

### Introduction

Strathcona County is valued for its natural beauty and quality of life. The County supports cooperative efforts to ensure the quality of water, land, air and natural resources found within the region are maintained and enhanced.

A large portion of Strathcona County lies within the boundaries of the Beaver Hills Moraine. The moraine covers approximately one-half of the County and supports a variety of significant and sensitive environmental features. There is an acknowledged desire to protect this important natural area, taking into consideration the sustainability principles and themes, which balance the environment with the social and economic needs of the community.

The North Saskatchewan River Valley is also a significant natural habitat and serves as a linkage/corridor for wildlife. Connectivity between the North Saskatchewan River Valley and the Beaver Hills Moraine is important and will be maintained through the conservation and/or restoration of the riparian corridors adjacent to the watercourses flowing out of and between the North Saskatchewan River Valley and the rest of the County.

As rural and urban residential development continues, the potential impact on environmentally significant and/or sensitive areas also increases. There is a need to acknowledge and conserve these areas as the community continues to grow and evolve. As development pressures increase in the County, environmental considerations will be kept in balance with economic and social considerations.

### Objectives

Strathcona County's environmental management objectives are to:

- 1) Minimize the impact of human activity and development on the natural environment;
- 2) Sustain and where necessary, improve upon the quality of water, land, air and natural resources within the County;
- 3) Increase community awareness regarding the impact of activity on the natural environment;
- 4) Promote environmentally friendly programs such as recycling and composting; and
- 5) Encourage the use of conservation easements and other tools to protect the environment.

### Policies

#### General

Strathcona County will:

8.1 Identify the following Priority Environment Management Areas (PEMA):

- a) High Priority Environment Management Area;
- b) Medium Priority Environment Management Area; and
- c) Low Priority Environment Management Area.

8.2 With respect to areas identified as High Priority Environment Management Area:

- a) Protect the most significant natural features such as the North Saskatchewan River Valley and lakes, through the use of environmental and municipal reserves;
- b) Protect rare and sensitive flora, fauna or habitat;

- c) Protect areas prone to flooding, erosion, soil instability and other potential hazards;
  - d) Create a larger network of habitat corridors;
  - e) Create buffers around unique habitats;
  - f) Restrict the filling in and alteration of wetlands; and
  - g) Require a biophysical assessment, geotechnical assessment and/or environmental impact assessment prior to subdivision or development, as determined by the Development Authority.
- 8.3 Create development guidelines to protect areas identified as Medium Priority Environment Management Areas, through the use of tools such as reserves as identified by the Municipal Government Act and conservation easements in accordance with the underlying land use;
- 8.4 Encourage the conservation, protection and restoration of areas identified as Low Priority Environment Management Areas through the use of conservation easements and educational programs;
- 8.5 Ensure new developments are designed to conserve High and Medium Priority Environment Management Areas in both the urban and rural areas by:
- a) Preventing the development of permanent residential structures within the 1:100 year flood plain;
  - b) Supporting the registration of conservation easements; and
  - c) Introducing conservation subdivision design criteria.
- 8.6 Ensure no development is allowed on hazard lands except for extensive agricultural uses, passive recreational uses, or interim resource extraction, approved on a site by site basis;
- 8.7 Ensure that areas prone to flooding, shoreline erosion or slope instability hazards, are limited in the types of land uses and developments that may be allowed. Uses and developments must be consistent with the nature of the hazard and not cause an increase in the degree of hazard;
- 8.8 Ensure that no permanent structures are allowed within the 1:100 year flood plain of Strathcona County's rivers, streams, lakes and natural watercourses. Consideration may be given to non-residential developments, such as boat houses, proposed in the 1:100 year flood plain, subject to appropriate flood proofing and the proponent demonstrating to the municipality's satisfaction, the precise boundary of the flood plain;
- 8.9 Require the proponent of a development on hazard lands to provide a geotechnical assessment conducted by a professional engineer for proposed development on slopes; and demonstrate to the municipality's satisfaction that flood hazard areas are defined; safe building elevations are identified; and the potential for flood damage or erosion to existing or new developments is mitigated or eliminated;
- 8.10 Develop an educational program for Strathcona County residents and industry to raise awareness about environmental issues and promote actions or initiatives that work toward creating a more environmentally responsible community;
- 8.11 Encourage the rehabilitation and restoration of disturbed natural areas;
- 8.12 Identify, conserve and protect to the greatest extent possible, environmentally sensitive lands such as the North Saskatchewan River Valley, the Beaver Hills Moraine and all water bodies;

