

Introduction

It is important to provide Strathcona County residents and stakeholders with a safe environment in which to live, work and play. There is a need to ensure emergency and protective services are available for all areas of the County, as well as require neighbourhoods and infrastructure to be designed and developed to promote safety.

As Strathcona County continues to grow, the number of vehicles travelling on our roads will increase. The public has indicated their concerns with the increased traffic on our rural roads and the need for upgrades in order to aid in preventing collisions.

Strathcona County is policed by the Royal Canadian Mounted Police (RCMP). At the time of writing this Bylaw, the County detachment consists of 71 police officers and 11 special constables. There is one police detachment/station located within the Urban Service Area of Sherwood Park and an RCMP office located at Heartland Hall, in the northern part of the County. The RCMP are responsible for general duty, traffic services, crime investigations, community policing and victim services.

Strathcona County Emergency Services is responsible for, and involved in, fire suppression rescue response, dangerous goods response, emergency medical services at Advanced Life Support levels, fire investigation, fire inspection, public education, arson investigation, emergency preparedness and fire fighter recruitment and training. At the time of writing this Bylaw, the department consisted of 84 full time, 65 part time fire fighters and 15 public education officers. There are five fire stations located in Strathcona County (Sherwood Park (two), Heartland Hall, South Cooking Lake and Ardrossan).

The rural area is a highly desirable place to live as witnessed by the demand for acreage developments within the County. What makes the rural area so attractive, however, can also make it hazardous. While vegetation is an amenity for residents, it must also be recognized as a source of fuel for a fire.

In addition to the issues associated with wildfire, there are also a number of attractive areas within the County which contain flood plains, high water tables, steep terrain, unstable soils, etc. Lands that contain these types of natural hazards can pose a risk to persons and/or property if development occurs directly upon them. In order to minimize potential loss of life and damage to property the County has, and will continue to, direct development away from natural hazards.

Heavy industry, in particular the oil and gas industry, is an important component of Strathcona County's economy. The majority of heavy industrial facilities are located within Alberta's Industrial Heartland and in the "refinery row area" of the Sherwood Park Urban Service Area. Pipelines and oil and gas wells are located throughout the County. The Capital Region Growth Plan identifies the existing heavy industry within the Urban Service Area as a potential safety and risk management source and also provides buffer areas for Alberta's Industrial Heartland.

The Major Industrial Accident Council of Canada's (MIACC) standard for risk based land use planning has been established by the Capital Region Growth Plan as a requirement for buffering heavy industry from incompatible land uses. With the proximity of heavy industry to other non-industrial land uses, Strathcona County utilizes the MIACC criterion to maintain the safety of citizens and minimize impact on the community stakeholders. In order to address the ongoing safety of County residents, all future development shall follow the County's cumulative risk assessment. (Bylaw 42-2012)

Objectives

Strathcona County's safety (risk management) objectives are to:

- 1) Promote the development of a safe community in which to live, work and play;
- 2) Provide and maintain police and fire protection services in accordance with the growing and changing needs of the community;
- 3) Avoid and/or minimize potential land use conflicts with heavy industrial development; and
- 4) Maintain the air and water quality in Strathcona County.

Policies

General

Strathcona County will:

- 10.1 Encourage collaboration between municipalities, neighbourhoods, local groups and citizens in providing safer communities by:
 - a) Sharing information;
 - b) Encouraging the development and design of community based initiatives to prevent crime and devise strategies to address the root causes;
 - c) Encouraging a safe and secure environment through physical design, by supporting Crime Prevention Through Environmental Design (CPTED) principles, where possible in site development; and
 - d) Supporting voluntary and community-based service delivery as a means of complementing existing protective services; increasing interaction with the community; and improving overall community safety prevention through public education, victim services, rural crime watch, neighbourhood watch and other programs.
- 10.2 Work with provincial jurisdictions in providing adequate health care facilities and services for the community;
- 10.3 Encourage the expansion of air quality monitoring stations to all areas of the County;
- 10.4 Minimize the potential loss of life and damage to property by ensuring that development is directed away from natural hazard areas such as steep slopes, unstable soils, flood plains, and high water tables, except as noted in 8.6;
- 10.5 In those situations where development does occur, ensure geotechnical and/or biophysical assessments are completed when developing on hazard lands; and
- 10.6 Work with appropriate jurisdictions in providing improved safety, enforcement and education on the transportation systems.

