

MUNICIPALITY OF THE DISTRICT OF GUYSBOROUGH

Integrated Community Sustainability Plan

2010

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THIS DOCUMENT WAS PREPARED IN ACCORDANCE WITH SERVICE NOVA SCOTIA AND MUNICIPAL RELATIONS REQUIREMENTS.

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MUNICIPALITY OF THE DISTRICT OF GUYSBOROUGH

INTEGRATED COMMUNITY SUSTAINABILITY PLAN

10-03-25692

MOVED: Councillor Janet Peitzsche

SECONDED: Councillor Blair George

MOTION: **BE IT RESOLVED** that the Council of the Municipality of the District of Guysborough adopt the final draft of the Integrated Community Sustainability Plan as circulated and forward same to the Department of Service Nova Scotia and Municipal Relations for their final approval.

MOTION CARRIED

MARCH 10, 2010

Warden's Message

I am delighted to have the opportunity to introduce the Municipality of the District of Guysborough's Integrated Community Sustainability Plan. Sustainability over the past number of years has taken on a whole new meaning, its importance has grown substantially and the need for a forward-looking document such as this will be of great use to our Municipality as we move forward. Four dimensions of sustainability issues will be addressed by this plan; environmental, economic, social and cultural sustainability. Due to the current economic conditions the world is facing, success and prosperity are largely dependent on planning and preparedness, without the proper planning procedures and documents rash decisions that are not thoroughly thought-through can be made in pressured times.

Jobs and self-sustainability are of the highest priorities within the Municipality of Guysborough. Each year we are witness to a declining population of both our young people and our skilled workers and this, accompanied by an aging population, is cause for immediate attention. We are so fortunate in this Municipality to have access to great natural resources as well as the waters surrounding us. We are in the process of attracting large-scale industry to our Municipality and have made it imperative that they demonstrate the same respect and admiration for these resources as we do. Environmental sustainability is not only about conservation, but is about using what resources we have available in a manner that will not affect future users. As you will read in our vision statement, this is our goal for the future.

In closing I would like to express my dedication to this Municipality and its impending, inevitable growth. I look forward to working with all citizens and groups within our districts in order to achieve sustainability in every means possible, working to attract new residents and repatriating those former ones.

Sincerely,

Warden Lloyd Hines

History

The Municipality of the District of Guysborough is one of four Municipal units in Guysborough County, Nova Scotia. Occupying the eastern half of Guysborough County, the District's administrative centre is located in the Shiretown of Guysborough.

The Municipality completely surrounds the towns of Canso and Mulgrave and borders the St. Mary's Municipal district to the West, Antigonish County to the North and the Strait of Canso to the East. The Municipality of the District of Guysborough was incorporated in 1879. Prior to this incorporation several colonies settled throughout the county. In 1636, Nicholas Denys founded Guysborough as a French fishing base, to take advantage of the Harbour's close proximity to the Atlantic fishing grounds and Mikmaq trade routes. The Guysborough Waterfront to this day, retains much of the community's early charm and character from years gone by, and much of the rich and colorful history has been preserved at the Old Court House Museum.

In 1783 Black loyalists settled in Guysborough in an area approximately forty kilometers outside of town. After a devastating storm ruined much of the eastern shore of Nova Scotia, the colony was forced to move inward to more fertile farming land. They settled in three separate areas (Sunnyville, Lincolnville and Upper Big Tracadie) which are now located within what is now the Municipal district.

There are also a number of Acadian villages along the Eastern Shore located within the Municipality of Guysborough, particularly Larry's River, Charlos Cove and Port Felix. These three fishing communities were established in the 1770s when Acadians petitioned the government for the right to settle this region. Although traditionally farmers, the Acadians found this new land so rocky that they began harvesting the seas for lobster, cod and mackerel.

With valuable access to some of the provinces coastline (44km) the Municipality of Guysborough has a wonderful opportunity to take advantage of coastal-related economic development opportunities such as an anticipated state of the art container terminal and further oil and gas exploration. As a Municipality we understand that the fishery and forestry industries will not suffice alone in bringing sustainable prosperity to the 21st century.



In years past MODG looked to the sea for its livelihood in the fisheries, in shipping and trading. It can look to the sea today for oil and gas resources along with container and aggregate shipping."

2007 Allura Publications

Many rural communities all across Canada are facing the regrettable realities of out-migration, the so-called “brain-drain” to larger centers of their most educated people, higher costs of living, depletion of natural resource-based industry, and the challenge of globalization and aging populations (Rural Nova Scotia Issues Report). According to Statistics Canada, over the span of approximately 25 years, the Municipality of Guysborough has experienced an unfortunate population decline at quite an alarming rate.

From the period spanning 2001 to 2006 the population dropped from 5,165 to 4,681 residents (or - 9.4%). Many factors listed above contribute to this decline. More specifically, according to the extensive consultation with residents of this Municipality there are a variety of reasons why people are leaving Guysborough and an equal number of reasons why they would like to return. According to a survey conducted by the Guysborough County Regional Development Authority in 2007, there was a general consensus among respondents that leaving Guysborough was not a voluntary choice, but had to be made simply because of the lack of job opportunities in the area for skilled workers. The Municipalities’ senior citizens stated that they did not want to leave here, although rural living has its challenges, they would be unable to experience the quality of life anywhere else that they do here. Strong family ties and heritage, good schools, a generally pleasant place to live accompanied by the wonderful scenery were also cited.



The Municipality of Guysborough is very fortunate in its ability to provide many necessary services to its residents. We operate an award-winning second generation landfill site that services over 230,000 people from 16 other Municipalities across the province. This landfill site was upgraded to a second generation site in 2006 and further addresses environmental sustainability issues in both the short and long term in our Municipality. The Municipality also mandates a very strict recycling program that each resident must abide by in order to be serviced by road-side pickup.

Guysborough has one of the most heavily used “community” schools in Canada, hosting many community events and acting as home for many community groups as well as its students and teachers. Acting as the “hub” of the community this center brings together all ages, races and groups.

Commemorating one portion of our rich heritage in Guysborough, the school is home to the Afrikan Canadian Heritage and Friendship Center which is in operation to provide, not only Afrikan-Canadian students but students of all races, the opportunity to learn historical and cultural aspects of Afrikan heritage. There are displays of Afrikan art and artifacts, documents, reading material and accomplishments of local Afrikan-Canadian community members and achievers. It provides a great learning opportunity for all members of the community, young and old.

