



# Environmental Sustainability Action Plan

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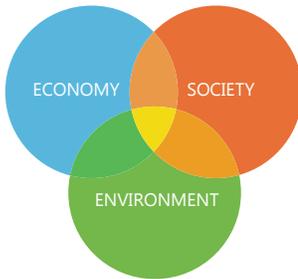
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*MAYOR'S TASK FORCE ON THE ENVIRONMENT*

## section 1: background

### AN EVOLVING APPROACH



Integrated Model  
of Sustainability

Spruce Grove is at a crossroads in its development. Recent years have seen high rates of growth and substantial change in the community. The city is evolving from a small town dependent on Edmonton into a well-serviced regional hub with a high quality of life. As Spruce Grove changes and factors such as climate change and globalization play an increasing role in local development, the City's approach to environmental action and community sustainability also must change.

An important step in this regard was the adoption of the City's new Municipal Development Plan *Your Bright Future* in July 2010. This plan provides a three-pronged community-sustainability based vision and policy framework to guide future growth and change in Spruce Grove.

With this overarching framework in place, the Mayor's Task Force on the Environment was initiated to provide focus to the environmental sustainability component. Its work complements strategic planning efforts underway for community services and economic development. It also reinforces the importance council places on the environment through its 2011-2013 Strategic Plan goal 'Embracing Environmental Stewardship'.

### ABOUT THE TASK FORCE

The Mayor's Task Force on the Environment took a critical look at the history and future direction of the City's environmental sustainability approach. The Task Force has two deliverables:

1. the City of Spruce Grove Environmental Sustainability Action Plan, and;
2. a detailed project report.

The Task Force was chaired by the Mayor and had three public members, two youth members and one alderman. All public members were volunteers. Meetings were held on a regular basis as project milestones were achieved (seven total).

More than 750 people were engaged in the Task Force process through a variety of initiatives including surveys, open houses, school projects and the Task Force website. Also part of this process was a review of past programs.



## section 2: the way forward

### APPROACH

The Environmental Sustainability Action Plan identifies priority areas, goals and strategies to direct the City's environmental sustainability approach from 2011 to 2021. The priority areas are:

- Land use and natural areas;
- Transportation;
- Waste;
- Water, and;
- Energy.

Reducing greenhouse gas emissions was identified by the Task Force as an overarching objective. This will be addressed through complementary strategies pursued in the five priority areas. In most cases, strategies used to achieve progress in the five priority areas will have the ability to lower greenhouse gas emissions.

The short-term strategies will be completed within three to five years (2014 to 2016). Many of these strategies focus on developing policy and/or strategic planning documents for a particular priority area (e.g. waste management strategy update, transit business plan). The outcomes of these documents will then form the basis of the work for the second half of the Environmental Sustainability Action Plan's timeframe. Specific strategies for this period will be incorporated as part of a mid-process review in 2016.

In addition to the short-term strategies, a number of other strategies were identified in the Task Force process. These are loosely grouped together and include more general on-going and long-term strategies.

Measuring progress and evaluating the success of past strategies will be essential in moving forward. The primary mechanism for this will be the complete set of community sustainability indicators being developed as part of the implementation plan for *Your Bright Future*. As part of this process targets and indicators supporting the goals in the Environmental Sustainability Action Plan will be developed. Baseline data and targets will be presented to council and the public in late 2011 and reported against on an annual basis.

After targets are set for each of the priority areas, comprehensive public education programs linked to these targets need to be developed. The importance of communication and community engagement was a major theme during the Task Force process. The outcomes of this discussion are captured in the Task Force report.



## VISION AND GUIDING PRINCIPLES

The Vision and Guiding Principles for Spruce Grove's Environmental Sustainability Action Plan will provide the foundation for all future City environmental initiatives and programs.

### *Vision for Environmental Sustainability in Spruce Grove*

We value the natural environment as our economic and community foundation. We will do this by:

- protecting and enhancing our natural areas, green space and biodiversity;
- living within the capacity of our natural resources of air, land, water and energy, and;
- leading by example through stewardship and a creative approach.

### *Guiding principles*

- Make decisions, conduct operations, and evaluate programs and initiatives against the environmental sustainability vision and direction set in *Your Bright Future*.
- Show corporate leadership and effectively manage and integrate information.
- Focus resources in the areas where the City can make the most impact:
  - ~ Land use and natural areas;
  - ~ Transportation;
  - ~ Waste;
  - ~ Water, and;
  - ~ Energy.
- Engage community members on an on-going basis.
- Develop formal and informal partnerships to respond to issues.
- Move forward with a sense of urgency and remain accountable to community members on progress.