Protective and Emergency Services

Strathcona County will:

- 10.7 Ensure emergency and protective services will provide new and existing development with appropriate levels of fire protection, ambulance services, and police protection;
- 10.8 Ensure that all municipally assigned civic addresses, streets, roads and subdivisions are 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;

- 10.9 Ensure that roadways and subdivisions are designed to accommodate ground access and air access emergency vehicles;
- 10.10 Ensure emergency service facilities are developed in accordance with provincial regulations;
- 10.11 Review, with the RCMP, opportunities to expand or enhance police presence in the rural areas; and
- 10.12 Work with emergency services in educating the public on fire safety and the protection of property in the case of fire.

FireSmart

Strathcona County will:

- 10.13 Encourage the implementation of FireSmart principles to aid in the prevention of loss, damage or injury due to wildfire;
- 10.14 Identify the wildland/urban interface;
- 10.15 Determine the level and nature of wildfire risk within the interface area(s) identified;
- 10.16 Plan accordingly, to minimize the risk of wildfire in the wildland/urban interface;
- 10.17 Gather and maintain as much information as possible concerning wildfire hazard in the wildland areas. Fire management shall be an integral component in planning for the wildland/urban interface;
- 10.18 Consider the risk of, or potential for, wildfire prior to decisions being made regarding land use allocation, subdivision or development;
- 10.19 Consider, in the absence of a wildfire hazard potential evaluation conducted by qualified persons, the following:
 - a) The occurrence of wildfires in the area, either recent or historical, and their size and extent;
 - b) The propensity for shrubs and grasses forming the understory of the vegetative community to regularly dry out and burn readily;
 - c) The presence of extensive native forests, woodlands or grasslands in the vegetative pattern of the area; and
 - d) The likelihood that aspect and slope will affect the behaviour of a wildfire and the extent to which existing development in the area has affected any established wildfire pattern.
- 10.20 Consider incorporating land use, subdivision and development regulations into our design documents that may be compatible with, or assist in lowering the risk of wildfire in high-risk areas;
- 10.21 In areas where wildfire risk is determined to be high, avoid land uses that may increase the potential for wildfires or which may be a problem for adjacent lands or fire fighting services if engaged in a fire;
- 10.22 In areas where wildfire risk is determined to be high, avoid land uses where human activity may be concentrated or where evacuation may be a major undertaking; and
- 10.23 In areas where wildfire risk is determined to be high, encourage land uses that serve to reduce wildfire risk, provide safe refuge during evacuation and/or supply water for fire suppression.

Industry

Strathcona County will:

- 10.24 Maintain and enhance the quality of life of citizens by providing for a buffer between heavy industrial development and other land uses. The purpose of Industrial Risk Management is to reduce the risks to public safety and minimize nuisance associated with heavy industrial development and to facilitate emergency management in the event of an industrial incident;
- 10.24a Ensure that any development shall meet or exceed MIACC criteria as determined through Strathcona County's cumulative risk assessment. **(Bylaw 42-2012)**
- 10.25 Maintain the quality of life of Strathcona County residents when reviewing statutory plans, (i.e. Municipal Development Plan, area structure plans, area redevelopment plans) or amendments to the Land Use Bylaw, subdivisions, or development proposals through consideration of the following factors, that include, but are not limited to:
- a) Compatibility with surrounding land uses;
 - b) Nuisance factors such as harmful or unpleasant external effects, including, but not limited to: noise, odor, fumes, light trespass, glare, vibration, smoke or emissions;
 - c) Visual appearance, including, but not limited to: landscaping, height restrictions or sign regulations;
 - d) Municipal, provincial and federal safety, risk and environmental assessment/review processes; and
 - e) Adequate separation distance between uses within and external to the district (e.g. buffering, screening and setbacks) to minimize the safety risk and nuisance effects.
- 10.26 Ensure safety, risk and environmental assessments are integral components of the industrial/energy development review process. A risk management approach that conforms to the County's cumulative risk assessment is to be utilized for establishing acceptable levels of risk; **(Bylaw 42-2012)**
- 10.26a Undertake a review of the County's cumulative risk assessment every five years to ensure that Strathcona County continues to provide a safe and appropriate land use distribution relative to heavy industry in accordance with MIACC standards. All non-heavy industry initiated applications that propose amendments to the County's risk based method shall be considered during this review. **(Bylaw 42-2012)**
- 10.27 Ensure heavy industry must not only meet minimum Industrial Risk standards, but continue to strive towards reducing the current risk standards which are:
- a) A one in 100,000 chance of an incident affecting an individual at a distance of 1.5 kilometres from the boundary of a Heavy Industrial site; and
 - b) A one in 1,000,000 chance of an incident affecting an individual at a distance of 3.0 kilometres from the boundary of a Heavy Industrial site.
- 10.28 Permit appropriate interim agricultural uses and limited outdoor storage uses to be located on undeveloped lands designated for heavy industrial uses, providing it will not preclude or infringe upon long term heavy industrial development;
- 10.29 Ensure that premature subdivision, land fragmentation or incompatible uses which may preclude the potential for future heavy industrial uses, not be allowed;