There are numerous festivals, events and community groups designated for the celebration of our vibrant French heritage. There is a community facility in the village of Larry's River designated to honoring the rich culture.

Both provincial and community parks are plentiful throughout our Municipality. The Boylston Provincial Park is an ideal place to camp while touring the Eastern Shore and the wooded hilltop campground offers a spectacular view of Guysborough Harbour. The Port Shoreham Beach, another provincial park, is comprised of sand and cobble stretching as far as the eye can see. The Tor Bay beach is a small but picturesque and has a picnic area on a rocky point looking out to the open Atlantic 8 km (5 mi) south of Larry's River. Its sweeping sandy beaches, board walks and interpretive displays make this an interesting stop along the Eastern Shore.

From an entertainment stand point, Chedabucto Place also contains one of the best sound-stages in the province. The Chedabucto Place Performing Center accommodates seating for 300, which is used as a forum for entertainment of every sort attracting celebrated singers and song writers from all over as well as providing a formal stage for local business activities and assemblies.

In addition, there are also three community fitness centers that are used by both the general population as well as a place for students to learn the importance of physical activity to overall health. Recreation plays a very important role in our Municipality. In 2006 a Functional Use Study confirmed that an ice surface/recreation facility in the Shiretown of Guysborough would be beneficial to our Municipality in many ways, enriching the community socially, culturally, environmentally and economically. The programs offered are appealing to all ages; ranging from walking clubs, exercise classes for seniors, family intramural nights, gymnastic classes for children ages 3 to 5, Afrikan dance workshops, Yoga, Badminton and Taekwondo.

The opportunities and options available to Guysborough right now are plentiful. There are numerous large scale projects in the works that could provide sustainable development for the next number of years for not only our economy but population as well. Some examples of the projects on the table today and their potential employment opportunities are as follows:

LNG Petrochemical Project (\$4.5 Billion, Estimated Employment 3000 total over the course of construction – 600 permanent)

Melford Container Terminal & Logistics Park (\$300 Million, Estimated Employment 500 during construction – up to 300 permanent)

EnCana Deep Panuke (\$700 Million, using existing facilities in Goldboro - over the course of construction approximately 250 fulltime jobs)

Aggregate & Mineral Development (still in the investigation stages no employment information available at this time)

The Municipality has recently completed land use planning for the entire Municipality, has updated its existing Land Use Bylaws, and is currently working on its 5-year Capital Investment Plan. From a percentage standpoint, of the 2,111.44 square kilometers of land within the Municipality 3.25% is zoned industrial, 11.3% is zoned protected and 2.1% of the coastline is zoned protected.

One accomplishment that our Municipality prides itself on is the fact that 100% of our land is planned for. The magnitude of this achievement is evident when you compare the Municipality of the District of Guysborough to Cape Breton Island, where almost 95% of their land is unplanned. This is a testament to the dedication and commitment that our Municipality illustrates when it comes to planning and preparedness.

So as the world progresses we as a Municipality will progress right along side with it, working toward a more sustainable economy, a healthier environment, a celebrated culture and a social experience unique to us. We are mindful of our colorful past but are looking forward, and are dedicated to achieving our goals and becoming increasingly self-sufficient.

Gas Tax Agreement

On December 17, 2008, the Canadian Federal Government and the Province of Nova Scotia confirmed the further transfer of Federal Gas Tax revenues. This deal was originally signed in September 2005, providing 145.2 million dollars to Municipalities who were willing to invest it in Municipal infrastructure. The new agreement signed in late 2008, will allocate an additional 223 million beginning in 2010 over the following four years.

Each Municipality that will benefit from gas tax funds is required to prepare an Integrated Community Sustainability Plan by 2010. Sustainability plans integrate the four pillars of sustainability; economic, social, environmental and cultural. These plans are forward looking and strategic. They are designed to provide Municipalities with direction for the future and the opportunity to decide what it is that is important to the Municipality, what they would like to preserve and where they would like to go. Projects that are considered for funding are only those labeled Environmentally Sustainable Municipal Infrastructure project

The impact of the use of the Funds will be measured through a set of core indicators linked to the following outcomes and outputs:

Outcomes:

- a) Cleaner Air**
- b) Cleaner Water**
- c) Lower GHGs**

Outputs:

- a) Community Energy Systems**
- b) Public Transit Infrastructure**
- c) Water Infrastructure**
- d) Wastewater Infrastructure**
- e) Solid waste**
- f) Local Roads and Bridges**
- g) Capacity Building**

Allocation to Municipalities

Municipalities will receive funding based on a number of quantitative characteristics. The formula provided below has been suggested by the Union of Nova Scotia Municipalities to the Minister of Service Nova Scotia and Municipal Relations. The formula is based on three factors: the number of dwelling units, the population and the expenditures on behalf of each Municipality.

The formula to calculate Gas Tax Funds for Municipalities is as follows: according to the Government of Canada Webpage

Twenty-five percent of:

The population of the Municipality divided by the population of the Province times Canada's annual contribution

Plus:

Twenty-five percent of:

The number of dwelling units in the Municipality divided by the total number of dwelling units in the Province times Canada's annual contribution

Plus:

Fifty percent of:

The five year rolling average of standard expenditures of the Municipality divided by the five year rolling average of standard expenditures for all Municipalities in the Province times Canada's annual contribution.

- Dwelling units shall be based on the definition of dwelling units in the Municipal Grants Act Section 2(c) and shall be the number of dwelling units recorded on the filed assessment roll.
- Population shall be based on the latest census data available as compiled by Statistics Canada.
- Expenditures shall be based on Standard Expenditures as defined in the Municipal Grants Act Section 12(2) and calculated on a five year rolling average basis.

Fiscal Year	Canada's Contribution to Nova Scotia
2005-2006	17,149,000
2006-2007	17,149,000
2007-2008	23,225,000
2008-2009	29,032,000
2009-2010	58,064,000
TOTAL	145,159,000

Information Collection

Due to the nature of our Municipality and the obligation we feel to be prepared, many documents and surveys were completed in recent years regarding all four pillars of sustainability. Much public consultation has been done in recent history which entailed information relative to all four pillars of sustainability.

