



AirdrieONE Sustainability Plan

This made-in-Airdrie plan is specifically designed by and for Airdrie citizens and community leaders.

AirdrieONE Sustainability Plan

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A shared vision

developed by citizens and community leaders

A set of guiding principles

for sustainability

Goals, objectives and strategies

to guide our actions over the next 5 to 10 years

A shared vision

developed by citizens and community leaders

Airdrie is a vibrant, caring community rich in urban amenities and opportunities for everyone. We value a healthy, sustainable environment connecting people and places.

Community voices said:

- Retain Airdrie's small town feel
- Airdrie is growing too fast. There doesn't seem to be a plan
- Need open dialogue. Communicate how our input will be used
- Communicate more about how the City Council process works
- Create neighbourhoods that are walk-able – all year long
- Need a stronger downtown. Should be a focal point and gathering place
- Provide a variety of housing options. Make them look better. Too much sameness.
- Water is our biggest issue
- Protect Nose Creek
- Provide easy access to health and medical facilities (better still – provide a hospital)
- Continue to provide high quality recreational facilities
- Preserve more natural areas and green spaces
- Green space needs to be a priority for the city. Don't just rely on the development community
- Provide more parks and pathways (and make them connect better)
- Make it easier for seniors to get around
- Develop an art & culture centre; incorporate the library
- Provide curbside recycling
- Build schools at the same time as the neighbourhoods are being built
- Airdrie needs more gathering spaces and community facilities (informal space for non-profits and community-based organizations)

Community involvement and consultation

2007: an extensive planning and consultation process that began when the City of Airdrie Council initiated the process to develop an Integrated Community Sustainability Plan (ICSP).

2008: In February, the City initiated Envision Airdrie, a public engagement process with many opportunities for residents, businesses and others to discuss what they wanted Airdrie to become.

2008: In April, a Community Advisory Committee (CAC) was formed to help guide the development of the sustainability plan. Between April and August 2008, community visioning initiatives collected input using the following questions:

1. What do you value about Airdrie?
2. What is it like for you to live here?
3. What changes would you most like to see?
4. What are your hopes and dreams for Airdrie in 100 years?
5. How could you help make this happen?

2010: In January, additional consultation was conducted including a resident survey and Community Cafes were held in February.

Council involvement and direction

2010: In March, an interim Integrated Community Sustainability Plan (ICSP) was endorsed by Council. In June, a series of focus groups were conducted to review the ICSP.

During this time, the AirdrieONE Steering Committee proposed incorporating the City's municipal development plan into the ICSP to develop a comprehensive and integrated plan. Several versions of the document were prepared and reviewed through the Steering Committee. The decision to continue with a consolidated plan was reversed in March 2011. The plan was becoming very lengthy and the level of detail required for a municipal development plan was overwhelming the elements of the ICSP that the public had contributed to.

As a result of further consultation, the plan was significantly revised and now constitutes the AirdrieONE Sustainability Plan. The revised municipal development plan is being developed as a separate, but strongly aligned document.

2011: In September, the City undertook additional consultation to help finalize the plan. This included presentations to various Advisory Committees, the Municipal Planning Commission and Council. The city also conducted another community survey to identify priorities for the AirdrieONE Plan.

Detailed results of the visioning exercise and subsequent surveys and Community Cafes are available on the AirdrieONE web site: www.airdrieone.ca.

A set of guiding principles for sustainability

In addition to the vision, this plan:

- is a high level overarching document that guides the community into the future. It is a strategic-level plan for the city that identifies sustainability goals, objectives, actions and measures.
- informs the City's strategic planning and business-planning functions including the City's priority setting and future investment decisions as the City moves towards a more sustainable future.
- provides guidance for the updating and alignment of key planning documents, such as the Great Places Plan, Airdrie City Plan (the MDP) and the Land Use Bylaw. It reflects the vision statement, guiding principles and priorities that were developed through community input and adopted by Council.
- sets the stage for community-based initiatives. It can be an onerous task for communities to develop sustainability strategies from scratch. This plan provides the vision, goals, objectives and background material for developing on-the-ground projects. The city will also help build community capacity in sustainability by providing resources, outreach and support through the sustainability program.

Council adopted the following principles to guide the direction and development of AirdrieONE.

1. Well managed growth
2. Whole communities
3. Fiscal balance
4. Environmental stewardship and sustainability
5. Inter-municipal cooperation
6. Walk-able neighbourhoods
7. Distinctive, attractive communities with a strong sense of people and place
8. Variety of transportation choices

Accountability

Accountability and responsibility are essential to making Airdrie more sustainable. The decisions made by City Council, businesses, community groups; the development community and individuals will affect the sustainability of the city over time. Key roles for implementing this Plan will be played by four leaders:

- **The City Manager** who will ensure that sustainability is built into the City's business planning process, procurement policies, operational standards, and staff-level accountabilities;
- **The Mayor** who plays a critical role in representing Airdrie for its citizens and to other levels of government and provides overall leadership for sustainability;
- **The Chairpersons of the City's Advisory Committees and the Municipal Planning Commission:** the people in these roles play a significant role in ensuring that sustainability is incorporated in the on-going discussions and deliberations on matters affecting Airdrie;
- **The Community Leaders.** Community leaders sometimes hold formal positions, but very often leadership is demonstrated by individual concerned citizens who choose to demand more of their community and themselves and choose to demonstrate a commitment to sustainability through personal actions and by advocating to the municipal Council for change.

Goals, objectives and strategies

to guide our actions over the next 5 to 10 years

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Economic Prosperity



Modern, innovative and welcoming, Airdrie is an emerging city of opportunity for entrepreneurs and businesses of all sizes.

Focus

For Economic Prosperity the focus is on how we can create strong, resilient, adaptive businesses that support the community in moving towards sustainability.

Sustainability Perspective

A healthy economy is essential to support the quality of life in our community. The City can contribute to this goal by ensuring an adequate land base and supporting infrastructure. Maintaining a better balance between the number of jobs and the resident labour force can reduce the need to travel outside of the City of Airdrie to find work.

Fiscal impact analysis has demonstrated that non-residential uses provide a net benefit to the City whereas residential uses usually require a higher level of services than can be covered by property taxes alone. Achieving a better balance between residential and employment uses can reduce the need for significant increases in property tax rates while still providing adequate service levels.

Sustainability will continue to help make the City of Airdrie more competitive. Adopting a sustainability approach can result in efficiencies and savings, create quality communities, and help attract and retain a diverse labour force and business sector.

Sustainability Objectives

- Enhance the economic resiliency of Airdrie by attracting and retaining a broad range of employment opportunities.
- Enhance the environmental sustainability of Airdrie by encouraging the creation and expansion of environmentally-friendly businesses.
- Enhance the fiscal sustainability of Airdrie by increasing the proportion of non-residential to residential development within the city.
- Enhance the social sustainability of the city by promoting more job opportunities and improving people's access to workplaces.

Current Challenges & Opportunities

Airdrie is a growing city that strives to accommodate a broad range of employment and business opportunities. The City's business community includes manufacturing, professional services, transportation logistics operations, as well as a growing service economy.

- Airdrie's proximity to the City of Calgary is both a benefit and a challenge as a very large proportion of the labour force commutes to and from Calgary. Airdrie is a suburban community where 40 - 45% of the population works outside the community and approximately 30% of Airdrie's workforce comes from Calgary.

- Awareness around sustainable businesses, products and practices is currently relatively low, but is growing.
- Our city attracts a diversity of industrial type uses - given our proximity to Calgary, to the Calgary International Airport, and being situated along the Edmonton - Calgary corridor.
- Our economy is heavily reliant on the continued development of lands for commercial and residential uses.
- Many of the City's industries are oil & gas related

What does success look like?

- The City's economy is diversified and resilient enough to weather downturns and changes to the economic conditions in the Calgary region.
- The business community responds to the environmental challenges facing Airdrie and works together to adopt new practices that reduce their impacts and support a sustainable environment and economy through education.
- Airdrie's business community supports a flourishing economy of local goods and services.
- Residents are able to meet their own basic needs without leaving the City of Airdrie.
- Airdrie has a better balance between residential and non-residential uses.

The following strategies can help achieve greater economic prosperity in Airdrie:

1. Increase the proportion of non-residential uses

The City will develop a comprehensive strategy for increasing the proportion of non-residential uses within the City. This will involve three key initiatives:

- Review the City's Land Use Bylaw to ensure there are adequate land use designations, locations and regulations in place to accommodate appropriate non-residential land uses
- Designate an adequate land base for industrial uses and employment nodes, particularly in areas that have good proximity to Highway #2 and other major corridors.
- Develop a servicing strategy for the annexed lands that provides timely and efficient infrastructure improvements to the industrial lands.

2. Retain existing businesses

- The City will continue to work with local businesses/associations to support expansion of local businesses.
- The City will work with business stakeholders to identify barriers to business activity and to collaborate on developing strategies and solutions to support local economic development.

3. Support sustainable economic development

- The City will work with the business community to reduce waste, energy and water use
- The City will recognize environmentally-responsible businesses through awards and publications

Built Environment



Our built environment is vibrant, diverse, inviting, and contributes to people's health, safety and well being.

Focus

For the Built Environment, the focus is on how we develop buildings, facilities and neighbourhoods that contribute to more sustainable communities.

Sustainability Perspective

The form and character of the built environment has a direct influence over people's lives, their well being and sense of place.

Sustainable communities are those that can be sustained without excessive resource demands such as land (sprawl), energy, and water – but also provide a high quality of life. Resource demands can be more effectively managed through more compact form, making communities more walkable with services and shops conveniently located relative to houses.

Sustainability Objectives

- Enhance the environmental sustainability of Airdrie by promoting smart growth, less sprawl, and green development.
- Enhance the social sustainability of the city by creating active, liveable communities
- Enhance the fiscal sustainability of Airdrie by facilitating a development pattern that uses less infrastructure.
- Enhance the overall sustainability and resiliency of Airdrie by supporting a broad range of land uses; more mixed use; and development pattern that enables people to access services, shops and facilities easily.

