuyers value the amenities of open space, such as attractive views and recreational opportunities. This is undoubtedly reflected in increased real property values and marketability for property located near open space.

APPENDIX B: Twelve Themes of Sustainability Assessment

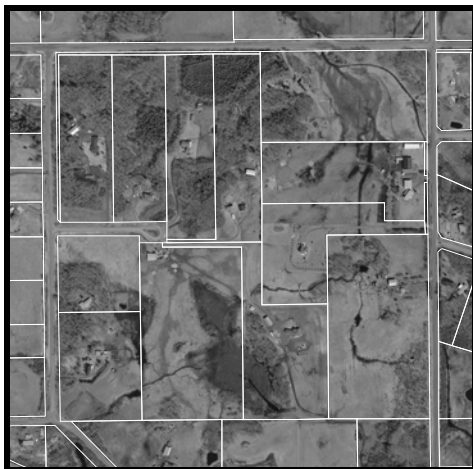
The following is a discussion and evaluation of the Country Residential Area Concept Plan Area as viewed through the Twelve Themes for Evaluating Sustainable Development lens or filter.

Land

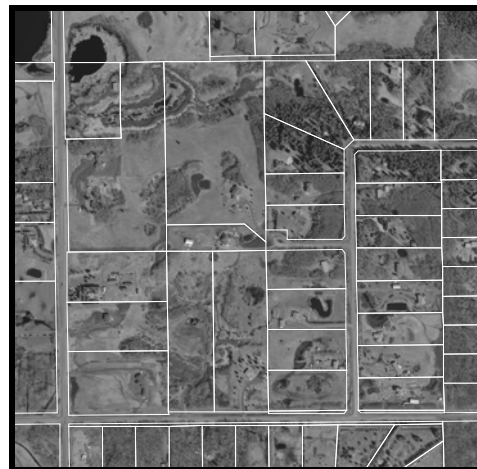
The consumption of land is a major global issue. With the human population increasing exponentially the amount of land available to support our growing population continues to diminish. As a result, there is increased pressure on our land resources to provide accommodation, food, clean water, materials and energy.

Country residential development is not generally considered to be sustainable primarily because it is an inefficient form of development that results in the consumption of large amounts of land that could otherwise provide natural habitat for wildlife and/or land for large scale food production. The efficient use of land in the County is critical given continuing growth pressures and the significant amount of natural habitat that exists within the County and in particular within the CR-ACP area.

With the exception of a few recent examples, many existing CR developments were developed with little or no consideration for the existing topographical features and/or connections (man-made or natural) to adjacent lands or developments.



Example 1 – Piecemeal CR Development



Example 2 – Combination of Piecemeal and Semi-planned CR development

A number of CR subdivisions have been designed based on simple loop or “U” shaped designs (cookie cutter approach) which, from a developers perspective, makes it easier and less costly to subdivide. In actuality this type of subdivision design results in greater road surface, resources and materials, increased costs and greater impact on the landscape.



(Example 3 – Cookie cutter CR development)

These CR subdivision examples are not considered sustainable primarily because:

- 1) Road networks might require the infilling or fragmentation of wetland habitat;
- 2) It can result in the creation of parcels that may or may not have a suitable amount of developable land either as a result of topographical restrictions or water table issues;
- 3) It can result in parcels that can only be accessed by crossing over existing wetland areas or by providing individual accesses directly onto County roads;
- 4) It ignores natural wildlife corridors; and
- 5) It provides for illogical parcel arrangements which result in unnecessary and costly road infrastructure to provide access to parcels.

How can this theme be addressed?

Although the majority of the lands within the CR-ACP area have already been developed, there is an opportunity to address this theme on a larger scale within the remaining undeveloped areas. In general, this CR-ACP promotes the creation of developments that are designed to be as efficient and compact as possible which in turn reduces the amount of infrastructure required, conserves land resources and aids in conserving natural habitat.

Water

Clean drinking water is a basic human necessity. When land is developed it alters natural surface and underground hydrological systems. This affects the quality and quantity of water that is available to support healthy ecosystems and human lifestyles.

Water Quality

Water quality within the CR-ACP is affected primarily by the interaction between human development and natural systems. Simply put, the more an area has been developed, the greater the impact it has on natural systems which in the case of water, results in reduced water quality. It can therefore be argued, that country residential development has less of an impact on natural systems than urban development which generally results in the complete annihilation of natural areas. This is not to say, however, that country residential development is sustainable in this regard.