- **Water and Wastewater Management Strategy (2006)**
- **Physical Activity Plan (2008)**
- **Guysborough Speaks (2006)**
- **Age Friendly Rural and Remote Communities Initiative (2008)**
- **Civic Center Functional Use Study (2007)**
- **Guysborough Community Health Board Plan-Understanding Our Health Survey (2006-2007)**
- **Natural Resource Citizen Engagement Committee-RDA (2008)**
- **Strait Area Mayors & Wardens Committee-Toward an Inter-Municipal Agreement on Land-Use Policy (2004)**
- **GCRDA Rural Transportation & Affordable Housing Survey (2009)**
- **Strategic Plan (2009)**

Vision Statement

According to the Gas Tax Agreement every community's Sustainability Principles must address the environmental, cultural, social and economic dimensions of a community's identity. The following principles illustrate the Municipality of the District of Guysborough's vision for the future.

The Municipality of the District of Guysborough:

Aspires to be a more self-reliant community capable of maintaining and increasing its current population and infrastructure through local economic success.

Will build and maintain infrastructure that respects and enhances our community's cultural identity.

Will promote infrastructure development that minimizes negative effects on bio-diversities and our natural environment.

Will sustain public infrastructure that meets basic needs, while generating economic opportunities.

Will consider the effects of infrastructure development on other surrounding Municipalities and Towns, and where possible, include other affected populations in the planning process.

Municipal Inventory & Assessment

This set of checklists is used as an assessment tool for Municipalities as a way to determine what utilities and structures a Municipality or Town has and what needs exist for infrastructure in the future. A needs assessment is conducted for each pillar of sustainability.

Capital Infrastructure Inventory:

CAPITAL PROJECT/INFRASTRUCTURE	DOES IT EXIST IN MODG?	WHAT IS THE CONDITION?	IS IT SUFFICIENT?
Municipal Building	Yes	Good	No
Town Hall	No	N/A	N/A
Community energy systems	No	N/A	N/A
Community Hall	Yes	Average	Yes
Fire stations	Yes	Good	Yes
Health Clinic	Yes	Average-Good	No
Housing	No	N/A	N/A
Internet Service	Yes	Good	No
Library	Yes	Average-Good	No
Police Detachment	Yes	Poor-Average	No
Post Office	Yes	Average	Yes
Recreation (parks)	Yes	Good	Yes
Roads	Yes	Average	No
Schools	Yes	Good	Yes
Sewage collection & disposal	Yes	Average	No
Solid waste disposal	Yes	Good	Yes
Water service	Yes	Average	No
Public transportation	No	N/A	N/A
Active transportation	Yes	Poor	No
Youth center	Yes	Average	Yes
Transit building	No	N/A	N/A
Parks building	No	N/A	N/A

Social, Health and Cultural Services Inventory:

RESOURCE CATEGORY	TYPE OF SERVICE	DOES IT EXIST?	CAN IT BE IMPROVED?
Health	Nutrition	Yes	Yes
	Weight Loss	Yes	Yes
	Aids prevention	No	Yes
	Substance Abuse	Yes	Yes
	Family Planning	No	Yes
Public Safety	Police Protection	Yes	Yes
	Fire Protection	Yes	Yes
	Emergency Response	Yes	Yes
	Search and Rescue	Yes	Yes
Recreation Programs	Small Children	Yes	Yes
	Teens	Yes	Yes
	Adults	Yes	Yes
Social Service Programs	Child Care	Yes	Yes
	Domestic Violence	Yes	Yes
	Seniors	Yes	Yes
	Disability Services	Yes	Yes
	Counseling-Adults	Yes	Yes
	Counseling-Teens	Yes	Yes
	Legal services	Yes	Yes
	Suicide Prevention	Yes	Yes
	Elders groups	Yes	Yes
	Music	Yes	Yes
Cultural Programs	Dance	Yes	Yes
	Arts & crafts	Yes	Yes
	Language programs	No	Yes
	Spirit Camps	No	Yes
	Heritage commemoration	Yes	Yes
	Festivals	Yes	Yes

Environmental Inventory:

ENVIRONMENTAL ASSETS/NEEDS	DOES IT EXIST IN MODG?	IS IT LACKING IN MODG?
Safe Drinking water	Yes	Yes
Adequate supply of water	No	Yes
Certified water treatment operators	Yes	No
Safe sewage disposal and treatment	Yes/No	Yes
Permitted landfill	Yes	No
Recycling program	Yes	No
Used oil storage area	Yes	No
Lead acid battery collection area	Yes	No
Hazardous household waste collection	Yes	No
Hazardous waste response plan	No	Yes
Developable land	Yes	No
Fuel spill prevention plan	Yes	Yes
Erosion control	No	Yes
Contaminated sites identified	Yes	Yes
Environmental education programs	Yes	No
Healthy wildlife populations	Yes	No
Protected watershed plan	Yes	No
Environmental impact statement	Yes	Yes
Storm water treatment	Yes	Yes

Capacity Building & Job Training Inventory:

TRAINING & EDUCATION OPPORTUNITIES	TYPE OF JOB	DOES THIS JOB EXIST IN MODG?	TRAINING/EDUCATION NEEDED?	TRAINING/EDUCATION AVAILABLE IN MODG?
MODG	CAO	Yes	Yes	No
	Directors	Yes	Yes	No
	Employees	Yes	Yes	No
Schools	Principals	Yes	Yes	No
	Teachers	Yes	Yes	No
	Teachers Aides	Yes	Yes	No
Health	Doctors	Yes	Yes	No
	Nurses	Yes	Yes	No
	Health Aides	Yes	Yes	No
Transportation & Utilities	Transit Drivers	No	Yes	No
	Water treatment operators	Yes	Yes	No
	Sewage treatment operators	Yes	Yes	No
	Landfill employees	Yes	Yes	No
	Power plant operator	Yes	Yes	No
	Water delivery service operator	Yes	Yes	No
	Justice lawyers	Yes	Yes	No
Safety	Judges	No	Yes	No
	Correction officers	Yes	Yes	No
	Fire prevention officers	Yes	Yes	No
	Hazardous waste employees	Yes	Yes	No
	Search & Rescue	Yes	Yes	No