Current Challenges & Opportunities

- The current and proposed future form and character of our city is defined primarily by large tracts of single detached dwellings (comprising 80% of the total housing stock), and a discontinuous suburban road pattern (e.g. cul-de-sacs and loop roads). This form of development is a challenge to serve with public transportation, does not easily accommodate walking or biking and requires higher costs for infrastructure, maintenance and operations relative to more compact forms of development.
- Recognizing the shortage of developable land in the city's land supply, the annexation process is underway. It is projected that (given the proposed future form of development) our city will run out of undeveloped land in less than 10 years if annexation is unsuccessful.
- As a member of the Calgary Regional Partnership, the City of Airdrie will need to align its municipal development plan with the smart growth goals and objectives contained in the Calgary Metropolitan Plan.

What does success look like?

- Neighbourhoods have a diversity of housing options that accommodate a broad range of ages, incomes and lifestyles.
- Mixed use developments are well integrated into communities and comprise appropriate commercial, institutional, recreational and related activities.
- The downtown is recognizable, compact, and vibrant with a mix of uses. It serves as a key community gathering place that is inviting to residents and visitors alike.
- Higher density housing is conveniently located so residents can access transit, shops, services and public amenities.
- Smart growth development principles are widely used so that land is used more efficiently and the need for future annexations are reduced significantly.

To support a more sustainable built environment, the City will:

Revise the City's Municipal Development Plan (MDP) and create appropriate policies to

- Create whole communities that accommodate a broad range of people's needs.
- Designate areas for a range of employment uses
- Ensure that development doesn't negatively impact Nose Creek
- Create and retain a broad range of housing options throughout the city
- Encourage cost-effective development patterns and servicing approaches

Create a Density Strategy for the City which

- Focuses higher-intensity uses and densities in the downtown, along transit corridors and within and adjacent to commercial centres;
- Encourage a more compact form through appropriate land use and transportation planning;
- Provides quality living environments for people who want an alternative to a large single detached house
- Is incorporated into the City Plan

Create a Sustainability Checklist to evaluate new development proposals.

Update the Downtown Plan and develop policies to create a more vibrant, diverse mix of uses.

Socially Sustainable Communities



Our community is healthy and provides ample opportunity for social interactions and meeting people's needs.

Focus

For a socially sustainable community the focus is on how we can best meet the health, well-being and social needs of the community.

Sustainability Perspective

A healthy community is an integral part of sustainability because it contributes to overall quality of life, strengthens the social fabric and can help reduce health-care costs over the long-term. Strengthening relationships between community organisations, residents, business groups and the local government increase the ability to create diverse, inclusive and engaged communities. Recent research on determinants of health demonstrates strong links between housing, economic opportunity, land use planning, recreational opportunities and healthy communities

Growth and development has significant impacts on a community's social development and well-being. The challenge for Airdrie is to ensure that future growth contributes to the city's health, safety and culture and helps the city retain the small town atmosphere that attracted many of the residents in the first place.

Sustainability Objectives

- Enhance the social sustainability of the city by facilitating the creation of safe and caring communities
- Contribute to economic sustainability by providing a broad range of housing opportunities for the City's workforce
- Enhance the social and fiscal sustainability of Airdrie by creating healthy communities. The health of communities can be enhanced through better design, improved access to services and improved access to walkways and open space.

Current Challenges and Opportunities

- The predominance of single detached housing limits the housing choice for many households, including seniors, low-income, and singles/smaller households
- High levels of growth and a desire to maintain the "small town" family-friendly atmosphere in the city will require collaboration among all groups to ensure that growth and development contribute to long-term community health and well being.
- Local health facilities and social are challenged to keep up with growing demand.
- There is a lack of higher-education/post-secondary educational opportunities within Airdrie.

What does success look like?

- Residents can easily access primary health care facilities and associated health-services.
- Airdrie continues to be known for its small-town feel and friendly neighbourhoods.

- All citizens have a high quality of life.
- There is a diverse range of affordable housing options throughout the city.
- The City is safe.

To enhance social sustainability the City will:

Address Housing Needs & enhance affordability options by:

- Regularly analyzing population growth, development activity, housing stock and affordability needs to determine future housing needs in the City.
- Working collaboratively with the non-profit agencies, the development community and public agencies to provide a broad range of housing choices for all income groups.
- Putting measures in place to retain existing affordable housing
- Examining options and tools to increase affordability options

Improve Access to Health Care Facilities

- by lobbying the provincial government for increased services in 24-hour health care

Create Safer Communities:

- Build capacity within the City to conduct safety assessments of commercial, institutional and mixed use developments using Crime prevention through Environmental Design (CPTED) concepts.

Facilitate Access to Learning Opportunities: The City will

- Continue to lobby the Province to ensure that Airdrie receives adequate funding to construct and support schools.
- Work collaboratively with school districts and the development community to ensure that schools are safe, well located, accessible to transit, walkable from surrounding residential communities, and accessible to parks and play areas.
- The Economic Development Office will examine opportunities for increasing access to post-secondary learning in Airdrie

Support a Child & Youth-friendly City: The City will

- Incorporate relevant policies from Alberta’s “Child and Youth Friendly Guidelines” into the revised City Plan (MDP)
- Continue to support the Airdrie Youth Strategy and involve youth as active partners in the development, assessment and delivery of services and facilities.

Arts, Culture and Recreation



The unique arts, cultural and recreational aspects of Airdrie contribute to its overall identity, sense of place and quality of life.

Focus

For Arts, Culture and Recreation the focus is on how we support and enhance these aspects in the community and find opportunities to link them with sustainability.

Sustainability Perspective

- Culture is considered an important pillar of sustainability. A community that is connected to art, culture and recreation is a community that cares for and stewards its people and environments.
- Arts, culture and recreational events and facilities are vital to making social connections between various groups in the community and contribute to Airdrie's sense of identity, place and community. More than just entertainment, arts, culture and recreation provide the means for the community to express itself in a variety of ways and in a variety of formal and informal venues.
- The challenge is to find innovative ways of nurturing, enhancing and celebrating Airdrie's artistic, cultural and recreational attributes as it continues to grow.

Sustainability Objectives

- Enhance cultural sustainability by protecting the characteristics that make Airdrie unique
- Support social sustainability by retaining Airdrie's small town feel even as it continues to grow
- Enhance economic sustainability by recognizing arts, cultural and recreational events as key contributors to prosperity in Airdrie.

Current Challenges and Opportunities

- Airdrie's cultural heritage has been shaped by its history as a railway and farming community. There is a strong desire amongst community members to preserve and celebrate this history through various interpretive, design and policy initiatives.
- The City of Airdrie celebrated its centennial in 2009 and through a community and volunteer-based committee created a centennial book, archives, a legacy public art project and a series of concerts.
- The City hosts a number of festivals throughout the year, including the Festival of lights, AirdrieFest, Airdrie Air Show and the Airdrie Pro Rodeo.
- A Public Art Policy was adopted in 2008. The Creative Airdrie Society (CAS) was formed in September 2010.
- Airdrie has a very strong sport culture and has contributed to enhancing its recreational venues, arenas, and facilities as the city has continued to grow. The residents, business community, development community and the City have contributed time, money and effort to make the facilities and programs successful.

What does success look like?

- There are many year-round opportunities for community members of all ages to participate in arts, culture and heritage activities
- The historic relationship between the city centre, Nose Creek, farming, and the railway is well articulated through interpretive measures and city planning.
- Public art is featured throughout the community.
- Airdrie's distinct identity as a young, vibrant and welcoming city of opportunity is maintained.
- Airdrie is a destination for sports and recreational activities.

Strategies for enhancing arts, culture and recreation include:

Creating Distinctive Places in Airdrie

- Develop and maintain a program to enhance the City's identity through distinctive gateway signage, decorative landscaping, wayfinding and commemorative signage

Increase Access to Art: The City will

- Expand the opportunities to display local artists work in public and municipal facilities. In 2011 Airdrie Transit partnered with Creative Airdrie to incorporate local artists work on Transit passes. The City will continue to find innovative options to display local artists work.
- Implement the Public Art Policy
- Work collaboratively with the business and development community to explore funding options for local and public art.

Improve Recreational & Community Volunteer Opportunities

- Complete the construction of Genesis Place Phase Three
- Continue to process and plan for future recreational needs
- Work through the Economic Development Office to promote recreational/sport tourism opportunities in Airdrie.

Reflect our Past: The City will

- Take steps to respect our past, such as our railway heritage, by incorporating heritage elements into planning and development projects.
- Continue to support the model train society at Iron Horse Park;

Facilitate Sustainable Events

- The City will work with community groups and event organizers to integrate sustainability into the design and delivery of events and facilities

Sustainable Natural Environment



Environmentally sensitive areas are protected and the Nose Creek natural areas are set aside for conservation and outdoor recreation purposes.

Focus

For Natural Environment the focus is on how we can best protect natural areas and restore our ecosystems.

Sustainability Perspective

This plan promotes environmental sustainability by preserving natural systems, including those that extend beyond our municipal boundaries. Natural areas along the Nose Creek watershed are particularly valued in this City and are considered to be one of the City's greatest amenities. Efforts to integrate natural areas into the open space system and as green infrastructure in managing stormwater contribute to a natural, green environment.

Growth and development can generate significant environmental impacts. High energy consumption, greenhouse gas emissions, land consumption and waste materials generated by households and businesses are factors that must be taken into account in the community building process. It is essential to Airdrie and the surrounding region's quality of life that the City take an active role in ensuring that our community is an attractive and healthy place in which to reside.

Sustainability Objectives

- Contribute to environmental sustainability by improving environmental protection throughout the city;
- Contribute to social sustainability by creating opportunities for citizens to learn about Nose Creek protection and assist with clean-up efforts;
- Contribute to fiscal sustainability by working with natural systems (such as natural drainage patterns) to reduce reliance on costly engineered solutions.

