



Our Vision: Pictou County, offering a balanced lifestyle of urban and rural opportunities and resourceful people, will be a united community that creates its own sustainable future

Sustainable Pictou County is a partnership of the towns of New Glasgow, Pictou and Westville and rural Municipality of Pictou County, with support from Conserve Nova Scotia. The partners are developing an integrated community sustainability plan (ICSP) to provide long-term direction for much of Pictou County.

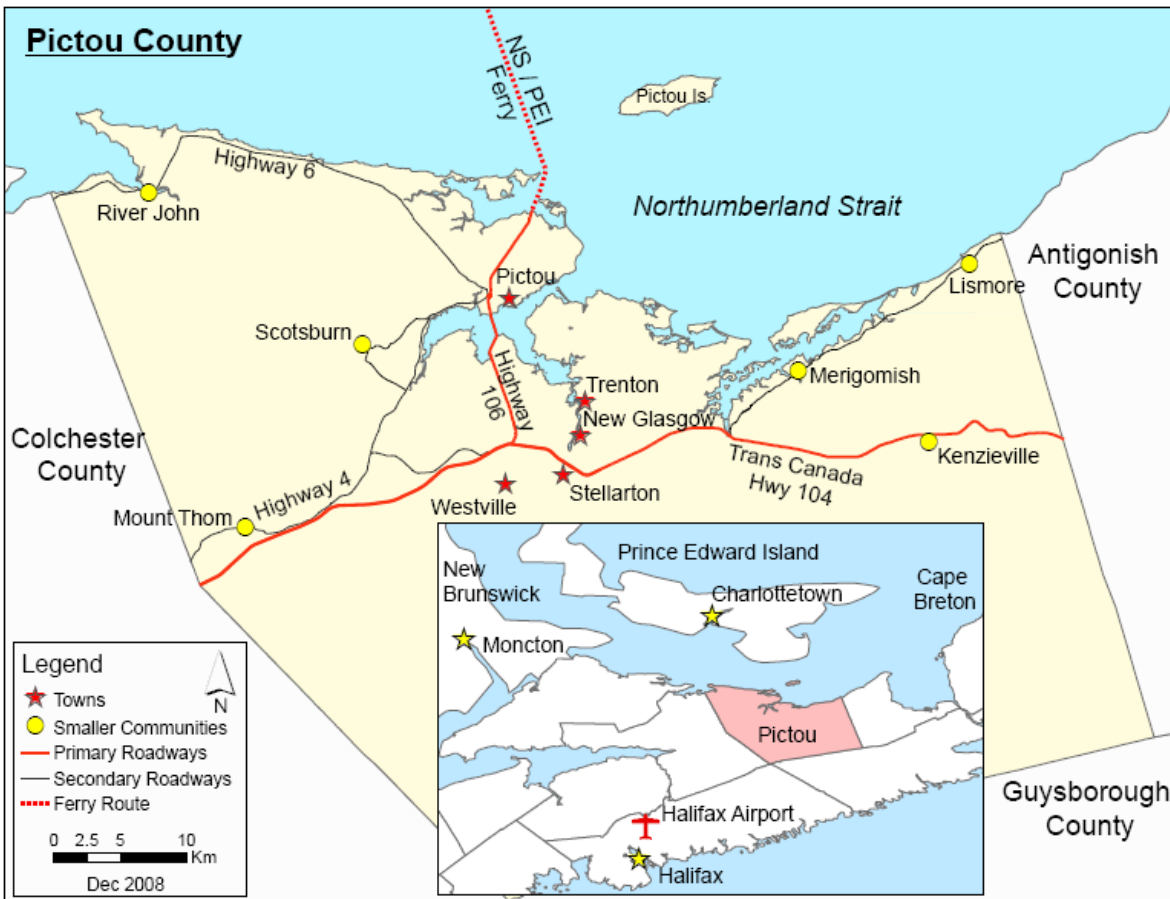


Figure 1: Map of Pictou County and Northeastern Nova Scotia

Pictou County, with a population of about 46,500, is at the centre of the five-county region of Northeastern Nova Scotia. The county’s northern border is the Northumberland Strait, with a seasonal ferry link to Prince Edward Island at Caribou. The county is bordered on the west, east and south, respectively, by Colchester, Antigonish and Guysborough counties. Cumberland is the other county in the region. Pictou County contains five incorporated towns — New Glasgow, Pictou, Westville, Stellarton and Trenton — and numerous smaller communities in the rural Municipality of Pictou County. The Pictou Landing First Nations community is also part of the county.

Acknowledgments

Developing an integrated community sustainability plan requires the leadership, support and assistance of many people. The original municipal leadership for this project came from then-Mayor Ann MacLean of New Glasgow, then-Warden Allister MacDonald of the rural Municipality of Pictou County, then-Mayor Sandy Cyr of Westville and current Pictou Mayor Joe Hawes. Each of these elected officials saw the need for a collaborative approach towards long-term community sustainability. New Glasgow Town Engineer Bob Funke was also an early supporter and sustainability leader. Past and current mayors and councillors of all four municipalities and staff, who participated by attending issues forums or workshops, advanced the process.

Two municipalities designated specific committees to promote sustainability, and their participation was greatly appreciated.

Past or current members and support staff of New Glasgow's Energy and Sustainability Committee include: councillors Henderson Paris, Jack Lewis, Clyde Fraser, Terry Curley and Troy MacCulloch, CAO Lisa MacDonald, Bob Funke, Communications Director Kim Dickson, environmental representative Bob Christie, downtown business representative Lorna MacIsaac, citizen representative Earl MacKenzie and Joan Miller, who coordinated meetings and compiled notes. Roland Burek of the Pictou District County District Planning Commission provided valuable suggestions on sustainability revisions to the town's Municipal Planning Strategy.

Past or current members and support staff of the Municipality of Pictou County's Sustainability Committee include: Warden Ronnie Baillie, Deputy Warden Fielding Smith, councillors Allister MacDonald, David Parker, Roy MacDonald, Kelly McVicar and Robert Parker, CAO Brian Cullen, Deputy Municipal Clerk Carolyn MacIntosh, who coordinated meetings, and Jane Johnson, who compiled notes.

Westville CAO Don Smeltzer and Pictou CAO Scott Conrod also provided assistance. Brian Hayes of Conserve Nova Scotia was always helpful.

The work of staff and volunteers with four organizations in Pictou County who helped organize and conduct issues forums was greatly appreciated, as were the efforts of guest speakers. The co-sponsors of the forums were: Pictou Regional Development Commission (economic); Pictou Harbour Environmental Protection Project (environmental); Pictou County Health Authority (social); and Pictou-Antigonish Regional Library (cultural).

Local media coverage was good. Thanks to staff at the Pictou Advocate, New Glasgow News, CKEC Radio, Halifax Chronicle-Herald and Hometown Voice.

Most important were the more than 460 community members who took the time to *actively participate* in the integrated community sustainability planning process. You are the people who filled out surveys or spent evenings attending meetings, workshops or sustainability forums. You asked questions, discussed issues and worked together to develop ideas and actions for the common good of Pictou County. For this, many, many thanks.

This ICSP report was researched, written and compiled by Steve Harder, Coordinator of Sustainable Pictou County, and completed in March 2009.

Sustainable Pictou County ICSP Summary

The integrated community sustainability plan (ICSP) for four Pictou County municipalities — towns of New Glasgow, Pictou and Westville and the rural Municipality — is based on community ideas and community actions.

Education and preliminary public consultation began with meetings and surveys. Councils wanted to know which issues were most important to residents, so people were asked to prioritize nearly 20 environmental, economic, social and cultural issues.

From this 232-survey sample, six public forums were held to more fully examine priority issues, seek direction on actions, encourage collaboration and build community capacity.

More than 180 people attended the forums, and another 50 attended a visioning workshop, so active public participation in the process was more than 460, or about one per cent of the county's population.

As a result of the forums, four key overarching strategies were developed that can be applied at the county level. Individual municipal plans should reflect and incorporate these broad strategies.

ICSP 1 Improve long-term environmental health by taking a county-wide approach to air, water and climate change issues

Objective: Improved long-term environmental health in Pictou County will be accomplished through enhanced public awareness and the involvement, support and cooperation of all municipal units working together, making planned environmental improvements over time — From January 2009 forum in Pictou

<i>Top 10 ENVIRONMENTAL Sustainability Issues</i>
1 Energy efficiency
2 Air Quality
3 Water Management
4 Natural Resources
5 Transportation
6 Solid Waste
7 Protection biodiversity/habitat
8 Sewage treatment
9 Adapting to climate change
10 Other

The foundation of healthy and sustainable communities rests on providing the basics: **clean air** and **clean water**, which were the second and third top environmental priorities identified by residents. Related to both is **climate change**, which is the most significant environmental issue facing the planet. Extreme weather associated with climate change may result in more droughts, threatening water supplies. Linked to water quality is **sewage treatment**. Untreated or improperly treated sewage can contaminate drinking water and damage aquatic ecosystems. Watershed protection often includes nearby forests, riparian areas and wetlands. These protected areas of water and land help maintain **wildlife habitat and biodiversity**. Poor air and water quality adversely affect people's **health**. In dealing with air and water issues, the current practice is for municipalities to largely act on their own despite the interconnectedness of water resources and effects of air pollution. A county-wide approach is essential to achieve improved community environmental health.

ICSP 2 Address population decline by promoting green entrepreneurship

Objective: Create a community with the energy, opportunity and atmosphere to inspire people to want to be a part of it
 — From November 2008 issues forum in New Glasgow

Long-term sustainability depends on having people live and work in communities. Population loss in Pictou County — a drop of 3,200 between 1986 and 2006 — indicates that more effort is needed to **retain youth and address population decline**. The essence of the above objective is to encourage **economic development** by creating a welcoming, supportive and even celebratory environment to attract and keep people in Pictou County. **Education and training** can help promote the creativity of entrepreneurship, particularly 'green' ventures that provide environmental, social (e.g., **health care**) or cultural (e.g., **culture and heritage**) benefits.

<i>Top 10 SOCIAL, ECONOMIC AND CULTURAL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Education and Training
4 Declining Population
5 Affordable Housing
6 Public safety and EM
7 Technology
8 Recreation
9 Tourism
10 Culture and heritage

ICSP 3 Encourage energy efficiency and sustainable use of natural resources

Objective: Promote sustainable use of energy and natural resources

The above objective attempts to summarize the intent of two issues forums in November 2008 on **energy efficiency** and ecosystem services. The energy focus is on conservation, reduced use of fossil fuel sources and support of renewable energy. These initiatives will lead to **economic development** opportunities. Reducing fossil fuel use will improve local **air quality**. Active transportation and public **transportation**, possibly using biofuels, will also reduce fossil fuel demand. Sustainable use of **natural resources** could include valuing ecosystem services, such as carbon storage and air and water purification. This strategy helps address three of the top four overall sustainability priorities, and two other top 10 issues.

<i>Top 10 OVERALL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Energy Efficiency
4 Air Quality
5 Water Management
6 Education and Training
7 Declining Population
8 Affordable Housing
9 Natural Resources
10 Transportation

ICSP 4 Show leadership in improving cooperation among municipalities and organizations

Objective: All municipalities working together for the good of all our citizens

The above objective was one of several vision statements created by small groups at a July 2008 visioning workshop. Greater county-wide cooperation among municipalities and other groups was one of the main themes of the workshop. This theme was repeated at nearly all the issues forums and public meetings held on sustainability in the county. For this strategy, all of the priority issues are highlighted because all would benefit from greater cooperation.

<i>Top 10 OVERALL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Energy Efficiency
4 Air Quality
5 Water Management
6 Education and Training
7 Declining Population
8 Affordable Housing
9 Natural Resources
10 Transportation

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A: Project overview

The Province of Nova Scotia is actively promoting integrated community sustainability planning (ICSP) among municipalities. Having a plan in place by March 2010 is also a requirement for receiving federal gas tax monies. Municipalities must make decisions affecting the long-term future of their communities by considering and prioritizing environmental, economic, social and cultural issues. Collaboration is a key element of sustainability. In Pictou County, there has been steady progress in expanding municipal partnerships (see Section C). The ICSP process will provide a framework for a county-wide plan and direction on individual plans.

B: What is sustainability?

Sustainability means that what you're doing today can continue for a long time – for decades or longer. If an issue or action threatens the future of the community, then it's not sustainable. In Pictou County, for example, a 20-year-trend of population decline threatens the county's ability to remain a vibrant, prosperous community.

"Sustainable planning examines how people, businesses and organizations can work together to improve the health of both the individual and the community, and preserve the environment for future generations."

— *Nova Scotia Integrated Community Sustainability Planning (ICSP) Guide*

C: Background

The path to sustainability in Pictou County received a boost in the summer of 2006. The Town of New Glasgow partnered with Clean Nova Scotia, the Nova Scotia Department of Energy and the federal EcoAction program on the Financial Savings and the Future of Energy project. New Glasgow, with a population of 9,455, has 20 per cent of Pictou County's 2006 population of 46,513.

When the rural Municipality of Pictou County (population 21,982) joined with New Glasgow on the Energy Conservation and Sustainability in Pictou County project in April 2007, 68 per cent of the county's population was represented; Conserve Nova Scotia and the NS Department of Energy were provincial partners. The addition of Pictou (population 3,813) and Westville (population 3,805) to Sustainable Pictou County in April 2008 means the project represents 84 per cent of the county's population. Two towns, Stellarton and Trenton, have decided not to participate in the project at this time, but they may in the future.

D: The challenge

Working with four municipalities presents the challenge of creating a plan with an overall framework and general strategies with broad support, while allowing flexibility for each unit to take specific actions. As well, the towns each have a Municipal Planning Strategy (MPS) that should be consistent with the overall plan. The rural Municipality of Pictou County doesn't have an MPS, so the ICSP will be a stand-alone document supplemented by a summary of community strategic plans.

E: Establishing an organizational structure

Determining an organizational structure for the four municipalities required flexibility. Sustainable Pictou County used the broad direction in the provincial ICSP guide, with the role of sustainability committees being to coordinate the planning process, champion sustainability, communicate with stakeholders, develop knowledge and make recommendations to council on adopting the ICSP.

In New Glasgow, an existing energy and sustainability committee — comprising four councillors, CAO, town engineer, communications director, and representatives of an environmental organization, downtown business association and residential energy committee — directed the process. Members of the Municipality of Pictou County's sustainability committee included the warden, deputy warden, three councillors and CAO. In Pictou and Westville, town councils and CAOs were responsible for developing the ICSP. The sustainability committees generally worked independently, but committee members worked together during the six issues forums. Representatives of the towns New Glasgow and Westville and the rural Municipality met Feb. 25, 2009 to review the draft ICSP.