- 10.30 Ensure that safety, risk and environmental management issues associated with potential recreational and trail development within, or in proximity to, heavy industrial areas, pipeline/utility corridors, well sites and seismic operations be addressed to the satisfaction of the County, other regulatory agencies, and industry;
- 10.31 Not permit subdivision for residential purposes within Alberta's Industrial Heartland;
- 10.32 Encourage agri-business, business service, agricultural development, light and medium industrial, commercial, recreation or conservation uses to locate between lands designated for heavy industrial use and lands designated for residential and institutional uses, subject to the following considerations:
- a) Determination and management of the safety, risk and nuisance effects from heavy industrial uses;
 - b) Number of people to be assembled under the proposed use as large assemblies of people may present difficulties in the event of a requirement for in-place sheltering or evacuation;
 - c) Conformity with provincial guidelines respecting Transportation Utility Corridors and County requirements for pipeline/utility corridors;
 - d) Density of the adjacent residential and institutional development; and
 - e) The findings of an Industrial Risk Assessment.
- 10.33 In the Sherwood Park Urban Service Area, require permitted and discretionary land uses, as identified in the Land Use Bylaw, which are situated in the Heavy Industrial Transition Overlay (IH-O) to be restricted given health, safety and nuisance considerations through provisions of the Land Use Bylaw;
- 10.34 In the Urban Service Area, discourage large assemblies of people from locating within the first 1.5 kilometres of heavy industrial development;
- 10.35 Ensure redistricting in the Urban Service Area, which could result in an increased density or intensification of the following uses, is not permitted within the (IH-O) Heavy Industrial Transition Overlay as identified in the County's Land Use Bylaw. **(Bylaw 42-2012)**
- a) Residential uses;
 - b) Large indoor/outdoor assembly uses (e.g. stadiums, arenas or theatres) which cater to small children or the elderly;
 - c) uses which cater to temporarily or permanently confined, disabled or incapacitated people (e.g. hospitals, extended care or emergency response organizations);
 - d) Buildings which present difficulties in the event of evacuations (e.g. hotels or high rise office buildings); or
 - e) Uses which create the potential for large numbers of people to remain on site for long periods of time (e.g. schools, recreation facilities and shopping centres).
- 10.36 Where a parcel is bisected by the 0 – 1.5 km or 1.5 – 3.0 km boundary line of the IH-O Heavy Industrial Transition Overlay the uses and development regulations on each side of the boundary line shall follow the applicable provisions as described in the Land Use Bylaw. Minor variances to setback distances may be considered provided the proposed use remains located entirely within the portion of the subject parcel that permits the use. **(Bylaw 42-2012)**
- 10.37 Ensure adequate separation between pipelines, oil and gas wells and adjacent non-industrial land uses;
- 10.38 Support the use of the most appropriate pollution prevention and control technologies;

- 10.39 Encourage industries, industrial associations, provincial and federal governments to collaboratively expand the regional airshed monitoring system;
- 10.40 Ensure industry has programs in place to aid in reducing potential risk hazards; and
- 10.41 Continue to support safety and education programs such as the County's "Guide to Shelter-in-Place" or "Evacuation during an Environmental Emergency".

Partnerships

Strathcona County will:

- 10.42 Work with industry, federal, provincial and municipal governments in determining acceptable levels of risk and revise, where appropriate, land use standards for industrial and pipeline development;
- 10.43 Encourage federal and provincial authorities to widen the scope of notification and consultation for energy exploration initiatives;
- 10.44 Encourage and support protective service partnership initiatives with industry, business and other Alberta Capital Region municipalities;
- 10.45 Encourage and support emergency service partnership initiatives with the Fort Saskatchewan Regional Industrial Association and Strathcona Industrial Association;
- 10.46 Encourage initiatives and partnerships with industry, businesses, municipal, provincial and federal governments, relative to local and regional emergency services training and education programs;
- 10.47 Encourage initiatives and partnerships with industry to develop standards for hazard mitigation; and
- 10.48 Acknowledge that both the City of Edmonton and Strathcona County view risk reciprocally, irrespective of boundaries and that there is a need to ensure adequate separation and transition between incompatible uses utilizing the principles of Industrial Risk Management relative to the MIACC (Major Industrial Accidents Council of Canada) guidelines.