Economic Inventory:

COMMUNITY PROFILE-STATISTICS CANADA (2006)	NUMBER OF MODG RESIDENTS EMPLOYED
INDUSTRY	
Agriculture & other resource based industries	490
Construction industry	180
Manufacturing industry	285
Wholesale industry	45
Retail industry	190
Financial & real estate	50
Healthcare & Social Services	205
Education services	165
Business services	220
Other	330
Total	2160
OCCUPATION	
Management occupations	115
Business, finance and administration occupations	265
Natural and applied sciences & related occupations	65
Health occupations	105
Social science, education, government service & religion occupations	135
Art, culture, recreation and sport occupations	35
Sales and service occupations	310
Trades, transport and equipment operators and related occupations	465
Occupations unique to primary industry	435
Occupations unique to processing, manufacturing and utilities	230
Total	2160

Service Agreements with Adjacent Units

The Municipality of the District of Guysborough at the present time has various service agreements with the surrounding Towns of Mulgrave, Canso, Antigonish and Pictou, The Municipality of the District of St. Mary's and the Cape Breton Regional Municipality. Such services offered by our Municipality are; waste collection services, building inspections, fire services, subdivision services, zoning services and land-use bylaw services. In the future we expect that our services will become more in demand in the Town's of Canso and Mulgrave and the Municipality of the District of St. Mary's with the current changing demographics in each of the communities. We look forward to being the sole provider of such services to the whole County of Guysborough in future times.

Waste Management Services:

The Municipality of the District of Guysborough accepts solid waste from seventeen Municipal units throughout Northeastern Nova Scotia. In 2006 our Municipality entered into twenty year service agreements with all Municipalities and towns located on Cape Breton Island, and the counties of Antigonish, Pictou, and Guysborough. Tipping fees are collected on a tonnage basis and varies depending on the type of material that is collected from each Municipal unit.

Fire Services:

Currently in the Municipality of the District of Guysborough there are fourteen volunteer fire departments. Three of these fourteen departments serve areas located outside of Municipal boundaries, they are as follows; Aulds Cove Volunteer Fire Department which serves parts of Antigonish County, Goshen & Area Volunteer Fire Department which serves portions of the Municipality of the District of St. Mary's and the Tracadie & District Volunteer Fire Department which serves parts of Antigonish County as well.

These departments respond to and provide assistance with fire suppression services, medical emergency first response services, and provide vehicle extrication services to adjacent units.

Building & Fire Inspection Services:

The Municipality of the District of Guysborough provides building inspection services to the Town of Mulgrave and fire inspection services to The Towns of Mulgrave and Canso as well as the Municipality of St. Mary's. Any type of new building construction or addition to an existing building requires a permit. All applications for building permits must seek the approval of the Municipality's building inspector and that of the development officer to ensure the proposed location of the structure complies with Municipal Land-Use Bylaws. Once the permit has been issued, subsequent building inspections will take place throughout the project. This service is provided at a daily rate to other Municipal units based on the inspector's wage, training, travel time.

Water Services:

The Municipality of the District of Guysborough operates one water utility (Hazel Hill Water Utility) which currently has a purchase agreement with the Town of Canso where our Municipality purchases water from the Town and is treated at the Hazel Hill facility. This facility is owned by the Town of Canso but originates from the Wilkins Lake Water Shed located within the Municipality. This agreement ensures that both parties are provided with clean, safe drinking water.

Subdivision Services:

All land subdivision services are provided by the Municipality of the District of Guysborough's Development Officer to the Town of Mulgrave and the Municipality of the District of St. Mary's.

Municipal Evaluations

Section 1: Environmental Sustainability

1. Water and Wastewater Systems

The Municipal Public Works Department is responsible for such services as Municipal water, wastewater, sidewalks, Municipal buildings, parks, recreational infrastructure and other Municipal properties. The Municipal Public Works Department is also responsible for all aspects of Municipal services and routine maintenance of the Municipality of Guysborough's buildings and capital assets. Currently Municipal water and sewer systems are available in the Shiretown of Guysborough. Municipal sewer service is also available in Little Dover and Municipal water service is provided in Hazel Hill and Tickle with a possible expansion into Little Dover.

The Municipality of the District of Guysborough has recently (2006) completed an extensive water and wastewater management strategy in order to better assess the current situation and future sustainability needs of our water and wastewater facilities. The objectives and findings from the study are as follows.

Water study objectives:

- *Provide good quality drinking water that conforms to the guidelines for Canadian Drinking Water Quality.*
- *Water that is free of microbial pathogens (preventing water borne disease)*



Achieved by:

- *provide proper management of water supply, training, transmission, treatment, storage and distribution systems*

Findings from Executive Summary:

The Municipality of the District of Guysborough has recognized that a number of communities within the Municipality have degrading water supplies, deficiencies with regards to water infrastructure and or inadequate wastewater disposal systems that have the potential to impact public

health and adversely affect environmental quality. As is common in rural Nova Scotian communities, many of the disposal systems within the Municipality consist of tanks and (either partial or non existent) disposal fields for sewage discharge. In addition, the Municipality is posed to experience potential growth as a result of several significant proposed industrial projects, which the current water and wastewater systems will not facilitate. The water and wastewater management strategy was developed as a guide for prioritizing and planning sustainable infrastructure requirements for the medium and long term time frames.

Nine communities within the Municipality were identified for study and information was gathered through a mail out survey followed by site visits to individual homes. Some water quality analysis was gathered through sample collections from onsite wells in each community. These nine communities are the priority areas within MODG in need of infrastructure:

Community	Water Supply, Treatment & Distribution	Wastewater Collection & System Upgrade	Community Total
Larry's River	\$1,078,000	\$3,122,000	\$4,200,000
Charles Cove	N/A	\$1,857,000	\$1,857,000
Little Dover	\$1,655,000	N/A	\$1,655,000
Boylston	\$691,000	\$144,000	\$835,000
Lincolntonville	\$480,000	N/A	\$480,000
Goldboro	\$756,000	\$792,000	\$1,548,000
Whitehead	N/A	\$460,000	\$460,000
Country Harbour	N/A	\$979,000	\$979,000
Isaac's Harbour	N/A	\$144,000	\$144,000
Total	\$4,660,000	\$7,498,000	\$12,158,000

*Note- These are Class B estimates, produced in 2006.