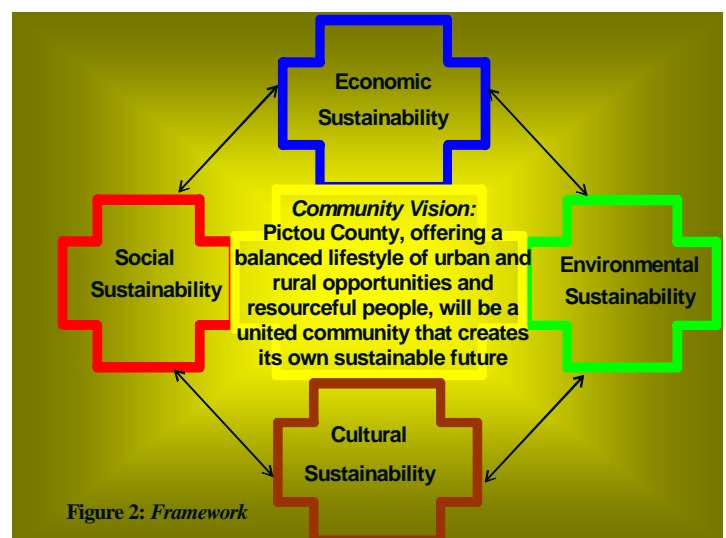
F: Creating a sustainability vision and framework

More than 50 people attended a visioning workshop in July 2008. The process required community members to imagine the type of Pictou County they want in 10, 20, 30 or more years and then work towards realizing the vision.

Working in small groups, they came up with nine possible visions for Pictou County. But there wasn't agreement on a single vision. So representatives of the groups were chosen and adjusted to ensure all four municipal partners were represented, and then in August 2008 a vision was arrived at through consensus and later adopted by project partners. The vision is shown in the diagram below.

The overall approach taken is to have the community's vision at the centre of a four-spoke hub. Any issue – environmental, economic, social or cultural – needs to be considered in relation to the other issues. *Sustainability is about a way of thinking and problem solving that considers issues as they relate to each other, rather than separately.* While individual municipalities often focus on providing necessary services, such as police and fire protection, sewer and water, roads, sidewalks and streetlights, county-wide, regional, provincial and national issues also need to be addressed.

Many of these issues involve improving the quality of life for residents. All of the issues reviewed and prioritized are grouped within the model, shown in Figure 2 and shown in more detail in Appendix A.



G: Identifying and prioritizing issues through education, public consultation, collaboration and community capacity building

The ICSP for four Pictou County municipalities is based on community ideas and community actions. Education and preliminary public consultation began with meetings and surveys, starting in the fall of 2007. Councils wanted to know which issues were most important to residents, so people were asked to prioritize nearly 20 environmental, economic, social and cultural issues (see Table 1).

From this 232-survey sample, six public forums were held in the fall of 2008 and winter of 2009 to more fully examine priority issues and seek direction on actions. Forums on population decline and economic development, energy efficiency, ecosystem services and natural resources, air quality and water management, health, education and training and cultural sustainability addressed the top four issues in each of the sustainability categories.

More than 180 people attended the forums (adjacent photo shows participants at forum in Pictou) and another 50 attended a visioning workshop, so active public participation in the process was more than 460, or about one per cent of the county's population.

The educational value of all the public sessions was significant in that dozens of newspaper articles and columns, radio reports and ads made tens of thousands of people more aware and knowledgeable of sustainability issues (see below for an example of a November 2008 article explaining ecosystem services).

Table 1: Weighted Totals of priority issues from 232 surveys completed between Fall 2007 and Summer 2008

	Totals
<i>Environmental Sustainability Issues</i>	
1 Energy efficiency	581
2 Air quality	577
3 Drinking water (or water management)	540
4 Natural resources	369
5 Transportation	322.5
6 Solid waste	284.5
7 Protection biodiversity/habitat	267.5
8 Sewage treatment	247
9 Adapting to climate change	173.5
10 Other	37.5
<i>Economic, Social and Cultural Issues</i>	
1 Health care	700.5
2 Economic development	618
3 Education and training	513
4 Retain youth and address declining population	478.5
5 Affordable housing	377
6 Public safety and EM	298.5
7 Technology	199
8 Recreation	196.5
9 Tourism	137
10 Culture and heritage	100.5



Seeing the forest for the trees

Ecosystems benefit us all but it's hard to put a dollar value on them, forum told

By MONICA GRAHAM Thu. Nov 27 – Halifax Chronicle-Herald

ALMA — It would cost hundreds of thousands of dollars to manufacture a four-storey, solar-powered, maintenance-free carbon storage unit that would filter pollution from the air for two centuries or so. But much of Nova Scotia is already covered with such units. They're called trees.

Chop down a tree, and it yields so many cords of firewood or board feet of lumber, but what's a living tree worth? That's one of the questions posed at a Tuesday evening forum in Alma, organized by Sustainable Pictou County and the Pictou Harbour Environmental Protection Project. The session also examined the value of wetlands, which filter water, and of landscapes that support a variety of wildlife habitat.

The benefits to people are variously called ecosystem services, natural capital, or ecological goods and services. Since all citizens share in the benefits of ecological systems, all should share in the costs of maintaining them, said Peter deMarsh, president of the Canadian Federation of Woodlot Owners.

Legislation that orders woodlot owners to maintain forests and wetlands for the good of both urban and rural communities creates resistance and is expensive to enforce, he said. Compensating the owners for their costs and the loss of the use of their property for other purposes has been shown to work in other countries, notably Costa Rica, the United Kingdom and several countries in the European Union.

Speakers pointed out that New York City saves money by paying landowners in its watershed to maintain ecosystems, rather than spending billions more to filter and treat drinking water after it reaches the city.

"On the forestry side, Canada lags behind the rest of the world," Mr. deMarsh said.

Farmers, who own and manage five per cent of Nova Scotia forests, plus wetlands and zones along waterways, want to protect and sustain the ecosystem because it's their workplace, said Laurence Nason, executive director of the Nova Scotia Federation of Agriculture.

Halifax contains about 2,400 hectares of paved surface that is impenetrable to rain and can't grow vegetation, and the city draws on surrounding rural areas for the benefits of clean water, food security and the anti-pollution effects of forests, Mr. Nason said. "Farmers don't get paid for their services to the environment," he said. But farmers are planning to sell carbon offset credits to companies that emit carbon and they welcome the involvement of woodlot owners, he said.

The public has to understand the link between ecosystems and the benefits they offer, and risks and opportunities have to be assessed before policies and programs can be introduced, said Randy Milton, wildlife resources manager for the provincial Natural Resources Department.

Discussion followed the presentations, with feedback collected for an integrated sustainability plan for Pictou County.

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The forums were also about collaboration, as each was co-sponsored by other organizations representing the four areas of sustainability: Pictou Regional Development Commission (economic); Pictou Harbour Environmental Protection Project (environmental); Pictou County Health Authority (social); and Pictou-Antigonish Regional Library (cultural). Co-sponsoring allowed each group to take ownership of the sessions and also build organizing, publicity, presentation and moderating skills that could be used to host future events.

One of the unintended, yet valuable, aspects of the forums was their capacity-building function. Each forum was based on a standard format: invite informed presenters to provide the community with good information, allow for questions and discussion, work in small groups to suggest actions or ideas, and then report back to the main group. Many councillors attended at least one forum and several attended two or more. They learned by participating, and it became obvious to the project coordinator that several elected officials and members of the public had acquired the necessary skills to conduct similar events on their own.

Collaboration and capacity building became particularly important because if, as occurred, the coordinator's position ended after a year, parts of the project could still continue, using other resources.

H: Four key strategies developed

As a result of the forums, four overarching strategies were developed that can be applied at the county level.

The strategies — detailed later in the plan — are:

ICSP 1 Improve long-term environmental health by taking a county-wide approach to air, water and climate change issues

ICSP 2 Address population decline by promoting green entrepreneurship

ICSP 3 Encourage energy efficiency and sustainable use of resources

ICSP 4 Show leadership in improving cooperation among municipalities and organizations

I: Moving from strategies to goals, actions, outcomes and partners

While some of the actions were the direct result of the issues forums, in other cases goals needed to be determined and actions developed to meet specific needs. Outside sources, including the provincial ICSP guide, were consulted, along with municipal staff. Like the strategies, the goals and actions needed to be general enough to apply to all municipalities. Yet some actions also had to be more specific to accommodate the needs and wishes of individual municipalities.

An example of how the process would work, moving from goals to actions, considering provincial interests, sustainable outcomes, partners and a time line, is shown below. This approach will be shown in more detail later under each strategy.

Example: Summary of Goals, Actions, Consistency with NS Interests, Sustainable Outcomes, Partners and Time Line

ICSP 1 Improve long-term environmental health by taking a county-wide approach to air, water and climate change issues

Objective: Improved long-term environmental health in Pictou County will be accomplished through enhanced public awareness and the involvement, support and cooperation of all municipal units working together, making planned environmental improvements over time

Potential partners and abbreviations: Municipality of Pictou County (MPC), towns of New Glasgow (NG), Stellarton (S), Pictou (P), Westville (W) and Trenton (T); Municipal Water Utilities (MWA); Pictou County Health Authority (PCHA); Pictou Harbour Environmental Protection Project (PHEPP); Pictou Regional Development Commission (PRDC); East River Environmental Control Centre (ERECC); Pictou County District Planning Commission (PCDPC); Nova Scotia Environment (NSE); Nova Scotia Department of Health (NSDH); Environment Canada (EC); Environmental/Engineering Consulting Companies (EECC); and Pictou-Antigonish Regional Library (PARL).

Eligible Environmentally Sustainable Municipal Infrastructure (ESMI) projects for this strategy under the Municipal Funding Agreement (MFA) include: water, wastewater and possibly solid waste projects. Capacity building includes long-term thinking, broadening scope of plans, integration, collaboration, public engagement and education and implementation.

Goals	Actions: Policy, Project or Activity	Consistency with prov. statements of interest	Sustainable Outcomes and Sustainable Pillars	Primary Responsibility and Potential Partners/ Collaborators/ MFA eligibility	Time Line
Create a body that supports a county-wide approach to improved long-term environmental health for residents of Pictou County	Establish a Pictou County Environmental Health Forum	Consistent with goals of statements on drinking water supply and infrastructure (see Appendix B)	Improved environmental health (social) through collaboration among six municipalities and key environmental, social, economic and cultural organizations	Six municipal councils, PCHA, PHEPP, NSE, NSDH, EC, PRDC, PCDPC, PARL Potentially MFA eligible under capacity building	Short-term (in 2009)

J: ICSP scope, resources and implementation

One of the objectives of the ICSP was to look at existing resources and services and determine if there are currently any major gaps. In some cases, existing organizations may already provide some of the proposed services and be in a good position to implement suggested actions. Municipal control and influence also needed to be considered in developing strategies. Areas that fall mainly under provincial control are given lower priority in the ICSP than those under municipal influence.

In proposing actions, consideration was given to the fact that municipalities indicated they wanted to largely use existing resources and organizations. So the ICSP attempts to provide innovative yet practical ways of accomplishing this.

ICSP 1 Improve long-term environmental health by taking a county-wide approach to air, water and climate change issues

Objective: Improved long-term environmental health in Pictou County will be accomplished through enhanced public awareness and the involvement, support and cooperation of all municipal units working together, making planned environmental improvements over time

<i>Top 10 ENVIRONMENTAL Sustainability Issues</i>
1 Energy efficiency
2 Air Quality
3 Water Management
4 Natural Resources
5 Transportation
6 Solid Waste
7 Protection biodiversity/habitat
8 Sewage treatment
9 Adapting to climate change
10 Other

The above objective was submitted by one of the groups at the Jan. 15, 2009 issues forum in Pictou on air quality, drinking water and water management.

The foundation of healthy and sustainable communities rests on providing the basics: **clean air** and **clean water**, which were the second and third top environmental priorities identified by residents. Related to both is **climate change**, which is the most significant environmental issue facing the planet. Extreme weather associated with climate change may result in more droughts, threatening water supplies. Linked to water quality is **sewage treatment**. Untreated or improperly treated sewage can contaminate drinking water and damage aquatic ecosystems. Watershed protection often includes nearby forests, riparian areas and wetlands. These protected areas of water and land help maintain **wildlife habitat and biodiversity**. The environmental health strategy also helps address the top overall sustainability issue: **health care**.

Priorities for action include areas within municipal control or influence.

Water management would be an example of an issue under municipal control, and each municipality deals with water-related issues. But a county-wide initiative is lacking.

Airshed management would be an example of influence, since although air pollution is regulated by Nova Scotia Environment, a municipal or community group with an interest in air quality might be in a position to influence government action.

ICSP 1.1 Air quality and water management issues forum results

For the Jan. 15, 2009 issues forum in Pictou on air quality, drinking water and water management, Sustainable Pictou County partnered with the Pictou Harbour Environmental Protection Project. More than 40 people attended.

Guest speakers at the issues forum were:

- Johnny McPherson, airshed planner for Nova Scotia Environment, on airshed planning in Nova Scotia and air quality in Pictou County
- Cheryl Benjamin, watershed planner with Nova Scotia Environment, on drinking water and water management provincially and in Pictou County
- Scott Conrod, Pictou's Chief Administrative Officer, who provided an overview of a joint town-county sewage treatment plant and its relevance to drinking water

Among the proposed goals or objectives for the environmental health section of the ICSP were:

- Improved long-term environmental health in Pictou County will be accomplished through enhanced public awareness and the involvement, support and cooperation of all municipal units working together, making planned environmental improvements over time
- Need for a community-led response team to deal with citizen concerns and provide accessible information and resources

1.1.1 Need for county-wide airshed and watershed management

Many of the comments and ideas revolved around the need for a county-wide approach to watershed management and airshed management.

On water management, the current practice is for municipalities to largely act on their own despite the interconnectedness of water resources. For example, the waters of the East River pass through five municipalities — the lone exception is Westville — yet there is no coordinated management strategy for the river's watershed. Aquifers don't obey municipal boundaries. For example, some of the wells that provide Pictou's water supply are located in the rural municipality. Forbes Lake, which supplies water to New Glasgow and Westville and parts of Trenton and the rural municipality, is also located in the Municipality.

On the positive side, the four upriver towns and the rural municipality all participate in the East River Environmental Control Centre, which treats municipal sewage and runoff. Towns and the rural municipality cooperate in maintaining the security of town water supplies. So municipalities can work together. In the long term, it will be increasingly important they do so to manage the county's water resources.

Airsheds are more difficult to define than watersheds, since air pollutants can be carried thousands of kilometres by winds. Transboundary emissions from central and eastern North America can end up in Nova Scotia and pollute the air here. Nova Scotia Environment regulates air pollutants in the province and has an air monitoring station in Pictou. Within the county, air pollution from a source within one municipality often ends up in several or all of the municipalities. So a county-wide approach would be more effective.

1.1.2 Forum suggestions

Suggested actions, policies or projects from the air and water forum included:

- Provide free water sampling program for residents, since water quality and pollution are concerns
- Coordinate sampling of community air and water quality
- Support more education and community forums
- Urge governments to provide more funding for science and compile data for public, which would lead to more accountability
- Access ecoNova Scotia program for environmental projects
- Research scrubbers that reduce certain air pollutants
- Operate mobile air monitors or change monitor locations

ICSP 1.2 Summary of Pictou Airshed Management Project

In terms of airshed management, Pictou County has the advantage of a considerable amount of work being carried out between 2003 and 2005, sponsored by the Pictou Harbour Environmental Protection Project.

Following is a summary of the project:

The Pictou Airshed Management Project (Pictou-AMP) came about because community members had identified air quality as a significant concern in a survey in the early 2000s. So when there was an opportunity to learn more about air quality under Environment's Canada's Science Linkages Program, the Pictou Harbour Environmental Protection Project acted.

Work on the Pictou-AMP began in 2003, as a joint project of PHEPP and Environment Canada. In 2004, three industries with local plants—Nova Scotia Power Inc., Neenah Paper and Michelin North America (Canada) Inc.—also became partners. The partnership continued in 2005.