## PRIORITY AREA #1 – LAND USE AND NATURAL AREAS

The way land is used, including what lands are set aside for natural areas, is determined through the land use planning process. This process involves community members in articulating a vision for the community and making decisions about how to respond to growth, development and change. The City has considerable powers and ability in this area to incorporate environmental sustainability into its land use planning processes.

### *Development Patterns*

#### **GOAL**

Identifying specific goals related to development patterns is outside the scope of the Task Force. A number of relevant goals in this area are articulated in *Your Bright Future*. The short-term strategies and on-going/long-term strategies identified for this section also are incorporated in principle in *Your Bright Future*.

#### Short-term strategies

- As part of review of the Land Use Bylaw and Engineering Standards, create a regulatory framework that supports and encourages innovations in
  - ~ neighbourhood design;
  - ~ green building practices and infrastructure, and;
  - ~ alternative modes of transportation.

#### On-going/long-term strategies

- Promote compact growth and increased density by implementing *Your Bright Future*.

### *Natural Areas*

Identifying and protecting natural areas and other open spaces is an essential component of land use planning. Providing access to green space connects community members to their natural environment. Survey questions addressing natural areas and green space/parks indicated very strong support for the City's role in this area.



**GOAL 1**

Protect sustainable natural areas.

**Short-term strategies**

- Develop a policy that defines natural and/or ecological values, the benefits of protecting sustainable natural areas, and the City's role and commitment to protecting and affirming the status of these areas. Include the scope of protection and the range of tools that should be utilized.
- Conduct a natural areas assessment that includes, but is not limited to:
  - ~ forest stands and water features;
  - ~ biodiversity;
  - ~ habitat;
  - ~ soil conditions, and;
  - ~ current management practices.

**Other strategies**

- Develop policies around:
  - ~ managing visitors and educating the public about considerate use and ways to reduce undesirable impacts, and;
  - ~ applying low impact maintenance practices in areas where protecting the natural ecological value is the primary goal.

**GOAL 2**

Provide residents access to green space.

**Short-term strategies**

- Conduct a survey to determine current barriers/perceived barriers to accessing open space.
- Develop policy and related management tools to encourage people to access green space. Include:
  - ~ a plan for the relationship between parks and people;
  - ~ support for appropriate public gatherings, and;
  - ~ actions to better enhance the user experience and reduce the abuse of parks.
- Develop an implementation plan for strategies contained in the Leisure Services Study that relate to park and open space programming.



### Other strategies

- Promote the development of an integrated open space network through the implementation of *Your Bright Future* and the Parks and Open Space Master Plan.
- Develop a strategy to monitor demographics and build flexibility into operating practices to adapt to the changing nature of the community.
- Promote green spaces to non-users in a way that builds on the findings of the 'barriers to access' survey.



## PRIORITY AREA #2 – TRANSPORTATION

Part of the role of municipalities is to provide transportation options to their residents. While North American lifestyle and development patterns traditionally favoured the use of personal automobiles, increasingly community members are demanding more options. Part of this relates to the process of Spruce Grove 'growing up' as a community, while another part relates to an increased awareness about the environmental and health benefits of other forms of transportation. The City can make an impact in this area through its development patterns, level of transit service, ability of residents to get around by biking/walking and creative thinking.

### *Alternative Transportation*

Alternative transportation typically refers to forms of transportation that provide an alternative to travelling alone in a personal vehicle. Some options relevant to Spruce Grove include public transit (discussed in next section), carpooling and biking/walking.

### **GOAL 3**

Increase the appeal, awareness and availability of alternative transportation.

#### Short-term strategies

- Develop strategies for increasing alternative transportation opportunities as part of the Transportation Master Plan review. Consider opportunities for and linkages between:
  - ~ biking and walking;
  - ~ carpooling, and;
  - ~ transit.



- Explore ideas to facilitate ride sharing including:
  - ~ park and ride lots;
  - ~ education/awareness, and;
  - ~ carpooling.

#### Other strategies

- Promote active transportation (e.g. biking, walking) by:
  - ~ raising awareness about active transportation opportunities (opposed to focus on recreation);
  - ~ considering dedicated bike lanes where appropriate;
  - ~ creating an effective network to move safely and efficiently from one area of the community to another;
  - ~ considering trail connections with Stony Plain, and;
  - ~ working with local schools/school boards and employers.