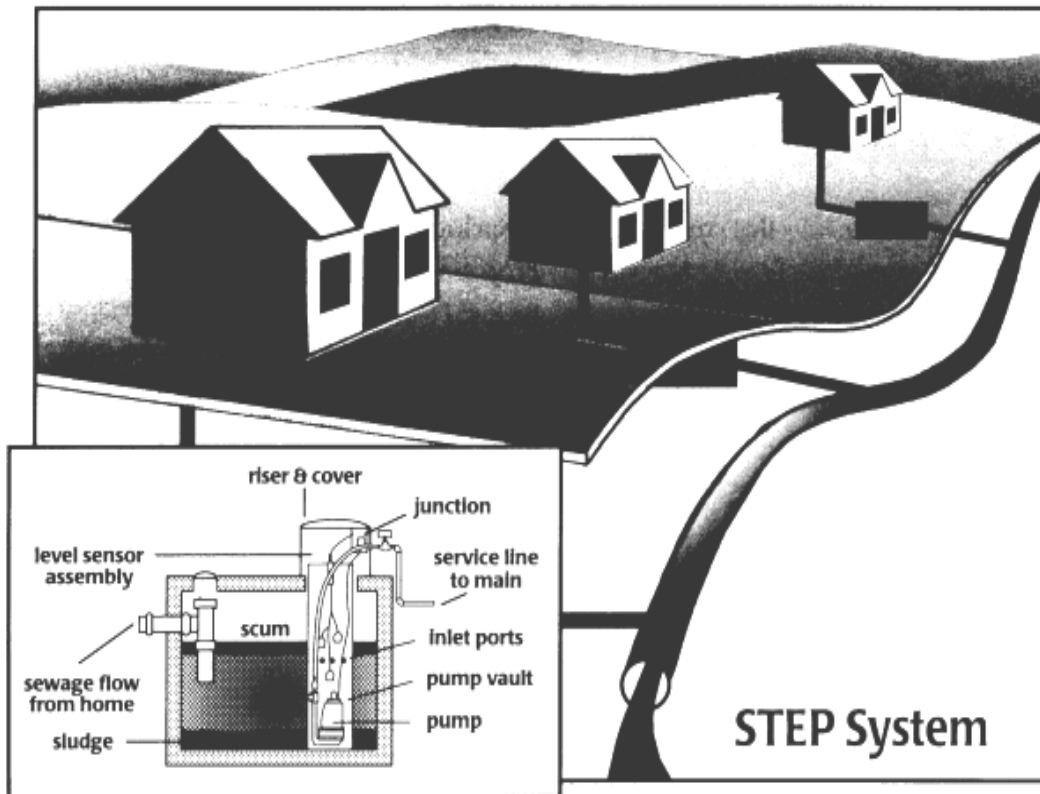
Stormwater

Country residential developments include extensive road networks in order to access individual properties. As a result, the surface run off, which includes contaminants, such as road salt, and household contaminants, can cause soil erosion and sedimentation which negatively impacts surface water quality. The containment and primary treatment of storm water is a critical element in the protection of environmental areas and ensuring sustainable water resources. With continued development, it is important to ensure that storm water is captured, held and released at pre-development rates, according to Alberta Environment and Water standards.

Wastewater

In terms of waste disposal, many country residential developments utilize conventional private sewage treatment systems to handle human waste. These systems require the use of septic tanks and septic mounds or fields to filter waste from water. This method of handling human waste relies on the ability of natural systems to filter, absorb and convert organic and to a certain degree non-organic substances. However, if the amount of waste exceeds nature's ability to convert this waste, then surface water, and in some cases ground water, may become contaminated.

Most conventional country residential developments utilize septic mounds. Currently residents oversee the monitoring and operation of these facilities. Many urbanites who move from homes with full municipal servicing to the country with homes that utilize septic system have little or no understanding of the maintenance requirements of these facilities. As a result, the County has observed several instances where septic systems have either failed or were operating improperly. To address this issue, the County now stipulates that all new developments must extend (if necessary), and connect to, an offsite sewage treatment network, also known as the Septic Tank Effluent Pump (STEP) system. The STEP system operates by collecting wastewater that is discharged from the home to the septic tank where solids settle out. The effluent (grey water) is then pumped out to a pressurized wastewater line where it is then carried to either a centralized storage tank (during wet weather) or the urban system. The sewage flow is then released to the urban system on off peak hours when capacity is available.



There are a number of advantages of the STEP System over conventional (septic field) systems. The main advantages are as follows:

- Environmental benefits can be achieved at a cost comparable to an onsite system;
- The homeowner does not have to construct mound infrastructure on property; and
- Existing properties can readily convert their existing onsite system to the STEP system.

Water Quantity

Most residents within the CR-ACP area obtain potable water either by water truck or via the County's trickle water system. The truck haul method is not considered sustainable because it increases wear and tear on County roads and it requires the use of gasoline burning vehicles which generate CO₂. There is also an increased potential for contamination due to varied methods of transfer.