Current Challenges & Opportunities

- Lands within what is now known as Airdrie have traditionally been used for extensive crop farming and pastureland for cattle. As a result, much of the once natural landscape has been altered to a great extent.
- Because some 80% of the original native grassland in the area was once cultivated and the remaining patches or tracts of native prairie are found mainly near Nose Creek and tributaries, wildlife sightings are few.
- The lands proposed for annexation provided an opportunity to protect natural features and properly implement effective riparian and wetland protection.

What Does Success Look Like?

- Natural areas and features are valued, preserved, and sensitively integrated into the City's open space system.
- Ecosystems are healthy, connected and diverse.
- Natural stream corridors are protected to ensure the natural habitat and health of the system.
- Innovative stormwater management practices are the norm not the exception.

Protect Natural Assets: The City will

- Develop a planning strategy for the annexed lands which protects the identified environmentally sensitive areas.
- Develop and maintain an inventory of significant natural and ecologically-sensitive areas to ensure that these areas are recognized and considered in parks plans and new area structure plans.
- Create and protect a connected greenspace network throughout the city by connecting environmentally significant areas, trails, pathways, parks and open spaces.
- Develop compact and efficient settlement patterns to minimize the loss of natural areas and impacts on wildlife habitat.

Enhance Nose Creek: The City will

- Incorporate appropriate riparian management policies and setback requirements into the new municipal development plan.
- Collaborate with community organizations and support the Nose Creek Watershed group to manage sensitive ecosystems, remove invasive species, plant appropriate native vegetation, prevent erosion and install signage to inform and educate the public.

Green the City: The City will

- Enhance its urban forest strategy and develop regulations and incentives for retaining the existing tree canopy within the City.
- Enhance tree planting in public spaces to improve community air quality and greenspace
- Collaborate with the Calgary Regional Partnership and the development community to develop tools and incentives for integrating green infrastructure and low impact development into the urban environment;

Water



The Community recognizes that water is a scarce and valued resource in this region and takes the appropriate steps to steward it.

Focus

For water resources, the focus is on how we can ensure long-term supply of high quality water, protect our natural ecosystems, and promote the efficient use of water.

Sustainability Perspective

Water Supply: The sustainability of our city and region depends primarily on water. Water serves many different purposes ranging from household to agricultural, industrial, business, community and our local and regional ecosystems. Clean water is essential for life. Using water more efficiently will help reduce costs and support the long-term security of our water supply.

Reducing water consumption can help reduce the costs associated with increasing the water-related infrastructure needed to serve a growing community.

Stormwater: The effective management of stormwater can contribute to a more sustainable city. Rain and snow are typically absorbed on the land. Where there is lawn, natural vegetation and/or landscaping, the water will infiltrate into the soil. This process filters contaminants from the water, replenishes soil moisture and recharges groundwater. However, when precipitation falls on paved and impervious surfaces, such as streets, parking lots and roof tops, it is not absorbed by the soil and runs off quickly into the drainage system (storm sewers). As stormwater moves through the streets and other impervious areas it tends to pick up contaminants in its path – such as litter, spilled oil, salt, and pet wastes. This contaminated stormwater contributes to the contamination of Nose Creek and other receiving waters.

Our challenge is to find innovative ways of using water efficiently and ensuring that all wastewater contributes only benign emissions to natural ecosystems.

Sustainability Objectives

- Contribute to environmental sustainability by improving riparian protection along Nose Creek and effectively managing stormwater;
- Contribute to social sustainability by creating opportunities for citizens to learn about Nose Creek; the importance of watershed health and water conservation;
- Contribute to fiscal sustainability by supplying water and water system upgrades in the most cost-effective manner possible.

Current Challenges & Opportunities

- The City of Airdrie obtains treated water from The City of Calgary via two large water mains with a third water main in preliminary planning stages. The existing facilities in Airdrie consist of two storage reservoirs, a distribution pumping station and a distribution system consisting of a network of mains.
- Airdrie will need to reflect Calgary region's future water conservation and demand management requirements due to its reliance on the City as water purveyor.
- A relatively dry climate adds to the City's water demands for irrigation of lawns, parks, golf courses and other facilities.
- The Calgary Regional Partnership has identified water as the number one issue affecting sustainability and the future growth of this region.

What does success look like?

- Water use is well below the 2011 per capita consumption rates.
- An ever-increasing extent of the Nose Creek riparian area is protected through appropriate setbacks and natural vegetation.
- Stormwater quality is improved and flow rates managed through use of natural systems and engineered solutions.
- Our water and sewage wastewater contributes only benign emissions to natural ecosystems.
- Water is reused wherever feasible.

How can we achieve success?

WATER SUPPLY

Raise Awareness

The City will develop a public awareness and social marketing campaign on water conservation that includes best practices information on xeriscaping (water-efficient landscaping), water reuse, rain-water storage, water efficient appliances and fixtures, etc.

Improve Practices

- Examine/research best practices on water conservation strategies used by other municipalities (particularly those with similar prairie conditions).
- Incorporate water smart principles and practices into city operations, facilities and policies.
- Explore new opportunities to reuse and recycle water
- Incorporate water-efficient landscaping practices into the City's Landscape Design Guidelines and Specifications

Secure Supply

- Work with the Calgary region to secure long-term supply and distribution of water to the City
- Construct the new waterline from Calgary to enhance our security of access to water over the long-term.

Set Targets

- Establish water conservation targets for the next 5, 10 and 20 year time horizon.

STORMWATER MANAGEMENT

Adopt Water-centric Planning Policies

- Encourage a built form that reduces the overall demand for water and minimizes the extent of impervious surfaces.
- Require a minimum depth of topsoil in new development areas to encourage water retention.

Develop an Integrated Stormwater Management Plan

- Incorporate best practices into the next iteration of the City's Master Drainage Plan.
- Develop and implement Low Impact Development approaches to stormwater management.

Waste Management



The amount of solid waste that is generated in the community is greatly reduced as Airdrie citizens participate in waste reduction, waste diversion and recycling efforts.

Focus

For waste management, the focus is on how we can reduce waste and work toward a zero-waste environment.

Sustainability Perspective

Dealing with solid waste effectively is an important consideration for sustainability.

Waste comes in many forms, such as from discarded packaging, products, materials, compost etc. all the way to the more non-visible waste contributed to the air, water and soils. The challenge is to find innovative ways of reducing and managing waste flows in more integrated patterns so that less material is discarded and what used to be considered garbage is changed to a resource (i.e. when compost and valuable nutrients are used for landscaping and agriculture).

The City of Airdrie is intent on reducing the amount of waste destined for disposal in municipal landfills in order to become more sustainable and improve resident's quality of life. Airdrie shall continue to take a leadership role in the area of waste management. Progressively reducing landfill disposal will involve incrementally expanding on existing waste reduction and recycling programs over the coming years. The City's Integrated Solid Waste Management Strategy Development (ISWMSD) plan suggests that there are considerable additional diversion opportunities even within existing waste programs to increase Airdrie's current diversion rate (of 24%) by an additional 12% – 40%.

Sustainability Objectives

- Contribute to environmental sustainability by reducing the amount of waste generated
- Enhance fiscal sustainability by reducing the future need for waste disposal facilities
- Contribute to social sustainability by engaging the community in education, outreach and recycling and clean up events.
- Enhance municipal sustainability by applying best practices in waste management.

Current Challenges & Opportunities

- Airdrie residents disposed of 198 kg/person of household waste in 2007 - this compares to an Alberta residential average of 289 kg/capita
- Finished compost is used by the Parks Department to enhance City gardens and athletic fields.
- There is no city-operated curbside recycling available. Residents are required to use a recycling depot. The main recycling depot is located within the East Lake Industrial area.
- The City's "Integrated Solid Waste Management Strategy Development, 2009" (ISWMSD) takes a "backcasting approach" where the future vision of success is "Zero Waste".

What Does Success Look Like?

The amount of solid waste that is generated in the community will be greatly reduced with a greater proportion of waste being reused or recycled rather than landfilled. Waste products are no longer considered “disposables” but are utilized as resources.

How Can We Achieve Success?

Build Awareness: The City will

- Promote responsible waste management through public education and outreach activities.
- Educate citizens about the benefits of reducing waste as a means to facilitate higher rates of participation in recycling and composting programs.

Recycling: The City will

- Promote opportunities for enhanced recycling and waste-stream separation (recyclables, organics/compostibles, and residual garbage) systems.

Purchase responsibly: The City will

- Review City purchasing practices, as well as the use of materials at City facilities, in order to identify solid waste reduction, re-use and recycling opportunities.
- Ensure zero/low-waste principles and other sustainability objectives, practices and systems are considered when tendering solid waste management contracts.

Improve Services:

- Explore alternative waste management and disposal options that reduce the volume of waste generated by the community.

Facilitate curbside recycling services

- Collaborate with Economic Development and local businesses to explore market options for recycled and diverted waste products.

Energy



Our community's energy use is sustainable and energy consumption is reduced in the community and in the City's operations.

Focus

For energy resources the focus is on how we can meet Airdrie's energy needs in an efficient and cost-effective manner, while reducing greenhouse gas emissions and protecting air quality.

Sustainability Perspective

Addressing energy use and efficiency is critical to long-term sustainable development. Stable, reliable and affordable energy supplies are important to economic development and overall quality of life.

Producing and consuming energy results in environmental impacts such as increased greenhouse gas emissions, air quality concerns and environmental impacts. Airdrie faces a number of challenges: it is a winter city and requires energy to heat homes and businesses for a significant portion of the year. As a commuter-oriented community, Airdrie residents consume high levels of fuel for transportation purposes.

Our challenge is to reduce our overall demand for energy through efficiency measures and to transition towards energy systems supplied by sustainable renewable sources to the greatest extent possible.

Sustainability Objectives

- Enhance environmental sustainability by taking steps to reduce reliance on fossil fuels and reducing greenhouse gas emissions.
- Contribute to fiscal sustainability by manage demand effectively in order to reduce need for costly infrastructure upgrades.
- Enhance economic sustainability by facilitating markets for alternative energy and promoting methods to reduce unnecessary energy consumption.