### *Public Transit*

While considered a form of alternative transportation, public transit is discussed on its own due to the significant input received in this area. In general, input placed high value on public transit and provided suggestions on how to improve the service. The City currently offers limited peak local/commuter service and does not provide any form of student discount. Through its involvement with the Capital Region Board, Spruce Grove helped develop the Capital Region Intermunicipal Transit Network Plan and is now working towards its implementation.

#### **GOAL 4**

Increase public transit ridership and service levels.

#### Short-term strategies

Develop a long-term business plan for transit service.

As part of the business plan consider:

- service levels;
- U-Pass participation and options for student service;
- management/operations structure, and;
- partnership and grant opportunities.



#### Other strategies

- Expand transit service and increase ridership by:
  - ~ providing better service levels overall including outside peak-hour commuter service;
  - ~ adding more buses during peak times;
  - ~ exploring options for additional stops in Edmonton and a route to Stony Plain;
  - ~ increasing awareness about the service, and;
  - ~ increasing accessibility and affordability of transit.
- Work with other municipalities in the capital region to provide transit service that meets user needs



## PRIORITY AREA #3 – WASTE

Waste management is another area where the City can have a significant impact. This is particularly true with respect to residential waste. Waste management programs received high levels of support in the public input results. This service is highly visible and valued by the community. With the exception of its Concrete and Asphalt Recycling Program, the City's programs are focused on residential service. The City is actively involved in the Capital Region Waste Minimization Advisory Committee.

### *Residential Waste*

The City currently provides curbside pick-up service to most households in Spruce Grove. This service includes year-round bi-weekly recycling April to November, composting, one large item pick-up in the spring and a Christmas tree pick-up in January. Multi-family residences are excluded from curbside pick-up, but present an opportunity for future expansion of city services. The City also offers expanded recycling services for residents at the Eco Centre including electronic and household hazardous waste. Residents of multi-family buildings have the option to take their recyclables and compost material to the Eco Centre.

### **GOAL 5**

Reduce amount of residential waste going to landfill.



#### Short-term strategies

- Revise the City's Waste Management Strategy in advance of the next waste contract. This process should:
  - ~ include an audit of the waste stream and program participation;
  - ~ consider a range of strategies and service levels;
  - ~ explore service options for multi-family and commercial buildings, and;
  - ~ implement a 'take-it-or-leave-it' initiative in advance of the large item pick-up.

#### Other strategies

- Collaborate with schools and community groups on initiatives.
- Install more combined garbage/recycling bins in public areas (e.g. parks, trails, streets).

### *Non-residential Waste*

Non-residential waste (i.e. Construction and Demolition, C&D, and the Institutional, Commercial, and Industrial, ICI, waste sectors) presents unique challenges for waste management. As Spruce Grove does not operate a landfill or service to these sectors, it is difficult to determine the amount of C&D and ICI waste generated. The complexity of the C&D and ICI waste sectors requires regional cooperation and appropriate provincial legislation in order to make true progress.

#### **GOAL 6**

Reduce the amount of non-residential waste going to landfill.

#### Short-term strategies

- Continue to work with other municipalities in the capital region.
- Explore options to get reliable data for the non-residential sector.

#### Other strategies

- Collaborate with schools, businesses and community groups.





## PRIORITY AREA #4 - WATER

Municipalities play an important role in protecting water resources. One area Spruce Grove can have a major impact is in managing surface water within the community. Another area is in promoting water conservation. Managing water resources is an area the City increasingly has focused on over the past decade. As it is anticipated climate change will impact water resources in the region, this area will continue to be top of mind for policy makers in the years ahead. Appropriately managing water resources will be a central component in the City's approach to adaptation.

### *Watershed Management*

Spruce Grove is part of the Big Lake Watershed sub-basin. The dominant natural water features in the community are Atim Creek, Dog Creek and several natural and artificial wetlands. As water flows through Spruce Grove, the City has an obligation to preserve water quality/quantity for the areas downstream, as well as accommodate flooding. This is achieved through the City's storm water management program, which is linked closely with the development approval process. The City does not currently monitor water quality (responsibility of the Province).

### **GOAL 7**

Maintain quality of the local watershed.

Short-term strategies

- Continue to implement an erosion and sediment control program.
- Continue to participate in regional watershed management initiatives.

Other strategies

- Increase awareness about stormwater and related facilities. Include what the City does and what residents can do to protect water quality.
- Integrate watershed planning best practices into land use and engineering standards where appropriate.



## Water Conservation

Reducing water consumption is an important goal for the City. Not only does this have environmental benefits, it also has financial benefits as lower consumption rates enable the City as the utility provider to delay expensive infrastructure investments and upgrades. The City offers incentive programs to encourage people to switch to more efficient appliances and/or reduce their outdoor water use. Increased water efficiency for households and business can lead to significant savings in utility costs.