- **Common issues with regards to water supply were hardness, quantity, color and taste.**
- **Common issues with regards to wastewater were metal septic tanks, grey water separation, open pipe discharge and poor soil conditions.**

Another sustainable measure we will implement in the near future is installing water meters at each residence that is connected to Municipal water systems. Installing meters will enable us to maximize efficiency by tracking the water usage patterns of residents, aid in the discovery of leaks in water lines, and teach residents about water conservation. Inevitably when you minimize water consumption you also minimize wastewater production, therefore a solution such as this addresses two issues. In addition to installing water meters as a means of educating the population, the Public Works department would like to extend the educational efforts to the quarterly Municipal

newsletter, showcasing facts about water conservation and what each individual can do to minimize their water usage and waste.

There was an identified need for improvements to water and wastewater supply in a number of communities. The needs were prioritized based on a number of criteria including environmental and social conditions, as well as public health. One community (Larry's River) was identified as a community in need of improvements to both water supplies and wastewater management.

Findings of study:

- **Water supply problem areas include Lincolnville, Boylston, Little Dover, and Larry's River.**
- **Wastewater disposal problem areas include Boylston, Charlos Cove, Larry's River, Whitehead and the village of Guysborough's wastewater treatment facilities.**
- **Potential growth areas include Guysborough, Boylston, Goldboro, Isaacs Harbour, and Country Harbour both water and wastewater.**
- **Industrial zoned nodes within the Municipality are not currently equipped to supply adequate water and wastewater services.**

In order to properly prioritize future sustainable water and wastewater projects there were certain criteria that needed to be met when considering a ranking system.

Environmental Conditions:

Environmental conditions criteria consider the significance of the local environmental features to the community. These would include shoreline, existence of fishery, vegetation community, soils, nearby surface water features including wetland, wildlife habitat, groundwater resources and river systems.

Social Conditions:

Social conditions criteria include the ability or lack of ability for existing infrastructure to meet the demands of the existing populations as well as potential growth demands. This would consider long term potable water supply to the community as a whole as well as potential to improve or correct sewage disposal problems in a cost effective manner. Things considered were existing

economic livelihood, employable population and type of development within the community.

Public Health:

Public Health would consider the long term potential to sustain potable water for existing development and adequate infrastructure to treat waste water disposal without the potential for impact on water supplies. Currently many communities have older populations that are prone to health problems.

Water Supply:

Water Supply issues are focused more on quantity than quality. A significant number of residents have poor supply and less than acceptable quality, thus requiring solutions that consider central or communal system infrastructure. Given that the Municipality has identified potential growth areas, water supply is a significant factor in determining which areas could sustain continual growth.

Waste Water Treatment:

Waste water treatment considers the number of properties with problems, the available alternatives that might be feasible to correct problems, the cost to implement and the extent of infrastructure required.

Needs for a more Sustainable Water System:

Ensure every community is equipped with Municipal water and sewer infrastructure

Communities of Larry's River, Little Dover, Goldboro, Boylston and Lincolnville need community water supply systems

Move forward with pilot water project in community of Lincolnville

Install water meters at each residence that is connected to Municipal water services

Upgrades to on-site water supply systems throughout the Municipality

Educate residents on the importance and methods of water conservation through Municipal Newsletter.

Identify water supply for industrial development projects

Continued work on rural water supply's i.e.: community wells

Additional training for water system operators

Needs for more Sustainable Waste Water System:

Continued work on waste water extensions throughout the Municipality of Guysborough especially in identified priority areas such as Larry's River, Charlos Cove, Boylston, Goldboro, Whitehead, Country Harbour and Isaac's Harbour

Meet and maintain new Federal and Provincial standards

Upgrade existing wastewater infrastructure in Shiretown of Guysborough to more efficient and cost-effective system.

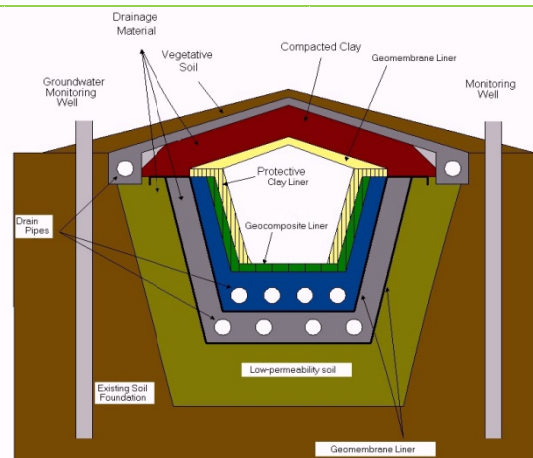
Identify new technology pertaining to rural treatment options, technology that is more cost-effective, and that is low-maintenance.

Additional training for wastewater system operators.

2. Solid Waste Management

Nova Scotia adopted a Solid Waste Resource Management Strategy in 1995 requiring 2nd Generation (double liner) landfills in Nova Scotia by 2006. After comprehensive study, the Municipality determined that its current landfill site was an ideal location for a Second Generation facility. A second generation facility operates in lined disposal cells. Each cell is composed of many layers of processed materials and protective geotextile membranes. These membranes act as barriers between the solid waste, leachate and the ground. Leachate is the result of rainwater that has percolated through the solid waste and has become contaminated with the chemicals and toxins that are present in the waste. Leachate is tracked from the site to an approved treatment facility.

The design and quantity of these membranes present within the cells at second generation landfill sites, allow such low volumes of leachate through that there should never be a measurable adverse impact on the quality of the receiving groundwater.



s compared to first-generation landfill sites, the negative impacts on the environment are not comparable to a second generation site such as the one located within our Municipality. Groundwater is continuously tested and monitored in the brooks and rivers surrounding the facility, ensuring the safety of residents, wildlife and vegetation.

The Municipality underwent negotiations with 16 Municipal units on Cape Breton Island and in the Eastern Mainland portion of the Province. It concluded agreements for a 20-year term (2006-2026) based on a 20-year business plan. The Agreements result in the provision of specific waste management services to 230,000 people within the Eastern end of Nova Scotia. In addition, the number of landfills in the region served was reduced from seven to one. The award-winning facility is monitored and maintained according to strict environmental standards as established by the province.