Current Challenges & Opportunities

- The majority of our homes, businesses and industries are heated with fossil fuel based natural gas.
- Our climate creates high demands for heating-related energy consumption.
- As of March, 2008 Alberta's electricity is generated by coal (48.8%), natural gas (38.4%), hydro 7.1%, wind 4.1% and biomass 1.5%. As such, the majority of our electricity (87%) is generated from fossil fuels.
- Our transportation system is also almost entirely fossil fuel based.

What does success look like?

Energy consumption will be reduced in the community and in the City's operations and facilities. In addition:

- The amount of money spent on energy will be reduced.
- We have significantly reduced our reliance on fossil fuels.

- We have significantly reduced the production of greenhouse gas emissions.
- We have increased the proportion of the community's energy use from sustainable and renewable energy sources.

How can we achieve success?

Develop the data: The City will

- Create a baseline energy and emissions inventory of the city's infrastructure systems (e.g. water, wastewater, street lighting, fleet & transportation). This is required before the City can establish targets and measure progress on energy consumption and GHG reductions.

Modify Plans: The City will

- Review land use plans, subdivision standards and bylaws to ensure they support (or at minimum, do not preclude) sustainable infrastructure systems including on-site energy production (e.g. solar, geo-thermal).

Collaborate on Climate Change: The City will

- Work with the Calgary Regional Partnership on energy resource and climate change issues
- Participate in the development of regional strategies for reducing greenhouse gas emissions and other climate change mitigation and adaptation strategies.

Sustainable Transportation



Our City has an integrated, efficient and affordable transportation system that provides a range of mobility options for people of all ages and abilities.

Focus

The sustainable transportation focus is on how we can move people, goods and vehicles in a way that improves sustainability, safety and convenience.

Sustainability Perspective

Transportation plays a crucial role in providing access to people, places, goods and services and contributes to the building of community, enhancing quality of life and to the overall well being of the economy and environment. However, our travel choices can have significant environmental consequences including the dedication and consumption of land used for roads, air quality problems, greenhouse gas emissions and noise impacts.

Our transportation system is dominated by the use of automobiles, particularly single-occupancy vehicles (SOV) to move around Airdrie and for those commuting to Calgary. Reliance on automobile travel is only of benefit to those who can drive. It can be a barrier to those who can't access a vehicle due to age (youth & elderly), income level and disability. Communities that provide more travel options such as walking, cycling and transit enable people to experience a greater sense of independence.

Sustainable transportation systems aim to reduce pollution, greenhouse gas emissions and land consumption, while enhancing our ability to move through the city easily to meet our needs. Reducing dependence on automobiles and providing other travel alternatives such as transit, walking and cycling allows us to minimize our environmental impact, protect our climate, and improve our health and our social networks.

Sustainability Objectives

- Enhance environmental sustainability by reducing greenhouse gas emissions, improving air quality and minimizing the impact of roads on environmentally sensitive areas
- Contribute to economic development by improving goods movement routes
- Contribute to social sustainability by improving access and transportation options, particularly for people who can't drive, through good site planning, provision of transit, mixed use and effective urban design.
- Contribute to fiscal sustainability by managing our transportation infrastructure in a way that optimizes tax-payer and home-owner supported investments.
- Contribute to overall sustainability by evaluating the long-term fiscal, social and environmental costs of our travel decisions.

Current Challenges & Opportunities

- Airdrie's transportation system is highly dependent on fossil fuels and private automobiles;
- Airdrie is bisected by the railway and Highway 2, a six-lane freeway maintained by the Province. The road network is strongly auto-oriented and consists of arterial and collector roads on large right-of-ways. The residential street pattern is dominated by looped collector roads and cul-de-sacs.
- Given Airdrie's proximity to Calgary and the limited public transit options, a high percentage of Airdrie residents commute to Calgary in single occupancy vehicles,
- Some of our neighbourhoods are segregated beyond convenient walking/biking distance from places of work, shopping, leisure and recreation. This form of development does not support an efficient transit system and thereby contributes to a higher dependence on the automobile which leads to increasing air pollution, rising obesity rates, longer commutes, and increasing levels of climate changing carbon dioxide emissions. Sprawling neighbourhoods also contribute to increased public costs for services.
- Transportation infrastructure is very expensive and funded predominantly by taxation and development-funded levies.
- Transit service includes three services: Local transit (3 routes), Intercity Express to Calgary (2 routes) and Access Airdrie. Access Airdrie is a curb-to-curb service designed for eligible riders who are unable to access conventional bus service.

What does success look like?

- Active modes of transportation such as walking and cycling have the necessary infrastructure to ensure a safe, connected and convenient network of local and regional trails.
- Our community's form of development is such that auto dependency is reduced.
- Every person in the community has access to active or public transportation options that are safe, convenient, comfortable and affordable and well-integrated with regional transportation options.
- A convenient commuter transit system linking Airdrie's city core with the City of Calgary is in place.
- The east-west pedestrian and traffic circulation has improved over 2010 levels.

How can we achieve success?

Raise Awareness: The City will

- Provide citizens with education and information opportunities that promote alternatives to driving alone in the car

Improve Plans: The City will

- Update the Transportation Master Plan to include multi-modal travel options and ensure cost-effective delivery of transportation infrastructure
- Include sustainable transportation policy in the new City Plan which promotes Complete Streets, transit-oriented development and walkable communities.
- Review road standards to facilitate use by a range of travel modes including transit, car travel, cycling and walking.

Improve Transit: The City will

- Continue to track transit ridership, route requirements and satisfaction levels.
- Work with the Calgary Regional Partnership to explore opportunities for commuter rail service through Airdrie.
- Ensure community development patterns support transit by:
 - Promoting transit-oriented development along designated corridors and centres;
 - Promoting the development of higher-density residential to locate along transit corridors;
 - Requiring area structure plans to include strategies for improving transit use.

Improve Walkability

- Create a more walkable Airdrie by:
 - Developing new streetscape standards that encourage the development of walkable, livable communities
 - Ensuring that new pathways and sidewalks create logical connections between communities, shops and schools
 - Ensuring that road and bridge projects are designed to accommodate pedestrian traffic in a convenient and safe manner.

Protect the Environment

- Ensure that any road or bridge design protects environmentally sensitive areas, particularly the riparian areas of Nose Creek and West Nose Creek.

Governance



Sustainability principles and approaches are integrated into the municipality's formal and day-to-day decision making processes.

Focus

For Governance, the focus is on how local government can, in collaboration with Airdrie citizens, embrace sustainability in their decision-making, investments and actions.

Sustainability Perspective

As the local government with responsibilities that include service delivery, infrastructure development, public engagement, policy development, planning, facility management, regulating, and governance, the City recognizes that it can significantly influence the extent to which this community embraces sustainability. It has, and accepts, a commitment to sustainability.

Sustainability requires us to look at short and long-term implications of our decision-making. It doesn't impose a set of solutions – but requires us to ask different questions before making a decision:

- Who will be impacted by this decision? (Is it fair to all ages and income levels?)
- Who ultimately pays for this decision? (Is it fair to current and future taxpayers? Does it create a problem or hazard for our current, future and/or neighbouring residents? Are costs (or waste) off-loaded to someone else?)
- What is the environmental impact of this decision? (Does it pollute our natural systems? Does it deplete natural habitat?)
- What is the community impact of this decision? (Does it create or deplete the community's quality of life? Is it respectful of the community's values and shared sense of place?)

The City understands that sustainability is very much a way of thinking that begins with raising awareness and integrating sustainability principles into the City's decision-making process. The City also recognizes that one plan cannot have all the answers. We will continue to research, partner, evaluate and learn from others as we move toward a more sustainable Airdrie.

Sustainability Objectives

- Contribute to the overall sustainability of the municipality by:
 - Building awareness of sustainability throughout the corporation and the community.
 - Integrate sustainability principles into municipal plans, policies and processes.
 - Continuing to learn from other places and continually improve our commitment to sustainability.

What does success look like?

- Sustainability is a shared ethic and responsibility throughout the City.
- Sustainability informs our decision-making on a daily basis.

How can we achieve success?

Engagement of the Public

- Continually improve opportunities to engage citizens in local government initiatives and decision-making
- Conduct the citizen survey on a regular basis to accurately track citizen concerns and priorities.
- Report back to the public on a regular basis to request suggestions for continuous improvement of AirdrieOne and validation of priorities and actions.
- Work with the community to continuously improve sustainability-related policies and initiatives

Adopt a triple-bottom line approach to decision-making

- Enhance the use of triple bottom line (social, economic and environmental) approach to decision making
- Incorporate triple-bottom line considerations into City's development permit and plan approval processes.

Develop a Corporate Sustainability Program

- Continue to build a municipal commitment to sustainability across all our departments and programs
- Develop/continually improve a corporate sustainability program to include, but not be limited to, waste reduction & recycling, procurement, paper reduction strategies, and energy-efficiency.

Fiscal Sustainability

- Research innovative ways of providing growth-related infrastructure and services in a way that is efficient, equitable and sustainable over the long-term.
- Educate citizens on the “actual” costs of services, infrastructure and programs.
- Ensure ongoing fiscal stewardship through long range financial planning, responsible asset management and budgeting practices.

Measure Progress

- Collaborate with other municipalities and the Calgary Regional Partnership to develop comparable sustainability indicators, targets and benchmarks.
 - Work with the community to develop a way to monitor and assess Airdrie's sustainability progress.

Our Plans (The How)

1. Four Priorities page 35-36
2. How The Plan Will Be Implemented page 37-38
3. Measuring Progress on the Plan page 39-42

2012 - What we can do now

Four priorities.

1. Incorporate “Smart Growth” principles in the Municipal Development Plan.

The City Plan will include:

- A density strategy
- Appropriate alignment of relevant policies with the Calgary Metropolitan Plan
- Policies to guide development around the Nose Creek watershed
- Inclusion of relevant policies from the Alberta “Child & Youth Friendly Guidelines”

Lead: Planning Department

Support: Engineering, Parks, Sustainability

2. Develop a planning framework for the annexed lands.

Environmental considerations will be a priority in developing the annexed lands (12,500 acres).