### GOAL 8

Reduce water consumption.

Short-term strategies

- Develop a water conservation strategy linked to aggressive water conservation targets and an integrated water conservation program. As part of this process consider:
  - ~ pricing tools;
  - ~ incentives programs;
  - ~ partnership opportunities;
  - ~ education;
  - ~ infrastructure management, and;
  - ~ low impact development (LID) best practices;
- Encourage efficient appliances and fixtures through education, legislation and incentives.

Other strategies

- Work with the Province and appropriate partners (e.g. AUMA) to:
  - ~ meet conservation objectives through plumbing code revisions, and;
  - ~ consider gray water use.
- Minimize leaks and unmetered water loss.





## PRIORITY AREA #5 – ENERGY

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### *Energy Use*

Although the City is not the utility provider for energy (unlike water), it still has a role to play in reducing energy use in the community. While the City has made a few significant steps in this direction as a corporation, past efforts targeted at the broader community were limited. A number of opportunities exist in this area with options ranging from basic education to incentives to changes in land use and building patterns. For community members, reducing energy use not only has environmental benefits, but it can result in significant cost savings on utility bills.

#### **GOAL 9**

Reduce energy use in the community.

##### Short-term strategies

- Actively promote participation in major awareness events such as Earth Hour.
- Gain a better understanding of options for street lighting.
- Encourage efficient appliances and fixtures through education, legislation and incentives. Possibilities include:
  - ~ on-demand hot water heaters;
  - ~ light bulb replacements;
  - ~ furnaces;
  - ~ energy conservation improvements/renovations, and;
  - ~ programmable thermostats.

##### Other strategies

- Work with the local energy provider to increase street lighting efficiency.
- Provide a supportive regulatory framework for community members wanting to generate electricity on-site/feed the electrical grid (e.g. solar panels, small wind turbines).
- Work with the Province and appropriate partners (e.g. AUMA) to meet energy conservation objectives through building code revisions.



## section 3: final recommendations

In addition to the above strategies and goals to achieve the vision for Spruce Grove's Environmental Sustainability Action Plan, the Task Force made a number of recommendations.

1. The City of Spruce Grove through its political leaders, administration and employees show leadership as a corporation. An important first step is to develop a City of Spruce Grove Corporate Environmental Sustainability Strategy, which addresses:
  - barriers to 'buy-in';
  - what the City is doing now in the five priority areas/what it is not doing;
  - strategies to connect with staff;
  - quick wins and other long-term opportunities;
  - opportunities for recognizing environmental leadership;
  - information management, and;
  - on-going monitoring and reporting.
2. Focus resources on the 20 per cent of programs that have 80 per cent of the impact. Five priority areas were identified through this process:
  - Land use and natural areas;
  - Transportation;
  - Waste;
  - Water, and;
  - Energy.
3. Increase the focus on reducing greenhouse gases by making progress on the five priority areas. Review and update the targets adopted in the Partners for Climate Protection Proclamation in 2003 within three to five years (2014 to 2016).
4. Implement the Short-term strategies over the next three to five years. Incorporate the other strategies where appropriate. Directly link these strategies with the annual corporate planning and public budgetary process to ensure they are adequately resourced.



5. Identify a set of environmental indicators that will provide an effective means to measure progress in this area. Compile baseline data and set targets which directly link to the goals in the Environmental Sustainability Action Plan. Incorporate this into the broader community sustainability indicators project to be completed by the end of 2011.
6. Conduct a full review of the Environmental Sustainability Action Plan in 2016 to evaluate progress and identify priority strategies for the second half of its timeframe (2017-2021).
7. Link annual reporting on the progress in the Environmental Sustainability Action Plan with the monitoring and reporting process being developed as part of the broader community sustainability indicators project.
8. Develop comprehensive public engagement programs for each of the five priority areas over the next three to five years. As part of this:
  - link these programs with targets;
  - make key messages resonate with the target audience, and;
  - use a range of strategies to engage citizens.
9. Develop strategic formal and informal partnerships to achieve environmental sustainability goals and develop and implement programs and initiatives. Opportunities exist with citizens, schools, businesses, community groups/non-profits, and other communities and other levels of government. Where appropriate and subject to council approval of a supporting program, facilitate the creation of local grassroots groups.
10. Keep setting new goals and moving forward and never give up on the environment which sustains us. Implement well-thought out programs/ initiatives and then maintain, monitor and evolve them. Include relevant community members in monitoring progress.