One of the underlying philosophies of the project was that there is a need for better community understanding of air issues and actions that can be taken to improve air quality. To effectively engage the community, however, citizens need to know that all emission sources, ranging from large industrial to personal activities, are being considered.

Pictou County has one of the highest concentrations of industry in Nova Scotia. The area has a coal-fired electricity generating station (NSPI's plant in Trenton), which has the second highest level of air pollution in the province. A kraft pulp mill (Northern Pulp, formerly Neenah, Kimberly-Clark and Scott) in Abercrombie Point has the fifth highest level of air emissions in Nova Scotia. There are also tire (Michelin) steel fabrication (Maritime Steel) plants, and numerous smaller facilities, all producing air emissions. At the time of the airshed project, TrentonWorks was also in operation.

Individuals driving cars and trucks or heating with wood or oil have an impact on local air conditions. Pictou County is also affected by the long-range transport of air pollution from outside of the region.

The Pictou-AMP was aimed at developing a body of information and community awareness needed to effectively manage air quality in the area.

1.2.1 A community guide to developing an airshed plan

The airshed project created a 20-page guide to developing a community airshed plan. The guide uses Pictou County examples and details a number of steps to help communities address air quality issues.

The steps include:

- 1 Assess obstacles
 - 1.1 Do you have adequate funding?
 - 1.2 Do you have enough technical support?

- 2 Conduct research
- 3 Determine your objectives
- 4 Review regulations
- 5 Select a suitable air emissions inventory model
- 6 Follow planning steps
 - 6.1 Consult to identify and prioritize local air quality issues
 - 6.2 Identify pollutants to include in inventory
 - 6.3 Identify area emission sources
 - 6.4 Determine airshed boundaries
 - 6.5 Select an appropriate grid mapping system
 - 6.5 Determine appropriate ways of calculating emissions
 - 6.7 Compile local inventory
- 7 Consider impacts of transboundary emissions
- 8 Assess local air quality monitoring
 - 8.1 Analyse air monitoring data
- 9 Investigate feasibility of community air dispersion modelling
- 10 Promote community awareness and involvement

1.2.2 Example of issues identification from guide

The approach the Pictou-AMP took was to contact the district manager of Nova Scotia Environment and Labour (NSEL). She in turn consulted with her staff and they came up with several main issues that residents had contacted the local office about.

In priority, the top five air quality issues were:

1. Emissions from Neenah Paper (formerly Kimberly-Clark Nova Scotia) kraft pulp mill in Abercrombie Point and odour from mill's Boat Harbour industrial effluent water treatment system in Pictou Landing
2. Fallout from Nova Scotia Power's coal-fired electricity generation station in Trenton
3. Noise and dust from Pioneer Coal's strip coal mine in Stellarton
4. Dust and odorous emissions from Maritime Steel and Foundries metal fabrication plant in New Glasgow
5. Odours from rotten eel grass in Lyons Brook (not regulated by department)

1.2.3 Nova Scotia Environment follow-up on obstacles

Johnny McPherson, airshed planner for Nova Scotia Environment, who spoke at the issues forum, was later asked about technical and financial support for communities that want to develop airshed management plans. He said he could provide a minimum of one day per month of technical support and said the province could also provide an unspecified amount of financial support.

This addresses two of the key obstacles and represents a change in resources from 2005, when the province didn't have an airshed planner and didn't offer any financial support to communities.

ICSP 1.3 Health impacts of air pollution

The link between improved air quality and improved life expectancy was confirmed in study reported Jan. 22, 2009 in the *New England Journal of Medicine*.

The study says that on average, reductions in fine particulates over decades has increased life expectancy by five months for residents of 51 U.S. cities.

"The evidence clearly suggests that the reason we're seeing increases in life expectancy is because we have a reduction in an important risk factor, in this case air pollution, to cardiopulmonary disease generally," said Dr. Arden Pope, a professor at Brigham Young University in Utah. She was quoted in *The Globe and Mail*.

The Pictou County Health Authority's 2008 Health Status Profile (www.pcha.nshealth.ca/pdf_files/health_status_profile.pdf) reports that mortality rates due to respiratory disease are higher in Pictou County than in the rest of Nova Scotia.

ICSP 1.4 Water management in Nova Scotia

The province tries to promote different types of water management, including management of drinking water, groundwater, surface water, wastewater and development of a comprehensive water strategy.

Co-operation on water stewardship is critical to long-term sustainability. "Stewardship of our water resources means taking care of them and sustaining their natural processes," states Nova Scotia Environment's *Water for Life* report. "We must all accept responsibility for the water we use and for making decisions about how we use it and protect it for future generations."

1.4.1 Drinking water supply and management in Pictou County

Drinking water supply in Pictou County comes from three main sources: wells, a lake and a river.

Most of the rural municipality's residents obtain their water from wells. Based on a provincial well logs database, there are 7,311 wells that have been identified in Pictou County. This doesn't include older wells, since regulation didn't come into effect until the 1960s, or abandoned wells. Individual rural homeowners are responsible for their own wells and their own water. Quality and quantity of drinking water from wells can vary significantly depending on location.

The water supply for Pictou and Trenton is also from wells, with the respective towns responsible for quality, quantity and treatment. Pictou has 13 wells and Trenton 3.

The Town of New Glasgow is responsible for Forbes Lake, which provides treated water for the towns of New Glasgow and Westville, along with parts of Trenton and parts of the the rural Municipality of Pictou County.

The Town of Stellarton uses treated water from the East River to supply its residents.

1.4.2 Potential health effects of natural uranium and arsenic in water

Much of the groundwater in Pictou County falls within areas that may contain naturally occurring uranium or arsenic. The Canadian drinking water guideline for uranium is 0.02 milligrams per litre, while for arsenic the guideline is 0.01 mg/L.

Both of these natural elements have no taste, smell or colour and can only be detected through a chemical test.

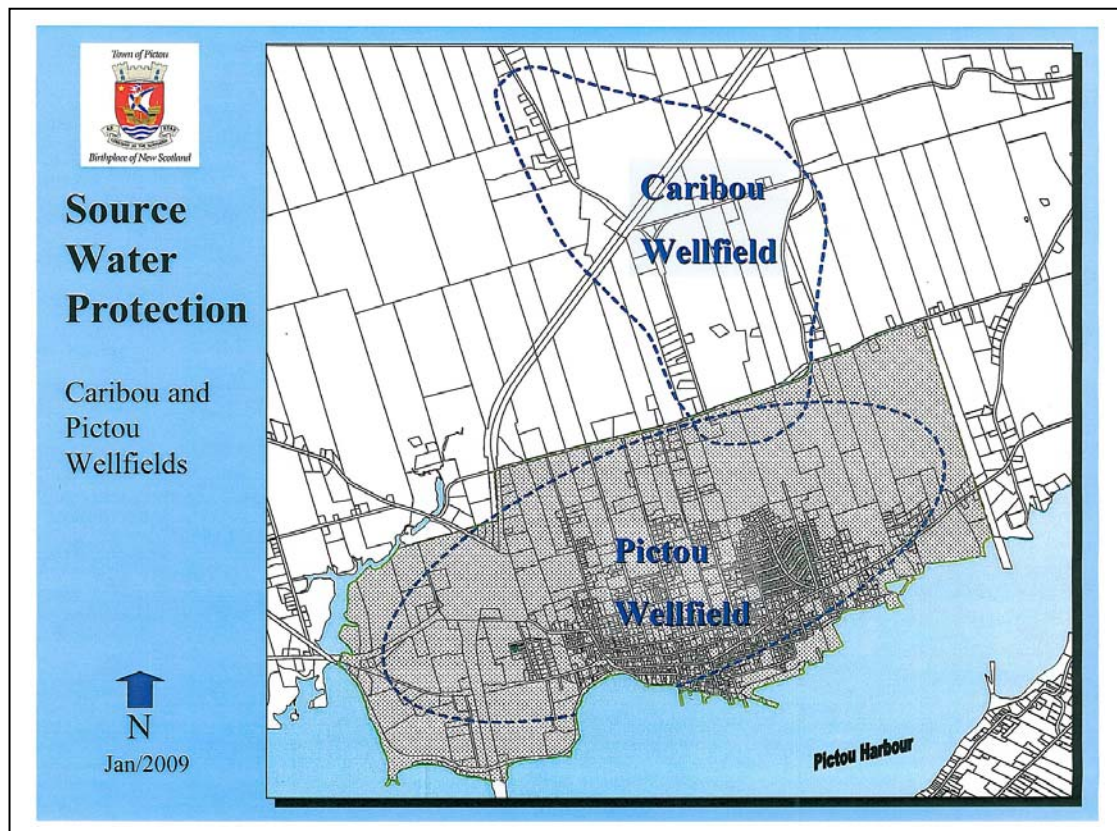
Short-term exposure over days or weeks to high levels of arsenic in drinking water can produce nausea, diarrhea and muscle pain, while long-term exposure to low levels of arsenic may cause certain kinds of cancer, says a Nova Scotia Environment fact sheet. Exposure to uranium in drinking water can result in kidney damage.

Regular testing of wells is recommended by Nova Scotia Environment.

One of the suggestions from the air and water issues forum was to provide a free water sampling program for residents.

1.4.3 Example of water management across municipal boundaries

Protection of water sources and surrounding lands for and Pictou – from the Caribou Wellfield – depends on cooperation with rural landowners and the rural Municipality.



ICSP 1.5 Green infrastructure opportunities

The 2009 federal budget, tabled on Jan. 27, 2009, includes \$1-billion over five years for a Green Infrastructure Fund. Funding will be allotted for infrastructure projects that focus on sustainable energy and those that contribute to cleaner air, water and land.

By working collaboratively, municipalities in Pictou County could potentially receive more funding than by making individual submissions. This would provide greater return for tax dollars spent and greater community benefits.

1.5.1 Examples of infrastructure cooperation in Pictou County

The Town of Pictou and rural Municipality of Pictou County are currently cooperating on a multi-million-dollar joint wastewater collection and sewage treatment plant. The plant will serve town residents and also about 375 residences in the rural communities of Lyons Brook and Scotsburn. The sustainability benefits of the project include cleaner water, more efficient use of water, reduced wastewater and improved quality of discharges, reduction in homes using septic systems, lower long-term maintenance costs and a cleaner harbour. The cost of either municipality constructing a treatment plant for only its own needs would likely have been prohibitive. But by working together, residents and the environment benefit.

The towns of New Glasgow and Westville have operated under a shared services agreement for water and sewage services for a number of years. Previously, Westville residents received their drinking water from the Middle River. But under the joint agreement, Westville pays for some of the operating and infrastructure costs of the Forbes Lake water treatment plant. The result is a more stable supply of quality water.

Several municipalities contribute to infrastructure and operating costs at the East River Environmental Control Centre, which treats sewage from four upriver towns and parts of the rural municipality.

More joint projects should result in further costs savings in the future. One potential joint project is for the rural Municipality to work with the Town of Trenton to provide sewage services for county residents in nearby Greens Point.

ICSP 1.6 Climate change

A report on the potential impacts of climate change in Pictou County – *Sea Level Rise Impacts and Adaptations* – was completed by Elissa Gollan of Clean Nova Scotia in 2008. Excerpts about potential impacts include:

- *Sea-level rise is already being observed and is expected to continue at an accelerated rate over the next century; therefore, storm surges are likely to flood areas never before flooded.*

- *Change in habitat, salinity and food web cycle from changes in sea-levels, temperature and sediment runoff – this will affect the commercial viability of certain fish stocks (crab, lobster, salmon, freshwater fin fish, salt-water fin fish, and other salt-water shell fish).*
- *Anticipated increase in insurance costs associated with damage to marine transport and fisheries infrastructure (wharves, etc).*
- *The most sensitive coasts are commonly low-lying with barrier beaches and salt marshes. These areas will experience rapid migration of beaches and flooding of coastal freshwater marshes – ecosystems will be adversely affected.*
- *Rising sea-levels will likely expose coastlines to increased damage from wave action and intensify rates of change (erosion). More coastlines will be exposed to intensified wave action directly related to a changing climate.*
- *Possible increased incidents of salt-water intrusion in coastal aquifers affecting potable and agricultural groundwater supplies.*

A number of approaches and responses to climate change impacts were reviewed at an Adapting Infrastructure to Our Changing Climate conference in mid-March 2009 in Halifax. Anticipatory adaptation involves actions taken prior to an event. These can include modeling and mapping to estimate potential long-term effects on coastlines and infrastructure based on sea-level rise, storm surge and heavier precipitation. Other examples include preserving or rehabilitating natural coastal habitats or restricting development below a set elevation. Reactive adaptation occurs following an event. For example, rebuilding roads or other infrastructure following extreme storm damage should take future climate change impacts into account.

ICSP 1.7 Analysis

Issues involving air, water and climate change are complicated and require a coordinated, county-wide approach. Of particular concern are potential health risks because of poor air or water quality. Part of the ICSP process was to determine existing services, potential gaps and potential partnerships.

No organization with broad municipal support currently exists to tackle these key environmental health issues.

Organizations or government departments that could take the lead, provide resource help or partner in a county-wide community approach to address environmental health include: Pictou County Health Authority (social); Pictou Harbour Environmental Protection Project (environmental), Nova Scotia Environment, Nova Scotia Department of Health, Environment Canada, Pictou County District Planning Commission, Pictou Regional Development Commission (economic), and Pictou-Antigonish Regional Library (cultural).

ICSP 1.8 Recommended actions

Based on the issues forum results and other material contained in this section, several recommendations are being proposed.

1.8.1 Establish a Pictou County Environmental Health Forum

Establish a Pictou County Environmental Health Forum (EHF) that encourages municipal cooperation on priority environmental health issues, particularly air quality, water quality and climate change. The EHF, based somewhat on the format of the issues forums, would provide feedback on areas of community concern. The EHF would also investigate the feasibility of creating a county-wide airshed management plan and a county-wide water management plan.

These actions address the two key recommended goals or objectives from the Jan. 15 issues forum on air quality, drinking water and water management (see ICSP 1.1).

1.8.2 Proposed makeup of EHF

The Environmental Health Forum would comprise a senior elected official (Mayor, Warden or Deputy) and senior staff person (CAO, Deputy or Engineer) from all six municipalities in Pictou County, creating a 12-member Forum. The elected representative of each partner municipality would take turns chairing the meetings. A moderator would also be useful. Councillors and staff and members of the public with an interest in environmental health issues would be welcome to attend.

1.8.3 Resources and community support

Leadership will have to come from the six municipalities. Municipal elected officials need to make a commitment to the Forum and then request support from other organizations in the county to help host the events.

Research and support could be provided by the Pictou Harbour Environmental Protection Project, Pictou County Health Authority, Nova Scotia Environment, Nova Scotia Department of Health, Environment Canada, Pictou County District Planning Commission, provincial environmental organizations or private environmental or engineering companies. Additional community support could be sought from Pictou Regional Development Commission and Pictou-Antigonish Regional Library. Representatives of each of these groups would be invited to meetings to provide information and be made aware of environmental health initiatives in their community.

1.8.4 Meetings

Recognizing that most people already have numerous meeting commitments and that some of the invited partners will come from Halifax, it's recommended that meetings be held once every second month, from noon to 2 p.m. Given the potentially large number of people who could attend, it's suggested that for the first year at least the most suitable location might be the rural Municipality's new council chambers.