- 8.13 Assess the type, density, and size of recreation/tourism developments permitted within the Beaver Hills Moraine Policy Area and ensure they are appropriate to the environment in which they are situated;
- 8.14 Encourage and facilitate complementary industrial development in Alberta's Industrial Heartland area, that will maintain or enhance the quality of air, water and land resources;
- 8.15 Require country residential lots within the Country Residential Policy Area, to connect to municipal water and sewer systems;
- 8.16 Promote and enhance recycling practices and programs by:
  - a) Exploring the viability of introducing blue bin "curb side" recycling programs in the urban service area; and
  - b) Supporting the expansion of recycling depots in both urban and rural areas.
- 8.17 Establish and maintain environmental standards with respect to municipal infrastructure and services pertaining to waste management, as well as weed and pest control.

## **Water**

Strathcona County will:

- 8.18 Ensure no development is permitted adjacent to the North Saskatchewan River Valley, lakes or other watercourses which would:
  - a) Reduce water quality or impede the flow of water;
  - b) Lead to soil erosion or shoreline damage;
  - c) Adversely affect the natural amenity;
  - d) Adversely affect appropriate recreational potential;
  - e) Restrict access to the water unless safety factors dictate otherwise;
  - f) Adversely impact the visual quality of the natural amenity;
  - g) Adversely affect fish and wildlife habitat; or
  - h) Increase the quantity of flow or decrease water retention.
- 8.19 Create development guidelines to protect lands and riparian corridors adjacent to watercourses and water bodies;
- 8.20 Ensure development on parcels where wetlands, water bodies and/or watercourses are located within or adjacent to the subject property, are developed in accordance with Strathcona County's "Wetland Policy" by ensuring:
  - a) Wetlands/low areas are not filled in, drained or altered to accommodate development, except where sanctioned by the Approving Authority;
  - b) A professional biophysical and/or geotechnical assessment is completed and confirms that there are no environmental issues and the potential for hazards such as flooding or instability of land are eliminated;
  - c) Sufficient setbacks are identified and incorporated into the site design; and
  - d) Mitigative measures such as replanting and naturalization are incorporated into the site design.

- 8.21 Protect watersheds to maintain the water quality and quantity of surface and ground water systems;
- 8.22 Develop educational programs that promote the reduced use of potable water and wetland damage prevention;
- 8.23 Work with appropriate jurisdictions to identify existing and potential issues in surface water and shoreline areas, and to develop solutions that serve to either mitigate or eliminate these issues. In these areas, the types of land uses and developments which may be permitted will be limited to those which will not have a negative effect on the resource;
- 8.24 Ensure lands classified as environmental reserve as defined by the Municipal Government Act, are identified and protected as such;
- 8.25 Maintain a buffer to protect lands and water resources adjacent to watercourses for:
  - a) The North Saskatchewan River, a minimum 50 metre (164 feet) buffer from the top of bank must be maintained. No buildings or structures will be allowed within the minimum setback requirement, except under unique and appropriate circumstances as determined by the Approving Authority;
  - b) Old Man Creek and its tributaries, a minimum 36 metre (118 feet) buffer from the top of bank must be maintained for properties within the North of Yellowhead Area Concept Plan (See Bylaw #51-2003, as amended). No buildings or structures will be allowed within the minimum setback requirement, except under unique and appropriate circumstances as determined by the Approving Authority; and
  - c) All other lakes, waterbodies and watercourses, a minimum 30 metre (98 feet) buffer from the top of bank must be maintained. No buildings or structures will be allowed within the minimum setback requirement, except under unique and appropriate circumstances as determined by the Approving Authority.