In addition to operating one of the largest Second Generation landfills in Nova Scotia we also offer a full service Diverted Materials facility. Examples of materials that are further processed are: scrap metal, organics, waste wood and construction debris, tires, asphalt shingles, waste oils, household hazardous waste, and recyclables. In order to be a leader in the Solid Waste business as a Municipal unit we must always be searching for increased opportunities and capabilities at our site. One pilot project that we will push to initiate in the near future is the disassembling of mattresses and box springs. The dismantling process will require the separation of cotton, scrap metal and wood which will require added personnel and will eliminate one more item from our landfills.

One short term goal MODG's Waste Management Facility has set is to implement a green cart program in our Municipality. A green cart program would be a logical and more efficient replacement for the backyard composting system that is currently in place. The implementation of a green cart program would increase the volume of compost arriving on site and therefore increase the scope of the current compost operation. This opportunity would have many positive effects for the Waste Management Facility and homeowners as well. A program such as this would take the burden off of homeowners to backyard compost and would offer the potential to sell further treated and bagged compost to gardeners and landscapers etc. If the Waste Facility were to further process the compost certain additives would be required in order for it to have the proper consistency. Such materials such as clean used wood and drywall that is delivered to the diverted materials division of our landfill could be further recycled into a value-added product increasing both economic and environmental sustainability over time.

A Waste Management Community Liaison Committee has also been established and meets quarterly or more often if required. With such a large number of people served, a stringent recycling program is necessary. Users throughout the area are required to sort their solid waste into three separate bags. One clear bag for garbage, one blue bag for recyclable plastic containers and one blue bag for paper and boxboard related products. Separation of the solid waste in this manner allows for easier sorting procedures once the waste is collected roadside and arrives at the facility.

In 2005 the Municipality of the District of Guysborough compiled a Waste Management Operations Plan in preparation for the construction of the Second Generation Landfill site. The Guysborough Waste Management Facility is designed to accept 70,000 tonnes of Municipal solid waste per year over a 20-year period. A landfill footprint of 14 hectares has been established based on this annual tonnage.

The Waste Management Facility has completed construction of the first and second cell of which the first is near capacity. The initial cell was designed for approximately 30 months of capacity. Subsequent cells will be commissioned at a frequency of two to three years in order to remain environmentally sustainable. The installation sequence acknowledges the assumed arrival tonnage, the need to provide continuous service and the requirement to install liner extensions during the summer and early fall. There are many environmentally sustainable opportunities that the Waste Management Facility could take advantage of in the future, bio-gas and tire derived aggregate are two examples of future opportunities.

Bio-gas is a renewable energy source that is the product of fermented organic materials such as

sewage, Municipal and green waste. Bio-gas can be used as a low-cost fuel for any heating purposes, and can be used in this manner at our waste facility. It can be used to run most types of combustion engines, generating either mechanical or electrical power. This is a very sustainable energy option for our Municipality and would decrease the use of fossil fuels and therefore greenhouse gas production at our facility.

Another environmentally sustainable option which the Waste Management Facility is currently working on implementing is the potential to produce Tire Derived Aggregate (TDA) on site. Tire Derived Aggregate is the product that results from the shredding of used tires collected from across the province. Tire Derived Aggregate can be used for many things; civil engineering projects such as road and embankment construction, backfill for basements and bridge abutments, molded rubber products, rubber-modified asphalt and more. Our Waste Management Facility has the potential to be Nova Scotia's only producer of Tire Derived Aggregate because of the size and capabilities of the facility. Diligent work is currently being done to ensure that it becomes a reality.

Needs for a more Sustainable Waste Management Facility:

Additional Cell production (Cell #2 & #3)

Maintain or increase tonnage amounts each month by diversifying the materials that can be processed at the facility.

Cap Cell #1

Implement Green Cart program

Produce Tire Derived Aggregate

“Green” building upgrades/enhancements at Waste Management Facility

Purchase new energy & fuel efficient loader in order to reduce emissions

Purchase solid waste material shredder

Potential development of Bio-fuel

Develop alternative methods of power generation such as methane gas and wind

Dismantling of electronics on site, create value added products

Initiate mattress & box spring dismantling pilot project

Increase scope of compost operation by marketing not only by the truckload but bagged material

3. Municipal Energy Use

In The Municipality of the District of Guysborough, we feel that in order to be conservers of energy throughout the entire Municipality, we must set an example for the residents of our district by beginning this process right here in our Municipal buildings and facilities. Enerplan Consultants LTD. were hired in March of 2009 to conduct an Energy Use Audit throughout the Municipal Building which has resulted in a list of energy efficient recommendations to move forward with. We are currently extending the greenhouse gas emissions audit to all other Municipal buildings, vehicles, streetlights and water and sewer facilities set to begin in early fall. These audits will provide for us the information necessary to improve our current levels of energy efficiency either through upgrades or ideally, the construction of a new energy efficient Municipal infrastructure. Once this audit is complete we will advance into the planning stages and complete the steps necessary steps to reach our energy efficiency goals.

Office Greening

Sustainability doesn't have to be expensive or complicated simply making greener, alternative choices can make a huge impact on energy conservation and the level of sustainability. Adopting an “Office Greening” policy would be a great way to get Municipal employees involved in the sustainability movement. The following are just a sample of things that MODG employees could do on a daily basis in order to contribute to MODG's Environmental Sustainability:

- Purchase IT equipment which is Energy Star® rated
- Turn off or hibernate office equipment that is not being utilized especially over night.
- Purchase greener office supplies that are made out of recycled materials
- Make environmentally conscious printing and paper decisions, such as printing documents in black and white and double-siding.
- Choose to conduct “Green” Meetings/Events by going paperless when possible, reducing travel, buying products locally and avoiding the use of disposable cups, dishes and cutlery.
- Communicate the policy to all Staff and Council and make conservation exciting.

In keeping with reducing energy consumption and MODG’s carbon footprint, the installation of LED lights in all Municipal street lights is a goal we have set for the very near future. Making the switch from traditional mercury lighting to LED lighting will result in up to a 50% energy savings and a 93% reduction in maintenance costs due to the longevity and reusable components of the lights. The installation of one LED streetlight would save approximately 324 pounds of Carbon dioxide over its lifespan.