The County is currently attempting to address the issue of water quality and quantity by requiring developers to extend municipal piped water and sewage systems to properties that they want to develop. The County currently provides piped water through a low pressure, drip system to approximately 500 residences within the study area. County Administration has determined that there is sufficient off-peak water capacity within to service up to 50 country residential parcels per quarter section.

How can this theme be addressed?

This theme can be addressed by ensuring that the quality and quantity of the community's water resources is protected through:

- effective storm water management;
- by ensuring efficient use and/or conservation of water resources; and

- by designing and implementing low-impact and cost-effective water infrastructure.

Natural Habitat

When land is developed it fragments the overall regional ecosystem. This undermines the ability of wildlife to move throughout the natural landscape in order to feed themselves, find shelter and generally maintain healthy populations.

Biologically diverse natural areas create resilient ecological systems which in turn moderate larger systems such as climate, and provide us a steady supply of food, clean water and air. If natural habitat is not protected, the air, water, soil and vegetation which function together to sustain the health of our community, will be compromised.

The CR-ACP area is located within the Beaver Hills Moraine, an area rich in native wetlands and aspen dominated Boreal mixed wood habitat. The “knob and kettle” topography supports a highly diverse range of vegetation, waterfowl, mammals and birds. The area also supports a variety of significant and sensitive environmental features and is a critical source of surface and ground water.

Development within the CR-ACP area has played a major role in altering the natural landscape. In some cases, primarily the older country residential developments, subdivision designs and road networks have cut through natural features such as wildlife corridors and wetlands. In order to reduce these impacts the County utilizes a few regulatory tools such as ER, MR and Conservation Easements. These tools, which are provided under the Municipal Government Act, help in terms of ensuring that development does not occur within hazardous areas and/or within highly sensitive natural areas. Although these tools are useful they are limited in their ability to secure, conserve and/or protect areas highly sensitive habitat areas and/or the lands needed to connect these areas.

How can this theme be addressed?

Sustainable neighbourhoods include naturalized spaces or habitat areas that support a diversity of native species that compliment land uses. This theme, therefore, can be addressed by ensuring an interconnected system of naturalized spaces is provided and protected.

Waste

Whether the topic is waste heat, construction waste or municipal solid waste the fact of the matter is that industrialized countries, such as Canada, generate huge amounts of waste. All these forms of waste can negatively impact ecosystems, water and air quality which can in turn negatively impact human health.

Construction and Municipal Solid Waste

The construction industry and home owners generate approximately two thirds of all the solid waste generated within the County. A Green Routine program has been implemented in the rural area.

Waste Heat

The majority of the homes within the CR-ACP area are conventional in design and generally larger than those built within urban areas. In general the larger the home the more energy it takes to heat the home the majority of which can be lost to outdoors if not adequately insulated. Presently there are no programs to educate builders on how to reduce waste or build “green”. The County does, however, offer incentives through potential reductions in building permit fees depending on the level of adherence to Built Green standards.

How can this theme be addressed?

To address this theme our general perception of the term “waste” must change from one that considers it to be a nuisance or a useless end product to one that views it as a valuable resource. This can be achieved to a large degree through leadership in the form of education, incentive programs and the provision of infrastructure that help to foster lifestyle changes and building practices.

Materials

Approximately 40% of the raw materials entering the world economy are used for building and construction activities (EHUV Guidelines, 2007). This puts pressure on natural resources, results in significant energy use, and often results in negative impacts to human and ecosystem health.

Using recycled, reclaimed, renewable, local and low environmental impact materials for development can significantly lower construction costs, and reduce the need for costly material disposal. It will also reduce waste sent to landfills thereby conserving water, land and air resources. Materials with low-toxicity qualifications can ensure the health and well-being of citizens sensitive to man made materials.

The County currently does not actively educate the home building construction industry about the use of environmentally responsible building materials. However, it does provide incentives for those who choose to construct buildings that adhere to the Built Green program and/or LEED standards.

How can this theme be addressed?

This theme can be addressed by focusing on the use of recycled, reclaimed, renewable, local materials as well as those materials that have the least amount of environmental impact as possible. Costs associated with construction and material removal can be reduced significantly if this approach is taken.

Economy

A strong local economy is an important component of a sustainable community. The residents of Strathcona County support the local economy and the economy is growing as result.

At the large scale, area residents generally support the economy of the major urban areas such as Sherwood Park as well as nearby hamlets. The County in its effort to diversify the economy, which in turn works toward creating a more sustainable community, supports continued commercial development within those hamlets that are classified as “growth hamlets” in the MDP. The Hamlet of Ardrossan, which is considered a growth hamlet, currently provides some commercial services which residents may rely upon. However, if Ardrossan continues grow it could potentially become an important economic base for those living nearby thereby reducing the need to travel long distances to access commercial services in the larger urban centres.