The strategy will identify:

- Environmentally-sensitive areas (ESAs), particularly those related to Nose Creek watershed including wetlands, riparian areas, flood plains and flood prone areas
- Non-residential development opportunities, including lands for key sectors (e.g. transportation & logistics, oil and gas support services) , employment centres, industrial land expansion
- Skeletal road network for goods movement and for key transit routes;
- Major servicing corridors and servicing facilities & servicing sequencing (particularly to servicing non-residential)
- Social and civic infrastructure opportunities (e.g. potential sites for health care facilities, emergency and protective services, educational facilities and major recreational and parks facilities)
- Residential neighbourhoods (existing)
- Residential development opportunities (greenfield opportunities)
- Development sequencing

Lead: Planning

Support: Economic Development, Assessment, Finance, Engineering, Parks

3. Develop a Sustainability Checklist to guide the planning and development review process.

This checklist is meant to encourage development that supports and advances the community's sustainability objectives, including:

- Promoting an efficient pattern of development
- Protecting open space and natural areas
- Creating inclusive and liveable places
- Improving accessibility

Lead: Planning

Support: Parks, Economic Development

4. Incorporate opportunities and strategies in the Transportation Master Plan.

The Transportation Master Plan will identify:

- Regional transit corridors and linkages in alignment with Calgary Metropolitan Plan
- Key goods movement routes in alignment with economic development priorities
- Connectivity to employment centres, mixed use nodes, major facilities and destinations
- Opportunities to enhance convenience of other transportation modes – complete streets and enhanced pedestrian safety
- Opportunities to enhance access while decreasing auto-dependency

Lead: Engineering

Support: Planning

How The Plan Will Be Implemented

Council Decision-making

The AirdrieOne Plan proposes a number of initiatives, plan updates and policy direction changes. The nature and extent of the plan implementation is primarily within the control of the elected Council for the City of Airdrie – acting on behalf of the citizens of Airdrie. The Council will consider the policy direction established through AirdrieOne in their strategic planning and in their on-going decision-making.

The plan functions as a roadmap to guide future decision-making on City operations, land use planning and infrastructure development. The plan does not obligate current or future councils to implement a specific action or make a specific investment; rather, the plan outlines a comprehensive set of strategies for achieving the stated vision. The vision statement, as well as the goals and objectives reflect the input received from the citizens through an extensive public consultation process that began in 2006.

Relationship to Other Plans

The role of AirdrieOne is to set the strategic-level direction for sustainability – particularly in the areas of energy efficiency, environmental protection, water conservation, and smart growth – for other municipal initiatives, plans, and strategies. As such, the implementation of AirdrieOne will occur through many of the existing mechanisms, including budgets, plan development, regulations, policies and programs. Many of these activities are ongoing. The challenge and opportunity is to do them “better” so that each decision made is done in a deliberate way that moves the City closer to the vision of a sustainable community. It is important to note that implementation doesn’t always mean doing more of something. Sometimes it means doing less: less waste, less infrastructure, less resource consumption, yet still meet people’s quality of life expectations.

Budgets & Capital Planning

The success of this sustainability plan will largely be realized by aligning city actions and investments with the objectives and sustainability principles when developing roads, transit, facilities and other infrastructure. Major initiatives should be evaluated against the Sustainability Filter (see Appendix Four).

Corporate Business Plans

City staff assists in the implementation of AirdrieOne by aligning business plans and associated activities with the goals of the plan. Every year, staff will contribute to the implementation of AirdrieOne by reflecting the specific projects, implementation priorities, resources, costs and potential community benefits associated with AirdrieOne in their business plans – for Council approval.

Municipal Development Plan

The Municipal Development Plan (MDP) for the City, Airdrie City Plan, is currently being revised and will reflect the AirdrieOne vision, as well as relevant goals and objectives. The City Plan will establish policy direction in such areas as land use, smart growth, environmental planning, and neighbourhood development. As a statutory plan, the MDP will provide the more detailed policy direction to help the city

move toward a more sustainable future through the land use and development process, and in particular, guide the planning for the annexation lands. The revised City plan will provide policy direction on sustainable development, addressing the concepts of smart growth, Transit-oriented development, open space protection and good growth management (among other planning matters).

Non-Statutory Plans & Guidelines

There are a number of existing plans within the City that are used to guide actions related to parks (e.g. Great Places Plan), waste management (e.g. Integrated Waste Management Plan), community development, economic development and transportation (e.g. Transportation Master Plan). As these plans are updated, they should consider and reflect the relevant objectives of AirdrieOne and further contribute to sustainability in the City.

Land Use Bylaw

The Land Use Bylaw (LUB) establishes more detailed and prescriptive development requirements addressing such things as permitted and discretionary land uses, building setbacks and dimensions, parking standards and landscaping requirements. By aligning the LUB with the relevant aspects of AirdrieOne and the Municipal Development Plan, the City can encourage desired development patterns and reduce regulatory barriers to sustainability.

Community Initiatives

Community members assist in the implementation of the Plan by providing input through formal and informal channels; identifying concerns or indicating their support for decisions considered by Council; participating in community-development activities; voting; investing through property taxes, and continuing to support Airdrie businesses, community events and initiatives. The City encourages input from citizens through such means as:

- Public participation opportunities at every Council meeting;
- Participation through advisory committees, boards and commissions;
- Providing comments and suggestions through the web site (www.airdrie.ca) , fax, phone (main reception is 403 948-8800) and in person (City Hall is at 400 Main Street SE);
- Contacting elected representatives (contact information is available through the web site or by calling reception).

Update Report

The Planning Department will prepare an AirdrieOne Update Report within 18 months of plan adoption. The report is intended to refine and improve this plan based feedback received from those using the plan. The report will address the following:

- Implementation initiatives (what's underway/completed);
- Indicator data (e.g. growth rates, mode share, transit ridership, recycling data, etc.);
- Suggestions for improvement (based on feedback, staff reviews, survey information, etc.);
- Recommendations for improvement.

Measuring Progress on the Plan

The City will work with the community and stakeholders to develop a comprehensive set of indicators to help us measure progress on implementing AirdrieOne and achieving our shared vision.

Establishing indicators that reflect those of other Alberta and Canadian communities could help us compare ourselves to progress made by other local governments. Some of the commonly used indicators include:

Potential Indicators

Economic Prosperity

Theme	Indicators	Measure	Potential Sources
Overall prosperity	Income	Average household income	Federal census
Overall prosperity	Employment levels	#/% of people employed – full time	Federal census City census
Economic Resiliency	Local Employment	% of residents who live and work in Airdrie	Federal Census City census
Economic Resiliency	Business attraction & retention	# businesses locating in the City % of new businesses that survive beyond their first 5 years.	Building Permit data Development permit data
Assessment	Assessment Balance	Residential to non-residential assessment - ratio	City assessment dept.

Social Sustainability

Affordability	Housing affordability	Proportion of residents who think affordable housing is a concern. % of households paying more than 30% of gross income on housing	Citizen survey Federal census
Volunteerism	Volunteer participation	Proportion of residents who volunteered more than two hours per month in the past year	City Census
Diversity & Resiliency	Demographics - Diversity	Population, age, ethnicity, gender & education levels	Federal census City census
Quality of Life	Community desirability	% of residents who are “very satisfied” with the quality of life in Airdrie	Citizen survey Growth rates
Neighbourhood Quality	Neighbourhood - liveability	Proportion of community members who know their neighbour	Citizen survey
Safety & Security	safety	Proportion of community members who rate their neighbourhood as safe.	Citizen survey
Health & well being	Access to health services	# of health professions per capita relative to provincial average % of residents who are “very satisfied” with the accessibility and quality of health care services Average response times – ambulance Average response times – fire	TBD Citizen survey

Cultural Sustainability

Cultural Sustainability	Choice & Diversity	Number and type of cultural events held within the City on an annual basis.	Community calendar Facility utilization data
Culture	City financial support	Amount of \$ contributed by City to community & cultural events	City budget, departmental business plans
Recreation	Choice	# of recreational facilities per 1000 residents # of recreational programs per 1000 residents	Facility data
Parks & Pathways	Park facilities	Program and facility usage % of population within a five-minute walk of a park, pathway or park facility.	Parks data

Natural Environment

Healthy ecosystems		% of identified ecologically sensitive areas (ESAs) that are protected.	
Open Space		% of Airdrie land base that is comprised of open spaces, parks, and natural spaces % of land area that is permeable	GIS analysis NSP analysis
Climate change	GHG emissions	GHG emissions associated with transportation	(requires GHG base inventory)

Waste Resources

Waste Management	Waste disposal	Total kg of solid waste per capita Amount of waste sent to landfill – by weight/per capita	Provincial data
	Waste diversion	Amount of waste diverted from landfill by “conventional” recycling	City data
		Amount of waste diverted from landfill through organics program	City data

Energy Resources

Energy	Energy consumption	Per capita residential energy consumption Energy consumption rates relative to other AB communities/Calgary region communities	Utility companies
	Alternative energy	% of total energy provided from renewable energy sources	

Water Resources

Water	Consumption & conservation	Per capita water consumption levels.	Utility data
Nose Creek	Riparian quality	Extent of Nose Creek that follows its natural corridor compared to area that has been altered straightened and routed through culverts.	Site survey

Build Environment

Built Environment	Efficient community planning	Development density (units/acre) within designated nodes, corridors and centres	Calculation
	Liveability	Extent of open space (include MR, ER, non-credit MR, & private landscaped area)	Calculation (NSP)
	Green development	% of new development, construction and renovation meeting an approved green standard	Building certification program stats (e.g. LEED)
	Impervious surface	Amount of land base covered in buildings, parking lots, roads and other impervious surfaces	Air photo & GIS analysis

Sustainable Transportation

Transportation	Accessibility	% dwellings located within 400m of a transit stop	GIS analysis NSP
	Travel behaviour	# registered vehicles per household Average commute distance & time % of residents who commute to the Calgary/ Calgary region	Federal Census City Census Transportation model
	Transit-service	# of transit riders/change per year	Transit service/routing plans
	Travel mode	Mode share for journey to work	Transportation model Federal Census

Governance

Community	Citizen Engagement	% residents who vote in municipal elections	Election return data
	Community Satisfaction with city services	% of residents who indicate they are “very satisfied” with the quality of the service they receive	Citizen survey
Accountable Leadership	Accountability to the public	% of residents who indicate they are “very satisfied” with the timeliness and transparency of decisions	Resident survey Website surveys/

Fiscal Sustainability

Taxation	Cost recovery	Ratio of property tax increases relative to municipal inflation rate & growth Relative ranking of property tax rates and service fees within the Calgary region and/or similar sized AB communities	City budget AB Municipal Affairs, AUMA & FCM
Responsible Management	Debt	Debt service ratio: debt carried vs. maximum debt allowed by province	

Appendix One: Definitions of Sustainability

Sustainability

There are many definitions of sustainability, but while they may differ in focus and emphasis, they share many commonalities: Sustainability is a vision of the future which includes many of the following elements:

- It takes a long-term view of the world; usually a 25-50 year horizon
- It acknowledges the linkages among the environment, economy, society and the culture of a place
- It asks us to consider the impacts of our decisions on other people; other countries, other cultures and future generations (i.e. don't saddle future generations with the debt required to support our lifestyle. Don't contribute to environmental degradation and social inequity on developing countries in order to supply us with goods and materials).
- It acknowledges that without a healthy, resilient environment, the economy, social well-being and culture will erode
- It recognizes that there are limits to resources, carrying capacity and growth
- It acknowledges that humans are part of the environment and must operate within it, not over it
- It supports the notion that if you don't measure it – you won't get there.