There is a social aspect to working together, so it's suggested Forum members and invited guests have lunch at noon – different organizations could take turns sponsoring the lunches – with the official part of the meeting to start at 12:30. There could be an initial presentation on an environmental health issue, such as airshed

management, water management, climate change or health, followed questions and public discussion, project updates and possible future actions. If the questions or comments (which could be made in person, by writing or fax or by email) were complicated and required more research to answer, the results would be made public at the following meeting. The benefits to all participants is that they would have good information to provide the public on community environmental health concerns.

1.8.5 Need for municipal leadership and commitment

Creating a Pictou County Environmental Health Forum will only occur if municipal elected officials and senior staff show leadership and commitment. Getting all six municipalities to work together is a major challenge. Yet if they can't put aside their differences for the common good on community priorities as fundamental as clean air, clean water and improved health, then what will ever voluntarily unite them?

1.8.6 More specific goals and actions

Based on a review of the provincial ICSP guide and discussions with municipal officials, more specific actions are proposed in Section 1.9.

ICSP 1.9 Summary of goals, actions, consistency with Nova Scotia interests, sustainable outcomes, partners and time line

ICSP 1 Improve long-term environmental health by taking a county-wide approach to air, water and climate change issues

Objective: Improved long-term environmental health in Pictou County will be accomplished through enhanced public awareness and the involvement, support and cooperation of all municipal units working together, making planned environmental improvements over time

Potential partners and abbreviations: Municipality of Pictou County (MPC), towns of New Glasgow (NG), Stellarton (S), Pictou (P), Westville (W) and Trenton (T); Municipal Water Utilities (MWA); Pictou County Health Authority (PCHA); Pictou Harbour Environmental Protection Project (PHEPP); Pictou Regional Development Commission (PRDC); East River Environmental Control Centre (ERECC); Pictou County District Planning Commission (PCDPC); Nova Scotia Environment (NSE); Nova Scotia Department of Health (NSDH); Environment Canada (EC); Environmental/Engineering Consulting Companies (EECC); Pictou-Antigonish Regional Library (PARL)

Eligible Environmentally Sustainable Municipal Infrastructure (ESMI) projects for this strategy under the Municipal Funding Agreement (MFA) include: water, wastewater and possibly solid waste projects. Capacity building includes long-term thinking, broadening scope of plans, integration, collaboration, public engagement and education and implementation.

Goals	Actions: Policy, Project or Activity	Consistency with prov. statements of interest	Sustainable Outcomes and Applicable Sustainability Pillars	Primary Responsibility and Potential Partners/ Collaborators/ MFA eligibility	Time Line
Create a body that	1.8.1 Establish Pictou	Consistent with	Improved	Leadership from six	Short-

Sustainable Pictou County ICSP for 2009-10

supports a county-wide approach to improved long-term environmental health for residents of Pictou County	County Environmental Health Forum	goals of statements on drinking water supply and infrastructure (see Appendix B)	environmental health (social) through collaboration among six municipalities and key environmental, social, economic and cultural organizations	municipal councils , PCHA, PHEPP, NSE, NSDH, EC, PRDC, PCDPC, PARL Potentially MFA eligible under capacity building	term (in 2009)
Work towards county-wide watershed management	1. Review municipal water and wastewater systems and plans to make them more sustainable	Consistent with goals of statements on drinking water supply and infrastructure and flood plains (see Appendix B)	Improved water supply and quality (environmental)	Councils and staff of six municipalities , MWU, NSE, PHEPP, PRDPC, ERECC and EECC Potentially MFA eligible in water and wastewater categories	Short-term (1 to 2 years)
	1.1 Conduct a yield analysis of municipal water supplies		Will determine if county-wide water supply and production can meet current and future needs		Short-term (1 to 2 yrs)
	1.2 Install water meters		Monitors consumption and encourages conservation		Short-term (1 to 2 yrs)
	1.3 Investigate feasibility of well testing program for rural residents		Potential benefits would include increased knowledge of possible health risks from natural arsenic, uranium or bacteriological contamination		Short-term (1 to 2 yrs)
1.4 Monitor bacteriological quality of receiving waters	Determines if water in rivers and other waterways is safe and healthy	Short-term (1 to 2 yrs)			

Sustainable Pictou County ICSP for 2009-10

	<p>1.5 Promote water storage through enhanced wetland conservation</p> <p>2 Share information among municipalities</p> <p>3 Determine gaps and opportunities for cooperation</p> <p>4 Create county-wide water management plan</p> <p>5 Integrate county-wide plan with regional plan</p>		<p>and helps detect potential problems in sewage or water treatment</p> <p>Increased water supply and preservation of wetland biodiversity and habitat</p> <p>Increased knowledge of best practices for all municipalities through collaboration</p> <p>Tackling gaps will improve water quality and supply and cooperation will reduce financial costs</p> <p>Cleaner water county-wide and reduced costs through collaboration and cooperation</p> <p>Cleaner water regionally and reduced costs through collaboration and cooperation</p>		<p>Short-term (1 to 2 yrs)</p> <p>Short-term and medium-term (3 to 9 yrs)</p> <p>Short-term and medium-term (3 to 9 yrs) Medium-term (3 to 9 yrs)</p> <p>Long-term (10 yrs or more)</p>
Work towards county-wide airshed management	Follow steps in community guide developed under Pictou Airshed Management Project (see ISCP 1.2, 1.2.1 and 1.2.2)	None of five provincial statements of interest currently applicable	Cleaner air and more community collaboration, involvement and influence in airshed management (environmental, cultural)	Councils and staff of six municipalities, NSE, PHEPP, PRDPC, EECC, along with major air local polluters, such as Nova Scotia Power (NSP), Neenah Paper (NP), Michelin (M) and Maritime Steel (MS) Potentially MFA eligible capacity building	Short-term (1 to 2 yrs) and medium-term (3 to 9 yrs)

<p>Work towards a county-wide approach to climate change</p>	<p>Review Clean Nova's <i>Sea Level Rise Impacts and Adaptations</i> report and other reports to help set priorities for actions (see ICSP 1.6)</p> <p>Consider anticipatory and reactive adaptation, including:</p> <p>Modeling and mapping of coastlines and coastal infrastructure</p> <p>Preservation or rehabilitation of natural coastal habitats</p> <p>Consider long-term impacts of climate change when rebuilding damaged infrastructure</p> <p>Combination of strategies</p>	<p>Consistent with goals of statements on drinking water supply and infrastructure and flood plains (see Appendix B)</p>	<p>Integrated adaptation to climate change that threatens the county's coastlines, flood plains, water quality and supply and infrastructure (environmental, economic and social)</p> <p>Indicates potential long-term impacts of climate change and allow municipalities to better plan for the future</p> <p>Helps protect beaches and shorelines from erosion</p> <p>Increases likelihood infrastructure will withstand future events</p> <p>Provides best combination of options for environmental, economic and social benefits</p>	<p>Councils and staff of six municipalities, NSE, PHEPP, EC, PRDPC, EECC Potentially MFA eligible capacity building or infrastructure</p>	<p>Short-term (1 to 2 yrs) and medium-term (3 to 9 yrs) and long-term (10 yrs or more)</p>
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ICSP 1.10 County-wide approach to air, water and climate change strategy summary and sustainability benefits

The main focus, and therefore the main benefit, of a county-wide strategy towards air, water and climate change is environmental. Yet the reason people are concerned about these issues is often their potential health impact, which is social. A strategy of six municipalities working together for the common good provides an alternative to each municipality looking out for its own interests, which has often been the cultural norm in Pictou County. Working together also provides economic benefits since information, services and infrastructure can be shared rather than duplicated.

ICSP 2 Address population decline by promoting green entrepreneurship

Goal: Create a community with the energy, opportunity and atmosphere to inspire people to want to be a part of it
– From November 2008 forum in New Glasgow

Long-term sustainability depends on having people live and work in communities. Population loss in Pictou County — a drop of more than 3,200 between 1986 and 2006 — indicates that more effort is needed to **retain youth and address population decline**. The essence of the above objective is to encourage **economic development** by creating a welcoming, supportive and even celebratory environment to attract and keep people in Pictou County. **Education and training** can help promote the creativity of entrepreneurship, particularly 'green' ventures that provide environmental, social (e.g., **health care**) or cultural (e.g., **culture and heritage**) benefits. The strategy to reverse population decline through green entrepreneurship addresses the top four and tenth social, economic and cultural priorities.

<i>Top 10 SOCIAL, ECONOMIC AND CULTURAL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Education and Training
4 Declining Population
5 Affordable Housing
6 Public safety and EM
7 Technology
8 Recreation
9 Tourism
10 Culture and heritage

ICSP 2.1 What is green entrepreneurship?

Green entrepreneurship still needs to be more fully defined, but in general its characteristics include creating a business or enterprise that:

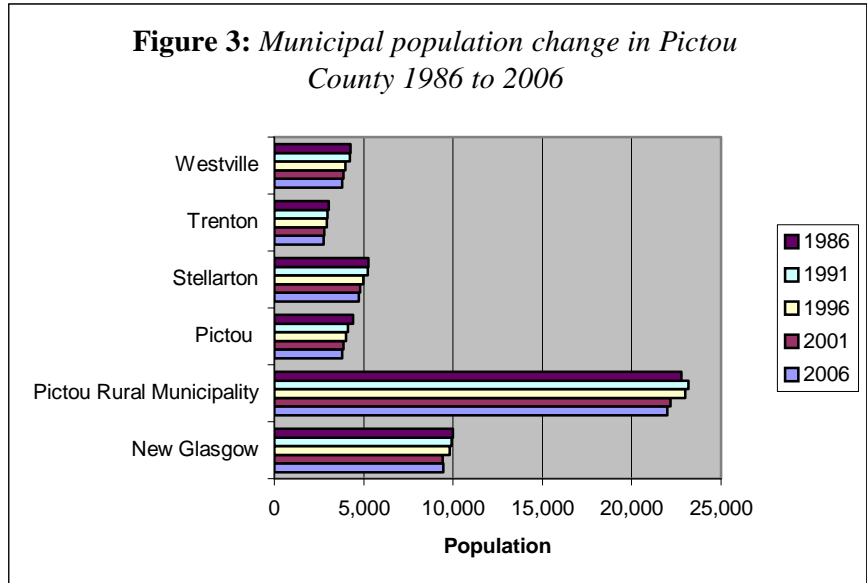
- Isn't measured by economic success alone but also provides an environmental, social or cultural benefit
- Uses local products and local labour as much as possible
- Attempts to reduce use of fossil fuel energy
- Is sustainable in its use of resources

Examples of green entrepreneurship businesses would be: a company that helps residents and businesses conserve energy; farmers who produce crops or raise animals without the use of chemical pesticides, herbicides or growth hormones; restaurants that use local food as much as possible; an international food store to serve immigrants and increase cultural diversity; horse loggers or a forestry company that doesn't use herbicides and favours selection cutting over clear-cutting; contractors that use low VOC (Volatile Organic Compounds) paints or salvaged building materials in construction; a local company promoting solar or wind power; a local financial company promoting community or ethical investments; an ecotourism operator; or a company promoting heritage kiosks.

ICSP 2.2 Why the population decline issue is important

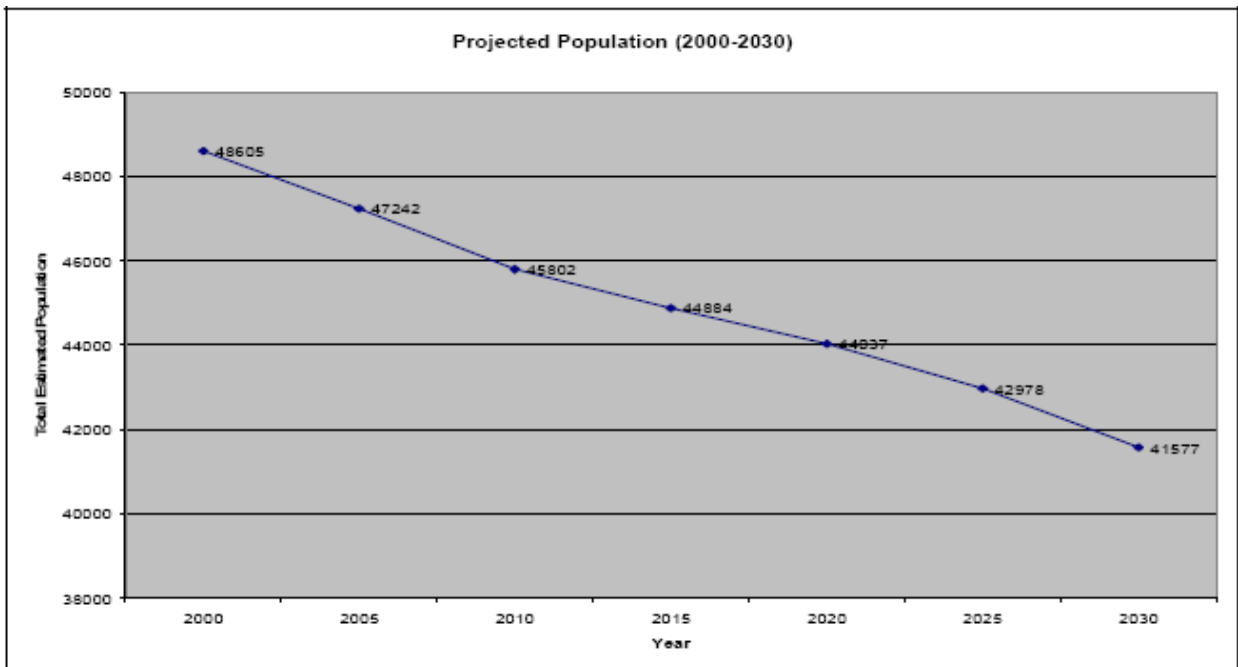
Long-term population loss threatens community survival because maintaining human resources is critical to sustainability. Communities need the ideas, work and volunteerism of people. Without them, communities die. Retaining and attracting people is essential.

From 1986 to 2006, Pictou County has seen its population decline by 3,259 people (see Figure 3). The total losses for each municipality and the percentages are: Pictou Rural Municipality, 807 (24.7%); Pictou, 600 (18.4%); New Glasgow, 547 (16.8%); Stellarton, 542 (16.6%); Westville, 466 (14.3%); and Trenton, 297 (9.1%).



2.2.1 Projected long-term population decline

As part of a 2008 Health Status Profile, the Pictou County Health Authority projected population decline of about 7,000 people between 2000 and 2030 (see Figure 4).



Source: Nova Scotia Dept. of Health, Information Management Services, Based on Statistics Canada Census 2006 data

Figure 4: Projected population decline in Pictou County to 2030.

ICSP 2.3 A \$336-million compound loss over 20 years

The total loss of population of more than 3,200 people over 20 years is equivalent to all the workers from two Granton-size Michelin plants leaving the area.

While social, cultural and environmental losses may be difficult to quantify, the economic loss can be estimated. Using Statistics Canada figures, the Canadian Institute for Research on Regional Development's publication *The Economic Region of Northeastern Nova Scotia* states that in 1992 the average total income per resident in Pictou County was \$14,414. (By comparison, the average income per worker was \$20,604.)