Within the residential portion ACP area there is little or no economy because the primary land use is country residential. There are very few if any opportunities for residents to work and/or shop within even a five minute drive of where they live. Any economy that does exist is associated primarily with home based businesses. The County currently allows home business minor as a permitted use and home business major as a discretionary use under the Land Use Bylaw. Although home based businesses are important for the area and the County as a whole, some have proven to be problematic for adjacent residents, due to traffic and noise issues, and have also resulted in premature wear and tear on County roads.

How can this theme be addressed?

There are few if any opportunities to diversify the local economy within the CR-ACP since the CR-ACP area is focused primarily on country residential development. There are however opportunities to address this theme by encouraging the creation of a local economy that is appropriate within the context of country residential neighbourhoods. It is also essential to ensure that area residents have reasonable access to basic goods and services in order to reduce travel times thereby reducing CO2 emissions.

Carbon

The burning of fossil fuel for the purpose of creating energy and manufacturing products generates green house gases such as carbon monoxide and carbon dioxide which have been linked to climate change and global warming. The more fuel we burn the greater the impact on the natural environment and human health.

There are three major sources of CO2 emissions that are associated with country residential development: transportation, construction and individual residences. The primary mode of transportation for residents living within the CR-ACP area is the automobile. Residents have to rely on their vehicles for day to day transportation to and from work places, shopping and in some cases recreational activities because they live in low density neighbourhoods within a rural area. Mass transit has not been contemplated up to this point because it is not considered cost effective to provide this service throughout large, sparsely populated areas. As mentioned previously, one approach the County has taken to reduce transportation related carbon emissions associated with acreage development in the rural areas is to promote greater development within the smaller surrounding growth hamlets. Air pollution will be reduced because residents will have to travel shorter distances to access basic services that are required on a day to day basis.

In addition, many of those who have chosen to live in this form of development have done so because it affords them the ability to enjoy a certain kind of lifestyle. The large acreage sized parcels potentially allow for the development of large homes and other accessory buildings such workshops, garages, etc. The larger the structures and the greater the number of structures constructed, the more CO2 that is emitted in order to generate building materials used to construct and heat these buildings.

Although the County, as mentioned previously, does provide incentives for those who choose to build according to Built Green or LEED standards, it does not aggressively educate the construction industry and/or residents with regard to the various means available to reduce CO2 emissions

How can this theme be addressed?

CO2 emissions associated with development can be reduced through various management practices used to reduce energy consumption, to increase the use of alternative non-fossil fuel energy sources and to maintain the ability of the natural environment to absorb CO2 emissions. These practices include such things as designing energy efficient buildings and maintaining natural treed areas.

Food

Food production and distribution has become a global industry that functions less and less at a local scale. Much of the food we purchase has travelled thousands of kilometres in order to reach our community. Imported foods can require up to four times more energy and generate four times more greenhouse gas emissions than the same food grown locally. Our reliance on conventional food sources also undermines our community's agricultural base and generally weakens our food security.

The Canada Land Inventory (CLI) indicates that soils within the study area are a combination of Class 2, 3, and 4 lands, indicating a moderate to high capability for crop production. In general, higher capability agricultural lands are considered for protection from development. However, in proximity to urban areas and high growth areas, the priority for agricultural land protection often is reduced due to growth pressures.

Some agricultural production does occur within the CR-ACP area, however large scale crop agriculture is not considered feasible primarily because parcel sizes are not large enough to allow this to occur. In addition, the primary focus within the area is to accommodate country residential development which is not always compatible with agriculture especially livestock operations. As a result, it is likely that existing large scale traditional farm operations will eventually be replaced by CR development over time.

Although agriculture is not the prime focus within the CR-ACP area it does include a small number of tree and berry farms as well as greenhouses. Given the size of the parcels, the climate, and soil conditions there is an opportunity for residents to be able to grow some of their own food thereby reducing the need to rely on conventional food sources. The location of some of the larger CR parcels relative to the very large neighbouring urban centres also suggests that potential exists for the creation of a small scale or urban style agricultural industry within the area especially with the increasing number of specialty markets that are emerging and are looking for fresh, locally grown food products.

Although the MDP does encourage small scale agriculture, the County has not, up to this point, actively attempted to educate residents regarding the benefits of growing food nor has it actively promoted small scale agriculture within the CR-ACP area.

How can this theme be addressed?

Sustainable developments focus on the social and economic benefits derived by growing and processing locally grown food and reducing reliance on global food sources which require the expenditure of large amounts energy to travel from producer to consumer. Various strategies can be used, such as education programs, to increase public awareness and knowledge about how to grow at least some of their own food and/or how to market food grown within the CR-ACP area.