The most commonly cited definition of sustainability is the UN World Commission on the Environment and Development (also known as the Bruntland Commission) definition, found within their publication “Our Common Future” (1987):

Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs.

Sustainable development is the process of building equitable, productive and participatory structures to increase the economic empowerment of communities and their surrounding regions.

Interfaith Center on Corporate Responsibility (NY-based non-profit)

Sustainable community development is the ability to make development choices which represent the relationship between the 3E's – economy, ecology and equity.

Mountain Association for Community Economic Development

A sustainable society is characterised by an emphasis on preserving the environment, developing strong peaceful relationships between people and nations and an emphasis on equitable distribution of wealth.

COOP America (a US-based non-profit business organization)

Sustainability means improving the quality of human life while living within the carrying capacity of supporting ecosystems.

Caring for the Earth

Enough for everyone, forever.

Appendix Two: Glossary of Terms

- Alternative Transportation:** These are transportation modes for the movement of people, or reducing the need to travel, that provide alternatives to travel by single-occupancy vehicle (SOV). These modes include walking, cycling, transit, carpooling, telecommuting and other electronic means of meeting or conducting business.
- Biodiversity:** Biodiversity is the variety of species and ecosystems on earth and the ecological processes of which they are a part, including natural ecosystems, living species and other components that provide genetic diversity.
- Biosphere:** The portion of the earth and its atmosphere that is capable of supporting life.
- Capacity-Building:** The transfer of knowledge from experts to practitioners with the intent of strengthening the skills and ability necessary for them to act self-sufficiently.
- Carbon Neutrality:** This refers to having no net emissions of greenhouse gas emissions by investing in projects that eliminate GHGs such as renewable energy projects, or sequestering which is capturing and containing GHG emissions, such as underground storage facilities.
- Crime Prevention through Environmental Design (CPTED):** CPTED is an approach to planning and development that reduces opportunities for crime; emphasizing design modifications which can be applied to identify and remove potential problems in proposed developments. An example of these principles is to have “eyes on the street”, i.e. designing buildings with windows onto public streets and spaces to provide informal surveillance over spaces.
- Environmentally sensitive area (ESA):** These are areas that have special environmental features worthy of retention and special care. They may contain critical habitat for wildlife, be located in an active floodplain, and contain unique/rare vegetation or species.
- Full-cost Accounting:** A method of accounting where the full costs and benefits of a decision are weighed. Costs are estimated for the decision including hidden costs, externalities, overhead and indirect costs.
- Greenfield Areas:** Refers to land that has not been developed before. The land may be in its natural state, cultivated or farmed, but has not been urbanized.
- Greenhouse Gases (GHG):** These are gases in the atmosphere which contribute to the greenhouse effect by absorbing infrared radiation produced by solar warming of the earth’s surface. Human-induced emissions of GHG are believed to be the main driver of current global temperature increases and erratic weather. Greenhouse gases include carbon dioxide, nitrous oxide and methane.
- Impervious Area:** Any portion of buildable parcel that has a covering which does not permit water to percolate into the natural soil. Impervious surfaces may include: buildings, driveways, parking lots, sidewalks, patios, ball courts, covered decks, porches and other structures.
- Indicator:** Measures used to assess whether an organization is moving towards its vision and goals.
- Low Impact Development Standards (LIDs):** An approach to land development that uses various land planning and design practices and technologies for simultaneously conserving and protecting natural resources systems and reducing infrastructure costs.

Mixed Use Development:	This is development that incorporates multiple uses within a building or a site. In general, this can include a mix of residential, commercial, office, institutional and low-impact industrial uses. Mixed use development allows for a range of needs to be met within one location, reducing the need to travel between different locations for housing, employment, and services.
Municipal Development Plan (MDP):	This is a local government statutory plan which guides land use, development and growth management issues. The plan will include goals, objectives, policies and maps.
Native Species:	These are plants that are indigenous to a locality. These plants are suited to grow in the local climate without the addition of artificial fertilizers or irrigation. Native species also tend not to be invasive, meaning they don't encroach upon and replace other native plant species.
Natural Areas:	These are areas with significant vegetation and wildlife habitat that have not been subject to development or cultivation. Natural areas may include ravines, stream corridors, treed areas, natural grasslands, wetlands and coulees. While natural areas are generally thought of as being outside developed areas, habitat is increasingly being re-introduced into urban areas.
Permeable Pavement:	Pervious pavements consist of a variety of types of pavement, pavers and other devices that provide rainwater infiltration while serving as a structural surface.
Public Realm:	The spaces within communities to which the public has access. The public realm includes streets, parks, public facilities and a significant amount of "quasi-public" space, which is private property to which the public has access through legal agreements or the permission of the owner. Surrounding properties also impact the experience of the public realm, particularly the design of buildings and landscaping of open spaces.
Riparian Area:	Riparian means of or pertaining to a stream system or stream corridor. Riparian areas usually include a stream channel, its banks, the floodplain, and associated vegetated buffers. Proper protection of these river bank areas is important to stream health and functioning. They are ecologically diverse and contribute to the health of the stream by filtering our pollutants and preventing erosion.
Transit-Oriented Development (TOD):	This refers to residential, commercial and mixed-use centres designed to maximize access by transit and non-motorized transportation modes, particularly walking and cycling. A TOD community generally has a center with a high-capacity transit station or a transit corridor served with frequent transit service that is surrounded by relatively high-density development, with progressively lower density spreading outwards. Ideally, TOD provides a wide range of local services in order to reduce the need for using private automobiles.
Triple Bottom Line Accounting:	TBL provides a framework to ensure that environmental, social and economic impacts are taken into consideration in all aspects of local service delivery and operations. For example; economic consideration may include local business, innovation, job creation, skill development and mobility. Environmental consideration (or costs) may include pollution, water consumption, bio-diversity, aesthetics, and greenhouse gas emissions. Social considerations or costs may include community participation, health, safety, culture and heritage values and access.

- Zero Waste:** The principle that all waste products must be dealt with locally and not “externalized” to other places, particularly with respect to liquid and solid waste. Increasingly, the concept is being extended to air emissions, e.g. carbon neutrality.
- Xeriscaping:** refers to landscaping and gardening in ways that reduce or eliminate the need for supplemental water for irrigation.

Appendix Three: The Sustainable Development Timeline

(Adapted from International Institute of Sustainable development www.iisd.org)

1962 **Silent Spring**, by Rachel Carson is published. The book brought together research on toxicology, ecology and epidemiology to suggest that agricultural pesticides are building to catastrophic levels, linked to damage to animal species and human health.

1968 **The Population Bomb** by Paul Ehrlich is published: on the connection between human population, resource exploitation and the environment.

1969 The **US National Environmental Policy Act** is passed. The law set the basis for environmental impact assessment in the world.

1970 **First Earth Day** is held as a national teach-in on the environment.

1971 **Greenpeace** starts in Canada

1972 **Club of Rome** publishes the controversial *Limits to Growth* which predicts the dire consequences if growth is not slowed. www.clubofrome.org

1973 **OPEC oil crisis** ignites the limits to growth debate

1976 **Habitat**, the UN Conference on Human Settlements is the first global meeting to link the environment and human settlement.

1980 **World Conservation Strategy** is released by the International Union for the Conservation of nature. www.iucn.org

1982 **UN World Charter for Nature** adopts the principle that every form of life is unique and should be respected regardless of its value to humankind. It calls for an understanding of our dependence on natural resources and the need to control our exploitation of them.

1984 **Toxic Chemical leak** leaves 10,000 dead and 300,000 injured in Bhopal, India.

Drought in Ethiopia: Between 250,000 and 1 million people die from starvation.

International Conference on Environment and Economics concludes that the environment and economics should be mutually reinforcing. It helps shape the report *Our Common Future*.

1985 **Climate Change:** Meeting in Austria of the World Meteorological Society, the UNEP and the international Council of Scientific Unions reports on the build-up of carbon dioxide and other ‘greenhouse gases’ in the atmosphere. They predict global warming.

Antarctic ozone hole discovered.