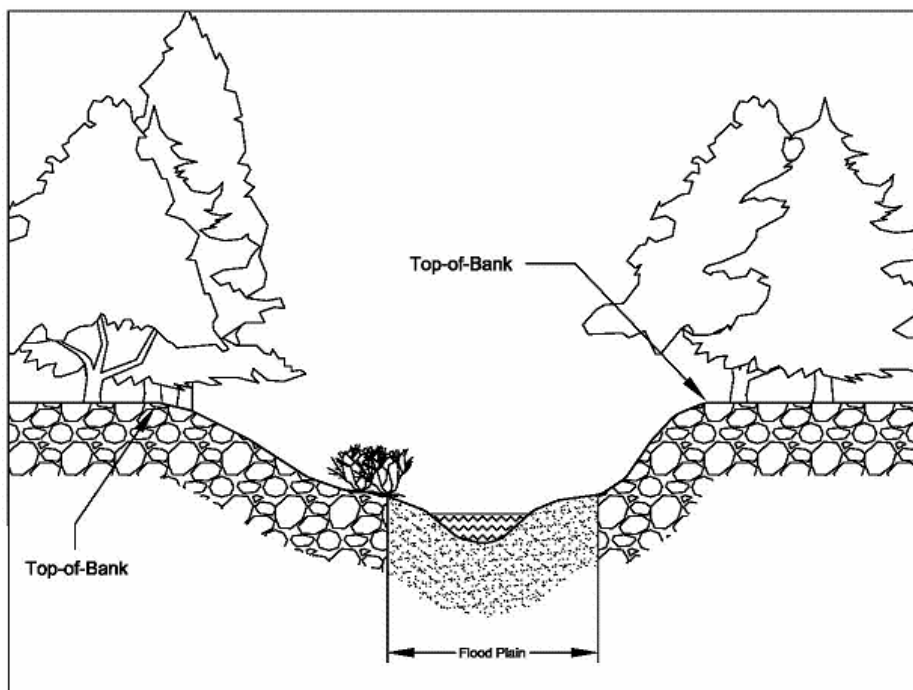


Figure 29: Top-of-Bank Diagram.

- 8.26 Work with the appropriate jurisdictions to establish an ongoing groundwater monitoring and comprehensive water testing program to protect and maintain groundwater quality and quantity;
- 8.27 Protect lands where sensitive groundwater resources have been identified, through environmental protection instruments and policies;
- 8.28 Ensure that where there is no defined bed and shore, a biophysical assessment is conducted by qualified professionals to determine top of bank; and
- 8.29 Ensure developments affecting water resources (e.g. sanctioned drainage and filling of wetlands or water bodies), is prohibited from April 15 – September 1.

## Land

Strathcona County will:

- 8.30 Promote higher densities and more compact developments in appropriate locations to lessen encroachment onto agricultural lands/natural habitat and to reduce sprawl;
- 8.31 Educate the public about alternative forms of landscaping which minimize the use of pesticides and herbicides and reduce water consumption by supporting the development of ecoscape (xeriscape) yards by utilizing native plants in the landscape;



Figure 30: Example of ecoscaping.

- 8.32 Encourage land uses and forms of development that conserve natural habitat;
- 8.33 Support the implementation of the Legacy Lands Policy to:
  - a) Acquire lands of historical, cultural and environmental significance to the community; and
  - b) Provide access to significant natural and heritage lands.
- 8.34 Discourage further clearing or development in areas where native vegetation is important for soil conservation, water resource protection or wildlife habitat, unless it is demonstrated to the County's satisfaction, that these resources will not be negatively affected;

- 8.35 Develop a County policy for the requirement of tree retention and tree planting programs in appropriate locations;
- 8.36 Ensure extensive predevelopment clearing of tree stands be regulated through the Land Use Bylaw;
- 8.37 Ensure areas with significant environmental features which are proposed for future urban growth, hamlet or country residential development, are protected through the provisions of an area structure plan, area redevelopment plan, conceptual scheme, a Land Use Bylaw designation or conservation easement;
- 8.38 Ensure tree clearing is prohibited during the critical wildlife nesting periods of April 15 to July 31;
- 8.39 Ensure the public is notified of the issuance of discretionary development permits for tree clearing prior to commencement, once approved by a development agreement or development permit; and
- 8.40 As a condition of subdivision or development approval, require the protection of treed areas through reserve dedication and easements. Additional areas may be protected through conservation agreements, conservation lots and land trusts.

#### **Air**

Strathcona County will:

- 8.41 Work with those agencies having jurisdiction, to assist in identifying existing and potential air quality concerns and to mitigate or eliminate these issues;
- 8.42 Aid in the reduction of greenhouse gas emissions by:
  - a) Reducing the need for motorized transport through integrated planning and the promotion of compact urban form and mixed land uses;
  - b) Providing alternatives to single occupant vehicle use;
  - c) Encouraging energy efficiency in subdivision and building designs; and
  - d) Providing education, regarding energy efficient alternatives in development.
- 8.43 Encourage industrial associations, the federal government and the provincial government to collaboratively expand and implement a regional airshed monitoring system; and
- 8.44 Support the development of green infrastructure to reduce air pollution.