Transport

Automobiles consume fossil fuels which in turn generates greenhouse gases and pollution. It also enables unhealthy sedentary lifestyles, deteriorates the safety and quality of streetscapes. The infrastructure required to support vehicular transportation is costly to build and maintain and can fragment communities.

Country residential development is not a sustainable form of development with respect to transportation because the majority residents have to utilize motorized modes of transportation to commute to and from work and commercial areas. To make matters worse many of the existing road networks do not allow for the efficient flow of traffic within neighbourhoods or to adjacent neighbourhoods. Trails may or may not be present within the development and if they do exist they may not connect to neighbouring developments.

The County, in response to this issue, requires new CR developments to adhere to Conservation Design principles, which, if adhered to, would naturally result in more efficient road design and connectivity between developments.

How can this theme be addressed?

Given that the CR-ACP area is for the most part developed, it is difficult to address this theme on a large scale because the majority of the transportation and trail networks have already been developed. There are measures, however, that can be taken to address this theme especially in the undeveloped areas. Generally speaking sustainable developments support a transport network that allow for a variety of mobility choices including, walking, cycling, automobile etc. However, in terms of country residential development transport is centred primarily on the automobile due to the location and low density nature of this form of development. The trail network, although an important component in terms of providing recreation opportunities, is considered somewhat of a minor consideration, when individuals are choosing modes of transportation to access services and employment centres. Trail networks, however, should be interconnected with networks in adjacent developments in order to provide for alternative modes of transport between neighbourhoods. Road networks should also be interconnected to improve travel patterns and increase efficiency.

Equity

Modern development practices have frequently resulted in an inequitable distribution of resources within society. This has resulted in the separation of different cultures, income brackets, and age groups. The aim of equity is to ensure fair distribution of resources within society to reduce the gap between the advantaged and the disadvantaged.

The County recognizes that people make choices and therefore the plans it develops reflect the desires of the community as a whole. Thus, the County attempts to increase equity on the larger scale by allowing for and promoting the development of a wide variety of land uses and housing choices throughout the entire County in order to accommodate people with a variety of income levels.

How can this theme be addressed?

Sustainable neighbourhoods foster fairness and equal treatment for all people. This theme can, therefore, be addressed by creating inclusive communities where residents have a sense of belonging and equal opportunity to access services, learning, and employment, as well as recreational and cultural activities. Measures that can be taken within the CR-ACP area include providing increased opportunity for community facility development and providing increased choice of housing options through the inclusion of secondary suites.

Well-Being

Our physical surroundings influence our physical and mental well-being by providing the framework in which we interact with other people and nature. If our physical environment does not provide us with the security or safety we require and the ability to interact with each other or our natural surroundings, our well-being will more than likely be negatively impacted.

Well-being, for those living within the CR-ACP area, is influenced primarily by the natural setting and community/neighbourhood design features. One of the major reasons why people choose to live in rural settings is due to the large amount of large open or green spaces and natural areas. These green spaces also help to limit the impacts of sprawling development on wildlife, air and water quality. It is important therefore, in terms of well-being, that these physical features be conserved wherever possible.

With regard to physical health, many residents rely on recreational opportunities provided in large part on the areas natural surroundings as well as the various facilities within more distant urban settings or within more local regional community centres. Although recreational opportunities are usually somewhat limited at the neighbourhood level, many neighbourhoods do include trails. Well-being throughout the area could be enhanced even further by ensuring all developments include trails and that these trails are interconnected with adjacent neighbourhoods.

Safety is another major factor determining well-being that must to be addressed. One the biggest natural hazards, aside from potential periodic flooding, is wildfire. By developing within treed areas, or in areas where there is significant fire fuel, residents are compromising their own personal safety. These risks can, however, can be

diminished through proper site design, by ensuring developments adhere to fire smart principles.

How can this theme be addressed?

A sustainable country residential neighbourhood is one that is designed with the well-being of residents in mind. This theme can therefore be addressed by ensuring that:

- developments have an attractive aesthetic quality;
- residents are able to access goods and services within a reasonable distance from their home;
- residents feel safe; and
- features, such as trail networks, are provided to allow for or promote healthy lifestyles.

Culture

Culture and heritage can be defined by the character of a place. If a community has little or no culture, as is the case with regard to many modern suburban residential developments, it will more than likely lack character. Residents living in these mono-culture type communities are less likely to develop a shared sense of community, or sense of pride, ownership or stewardship. In contrast, communities that include a greater mix of compatible land uses have a vibrant culture, strong character and identity are generally more attractive and offer a higher quality of life.