Taking into account that fewer people would mean some reduction in service costs, a figure of \$10,000 per year was estimated to be the average loss to the community per resident. Based on an average of 160 people leaving each year, the loss for the first year to the local economy would be \$1.6 million. In the second year, the loss would be \$3.2 million, the third year \$4.8 million and so on. Adding up all these losses, the total compound loss to Pictou County over 20 years is estimated at \$336-million.

Each municipality's share of the loss would be: Pictou Rural Municipality, \$83-million; Pictou, \$61.8-million; New Glasgow, \$56.4-million; Stellarton, \$55.8-million; Westville, \$48-million; and Trenton, \$30.6-million.

If the current trend of population decline continues and the average loss per person becomes \$20,000, Pictou County's 20-year estimated future loss would be \$672-million.

2.3.1 Financial impact for education

The financial implications of declining populations for schools in Pictou County are shown in Table 2, with a 10-year compound loss of over \$71-million estimated.

Table 2: 10-year compound loss to Pictou County schools from declining enrolments

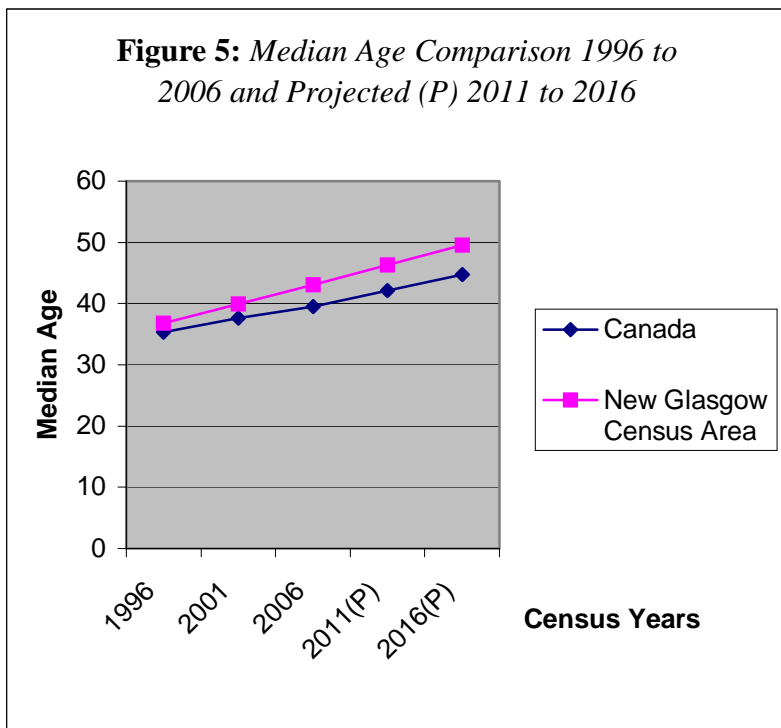
Year	1997-98	2006-07	Total
Enrolment in PC schools	8,917	7,094	10-year
Decrease from 96-97 base yr	307	2130	Compound
Prov. funding per student	\$4,092	\$6,869	Loss
Totals	\$1,256,244	\$14,630,970	\$71,729,861

ICSP 2.4 Implications of an aging population

Population loss alone is difficult to manage, but when coupled with an aging population, the potential impacts are even more serious.

Canada's population is aging and so is Nova Scotia's, but Pictou County's population is aging at a faster rate than nationally or provincially.

The median or average age of residents in the New Glasgow census area in 2006 reported by Statistic Canada was 43. If the age rises at a similar rate over the next 10 years, as projected in Figure 5, the average age of county residents will be nearly 50 by 2016.



The implications of this are enormous. This will mean about half the population will have largely completed their child-rearing years, be winding down their working years and be planning for, or be, retired. Social costs, such as health care, will escalate and the remaining residents will face a larger tax burden.

ICSP 2.5 Three key groups

There are at least three distinct groups of people whose needs must be considered to slow and eventually reverse this trend:

- Young people currently living in the county and deciding where to locate in the future
- Former residents who might consider coming back
- Immigrants and others who have no knowledge of the area but might want to move here

Research is needed to determine what each group believes is required to retain and attract people.

A good start on determining the views of young people was made in the spring of 2008 when the

Table 3: Weighted results of Top 5 areas from survey of 390 high school students

'Lacking' in Pictou County	
1. Employment opportunities	580
2. Entertainment activities	316.5
3. Public transportation	291.5
4. Health care	159
5. Social events	157.5
'Positives' of Pictou County	
1. Family and friends	592.5
2. Education	292.5
3. Close-knit community	225.5
4. Recreation	213.5
5. Natural beauty	190.5

PRDC carried out a survey of 390 Grades 10 and 12 students at the three Pictou County high schools. Some of the results (weighted based on priorities) are shown in Table 3. Similar research work should be done for other groups.

ICSP 2.6 Issues forum speakers and results

The format for the issues forum was to present the community with good information and then ask for actions, projects, policies or ideas from residents working in small groups. For the Nov. 4, 2008 forum in New Glasgow on retaining youth and addressing population decline, Sustainable Pictou County partnered with the PRDC. About 35 people attended. The speakers were:

- David Bruce of Sackville, N.B., Mount Allison University professor and lead author of "Rural Repopulation in Atlantic Canada" discussion paper
- Flora Riyahi of Truro of the Colchester Immigration Partnership on how to attract and retain people from other countries
- Student Ben MacLean on results of recent survey of 390 high school students in Pictou County and the needs of young people
- Amanda MacInnis of the Cumberland Regional Economic Development Association speaking about repatriation and return migration

General suggestions from the small groups included:

- Encourage and promote entrepreneurship, mentorship, apprenticeship programs and more diverse local training and educational opportunities
- Better promote and market benefits of living and working in Pictou County
- Develop area as a centre of excellence
- Pick an aspect to identify the county, such as Green Living
- Coordinate goals of district plans into overall county-wide plan
- Be more proactive in helping existing businesses and industries
- Conduct cost benefit analysis on effectiveness of job creation initiatives
- Less talk and more action

Specific suggestions on how to retain and attract young people and immigrants included:

- Target 25 to 35 age demographic for return to county
- Support local multicultural group
- Help young people reduce debt load caused by costs of education
- Welcome new people to area and recognize language barriers
- Provide start-up assistance for youth who live and work here
- Promote county-wide Old Home Week and provide incentives to attract people
- Hold summer and Christmas job fairs for people visiting area
- Clarify immigration policy to make family visits easier
- Provide leadership accessibility to young people

ICSP 2.7 Related information

J. David Flint, an assistant professor at Dalhousie University, author of *Rural Immigrants Who Come to Stay: A case study of recent immigrants to Colchester County, Nova Scotia* tried to categorize different types of immigrants. He classified about half of the respondents he surveyed as “visionaries” who came to the area to realize a dream. “They were idealistic, but they were also practical. These were people who had searched carefully for their ideal spot and had planned their lives and saved their money in order to make their dream come true.”

Nova Scotia Premier Rodney MacDonald (*Chronicle Herald Tuesday, Nov. 11, 2008*) said he favoured making small business operators eligible to receive federal employment insurance benefits.

Environmentalists promote ‘green stimulus’ (*Globe and Mail headline, Nov. 19, 2008*)

ICSP 2.8 Analysis

The essence of a successful strategy is one that is easy to understand and promote, yet flexible enough to respond to a broad range of needs. The results should be as measurable as possible.

The issue of retaining youth and addressing population decline is a common one for rural communities in Nova Scotia and throughout Canada. Some areas, including Colchester and Cumberland counties, already have staff and programs in place through their regional development agencies to tackle these issues. While similar initiatives would likely benefit Pictou County, creative leadership requires a more innovative and targeted approach.

This is where green entrepreneurship comes in. In terms of ideas from the issues forum (see Section 2.6), it ties in both entrepreneurship and mentorship. It provides the county with a distinct identity (interestingly, very close to the Green Living suggested by one of the groups) and a future direction as a centre of excellence.

Entrepreneurs are often resourceful and creative, so they are well equipped to help the community achieve the vision of Sustainable Pictou County and the objective of ICSP 2.

2.8.1 Four groups that could benefit from green entrepreneurship

Potentially, green entrepreneurship will help address at least four groups of people needed to slow and eventually reverse population decline. These are:

Young People

For young people, employment opportunities is the area most lacking in Pictou County (see Table 2 in Section 2.5). If there isn’t work in their field of study or training, they’ll likely decide to leave the county. But green entrepreneurship provides them with the option of creating their own work. So as they undertake their training and education, they can be at least considering ways of creating a business that would allow them to stay in Pictou County. If the business idea was sound, at

least some investment could likely be secured from family and friends, lowering start-up financing costs.

The principal of the Nova Scotia Community College remarked at the issues forum that in his opinion most young people at the college are currently looking to be employees rather than entrepreneurs. So a cultural change is needed within the county's education and training system to make entrepreneurship more inviting and more seriously considered (see Section 2.9.4). Green entrepreneurship would appeal to young people who want to make a positive environmental, social or cultural impact. Plus, young people would have a better understanding of the types of services or goods their peers might be interested in.

Former Residents

Residents of Pictou County and other parts of Atlantic Canada may be making more money in Alberta, Ontario or other parts of the world. Yet as they get older they may begin to appreciate the community and natural benefits offered here and be looking for ways to return. On a purely economic basis, it will be difficult for Pictou County to compete with places such as Fort McMurray, Calgary or Toronto. But if these people are given the opportunity to use their resources and skills to help create a more sustainable community, some of them will return. For these people, having a welcoming and supportive entrepreneurial environment would be a strong incentive.

The current worldwide economic decline may mean a loss of work for Maritimers working in other parts of Canada or the world. This could provide an opportunity to come back and create a business they're passionate about.

Immigrants

As mentioned in Section 2.8, other areas of Nova Scotia are already providing a number of services encouraging immigration, repatriation and return migration. The PRDC, which is in the early stages of developing new regional plan, may well want to provide similar services. But that doesn't create any advantage for Pictou County in terms of attracting immigrants. Green entrepreneurship could by providing extra assistance for people who start a business that provides environmental and community benefits. Immigrants often already have a strong tradition of entrepreneurship. Preliminary contact has been made with the president of the newly formed Multicultural Association of Pictou County, who came up with the idea of a green business of an international food store.

Many immigrants are "visionaries" looking for a place where they can fulfill their dreams (see Section 2.7). If our goal for this section is realized — *Create a community with the energy, opportunity and atmosphere to inspire people to want to be a part of it* — Pictou County could be that place.

Current Residents Who Want a Change

After reviewing the first three groups that had originally been identified, it became clear that green businesses might also be attractive to a fourth group. These are people already living in Pictou County, but who might want a change from what they're doing. These could be skilled workers who have recently retired from manufacturers such as Michelin or Northern Pulp (formerly Neenah Paper). Or they

could be employees working in the county looking for a new challenge. These would be *resourceful people* to help Pictou County *create its own sustainable future*.

The timing may be right. For example, people who have lost money in mutual funds by investing in large companies elsewhere may want to invest in themselves and in their own communities.

The economic downturn has led to calls for 'green stimulus' spending and for small business operators to be eligible for employment insurance benefits (see Section 2.7). Fishermen already have these benefits, but if they could be extended to other small business operators, this could create a boom in entrepreneurship. That's because many opportunities in the region are seasonal and so can't support a full-time business. But if employment benefits became available, more businesses would become viable.

The difference between Pictou County and other areas is that we'd provide support and encouragement to green entrepreneurs. Creating a culture of entrepreneurship would also benefit existing businesses by making employees more likely to think creatively and look for innovations in their workplace.

ICSP 2.9 Recommended actions

One of the frustrations expressed at the Nov. 4 issues forum was that there was too much talk and too little action. Following are some actions:

2.9.1 Determine a baseline of green entrepreneurs in the county

In order to measure future results, there is a need to know how many green entrepreneurship businesses currently exist in Pictou County and the number of employees. The goal would be to determine the types and numbers of businesses and employees in 2009. The number would be updated at the end of each year to determine increase or loss. Green entrepreneurs in New Glasgow, Pictou, Westville and the Municipality could have their businesses recognized with a certificate indicating actions taken on key characteristics (see Section 2.1).

2.9.2 Promote seasonal and annual green entrepreneur winners

Name and promote top green entrepreneurs for the winter, spring and summer and then present the winner of these with the Green Entrepreneur of the Year Award in the fall. This could be done in conjunction with the Pictou County Chamber of Commerce's annual business awards. Seasonal and annual winners could also be asked to speak to students at county high schools and the Nova Scotia Community College campus to make them more aware of entrepreneurship opportunities.

A Green Expo could also be held so entrepreneurs could learn how to start the process. Businesses could sponsor green races and other events. The media could be encouraged to do stories on green businesses, which would lead to support from customers concerned about the environment.

2.9.3 Research possible incentives for green entrepreneurs

Promoting green entrepreneurship would be easier if some financial incentives were available. The feasibility of setting up a demonstration project with funding from the Atlantic Canada Opportunities Agency or other groups should be pursued.

2.9.4 Promote green entrepreneurship among students

Creating a culture of green entrepreneurship needs to start with students. This can begin with providing community college and high school students with a handout on the topic and an aptitude survey on entrepreneurship to see if there is any interest in forming a monthly group to look into possibilities for summer and long-term initiatives.

2.9.5 Incorporate green entrepreneurship into PRDC strategic plan

In early 2009, the Pictou Regional Development Commission announced it had hired a consultant, Canmac Economics, to develop a regional economic strategy. The strategy will take more than a year to complete. The timing may therefore be right for municipalities to request the PRDC to consider the information and recommended actions on population decline and green entrepreneurship for consideration in the strategic plan. The PRDC, Northern Opportunities for Business Limited (NOBL) and Pictou County Chamber of Commerce (PCCC) would be natural existing organizations to advance the green entrepreneurship strategy.

ICSP 2.10 Summary of goals, actions, consistency with Nova Scotia interests, sustainable outcomes, partners and time line

ICSP 2 Address population decline by promoting green entrepreneurship

Objective: Create a community with the energy, opportunity and atmosphere to inspire people to want to be a part of it

Potential partners and abbreviations: Municipality of Pictou County (MPC), towns of New Glasgow (NG), Stellarton (S), Pictou (P), Westville (W) and Trenton (T); Pictou Regional Development Commission (PRDC); Northern Opportunities for Business Limited (NOBL); Pictou County Chamber of Commerce (PCCC), Nova Scotia Community College (NSCC), Chignecto-Central Regional School Board (CSRSB), St. Francis Xavier University (STFX), Conserve Nova Scotia (CNS), Atlantic Canada Opportunities Agency (ACOA).

No Environmentally Sustainable Municipal Infrastructure (ESMI) projects would be eligible for funding for this strategy under the Municipal Funding Agreement (MFA). It is unlikely, though possible, that some MFA funding could be available for capacity building, which includes long-term thinking, broadening scope of plans, integration, collaboration, public engagement and education and implementation.