- 1986 Chernobyl** nuclear station explodes.
- 1987 Our Common Future** (Brundtland Commission). The Report of the World Commission on the Environment and Development popularizes the concept of sustainable development.
- 1988 Intergovernmental Panel on Climate Change** (IPCC) is established. www.ipcc.ch
- 1989 Exxon Valdez** tanker runs aground – dumping 11 million gallons of oil.
- 1990 International Institute for Sustainable Development** (IISD) is established in Winnipeg.
- 1991 East Coast cod** fishery collapses
- 1992 UN Earth Summit** is held in Rio. Agreements are reached on Agenda 21 action plan.
- 1993 UN Commission on Sustainable Development** holds its first meeting
- 1998 A year of extreme weather:** Ice storms hit Ontario, Quebec and New York State. China experiences the worst floods in decades, two-thirds of Bangladesh is underwater for several months from monsoons, Hurricane Mitch destroys parts of Central America, 54 countries are hit by floods and 45 by drought, and the global temperature reaches the highest ever recorded.
- 1999 Launch of the Dow Jones Sustainability Index**
- 2002 World Summit on Sustainable Development** in Johannesburg
- 2005 Kyoto Protocol** enters into force with goals for greenhouse gas emission reductions.
- 2007 Al Gore's** documentary *An Inconvenient Truth* wins an Oscar award and brings the topic of climate change into the public arena. Gore and the IPCC share the Nobel Peace Prize for their work on climate change.
- 2008 World food, fuel and financial crises converge.** Global food prices increase 43% in one year. Financial institutions falter over collapse of mortgage lending in the US.
- Increasing Urbanization:** For the first time in history, more than 50% of the world's population lives in towns and cities.
- 2009 Fire and ice headlines.** Multi-year sea ice disappears from the Arctic Ocean and Australian drought that commenced in 2003 leads to worst wildfires in history.
- Copenhagen climate negotiations** attempts to establish targets and greenhouse gas emission reduction commitments.

Appendix Four: The Natural Step Process

What is the Natural Step?

The AirdrieOne plan was based on the principles of The Natural Step. Consultants from The Natural Step worked with City of Airdrie staff and the community to enhance the understanding of sustainability and to guide the community through the process of developing a sustainability plan.

The Natural Step Process (TNS) was created in Sweden in 1989. The AUMA selected the Natural Step approach to assist municipalities by providing a proven framework for defining, facilitating and utilizing guiding principles to direct decision-making throughout the Municipal Sustainability Plan process.

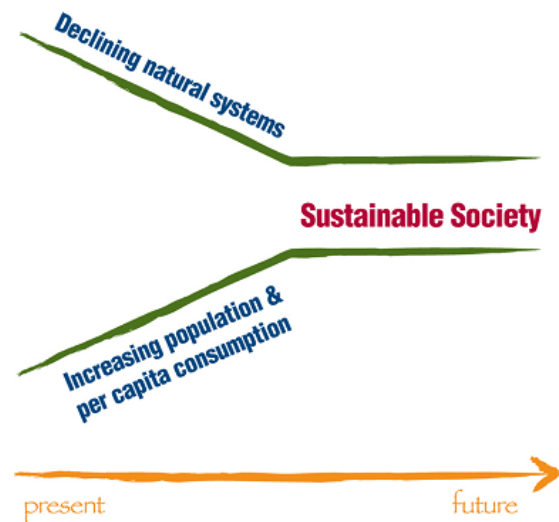
The Natural Step Framework has the following main components:

1. The Funnel as a Metaphor
2. The System Conditions For a Sustainable Society
3. Backcasting From Principles
4. A Four-Stage “ABCD” Strategic Planning Process

The Funnel

The Natural Step “Funnel” visually demonstrates the need for the timely implementation of sustainable practices in our community and personal lives.

Our ongoing quest for high quality of life and economic prosperity, can lead to stresses on our natural environment that we are completely dependent upon. Human activity can contribute to significant harm on the ecosystems through activities such as resource extraction (e.g. forestry, mining, over-fishing, etc.), urban development (particularly where it displaces wildlife/natural habitat and sensitive ecosystems) and pollution-causing activities. When renewable resources are used up faster than they can regenerate, we deplete our natural capital. As with our bank accounts – when withdrawals are higher than deposits – we run into trouble. This condition is made worse in areas where populations are increasing rapidly and our per-capita resource consumption rates are high.



The “funnel” effect occurs when both population and consumptions rates are increasing. We become less and less sustainable – and must take corrective action to avoid widespread problems – and to avoid “hitting the wall”.

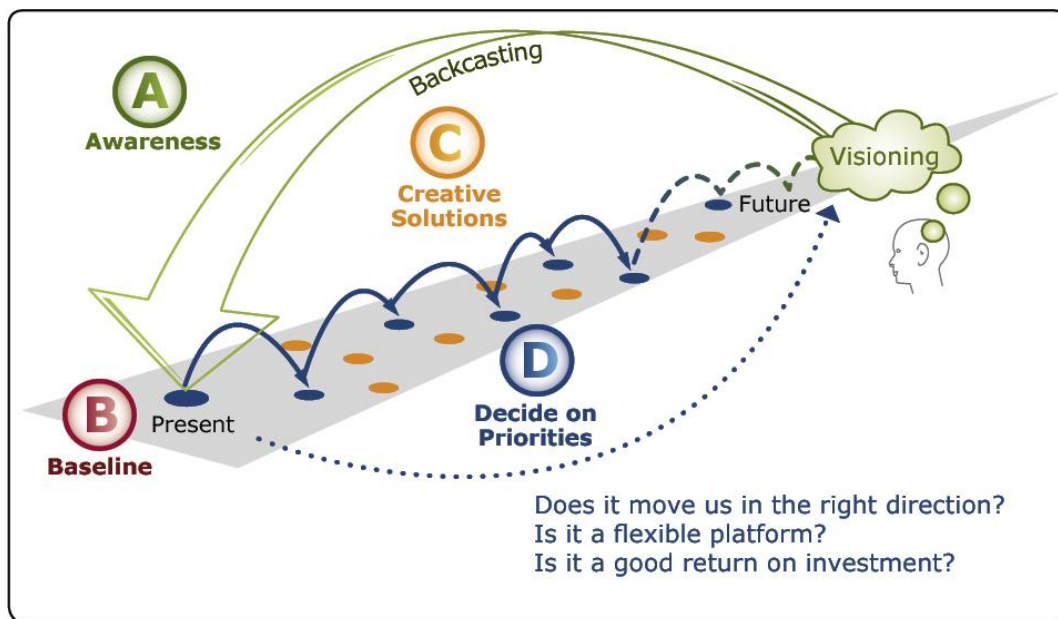
The Natural Step’s Four System Conditions

The Natural Step outlines the conditions needed to sustain the natural & social environment over time. It requires efforts to ensure that we don’t over-consume scarce resources to such an extent that they can’t regenerate themselves. Supporters of the Natural Step speak of “learning to live off the interest, not the capital” when it comes to using natural resources, such as land, air, and water. By making efforts to conserve resources, reduce our consumption “footprint” and produce less waste, we can support an increasing population without harming the ecosystems.

Backcasting from Principles

The Natural Step uses a process called back-casting – which involves developing a clear and compelling vision for a sustainable future – then working back to determine what is required to achieve the vision. The process asks:

- What does a sustainable future look like (vision)?
- Where are we now (current conditions & challenges)?
- What would success look like (measures & indicators)?
- What do we need to do to realize the vision (strategies)?



The Natural Step process recommends three strategic questions be used to help screen strategies and actions. The questions prioritize those actions that move towards sustainability.

They include:

1. Does the action/decision move us in the right direction? (Does it move us closer to alignment with the four sustainability principles?)
2. Is it a stepping stone (flexible platform) toward success and sustainability?
3. Does it provide good return on investment?

The ABCD Planning Process

The Natural Step has developed and tested an approach to help organizations incorporate sustainability into their core strategies. The four-step “A-B-C-D” process provides a systematic way of guiding this process:

A – Awareness Build awareness and understanding of sustainability throughout the City and the community. Representatives from The Natural Step worked with the City of Airdrie to develop a common understanding of sustainability through common language and learning the basic sustainability principles.

B- Baseline Develop an assessment of current conditions and community characteristics. The City and community members worked collaboratively through the Envision Airdrie process to examine what the current conditions were in the city with respect to sustainability. Representatives from The Natural Step used the four sustainability principles to develop a sustainability gap analysis for Airdrie. They developed a draft report for the City – which was used to develop the AirdrieOne Plan.

C- Compelling Vision Collaboratively create a vision for the city. The sustainability vision was developed through the Community Advisory Group (CAG) and reflected information obtained through community input and surveys. It was adopted by City Council and forms an important part of the AirdrieOne Plan.

D- Down to Action Develop action items for moving the city closer to its stated vision. Assess our day-to-day actions in terms of whether it moves us toward our vision – or away from it. The City used the Backcasting method to develop a range of strategies that could move Airdrie toward its vision for sustainability. A community survey was used to develop the priorities for the city.

Appendix Five: The Sustainability Filter

The Sustainability Filter was adopted in 2009 to guide City decision making on capital projects and major initiatives.

The Airdrie Sustainability Filter-At-A-Glance was created to help provide a frame of reference for staff when they answer the three strategic questions. The document provides guiding questions that give some examples of how projects can align with the Natural Step sustainability principles and how projects can incorporate flexibility and provide return on investment.

1. Does the action/decision move us in the right direction?

- ☉ Does it take us closer to our vision?
- ☉ Is it aligned with our core purpose, core values and strategic initiatives?
- ☉ Does it move us closer to alignment with the four sustainability principles? (see below)

Sustainability Principle #1

Reduce our dependence upon fossil fuels, underground metals and minerals.

Guiding Questions

(Consider these to help your thought process when considering your project in relation to sustainability principle 1)

- Does it improve energy efficiency?
- Does it use renewable, alternative energy sources (ex. solar, wind)?
- Is the product recyclable and/or made from recycled content?

Sustainability Principle #2

Reduce our dependency upon synthetic chemicals and other unnatural substances.

Guiding Questions

(Consider these to help your thought process when considering your project in relation to sustainability principle 2)

- Are there alternative products that are less harmful to people and the environment, perhaps more natural options?
- Is the product chosen created in a sustainable manner? (ex. organic, Fair Trade, Rainforest Alliance, FSC Certified)

Sustainability Principle #3

Reduce encroachments upon the natural systems that serve us (ex. water filtration services).

Guiding Questions

(Consider these to help your thought process when considering your project in relation to sustainability principle 3)

- What is the environmental impact of this project? Can the negative impacts be mitigated?
- Does it enhance or preserve natural systems and habitat versus pollute and deplete?