The County supports a wide variety of housing forms and land uses throughout the County, which, on the larger scale, has resulted in the creation of a more generalized “Strathcona” culture. However, in specific areas, such as the Country Residential Policy Area, the County through its MDP promotes a limited range of land uses which in turn results in the creation of its own unique culture. This is not necessarily a bad thing, especially in this situation, if the result is the conservation of large open spaces, natural habitat and agriculture which in turn provides, adds to, or enhances the character of the area. However, if country residential developments are not sensitive to these elements, the overall quality of the area’s character and resulting culture, will be diminished making it a less attractive place to live or visit. By conserving large open green spaces, being sensitive to existing agricultural land uses, and providing adequate meeting spaces or facilities the rural character of the area will be maintained.

How can this theme be addressed?

A sustainable neighbourhood is one that allows for cultural expression and social inclusivity and recognizes and conserves its physical and cultural heritage. Therefore, to address this theme places and spaces need to be available to foster community expression, connection and participation. In addition, it is important that natural landscape and historical structures that people within the community have a common connection with should also be conserved.

APPENDIX C: FireSmart Guidelines



FIRESMART

Things to consider

If you live in or near a forested region or treed area, sooner or later you may have to contend with the spread of a wildfire. The best protection against loss, damage or injury due to wildfire is prevention.

Properly preparing your home and community doesn't guarantee that you will not incur fire damage, but it does reduce the risks.

The following guidelines include requirements and recommendations to aid in protecting your home from wildfire.

Siting

- The building is located on the bottom or lower portion of a hill (or at the top of a slope but with adequate setbacks).
- Single-storey buildings are located 10 metres from the crest of the slope (taller buildings will need proportionately greater setback distances).

Landscaping

- All flammable vegetation within 10 metres of the home has been removed or converted to fire resistant plants (i.e. broad leaf deciduous trees, low shrubs, ferns, annuals, etc.).
- The area between 10 metres and 30 metres from the home and treed area is landscaped with lawn or noncombustible materials.
- Underbrush and ladder fuels in surrounding forest (if area is owned) have been removed.
- Landscapes and vegetation close to interface buildings are regularly monitored during drought.
- Trees and underbrush within 30 metres of the house have been thinned.

Location of combustibles

- Firewood, building material, wooden storage shacks, and other combustible debris piles are located 10 metres or more from any building.

Roof

- Roofing materials are made of metal, tile, asphalt, ULC-rated treated shakes or noncombustible material.
- Dead leaves, needles or other combustibles are removed from the roof and gutters.
- The roof is clear of all overhanging branches.

Eaves, vents and openings

- Closed eaves and vents are accessible and screened with 3-millimetre mesh.
- Soffit vents/openings are located away from exterior walls.

Exterior walls

- Exterior walls of stucco, metal siding, brick, cement shingles, concrete block, poured concrete and rock offer greater fire resistance.
- Vegetation and other combustible material is cleared from the building exterior.

Balcony, deck or porch

- Balconies and undersides of decks or porches are built of noncombustible material.
- Open areas beneath the deck, balcony or porch are enclosed with 12-millimetre (preferably fire resistant) sheathing.
- If deck platform has spaces between the boards, access is provided under the deck for removal of debris that has fallen through the cracks.

Access to tools

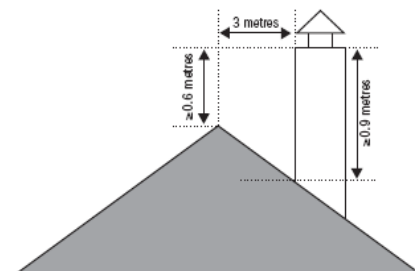
- Shovels, rakes, axes, garden hoses, sprinklers and roof ladders are readily available outside the home.

Doors and windows

- Concentrations of fuel are cleared within 10 metres of windows and glass doors.
- Windows are made of tempered glass.
- Smaller panes of glass are used (less vulnerable to breakage).
- Double/thermal pane windows are used.
- Solid shutters provide increased fire protection. They should be made of non-flammable material, although 12-millimetre exterior grade plywood can be used.

Chimneys

- Chimney outlets have at least 3 metres clearance away from all vegetation and obstructions.
- All chimneys used with solid or liquid fuel burning devices have approved spark arrestors. Arrestors are securely attached and made of 12-gauge welded or woven wire mesh screen (mesh no coarser than 12 millimetres).
- The Alberta Building Code requires that chimney outlets must be at least 0.6 metres higher than any part of the roof that is within 3 metres of the chimney and located at least 0.9 metres above the point at which the chimney joins the roof surface.



Power lines and propane tanks

- All vegetation including weeds and long dry grass is cleared well back from any power lines and power poles.
- No vegetation is located within 3 metres of a propane tank.
- The propane tank must be located from 10 to 25 metres away from any building, depending on the size of the tank.
- Propane tank valves are pointed away from any building.