Goals	Actions: Policy, Project or Activity	Consistency with provincial statements of interest	Sustainable Outcomes and Applicable Sustainability Pillars	Primary Responsibility/ Potential Partners and Collaborators/ MFA eligibility	Time Line
Support green entrepreneurship county-wide as a way of addressing population decline	Request PRDC to consider information and recommended actions on population decline and green entrepreneurship in regional economic strategy (see 2.9.5)	Not applicable	Increased economic opportunities while also providing environmental, social and cultural benefits	Leadership from six municipal councils/ PRDC/ MFA eligibility unlikely, but possible under capacity building	Short-term (1 to 2 yrs)
	Determine a baseline of green entrepreneurs in the county (see 2.9.1)	Not applicable	Provides means of measuring results, necessary for long-term sustainability	PRDC PCCC NOBL	Short-term (1 to 2 yrs)
	Promote seasonal and annual green entrepreneur winners (see 2.9.2)	Not applicable	Helps create culture of entrepreneurial sustainability	PCCC NOBL PRDC	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)
	Research possible incentives for green entrepreneurs (see 2.9.3)	Not applicable	Increases likelihood of green entrepreneurship success and long-term sustainability	PRDC ACOA NOBL, PCCC	Short-term (1 to 2 yrs)
	Promote green entrepreneurship among students (see 2.9.4)	Not applicable	Provides students with an option other than being an employee, providing both social and economic benefits	NSCC CCRSB STFX PRDC NOBL PCCC	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)

ICSP 2.11 Population decline and green entrepreneurship strategy summary and benefits

Population decline cuts across all sectors of sustainability. On the social side, fewer students mean less money for education. For health care, the dual impact of declining population and an aging population (see ICSP 2.4) means fewer people to pay for increasing costs of services. A declining population reduces economic opportunities, yet at the same time a strong economy is needed to retain and attract people to the area. Young people and immigrants have their own cultures, which makes the overall community culture more diverse and vibrant. Promoting green entrepreneurship not only creates economic activity, but will also result in environmental, social and cultural benefits that will lead to greater long-term sustainability.

ICSP 3 Encourage energy efficiency and sustainable use of natural resources

Objective: Promote sustainable use of energy and natural resources

The above objective attempts to summarize the intent of two issues forums in November 2008 on **energy efficiency** and ecosystem services. The energy focus is on conservation, reduced use of fossil fuel sources and support of renewable energy. These initiatives will lead to **economic development** opportunities. Reducing fossil fuel use will improve local **air quality**. Active transportation and public **transportation**, possibly using biofuels, will also reduce fossil fuel demand. Sustainable use of **natural resources** could include valuing ecosystem services, such as carbon storage and air and water purification. This strategy helps address three of the top four overall sustainability priorities, and two other top 10 issues.

<i>Top 10 OVERALL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Energy Efficiency
4 Air Quality
5 Water Management
6 Education and Training
7 Declining Population
8 Affordable Housing
9 Natural Resources
10 Transportation

ICSP 3.1 Encourage municipal energy conservation and reduced costs

Saving energy means long-term financial savings, which benefits taxpayers.

3.1.1 Cooperation on energy inventories and audits

On the energy front, the benefits of cooperation were demonstrated in a joint provincial Ecotrust (now ecoNova Scotia) application from the rural Municipality of Pictou County and towns of Pictou and Westville. The municipalities applied for funding to carry out energy inventories and audits. (New Glasgow had previously completed its own inventory and audit.) Ecotrust officials reported that the joint application from Pictou County was the first time three municipalities had acted together. The partnership meant a cost saving which in turn was reinvested in more detailed energy analysis.

ICSP 3.2 Energy efficiency and 'green jobs' overview

As the costs of electricity, gasoline and heating oil fluctuate, residents of Pictou County are concerned about energy efficiency, which was the top environmental sustainability issue in recent surveys (see Table 1 in Section G).

At the same time, economic development was found to be the second most important economic, social and cultural issue.

Can these two priorities work together? They can, through the creation of 'green jobs' and green entrepreneurship that provide employment while improving the environment (see ICSP 2).

For example, as more people add insulation, weather-strip and upgrade windows and doors to increase energy efficiency, work for contractors and trades people increases. Upgrading and maintaining oil furnaces, wood stoves and electric heating systems – such as electric thermal storage – also creates work.

Renewable energy sources, such as wind and solar, also offer employment opportunities. Wind turbines will require technicians for maintenance, and solar units also need to be installed and maintained.

To provide rules for developers and those affected by wind farms, the rural Municipality of Pictou County last year approved a wind energy development land-use bylaw. For utility scale units, the turbine must be a minimum of 600 metres from the nearest residence.

Geothermal energy, particularly using water from abandoned coals mines, is another potential renewable energy source for the county, along with wood pellets, other biomass and biofuels.

3.2.1 Green energy opportunities and priorities

Globally, green or clean energy is expected to be one of the growth sectors of the 21st century. U.S. President Barack Obama and Prime Minister Stephen Harper have set the tone by agreeing to work together on environmentally beneficial technology.

The Prime Minister said following a joint meeting in mid-February 2009 in Ottawa that the two countries are collaborating on developing clean energy science and technology that will reduce greenhouse gas emissions and help slow climate change. The U.S. President said clean energy is "one of the most pressing challenges of our time."

Locally, the economic consultants hired to carry out a regional economic strategy reported in February 2009 that a preliminary survey of people in Pictou County found that green energy is the top economic opportunity for the area.

All of this confirms the findings of the ICSP.

ICSP 3.3 Coal as energy source, local air quality and climate change

The main, and by far largest, energy source in Pictou County is Nova Scotia Power's coal-fired generating station in Trenton. The 310-megawatt plant burns about 800,000 tonnes of coal annually and produces enough energy to supply about 100,000 homes. The station uses some local coal, but most of it comes from other parts of North or South America. This makes energy security an issue.

Air pollution has been an ongoing problem for area residents, especially the discharge of fine particulates, affecting local air quality. In the fall of 2008, NSP began a \$45-million upgrade of its Trenton station that includes \$30 million to be spent on a baghouse to reduce air emissions.

The station annually produces about 2.2 million tonnes of greenhouse gas emissions, making it the second largest industrial GHG source in Nova Scotia, behind only NSP's plant in Lingan. The Trenton generating station produces close to 20 per cent of the province's GHG emissions, which are one of the main causes of increased climate change.

ICSP 3.4 Other energy sources and options

In the summer of 2007, an ad hoc committee of the Pictou County Chamber of Commerce's energy committee put together a document outlining energy areas that needed further research. These included geothermal, coalbed methane, natural gas, district heating systems, wind, solar, biomass and biofuel.

An excerpt from the document states:

The five key areas previously outlined – Competitive Advantage, Renewable Energy, Climate Change, Sustainable Communities and Energy Security – all need to be addressed in a variety of ways. These would include looking at the different energy sources from at least three perspectives: Global; Nova Scotia; and Pictou County. We need to understand how needs and resources of the county fit in with provincial needs and global demands.

The chamber's energy committee later received a proposal from a consulting company to research and write an energy report, but no action has been taken yet.

ICSP 3.5 Transportation

About 25 per cent of all greenhouse gas emissions in Canada come from transportation. So active transportation, such as walking and biking, driving more fuel-efficient vehicles, driving fewer kilometres and offering public transit or carpooling options will help reduce fossil fuel energy use and reduce GHG emissions.

Active transportation has the advantage of being a relatively low-cost approach, while offering considerable health benefits to participants. In order to reduce society's dependence on fossil fuels, and to reduce carbon emissions, active transportation actions could include: more walking trails; improved sidewalks or street lighting; more bicycle lanes; and greater separation of pedestrian and vehicle traffic.

The lack of a public transit system places Pictou County at a competitive disadvantage in relation to the surrounding areas of the Halifax Regional Municipality, Annapolis Valley, Sydney, Greater Moncton and Charlottetown. All of these areas have public transit systems that lessen the dependency on owning a vehicle. Pictou County could develop an advantage by converting diesel buses so they could use biofuels such as waste vegetable oil from restaurants.

For more than two years, a committee of the Pictou County United Way has been promoting a public transit system for the county. There has been support in principal from several municipalities, but no financial commitment.

Excerpts from the public transit plan follow:

Local municipal leaders are intensifying their discussions about shared services and a joint sustainability planning process, a process vital to be included in funding allocations by the federal gas tax. A public transit system fits ideally into the logistics and mindset of joint sustainability planning. A public transit system is a key component for community health and growth from any perspective, be it economic, social, or environmental.

In addition, this is a period of growth and transition for Pictou County. Major employers are in need of employees, local schools are in need of students, and retail sectors are in need of an enhanced client base. At the same time, major destinations are dealing with traffic congestion, overcrowded parking lots, and lack of accessibility by those who cannot afford a vehicle, cannot drive, or choose not to be part of the congestion. A public transit system addresses these issues in a safe, affordable, and efficient manner, thus fostering community growth in a sustainable fashion.

This is also an era of discerning citizenship. Environmental and economic concerns are primary factors in retention and attraction of residents to a community. A public transit system is more and more becoming a necessary service, akin to water and internet access. Citizens want choice, be it the choice to take a certain job or the choice to leave the car at home for routine errands. Public transit provides that choice, preserving individual independence and dignity while demonstrating a collective commitment to the health of citizens and the community at large.

ICSP 3.6 Build on past successes through energy conservation

Focusing on energy efficiency — and in particular conservation — is a continuation of the original program from which Sustainable Pictou County was formed. The first project involved creating a local energy plan for New Glasgow.

This included a number of initiatives such as a year-long energy conservation calendar and led to an energy and sustainability project supported by New Glasgow, Municipality of Pictou County, Conserve Nova Scotia and Nova Scotia Department of Energy. Successes included working with the more than 20 fire departments in the county to distribute nearly 15,000 compact fluorescent light bulbs, conducting an anti-idling program for town works employees and school bus drivers, promoting carpooling and the purchase of energy-efficient vehicles and other actions.

For the current Sustainable Pictou County project, Pictou and Westville joined the other two municipalities, along Conserve Nova Scotia. A residential energy conservation contest was held in partnership with Nova Scotia Power. A pilot lighting program for small businesses in the county, sponsored by NSP and Conserve NS, has attracted more than 35 participants.

ICSP 3.7 Energy issues forum speakers and results

For the Nov. 6, 2008 forum on energy efficiency at the Merigomish fire hall, Sustainable Pictou County partnered with the PRDC. The speakers were:

- Mike Magnus, Chief Executive Officer of Shear Wind Inc., on the company's 60-megawatt Glen Dhu wind farm in the Lismore area
- Roger Hill of Halifax, on the feasibility of creating an alternative energy centre in the Lismore-Merigomish area
- Brian Hayes of Halifax, an energy engineer with Conserve Nova Scotia, on ways of reducing energy use and costs

Suggestions from the small groups included further investigation into:

- Wood pellets—scrap/corn husks, using a mobile pelletizer and delivering by hopper to residences
- Utilizing the former Trenton Works plant to build wind turbines (skilled workers available)
- Supporting an alternative energy innovation centre that would attract people to the area
- Creating a combined residential/commercial demonstration community using energy from wind, solar, waste wood, garbage and sewage
- Geothermal, using water from old mines or from lakes or East River
- Using hot water from NS Power plant in Trenton to provide heat energy to area residents
- Establish a wind farm in the Northumberland Strait
- Assess methane gas in old mines and associated environmental concerns
- Research potential for area to be a net exporter of natural energy

ICSP 3.8 Natural resources as natural assets

Farming, forestry and fishing have traditionally been considered natural resources. Yet, in terms of a sustainable future, the lands and waters of these resources could also be viewed as natural assets that provide valuable ecosystem services to society.

Wetlands help purify water and increase biodiversity and wildlife habitat. Old forests store carbon, purify air and water and provide wildlife habitat. The problem for owners of these natural assets and ecosystem services is that society currently doesn't provide any compensation.

If Nova Scotia wants to keep people in the country who provide society with the security of local food, local wood and wildlife habitat, then all taxpayers can help by supporting payment for ecosystem services. It could be argued that it's unfair to expect landowners not to cut old forests or drain wetlands based on goodwill alone. Society would benefit by providing some economic incentive.

ICSP 3.9 Ecosystem services forum speakers and results

The Nov. 25, 2008 issues forum in Alma, on ecosystem services, was attended by about 20 people. Co-sponsor for the event was the Pictou Harbour Environmental Protection Project.

Ecosystem services are those provided by nature that help support human life on Earth. Examples include carbon storage in trees and soils to help slow climate change, air filtration by trees to improve air quality, maintenance of wetlands and water filtration, and retention of biodiversity and wildlife habitat.

Guest speakers at the issues forum were:

- Randy Milton of Kentville, wildlife manager for the Nova Scotia Natural Resources Department
- Peter deMarsh of the Fredericton area, president of the Canadian Federation of Woodlot Owners

- Laurence Nason of Upper Stewiacke, executive director of the Nova Scotia Federation of Agriculture

The main barriers to paying landowners for the ecosystem services their lands provide included:

- Lack of understanding of ecosystem services (sometimes called ecological goods and services) and their benefits to society
- Determining who has the willingness to pay for those services
- Developing a transparent and fair system to evaluate/monitor/pay for services
- Lack of protocols/methods to value services (intrinsic values need different scale)
- Lack of political will to implement what might be seen as a “social tax”
- Lack of landowner groups with an ecosystem services mandate
- Lack of communication among different groups (farming, forestry, wildlife)
- Need for practical examples at local level (wood, water)
- Need for more information on successful systems in the European Union and United Kingdom
- Effort needed to persuade people this is a good thing to do
- Financial return will depend on public seeing value of services
- All part of devaluation/lack of respect of rural lifestyle

3.9.1 Ecosystem services sustainability demonstration project

Research into ecosystem services included investigating the feasibility of creating a green demonstration project that would link the four elements of sustainability. Following is a short summary of a report into the possible project:

The purpose would be to set up a Community Economic Development Investment Fund for Northeastern Nova Scotia to increase long-term community sustainability by paying small private woodland owners and farmers for ecosystem services. These include carbon storage, water and air purification and protection of biodiversity. Compensating landowners would provide them with an economic alternative to clearcutting old forests and draining wetlands. This would result in greater protection of biodiversity and wildlife habitat, create employment opportunities for young people in areas such as ecology, biology and ecotourism and reduce rural poverty.

ICSP 3.10 Analysis

While some energy ideas will require extensive research, energy conservation won't. If people make their houses and businesses more energy efficient, there will be savings and benefits regardless of the type of energy used.

As well, Sustainable Pictou County and its forerunner organizations have developed a solid track record of delivering energy services. The organization also has the benefit of having Conserve Nova Scotia as a partner and has successfully worked with Nova Scotia Power in the past. This past success should help other local organizations that want to advance energy conservation and alternative energy sources. This will help people and businesses save money, reduce local air pollution and help slow climate change. Active transportation and public transit would also reduce local air pollution.

ICSP 3.11 Recommended actions

Since the energy and natural resources fields are so large, it's important to concentrate actions in a few key areas. Some of these are recommended as follows:

3.11.1 Continuing support of energy conservation

Continue support of energy conservation by making public aware of programs and services, such as the EnerGuide program for home-energy conservation.

3.11.2 Research feasibility of ideas from energy issues forum

The ideas presented at the Nov. 6 issues forum should be a starting point for energy opportunities in Pictou County (see ICSP 3.7). Research is needed to determine which ideas will have the most likelihood of success. Existing organizations with the mandate to carry out this work could include the PRDC and possibly local PCCC.

3.11.3 Research long-term feasibility of ESMI projects

Eligible Environmentally Sustainable Municipal Infrastructure (ESMI) projects for this strategy under the Municipal Funding Agreement (MFA) include: community energy systems, district heating and cooling projects, active transportation infrastructure, rapid transit, transit buses, intelligent transportation systems and capital investments for high-occupancy vehicle lanes. More research is needed into each of these areas to determine their long-term viability.