L.E.E.D. Building

Another sustainable infrastructure initiative the MODG are dedicated to implementing in the future is LEED building standards. These standards will be exercised in any future Municipal building construction or upgrade. LEED stands for Leadership in Energy and Environmental Design. It is a catalog of building codes that are devised to ensure that buildings following the code are environmentally friendly.

LEED is a rating system for sustainable buildings that started in the United States and has been adapted by the Canada Green Building Council. Buildings receive points according to a checklist of criteria, some mandatory and others optional, which indicate environmental sustainability. They receive official LEED certification only after the building is completed and has been assessed. There are currently four standards of LEED building; Certified, Silver, Gold and Platinum being the highest attainable level. The

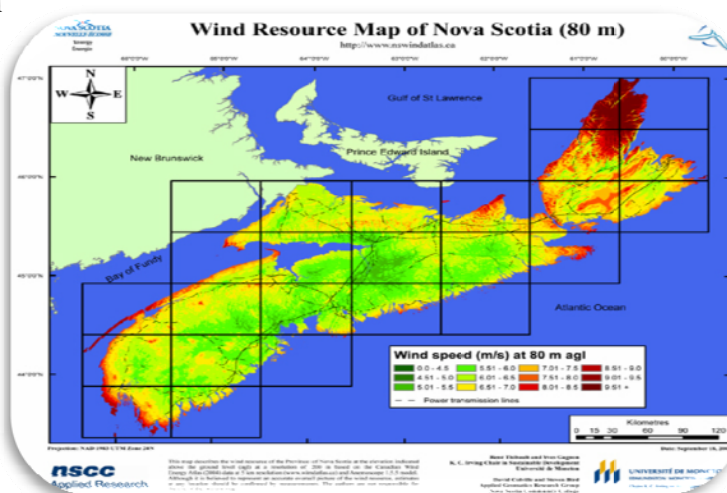


Normally a Municipal unit would not embark on such an initiative unless there was a requirement from the provincial level; however we feel that in order to be a sustainable Municipality we need to plan now for the future. In the Nova Scotia Climate Change Action Plan it states that in the future any organization seeking funding for building projects will be required to adopt LEED building standards, therefore by embracing these standards now voluntarily we are ahead of the game.

Wind energy potential is great in the Municipality of the District of Guysborough; the Municipality is fortunate enough to be situated coastally and has the second best location for wind resources in the province. Several companies are currently testing the wind régime within the District, Renewable Energy Services and InvEnergy, have test towers scattered throughout the Municipality. A wind study has been conducted and the findings will be used as a guide in future decision making processes. Under current regulations, only Municipal Utilities and Nova Scotia Power are able to purchase wind power. The Second Generation Waste Management Facility was tested several years ago and the results of the test indicated that it would be a good site for wind power generation. The choice to implement wind energy not only effects the environment but it touches on the last three pillars of Sustainability; Economic, Social and Culture. It is more economically sound in the long run, is a socially responsible choice for a Municipality to make and uses our proximity to the ocean which is part of our cultural identity to create a valuable sustainable resource.

An organized wind study has been conducted and a report of recommendations has been prepared and presented to Council, MODG is hopeful that this project will advance into the next stage.

As you can see from this wind map of Nova Scotia, the orange and dark red areas are those areas where wind speeds are highest, and therefore are areas that would be best-suited for wind generation sites. The tile located just above the “Atlantic Ocean” caption is perfectly situated over the Municipality of Guysborough, being one of the primary locations for wind turbines.



Needs for more Sustainable Municipal Energy practices:

Implement LEED Building Standards in every Municipally owned building.

Ensure that any/all industrial projects that are in operation within our Municipality abide by LEED standards as well

Extend energy audit to other Municipal properties

Adopt an Office Greening Policy

Support wind-energy efforts of such firms that show interest in locating within our Municipality.

Set fossil fuel reduction targets within the Municipality and support the transition from the burning of fossil fuels to more sustainable energy practices.

Continue to keep energy use records for Municipal buildings, vehicles and equipment in order to identify areas for improvement.

Convert streetlights to LED units, continue to hold LED light exchange programs and do so year-round instead of during the holiday season.

Promote energy efficient practices to home & business owners

Research grass biomass at WMF

Climate Change

In January 2009, the province of Nova Scotia released the Climate Change Action Plan. This plan summarizes where we currently stand as a province in regards to climate change, where we are headed in the future and how we plan to get there. Climate change is inevitable so in order to remain sustainable we must adapt. Over the last one hundred years Nova Scotia has seen many changes in its weather and sea level patterns due to global warming and climate change, the CCAP lists some of them:

- In the 20th century, the average temperature in the province rose by half a degree Celsius. In the 21st century, we can expect it to rise by another 2° to 4° C. Many scientists believe that the upper end of this range entails catastrophic, irreversible consequences.

- Over the last 100 years, the sea level rose 25 cm; it is likely to rise a further 60 cm or more by 2100. That means water levels may be almost a meter higher than they were in 1900.
- Extreme rainfalls that occurred only once every 50 years in the last century are likely to occur once every 10 years in this century.
- Storm surges that occurred only once in the 20th century may occur up to 10 times in the 21st century.

Nova Scotia's Climate Change Action Plan, January 2009

As is obvious from these statistics, climate change will affect coastal regions more than those inland. The Municipality of the District of Guysborough is situated on the coastal region of North-eastern Nova Scotia, therefore making us susceptible to any changes that may take place coastally.

The Municipality of the District of Guysborough is taking the necessary steps to do our part for climate change in Nova Scotia and the globe. Our Staff and Council have committed to the reduction of greenhouse gases and air pollutants from Municipal operations by passing motions to enroll in both the Partners for Climate Change Protection through the Federation of Canadian Municipalities, and ecoNova Scotia's Clean Air and Climate Change Municipal Program. Both programs entail a series of similar milestones and commitments that each Municipal Unit must make in order to reduce its corporate emissions. Funding opportunities exist in each program for both capacity building and new energy efficient infrastructure and upgrades.