Burn barrels and fire pits

- The burning barrel and/or fire pit is located at least 3 metres from any log, stump, snag or standing tree.
- The burning barrel and/or fire pit is located at least 15 metres from any building or flammable material.
- The burning barrel and/or fire pit is surrounded by a 3-metre mineral soil, clean rock, gravel, concrete or sand area, with all leaves, twigs and other flammable materials removed.
- The burning barrel is screened with a metal screen of 6-millimetre wire mesh.
- The burning barrel is anchored to metal stakes.
- The fire pit is less than 1 metre wide.

Mobile and manufactured homes

(The previous points about conventional homes also apply)

- Areas underneath the mobile/manufactured home are skirted with noncombustible materials.
- Adequate tie-downs are used if installation is to be semi-permanent.

Fire suppression

- There is access to the area for emergency vehicles; i.e. road width, grade, curves, layout, and design accommodate emergency vehicles.
- There is an on-site water supply. Tanks, ponds, pools or underground cisterns can be developed.
- Suppression equipment is on site and accessible (i.e. shovels, rakes, garden hose long enough to reach roof tops, rooftop access ladder and sprinkler).
- All streets and roads are marked with highly visible, noncombustible signs.
- Your address is clearly visible for quick identification.

Further information

Strathcona County Emergency Services

780-467-5216



FIRESMART

Protecting your home
from wildfire

Strathcona
County
www.strathcona.ab.ca

Strathcona
County
www.strathcona.ab.ca

November 2005

APPENDIX D: Guidelines for Residential Development Adjacent to the CN Railway

Note: Check with Canadian National Railway to verify all of the following guidelines.

Railway Classification

Principal Main Line

- traffic volume generally exceeds 10 trains per day
- high speeds, usually exceeding 80 kph (50 mph)
- includes heavy trains with 3 or 4 locomotives per train, commuter and passenger trains

Principal Main Line Requirements

- Safety setback of dwellings from the railway rights-of-way to be a minimum of 30 metres in conjunction with a safety berm. The safety berm shall be adjoining and parallel to the railway rights-of-way with returns at the ends, 2.5 metres above grade at the property line, with side slopes not steeper than 2.5 to 1.
- The Owner shall engage a consultant to undertake an analysis of noise. At a minimum, a noise attenuation barrier shall be adjoining and parallel to the railway rights-of way, having returns at the ends, and a minimum total height of 5.5 metres above top-of rail. Acoustic fence to be constructed without openings and of a durable material weighing not less than 20 kg. per square metre of surface area. Subject to the review of the noise report, the Railway may consider other measures recommended by an approved Noise Consultant.
- Ground-borne vibration transmission to be evaluated in a report through site testing to determine if dwellings within 75 metres of the railway rights-of-way will be impacted by vibration conditions in excess of 0.14 mm/sec RMS between 4 Hz and 200 Hz. The monitoring system should be capable of measuring frequencies between 4 Hz and 200 Hz, +/- 3 dB with an RMS averaging time constant of 1 second. If in excess, isolation measures will be required to ensure living areas do not exceed 0.14 mm/sec RMS on and above the first floor of the dwelling.
- The Owner shall install and maintain a chain link fence of minimum 1.83 metre height along the mutual property line.
- The following clause should be inserted in all development agreements, offers to purchase, and agreements of Purchase and Sale or Lease of each dwelling unit within 300m of the railway right-of-way: "Warning: Canadian National Railway Company or its assigns or successors in interest has or have a rights-of-way within 300 metres from the land the subject hereof. There may be alterations to or expansions of the railway facilities on such rights-of-way in the future including the possibility that the railway or its assigns or successors as aforesaid may

expand its operations, which expansion may affect the living environment of the residents in the vicinity, notwithstanding the inclusion of any noise and vibration attenuating measures in the design of the development and individual dwelling(s). CNR will not be responsible for any complaints or claims arising from use of such facilities and/or operations on, over or under the aforesaid rights-of-way.”

- Any proposed alterations to the existing drainage pattern affecting railway property must receive prior concurrence from the Railway and be substantiated by a drainage report to the satisfaction of the Railway.
- The Owner shall through restrictive covenants to be registered on title and all agreements of purchase and sale or lease provide notice to the public that the safety berm, fencing and vibration isolation measures implemented are not to be tampered with or altered and further that the Owner shall have sole responsibility for and shall maintain these measures to the satisfaction of CN.
- The Owner enter into an Agreement stipulating how CN’s concerns will be resolved and will pay CN’s reasonable costs in preparing and negotiating the agreement.
- The Owner may be required to grant CN an environmental easement for operational noise and vibration emissions, registered against the subject property in favour of CN.