3.11.4 Promote joint energy projects among partners

Maintain energy partnerships for three municipalities currently working together. Continue to assist New Glasgow with its advanced energy initiatives.

3.11.5 Promote energy work as opportunity for green entrepreneurs

Make green entrepreneurs aware of the energy opportunities by providing them with good information.

3.11.6 Support active transportation and long-term public transit

Active transportation, such as promoting walking and biking, is relatively inexpensive and also has a health benefit, so this would be a good starting point. In the long-term, public transit will be needed to remain competitive with area municipalities.

3.11.7 Support local producers and promote ecosystem services

Support for local producers was one of the areas cited during small group work at the social issues forum on Feb. 4, 2009. This also reflects one of the main common areas of action in the community strategic plans of rural communities. Rural support could be extended to include promoting an ecosystem services project (see 3.9.1).

ICSP 3.12 Summary of goals, actions, consistency with Nova Scotia interests, sustainable outcomes, partners and time line

ICSP 3 Encourage energy efficiency and sustainable use of resources					
<i>Objective: Promote sustainable use of energy and natural resources</i>					
<p>Potential partners and abbreviations: Municipality of Pictou County (MPC), towns of New Glasgow (NG), Stellarton (S), Pictou (P), Westville (W) and Trenton (T); Pictou Regional Development Commission (PRDC); Pictou County Chamber of Commerce (PCCC); Conserve Nova Scotia (CNS); Nova Scotia Department of Energy (NSDE); ecoNova Scotia (ENS); Nova Scotia Department of Agriculture, Food and Fisheries (NSDAFF); Nova Scotia Department of Natural Resources (NSDNR); Northern Opportunities for Business Limited (NOBL); Nova Scotia Community College (NSCC); Central Highlands Association for the Disabled (CHAD); Pictou County United Way (PCUW); Atlantic Canada Opportunities Agency (ACOA).</p> <p>Eligible Environmentally Sustainable Municipal Infrastructure (ESMI) projects for this strategy under the Municipal Funding Agreement (MFA) include: community energy systems, district heating and cooling projects, active transportation infrastructure, rapid transit, transit buses, intelligent transportation systems and capital investments for high-occupancy vehicle lanes. Capacity building includes long-term thinking, broadening scope of plans, integraton, collaboration, public engagement and education and implementation.</p>					
Goals	Actions: Policy, Project or Activity	Consistency with prov. statements of interest	Sustainable Outcomes and Sustainability Pillars	Primary Responsibility and Potential Partners/ Collaborators/ MFA eligibility	Time Line
Continuing support of energy conservation	Make public aware of programs and services, such as the EnerGuide program for home-energy conservation (see 3.11.1)	Not applicable	Energy conservation means lower GHG emissions (environmental) and financial savings (economic)	Leadership from six municipal councils, CNS NSDE Potentially MFA eligible under community energy, or capacity building	Short-term (1 to 2 yrs)
Increase energy diversity and sustainability	Research feasibility of ideas from energy issues forum (see 3.11.2)	Not applicable	Increased renewable sources such as wind/biomass and improved energy security, providing environmental and economic benefits	Leadership from six municipal councils, PRDC, NSDE CNS Potentially MFA eligible under community energy, or capacity building	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)
Increase energy diversity and sustainability	Research long-term feasibility of ESMI projects, such as community energy and district heating systems (see	Not applicable	More efficient use of resources, potentially benefiting hospitals and schools (social), business and industries (economic) and reducing GHG emissions (environmental)	Leadership from six municipal councils, PRDC, NSDE CNS Potentially MFA eligible under community energy, district heating	Medium-term (3 to 9 yrs) Long-term (10 yrs or more)

	3.11.3)			or capacity building	
Encourage energy conservation and municipal energy savings	Promote joint energy projects among partners (see 3.11.4)	Not applicable	Energy conservation means lower GHG emissions (environmental) and financial savings (economic)	Leadership from six municipal councils and staff ecoNova Scotia (ENS) CNS Potentially MFA eligible under capacity building	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)
Expand clean energy business opportunities	Promote energy work as opportunity for green entrepreneurs (see 3.11.5)	Not applicable	Cleaner energy will mean cleaner air (environmental), improved health because of better air quality (social) and new business opportunities (economic)	Leadership from six municipal councils and staff PRDC NOBL PCCC ACOA	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)
Improve community transportation systems	Support active transportation and long-term public transit (see 3.11.6)	Not applicable	Better community transportation will mean cleaner air (environmental), improved health (social) and new employment opportunities (economic)	Leadership from six municipal councils and staff PCUW CHAD Potentially MFA eligible under active transportation infrastructure, rapid transit, transit buses	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)
Value natural assets and ecosystem services	Continue investigation into ecosystem services demonstration project (see 3.9.1 and 3.11.7)	Consistent with goals for statement on agricultural land	Valuing ecosystems will help protect biodiversity-habitat (environmental), pay rural landowners (economic), and allow more rural people to remain in country (social and cultural)	Leadership from six municipal councils and staff PRDC NSDAFF NSDNR	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)
Sustainable food supply	Support local producers (see 3.11.7)	Consistent with goals for statement on agricultural land	Local producers increase food security (social and cultural), help support rural economies (economic) and often use fewer herbicides and pesticides (environmental)	Leadership from six municipal councils and staff PRDC NSDAFF NSDNR	Short-term (1 to 2 yrs) And Medium-term (3 to 9 yrs)

ICSP 3.13 Energy and resources strategy summary and benefits

Increased energy efficiency results in environmental benefits because of reduced use of fossil fuels, combined with economic savings. Focusing on renewable energy sources and local sources will increase security of supply, which provides social and cultural benefits. Viewing natural resources as natural assets means largely rural areas such as Pictou County may become wealthier in the future. Supporting local producers means more money stays in the county and there is greater security of food supply.

ICSP 4 Show leadership in improving cooperation among municipalities and organizations

Objective: All municipalities working together for the good of all our citizens

The above objective was one of several vision statements created by small groups at a July 9, 2008 visioning workshop attended by more than 50 people. Greater county-wide cooperation among municipalities and other groups was one of the main themes of the workshop. This theme was repeated at nearly all the issues forums, including the social and cultural forums. For this strategy, all of the priority issues are highlighted because all would benefit from greater cooperation among municipalities and other organizations.

<i>Top 10 OVERALL Sustainability Issues</i>
1 Health Care
2 Economic Development
3 Energy Efficiency
4 Air Quality
5 Water Management
6 Education and Training
7 Declining Population
8 Affordable Housing
9 Natural Resources
10 Transportation

ICSP 4.1 Lack of cooperation drawback to Pictou County growth

Though municipal cooperation wasn't listed as a priority issue in the surveys, lack of cooperation often came up at the meetings or under the *Other* category in the surveys. People commented that they felt that economic and community development suffered because municipalities weren't united.

ICSP 4.2 Incorporating infrastructure requirements into ICSP

One of the requirements of the ICSP is that five-year capital infrastructure plans of the participants, detailed in the Capital Investment Plan, be included. This provides an excellent opportunity for the partner municipalities to compare projects in areas such as water and sewage to find projects where there would be advantages to working together. This also allows for municipalities to work more closely together on broader issues such water management, air quality and others.

ICSP 4.3 Future likelihood for sustainable procurement requirements

The Province of Nova Scotia is required to have a sustainable procurement process in place by the end of 2009. It's likely that soon after there will be similar requirements for municipalities. Those working together will likely be more efficient.

ICSP 4.4 Health, education and training issues forum results

More than 40 people attended a Feb. 4, 2009 issues forum in New Glasgow, on health, education and training. The event was co-sponsored by Pictou County Health Authority and Sustainable Pictou County.

Guest speakers at the issues forum were:

- Jaime Smith, a community health planner for the Pictou County Health Authority, provided an overview of health and related issues based on the recent health status profile and 2009 Report Card on Health

- Sharon Gauthier, a consultant with the Chignecto-Central Regional School Board, spoke on educating children for the future: how the curriculum is changing to meet the needs of students in the 21st century
- Dave Freckelton, principal of the Pictou County campus of the Nova Scotia Community College, talked about sustaining a community through training and education

During small group discussion, one of the groups looked ahead to 2020 to imagine the county as sustainable community. Key elements included:

- Changing governing structure
- Cooperation among all municipal units
- Youth staying or returning to area
- Community opportunities for physical activity
- Health promotion a priority
- Support local producers
- Diverse and socially inclusive community

Suggestions from the other groups included:

- In education, focus on the importance of integration with modern technology
- Unified municipal approach and pooling of resources
- Promote similarities rather than focus on differences
- Create a diversified economy and encourage partnerships
- Promote quality of life
- Encourage entrepreneurship and mentorship
- Develop a Pictou County vision and marketing approach
- Role of industry to sponsor and provide support for external programs

4.4.1 Health prevention more effective than treatment

The long-term health benefits of health promotion, increased physical activity and proper diet — particularly in dealing with cancer — were reinforced by a Feb. 26, 2009 article in *The Globe and Mail*.

Following is an excerpt:

Some of the world's leading experts in nutrition epidemiology have cast a resounding vote in the decades-long debate between treating or preventing cancer: Prevention wins. Their report . . . argues strenuously for diet and exercise as the keys to fighting cancer. It calls research and spending on the treatment of cancer "necessary but not sufficient," and contends that a far better strategy for reducing the world's annual tally of 11 million cancer cases would be to develop a public-health policy aimed at preventing people from getting the disease in the first place.

The report, issued by the World Cancer Research Fund/American Institute for Cancer Research, is based on an exhaustive review of nearly 7,000 scientific studies into whether cancer rates are influenced by diet, obesity and exercise.

Based on this review, the report concludes that cancer "is mostly preventable," estimating that about one-third of all cases in advanced countries like Canada could

be eliminated by diets that aren't loaded with fatty, sugary foods, by people exercising regularly and, if they are obese, by slimming down to an appropriate weight. Among the cancers with links to these factors are those of the breast, prostate, mouth and colon.

ICSP 4.5 Cultural sustainability issues forum results

A cultural sustainability issues forum was held on Feb. 12, 2009 in Westville. More than 20 people attended. The event was co-sponsored by Pictou-Antigonish Regional Library and Sustainable Pictou County.

Guest speakers at the forum were:

- Andrew Terris, Arts Consultant and Research Chair for the Nova Scotia Cultural Action Network, on the creative economy
- Eric Stackhouse, Chief Librarian, Pictou-Antigonish Regional Library, on the role libraries play to sustain local culture
- Svilen Velchev, a local business owner from Eastern Europe and formerly a member of the Pictou County Multicultural Association, describing his own restoration business and talking about the importance of entrepreneurship in attracting and retaining immigrants

Based on the ideas presented by the speakers and participants' own ideas, small groups came up a number of suggestions, including:

- Develop county-wide system to promote events and attractions and county-wide arts directory of artists, craftspeople and musicians
- Build on cultural traditions to create demonstration projects, such as kilt making
- Develop a studio tour
- Promote a multicultural festival
- Promote towns and communities on a county-wide basis
- Promote county-wide beautification since attractive communities draw visitors
- Encourage and support small local businesses
- Promote local companies by displaying their products during festivals and other community events
- Make better use of existing resources and assets

ICSP 4.6 Analysis

The main focus of an ICSP is on environmental issues, though social, cultural and economic perspectives need to be considered as well. Jurisdiction and mandate also have to be examined, since existing organizations are already providing services and resources. When it comes to health care, the Pictou County Health Authority has a plan and programs in place. The United Way of Pictou County provides support to numerous organizations that offer a wide range of services to the community.

Similarly, in areas of education, the Chignecto-Central Regional School Board and Nova Scotia Community College are working to meet students' needs. On the cultural side, the Pictou-Antigonish Regional Library is delivering a wide variety of services.

On economic matters, the Pictou Regional Development Commission usually takes the lead.

So municipalities need to tread carefully in areas where existing organizations have expertise and experience and the resources and mandate to carry out the work.

Yet the purpose of the ICSP process is to look at all issues through the lens of sustainability. Improvements can still be made and suggestions from the forums provide an indication of where greater emphasis may be needed. In some cases, attempts may have already been made earlier in the ICSP to address concerns through other strategies. In other cases, new actions may be needed.

ICSP 4.7 Recommended actions

The actions include ways for municipalities to work more closely together, along with other organizations.

4.7.1 Investigate feasibility of partnering on infrastructure projects

Investigate feasibility, and potential cost savings, of partnering with other municipalities on infrastructure, such as sewage and water services. This could include requiring that Requests for Proposals for major infrastructure projects include cost comparisons of proceeding individually or cooperating with neighbouring municipalities.

4.7.2 Work on cooperative sustainable procurement

Make follow-up contact (initial contact was made at a Nov. 18 sustainable procurement meeting in Halifax) with officials of Halifax Regional Municipality about piggyback sustainable procurement. This is a way for municipalities that cooperate together to be given the opportunity to purchase goods and services under an HRM agreement. This would save considerable time, resources and should also save money and increase overall community sustainability.

4.7.3 Increase physical activity and improve diet through better coordination of services

Several groups or organizations in Pictou County have a mandate or interest in increasing physical activity and improving diet as part of a healthier lifestyle. These include the Pictou County Health Authority, Chignecto-Central Regional School Board, municipal recreation departments, Active Pictou County, Pictou County YM-YWCA, Nova Scotia Community College, private workout facilities, day care centres and senior citizens' complexes. Increased awareness and coordination of various services offered should result in increased physical activity and better nutrition for residents of all ages. This would help address three matters – health promotion, physical activity and quality of life – from the social sustainability forum. More importantly, it could improve community health and reduce the likelihood of people getting cancer (see 4.4.1).

4.7.4 Coordinate cultural events at county level

Developing a county-wide system to promote events and attractions and a county-wide arts directory of artists, craftspeople and musicians was one of the key ideas from the cultural forum. Groups with an interest or mandate would include the Pictou-Antigonish Regional Library, entertainment facilities such as Glasgow Square and the deCoste Centre, Pictou County Tourism Association, various festival committees, local pubs or other private entertainment facilities, municipal events or recreation coordinators and others. A coordinated effort could also be used to promote some of the other ideas from the forum, such as demonstration projects, studio tour, a multicultural festival and county-wide beautification.

ICSP 4.8 Summary of goals, actions, consistency with Nova Scotia interests, sustainable outcomes, partners and time line

ICSP 4 Show leadership in improving cooperation among municipalities and organizations

Objective: All municipalities working together for the good of all our citizens

Potential partners and abbreviations: Municipality of Pictou County (MPC), towns of New Glasgow (NG), Stellarton (S), Pictou (P), Westville (W) and Trenton (T); Municipal Water Utilities (MWU); Pictou County Health Authority (PCHA); Pictou-Antigonish Regional Library (PARL); Nova Scotia Community College (NSCC), Chignecto-Central Regional School Board (CSRSB); St. Francis Xavier University (STFX), Pictou County United Way (PCUW); Active Pictou County (APC); Pictou County YM-YWCA; Multicultural Association of Pictou County (MAPC); East River Environmental Control Centre (ERECC); Pictou County District Planning Commission (PCDPC); Nova Scotia Environment (NSE); Nova Scotia Department of Health (NSDH); Environment Canada (EC); Environmental/Engineering Consulting Companies (EECC)

Eligible Environmentally Sustainable Municipal Infrastructure (ESMI) projects for this strategy under the Municipal Funding Agreement (MFA) include: water, wastewater and possibly solid waste projects. Capacity building includes long-term thinking, broadening scope of plans, integraton, collaboration, public engagement and education and implementation.