Sustainability Principle #4
Meet human needs fairly and efficiently.

Guiding Questions

(Consider these to help your thought process when considering your project in relation to sustainability principle 4)

- Does this initiative invest in infrastructure, programs or services that will benefit the community?
- Does it respond to the needs and interest of a diverse population regardless of age, income, culture or physical ability? Does it support their ability to access services and amenities, and participate in community life?

2. Is it a stepping stone (flexible platform) toward success and sustainability?

<p style="text-align: center;">FAVOURING </p> <ul style="list-style-type: none"> • Efficiency measures (e.g. reduction of consumption, energy efficiency) • Technical solutions that are adaptable, modular, scalable • Actions that build broader support for sustainability initiatives 	<p style="text-align: center;">AVOIDING </p> <ul style="list-style-type: none"> • Actions that tie you into using current technologies • Partial solutions that cannot be further developed (i.e. dead-ends) • Capital investments that lock you into a single way of doing things
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Example (Consider this to help your thought process when responding to question 2):

- How does this project incorporate long-term flexibility?
 - In general, choosing actions that are as flexible as possible will help avoid dead end situations. If technical or economic conditions change in the future, investments in flexible solutions will help ensure we have the ability to adapt and build in more opportunity for future steps to further reduce our impacts on natural systems.

3. Does it provide a good return on investment

<p style="text-align: center;">FAVOURING </p> <ul style="list-style-type: none"> • Actions that lead to cost reductions, time savings, efficient use of materials and other resources; quick early wins • Actions that will generate new revenue streams • Capital investments that will build social capital 	<p style="text-align: center;">AVOIDING </p> <ul style="list-style-type: none"> • Actions that tie up too much capital in partial solutions • Actions where the benefit does not outweigh the cost • Actions that create high levels of risk (ecological, social or economic) • Actions that do not align with new ecological/economic/social standards
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Example (Consider these to help your thought process when responding to question 3):

- Does this project generate new revenue streams or economic development opportunities?
- Does this project generate efficiency gains? If so, what is the approximate cost savings associated with it?
- Does this project reduce long term operating and/or maintenance costs? If so, what is the approximate associated pay-back period for the investment?

Appendix Six - Sustainability Resources

There are a broad range of sustainability-related resources available online. We've listed those of particular relevance to local government sustainability planning.

Government Sites & Resources:

- AUMA www.auma.ca
- Alberta Ministry of Municipal Affairs www.municipalaffairs.ab
- Calgary Regional Partnership www.calgaryregion.ca/crp
- Whistler Centre for Sustainability www.whistlercentre.ca
- CMHC www.cmhc-schl.gc.ca
- City of Vancouver (Site has an extensive list of sustainability books & DVDs)
<http://vancouver.ca/sustainability>
- Local Government Commission (US) – Ahwahnee Principles toward more liveable communities
www.lgc.org/ahwahnee/principles.html
- World Mayors Council on Climate Change www.worldmayorcouncil.org
- BC Climate Action Toolkit www.toolkit.bc.ca
- Federation of Canadian Municipalities www.fcm.ca

Sustainability Organisations, Institutes

- Natural Step Canada www.naturalstep.ca
- Bow Valley Sustainability Hub www.biosphereinstitute.org
- One Simple Act www.onesimpleact.alberta.ca
- One Million Acts of Green <http://green.cbc.ca>
- International Institute for Sustainable Development www.iisd.org
- Pembina Institute
- The Centre for Rural Sustainability www.ruralsustainability.org
- ICLEI International Council for Local Environmental Initiatives www.iclei.org
- Worldchanging.com
- Climate Change Impacts and Adaptation Research Network (C-CIARN) www.c-ciarn.ca
- Canadian Sustainability Indicators Network (CSIN) www.csin-rcid.ca
- Pathways2Sustainability www.pathways2sustainability.ca
- Sierra Club www.sierraclub.bc.ca
- SustainableABC (sustainable architecture, buildings & culture) www.sustainableabc.com
- Transition Towns www.transitiontown.org

Sustainability & Green Infrastructure Green infrastructure refers to the natural systems, such as wetlands and riparian areas that are essential for managing rainwater, protecting water quality, preventing floods and conserving soil. By absorbing rain and snow, green infrastructure slowly releases stored water into watercourses and buffers settlement areas from flooding. The wise use of natural systems reduces the cost of engineered solutions (such as engineered stormwater ponds) while reducing flood risk. As an example – According to Environment Canada, Canada’s wetlands provided flood control worth \$2.7 billion annually.

- LiveSmart BC www.livesmartbc.ca
- Water sustainability resources www.waterbucket.ca
- Green infrastructure approaches www.toolkit.bc.ca
- Green Bylaws Toolkit www.greenbylaws.ca
- The Green Infrastructure Guide wcel.org
- www.planetfriendly.net
- www.O2design.com
- www.conservationfund.org (has a paper on green infrastructure)
- Green roofs information www.greenroofs.org
- Infraguide: the National Guide to Sustainable Infrastructure – <http://gmf.fcm.ca/infraguide>
- Nosecreek Watershed Partnership – <http://nosecreekpartnership.com>
- Earth Day Canada – EcoAction Teams Program – www.ecoactionteams.ca
- Water Wise planning www.waterwise.com

Ecological Footprint Our ecological footprint represents the land and water it takes to provide us with the things we use and to absorb the related waste. It provides an interesting (and sobering) look at our consumption level. Dr. William Rees at UBC has done extensive research in this area.

- UBC www.ubc.ca
- Ecological Footprint calculator www.royalsaskmuseum.ca
- Global Footprint Network – www.footprintnetwork.org
- www.myfootprint.org

Universities & Colleges Universities and colleges have been moving forward on sustainability and climate change initiatives for the past decade. They have significant resources and ideas. There are many more examples within Canada doing great work in this area.

- AASHE – Association for Advancement of Sustainability in Higher education www.aashe.org
- University of Calgary – Office of Sustainability www.ucalgary.ca
- University of Alberta – www.sustainability.ualberta.ca
- UBC - www.sustain.ubc.ca
- Sustainable Development Research Institute www.sdri.ubc.ca
- SFU – www.sfu.ca
- University of Victoria www.uvic.ca/sustainability
- BCIT (great resource for green roofs) www.bcit.ca/sustainability
- Educational resources - www.sharingthedream.gov.bc.ca

Smart Growth Smart Growth covers a range of development and conservation strategies that help protect the natural environment and make our communities more attractive, economically stronger and more socially diverse. There are ten principles associated with smart growth. They are worth mentioning – because they provide a more intelligent and nuanced approach to creating sustainable cities than the simple application of a density target. The principles are:

1. Mix land uses
2. Take advantage of compact building design
3. Create a range of housing opportunities and choices
4. Create walkable neighbourhoods
5. Foster distinctive, attractive communities with a strong sense of place.
6. Preserve open space, farmland, natural beauty, and critical environmental areas
7. Strengthen and direct development towards existing communities
8. Provide a variety of transportation choices
9. Make development decisions predictable, fair and cost-effective
10. Encourage community and stakeholder collaboration in development decisions

- Smart Growth BC www.smartgrowth.bc.ca
- Smart Growth America <http://smartgrowthamerica.org>
- Smart Planning for Communities Initiative www.fraserbasin.bc.ca
- New Urbanism – Creating Livable Sustainable Communities www.newurbanism.org

Sustainable Transportation – Transportation Demand Management (TDM) is also called mobility management and is a general term for strategies that result in a more efficient use of transportation resources. Some of the strategies used to manage transportation demand include:

1. Public transit
2. Flexible work schedules and telecommuting (to reduce peak period volumes)
3. Ride-sharing, car-pooling and van-pooling
4. Non-motorized transportation improvements – aimed at pedestrians and cyclists

- Extensive resources – Victoria Transport Policy Institute www.vtpi.org
- Guidelines www.actcanada.com
- Transport Canada www.tc.gc.ca
- TDM Toolkit www.fraserbasin.bc.ca

Sustainable Transportation - Transit-oriented development (TOD) is a type of community development that includes a mixture of housing, office, retail and other amenities integrated into a walkable neighbourhood and located within approximately 400m of quality public transportation.

- Victoria Transport Policy Institute www.vtppi.org
- Reconnecting America www.reconnectingamerica.org
- Centre for Transportation Excellence www.cfte.org
- TOD Guidelines: www.edmonton.ca; www.york.ca; www.ottawa.ca
- Best Practices Guide www.calgarytransit.com
- Case Studies www.cmhc-schl.gc.ca

Municipal Sustainability Plans – Alberta & Beyond

- Cochrane cochranesustainability.ca (good example of a community-led process)
- Didsbury www.didsbury.ca
- Edmonton www.edmonton.ca
- Calgary www.calgary.ca
- Olds www.olds.ca/sustain.html
- Canmore
- Metro Vancouver www.metrovancouver.org
- Markham Greenprint www.markham.ca
- Denver Greenprint – www.greenprintdenver.org
- Victoria Sustainability Framework
- Comox Regional District Sustainability Strategy
- City of Fort Collins
- City of Madison Wisconsin.

Sustainability Checklists:

- Port Coquitlam www.portcoquitlam.ca
- City of Victoria www.victoria.ca
- Vernon www.vernon.ca
- City of Dawson Creek – checklist for sustainable planning & development

Sustainable Building Certification

While there are a number of green building rating systems – the most notable is LEED. LEED stands for Leadership in Energy and Environmental Design. It is a national third party certification program that recognizes leadership in green buildings.

- LEED Canada - Canadian Green Building Council www.cagbc.org
- LEED – US www.usgbc.org
- Green Globes www.greenglobes.com
- Built Green Canada www.builtgreencanada.ca
- GreenTrip www.GreenTRIP.org

Sustainability-related Video/Movies/DVDs

- The Story of Stuff
- Manufactured Landscapes
- An Inconvenient Truth
- Who Killed The Electric Car?
- The 11th Hour
- Planet Earth
- Blue Gold: World Water Wars
- Food Inc.