Non-Residential Development Adjacent to Railway Right-of-Way (Principal Main Line)

CN’s current guidelines recommend that the acceptable protective measures for non-residential uses adjacent to a Principal Main Line are as follows:

- A minimum 30 metre building setback, from the railway right-of-way, in conjunction with a 2.5 metre high earthen berm for institutional, commercial (ie. office, retail, hotel, restaurants, shopping centres, warehouse retail outlets, and other places of public assembly) and recreational facilities (i.e. parks, outdoor assembly, sports area).
- A minimum 15 metre setback, from the railway right-of-way, in conjunction with a 2.0 metre high earthen berm for a manufacturing and repair use (i.e. factories, workshops, automobile repair and service shops).
- A minimum 15 metre setback for a warehouse and other heavy industrial use.
- There are no applicable noise, vibration and safety measures for unoccupied buildings.
- A chain link fence of minimum 1.83 metre height must be installed and maintained along the mutual property line.

- Any proposed alterations to the existing drainage pattern affecting Railway property must receive prior concurrence from the Railway and be substantiated by a drainage report to the satisfaction of the Railway.
- It is recommended that a consultant be retained to undertake an analysis of noise and vibration and that appropriate measures to mitigate any adverse effects from noise and/or vibration that were identified be provided.

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APPENDIX E: Public Consultation

2005

In June, 2005 an open house was held at the Ardrossan Recreation Complex. Approximately 225 participants attended and about 100 exit surveys were completed. The following represents the major findings from those surveys:

- Over one-half of the respondents felt that piped services for water and sewage should be extended to all new and infill development in the study area although existing development did not want to be forced to tie in;
- About 55% of the respondents stated that preserving agricultural land within the plan area was not a priority;
- 87% of the respondents felt that saving the environment, through such means as reserves was the top priority;
- Almost 80% felt that new development should be designed around or in consideration of natural topography, tree stands, and water bodies;
- Over half of the respondents felt that higher density development (up to the 50 parcel per quarter section) was acceptable; and
- There was strong support for the concept of “developer” pay, with 70% responding that they agreed with this concept.

The major conclusions to be drawn from the responses provided were that residents within the plan area value their rural lifestyle and that conserving environmental features is a priority.

2008

An additional open house was held on May 12, 2008. The intent of the May 12, 2008 open house was to attain public feedback on the Twelve Themes of Sustainability and how the Themes could be incorporated within the draft CR ACP.

2010

The Province announced the creation of the Capital Region Board, in the Spring of 2008. A regional plan was to be developed. As a result work on the CR-ACP was postponed until the CRB Plan was completed. The plan received ministerial approval in March 2010.

A public meeting was held on March 24, 2010 to provide an update on the CR-ACP and April 21, 2010, a second public meeting was held to present the draft document to the public.

2011 – May

An open house and presentation was held on May 18th, 2011 to present the overall policy direction of the Area Concept Plan and to provide an opportunity for residents and other stakeholders to provide comments and feedback. Comments submitted by participants at the meeting included the following:

- increase density above 50 parcels per quarter for lands located within the Country Residential Policy Area east of Highway 21;
- allow for micro-agriculture uses to be allowed within the Country Residential area;

- allow for estate country residential sized parcels within the Country Residential Policy Area.

2011 - October

An open house and presentation was held on October 27, 2011 to provide an overview of the draft Country Residential Area Concept Plan. Verbal and written comments submitted by participants at the meeting included the following:

- increase density per quarter section within the Country Residential Policy Area;
- allow “themes” to be generated in conservation areas within each development;
- concern with the amount of land that the county could own from the large amount of reserve dedication resulting from conservation subdivision design.

CONSIDERATIONS AND SUPPORTING STUDIES

The CR-ACP was prepared with consideration of the following:

- Location (land use, soil conditions, regional influences, etc.);
- Federal and Provincial legislation including the Municipal Government Act;
- The Capital Region Growth Plan;
- Policy direction provided by the County’s Strategic Plan and MDP;
- Strathcona County Open Space and Recreation Facilities Strategy;
- The principles of sustainability and the Twelve Theme “lens” used to assess sustainability as outlined in the MDP;
- Public input; and
- Numerous studies including:
 - Transportation Study 2000, (Stantec, 2000);
 - Strathcona County Trails Master Plan, (Strathcona County, 1998);
 - Assessment of Environmental Sensitivity and Sustainability in Support of the Strathcona County MDP Review (Spencer Environmental, 2005);
 - Beaver Hills Initiative Land Management Framework – Final Report (Spencer Environmental, 2006);
 - Country Residential Area Concept Plan Development Potential Study (Strathcona County, 2010);
 - Strathcona County Water Servicing Study (Stantec, 2002);
 - Strathcona County Engineering Servicing Standards; and
 - Strathcona County Open Space Development Standards (2002).