Goals	Actions: Policy, Project or Activity	Consistency with provincial statements of interest	Sustainable Outcomes and Applicable Sustainability Pillars	Primary Responsibility/ Potential Partners and Collaborators/ MFA eligibility	Time Line
Financial savings through greater municipal cooperation	Investigate feasibility of partnering on infrastructure projects (see 4.7.1)	Consistent with goals of statements on drinking water supply and infrastructure (see Appendix B)	Cleaner water (environmental) and improved health (social) through collaboration among two or more municipalities (cultural), producing financial savings (economic)	Councils and staff of six municipalities , MWU, PRDPC, NSE, PHEPP, ERECC and EECC Potentially MFA eligible in water and wastewater categories	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)

Financial savings through greater municipal cooperation	Work on cooperative sustainable procurement (see 4.7.2)	Not applicable	Co-operative sustainable procurement will mean the purchase of more green products and services (environmental and social) and save money (economic)	Councils and staff of 6 municipalities Potentially MFA eligible under capacity building	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)
Improved community health	Increase physical activity and better nutrition through better coordination of services (see 4.7.3)	Not applicable	The benefits of more physical activity (social) , combined with better nutrition (social and environmental) will make for healthier residents, reducing long-term health care costs (economic) and improving quality of life	Councils and staff of 6 municipalities PCHA, APC, YM-YWCA, Municipal recreation depts., seniors' complexes, day cares, other	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)
Better promotion of cultural diversity	Coordinate cultural events at county level (see 4.7.4)	Not applicable	A more diverse culture will make immigrants feel more welcome (social and cultural) , while a more comprehensive cultural network will help retain and attract young people, helping slow population decline (social and economic)	Councils and staff of 6 municipalities PARL, MAPC, PCTA, PCUW,	Short-term (1 to 2 yrs) and medium term (3 to 9 yrs)

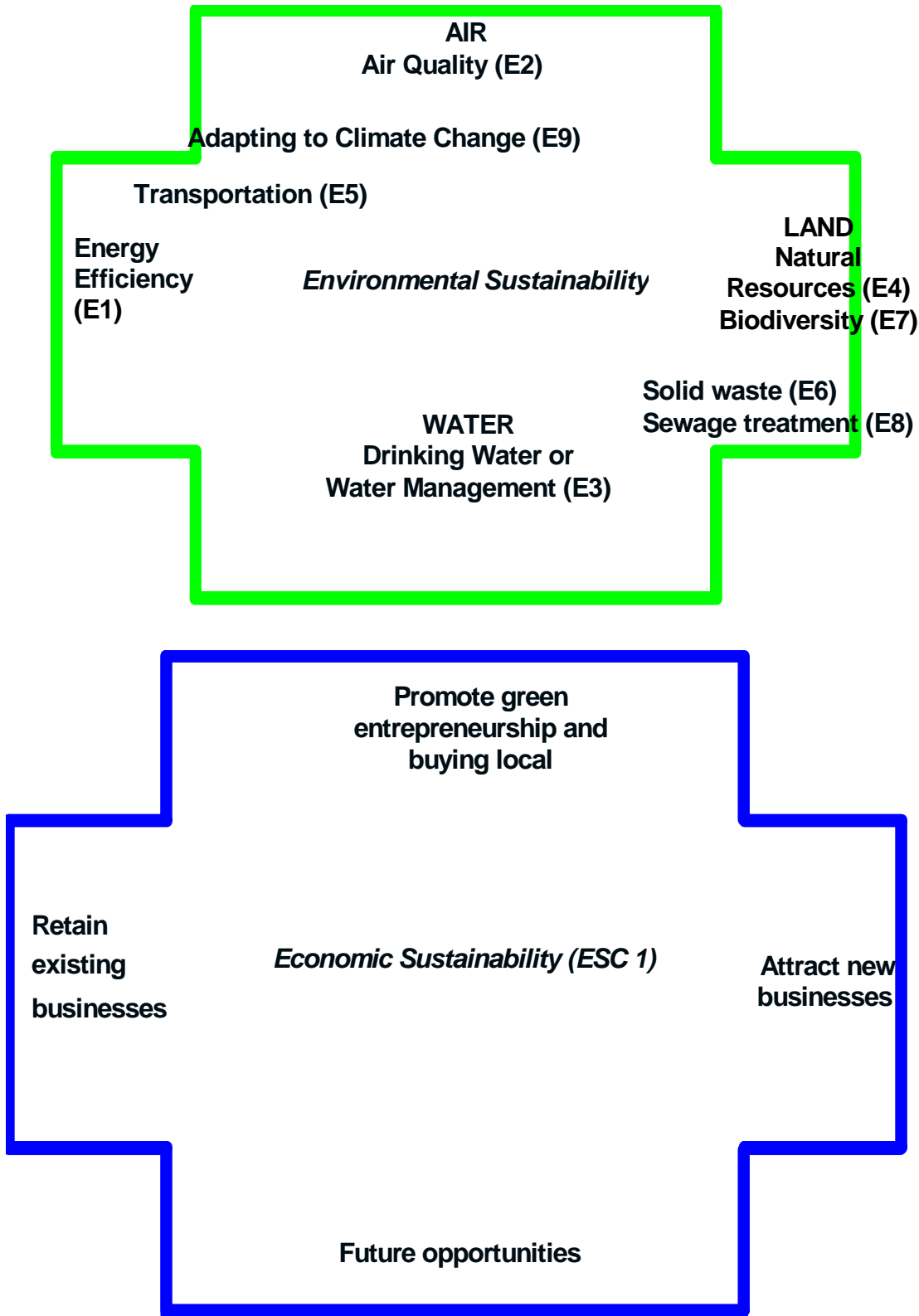
ICSP 4.9 Greater cooperaton strategy summary and benefits

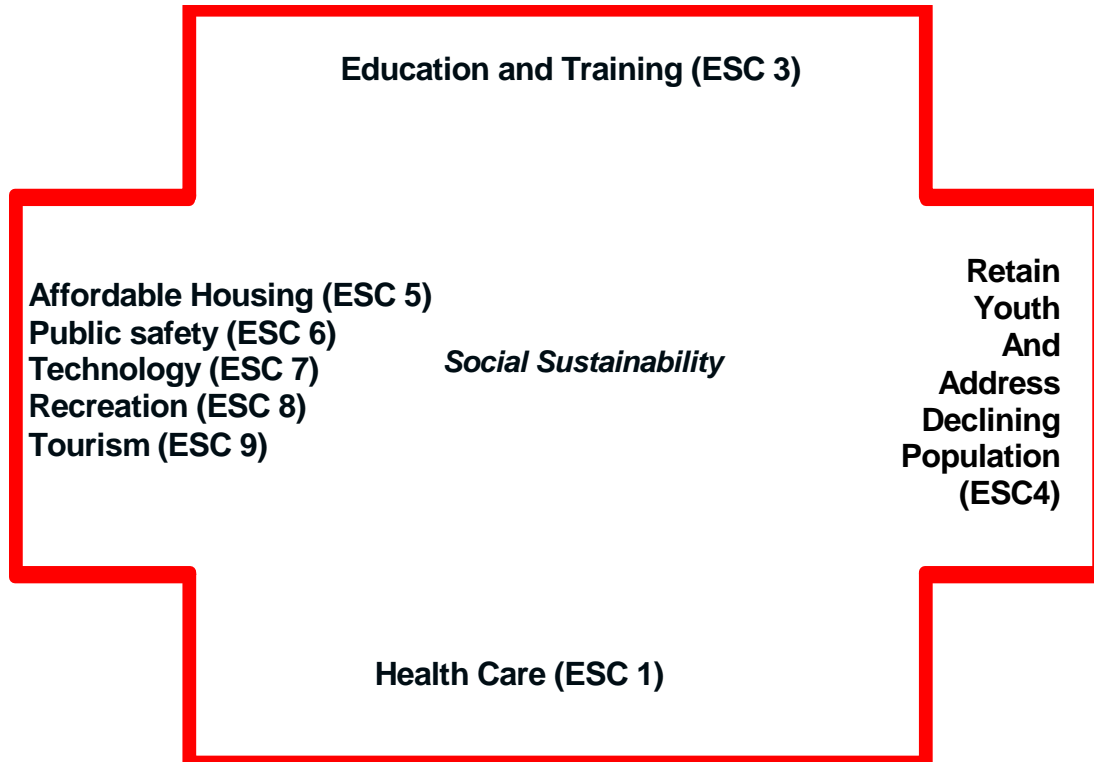
Greater cooperation means less duplication of resources. It's more efficient for municipalities and organizations to collaborate, which is one of the key goals of the ICSP process. The benefits of more cooperation include financial savings, greater cultural awareness, better health and a cultural shift towards working together instead of working apart.

Conclusion

The Sustainable Pictou County integrated community sustainability plan is a community-driven document. There was extensive public consultation and participation. The plan attempts to reflect and build on community priorities, ideas and proposed actions. The results of the ICSP process were scheduled to be presented to residents of Pictou County on the evening of March 24, 2009 at a public meeting in New Glasgow. But the meeting had to be cancelled because of a storm. The focus of the presentation would have been on the four strategies to help Pictou County become a sustainable community, as outlined in this report. The effectiveness of these strategies will depend on the willingness of municipal elected officials and staff, community organizations, businesses and the public to use the information for the common good of Pictou County.

Appendix A: Example of issues grouping based on Environmental (E) and Economic, Social and Cultural (ESC) priorities in Table 1.





Appendix B: Provincial Statements of Interest (from www.gov.ns.ca/snsmr/muns/plan/provint/intro.asp)

Statement of Provincial Interest on Drinking Water Supply

GOAL

To protect the quality of drinking water within municipal water supply watersheds.

BASIS

A safe supply of drinking water is a basic requirement for all Nova Scotians.

Inappropriate development in municipal water supply watersheds may threaten the quality of drinking water.

Some water supply watersheds are located outside the municipality using the water. The municipality depending on the water therefore has no direct means of protecting its supply.

APPLICATION

This statement applies to all municipal water supply watersheds in the Province including surface watersheds and groundwater recharge areas.

PROVISIONS

1. Planning documents must identify all municipal water supply watersheds within the planning area.
2. Planning documents must address the protection of drinking water in municipal water supply watersheds. Measures that should be considered include
 - a. restricting permitted uses to those that do not pose a threat to drinking water quality;
 - b. balancing the expansion of existing uses against the risks posed to drinking water quality;
 - c. limiting the number of lots. Too many lots may result in development which cumulatively affects drinking water quality. The minimum size of lots and density of development should be balanced against the risks posed to the quality of drinking water;
 - d. setting out separation distances between new development and watercourses to provide protection from run-off;
 - e. establishing measures to reduce erosion, sedimentation, run-off and vegetation removal associated with development.
3. Existing land use and the location, size and soil conditions of a municipal water supply watershed will determine the land-use controls that should be applied. Large surface watersheds, for example, may be able to sustain more development than a small groundwater recharge area.

It is recognized that in some situations the long-term protection of the drinking water supply may be impractical. In these cases planning documents must address the reasons why the water supply cannot be protected. Municipalities in this situation should consider locating an alternate source of drinking water where long-term protective measures can be applied.

4. The Province supports the preparation of watershed management strategies for all municipal water supply watersheds. These strategies should be prepared by the concerned municipalities and the municipal water utility, in consultation with all affected parties, including landowners.

Statement of Provincial Interest on Flood Risk Areas

GOAL

To protect public safety and property and to reduce the requirement for flood control works and flood damage restoration in floodplains.

Sustainable Pictou County ICSP for 2009-10

BASIS

Floodplains are nature's storage area for flood waters.

New development in a floodplain can increase flood levels and flows thereby increasing the threat to existing upstream and downstream development.

Five floodplains have been identified as *Flood Risk Areas* under the Canada-Nova Scotia Flood Damage Reduction Program.

APPLICATION

This statement applies to all Flood Risk Areas that are designated under the Canada-Nova Scotia Flood Damage Reduction Program. These are

1. **East River**, Pictou County,
2. **Little Sackville River**, Halifax County,
3. **Sackville River**, Halifax County,
4. **Salmon and North Rivers**, Colchester County, and
5. **West and Rights Rivers and Brierly Brook**, Antigonish County.

There are other areas in the Province that are subject to flooding which have not been mapped under the Canada-Nova Scotia Flood Damage Reduction Program. In these areas, the limits of potential flooding have not been scientifically determined. However, where local knowledge or information concerning these floodplains is available, planning documents should reflect this information and this statement.

PROVISIONS

1. Planning documents must identify Flood Risk Areas consistent with the Canada- Nova Scotia Flood Damage Reduction Program mapping and any locally known floodplain. 2. For Flood Risk Areas that have been mapped under the Canada-Nova Scotia Flood Damage Reduction Program planning documents must be reasonably consistent with the following: (a) within the Floodway, (i) development must be restricted to uses such as roads, open space uses, utility and service corridors, parking lots and temporary uses, and (ii) the placement of off-site fill must be prohibited; (b) within the Floodway Fringe, (i) development, provided it is floodproofed, may be permitted, except for (1) residential institutions such as hospitals, senior citizen homes, homes for special care and similar facilities where flooding could pose a significant threat to the safety of residents if evacuation became necessary, and (2) any use associated with the warehousing or the production of hazardous materials, (ii) the placement of off-site fill must be limited to that required for floodproofing or flood risk management. 3. Expansion of existing uses must be balanced against risks to human safety, property and increased upstream and downstream flooding. Any expansion in the Floodway must not increase the area of the structure at or below the required floodproof elevation. 396 4. For known floodplains that have not been mapped under the Canada-Nova Scotia Flood Damage Reduction Program, planning documents should be, at a minimum, reasonably consistent with the provisions applicable to the Floodway Fringe. 5. Development contrary to this statement may be permitted provided a hydrotechnical study, carried out by a qualified person, shows that the proposed development will not contribute to upstream or downstream flooding or result in a change to flood water flow patterns.

Statement of Provincial Interest on Infrastructure

Goals:

make efficient use of community infrastructure
particularly municipal water and wastewater facilities

Planning documents must:

promote cost effective use of existing infrastructure through:
infill
more appropriate density
support rational extension of infrastructure through:
clustering
directing of development to areas that can be serviced efficiently
deter urban sprawl and development that leapfrogs over serviced areas through:
establishing density standards more appropriate to rural areas

Statement of Provincial Interest on Agricultural Land

Goal:

- protection of agricultural land
- viable and sustainable food resource base

Planning documents must:

- identify agricultural land
- address its protection
- where possible, direct non-agricultural development to lands with lowest agricultural value

Statement of Provincial Interest on Housing

Goals:

- provide a range of housing opportunities that meets the needs of all Nova Scotians

Planning documents must:

- promote inclusive residential development by providing for:
 - affordability
 - special needs
 - alternate forms and tenure of housing
- provide for flexible residential land development standards such as:
 - higher density
 - smaller lots sizes
 - reduced yard requirements
- allow for changing forms of households such as:
 - group homes