Over the course of the next number of years it is the intention of the Province of Nova Scotia to educate and empower Municipalities in order for them to remain sustainable in the future and acclimatize to the changes. The Municipality of Guysborough is looking forward to working with the provincial and federal groups and has every intention of implementing measures within our District in order to do our part and contribute to the fight against climate change.

4. Transportation Infrastructure

Currently in the Municipality of the District of Guysborough, we are in possession of two public roadways. One located in the industrious area of Goldboro by the name of Sable Road and the other leading in to the Municipality of the District of Guysborough Waste Management Facility. In addition to the ownership and maintenance of these two roads, we are responsible for the maintenance and upkeep (cost shared 50% with the Province of Nova Scotia) of 15.11 kilometers of J-Class roads within the Municipality.

Public Transportation is currently unavailable in MODG. Due to the nature of our Municipality and the allocation of our population over such a large area, the Guysborough County Regional Development Authority's Strategic Plan identified the need for a rural public transportation service. The GCRDA distributed a survey to each home within the County and developed a report from the survey results. The report identified such individuals as the elderly, the disabled and people without a reliable mode of transportation as would-be users of this service. The survey results indicated that 26% of respondents have missed medical appointments due to their inability to access transportation, and 56% indicated that they would use an alternative transportation service if made available. Looking at the survey responses it is very apparent that public transportation is in demand, 15% of respondents are relying on friends or neighbors for transportation, and 26% are relying on a combination of own vehicle use and that of friends and neighbors for a total of 41% of respondents without a dependable method of transportation.



The GCRDA collected this information for the purpose of developing a Transportation & Housing Strategy and is currently doing so. One proposition that has risen from this process was the potential use of the 15-passenger Milford Haven Home for Special Care bus. This bus was acquired by the Municipal owned facility a few short years ago and is currently underutilized. This vehicle is wheel chair accessible and would be the perfect opportunity to initiate a pilot-project within the County. MODG will continue to work closely with the GCRDA on these and other sustainable issues.

One vital service that we are fortunate to have available is access to two helipads within Municipal limits, one at the Guysborough Memorial Hospital and another located in the Goldboro Industrial Park. Currently the Emergency Management Office is investigating other potential locations throughout the Municipality for helicopters to land in the event of an emergency.

The Recreation Department at MODG is in the investigation stages of developing an Active Transportation Strategy that would encourage residents to use alternative methods of transportation throughout the Municipality such as walking and cycling. Developing an active transportation strategy demonstrates MODG's dedication to physically active lifestyles and at the same time reducing the number of vehicles on our streets thereby reducing our greenhouse gas emissions. Developing an ATS would involve mapping out specific routes throughout the downtown area of Guysborough, utilizing existing trails and interconnecting them with new ones which would of course be safe, convenient as well as pedestrian and cyclist-friendly. Erecting signage throughout the downtown area would further stress our commitment and the importance of such a strategy. Being a rural Municipality, almost all residents need to make use of a vehicle in order to access essential goods and services; this however does not impede our ability to implement such a strategy. MODG's strategy would encourage people to carpool and walk or cycle once they arrive at their

destination. The development of new parking facilities would also encourage such activity enabling residents to park their vehicles in one location and walk or cycle while running their errands.

Community walkability is a concept that relates directly to the notion of active transportation. The actual walkability of a community is directly correlated with the amount of usage and ability of residents to walk and cycle throughout their communities; if the infrastructure does not exist citizens can't make use of it. Sidewalks have been installed in a portion of the downtown area in Guysborough and have been evaluated by an expert in the field of Active Transportation. He has completed a walkabout through the village and feels that our sidewalks give priority to the walking public and cyclists which is not the case in most areas. It is the intention of our Public Works department to further connect the village by extending sidewalks to the outer areas of the downtown which contain such services as the local grocery and other stores, school, nursing home and hospital.

Needs for Sustainable Transportation:

Upgrade existing J-Class roads

Work with RDA to implement rural transportation service, possible pilot project utilizing Milford Haven Nursing Home's bus.

Develop and implement Active Transportation Strategy

Install AT Infrastructure and signage throughout MODG and on trails

Sidewalk extensions to Milford Haven Nursing Home and to the Guysborough Mall

Develop additional walking & cycling paths & connections in village of Guysborough.

5. Land Use Planning & Protection of Biodiversity

Being the second largest Municipality in Nova Scotia and having the largest area of protected land in the province, The Municipality of the District of Guysborough is committed to using it's land in the most efficient way possible and preserving the habitats of the wild. The current average of protected land across Nova Scotian Municipalities is 8.2%. The Municipality of the District of Guysborough largely surpasses this figure with 11.3% of our land mass zoned protected.

Our Planning Department has been working to prepare the necessary combination of conditions in order for anticipated large-scale projects to succeed in our area. One hundred percent of MODG's land is planned for and this signifies our commitment to development. In regards to land planning, the next goal we are striving to achieve is the development of one consolidated Municipal Planning Strategy and Land Use Bylaw. We as a Municipal Unit are of the belief that the level of success we

have enjoyed has been achieved due to the individual district's Planning Strategies and will only increase with one consolidated strategy.

Another planning document that MODG has in its possession is the Industrial Development Strategy. This document outlines the Municipality's industrial zoned areas, the history of those areas as far as zoning is concerned and the future long term goals surrounding industrial development. This document lists the Industrial zone in Melford, the Industrial zone in Goldboro and potential for further zoning in both areas in the future. The goals for sustainability in this document are to ensure proper planning measures are taken to encourage future employment opportunities, further development of industrial nodes within the Municipality of the District of Guysborough thereby encouraging large-scale industry to settle here, accommodate marine related industrial development and waterfront access and lastly have a diversified economy that is independent of any one industry.

The Municipality has recently entered into a land exchange with the Province of Nova Scotia to acquire strategic lands on the Strait of Canso in the Black Point Area. This land has been zoned to accommodate and encourage proposed future industrial development in this area and is the Municipality's third Industrial Node. The Municipality has been and will continue to be very proactive in an effort to build and diversify the economy and to make Guysborough Municipality a great place to live, work and play.



One problem that currently exists in the Municipality is the absence of subdivisions and residential development opportunities. It is a long term goal of our Planning department to work toward the development of new subdivisions in areas on the outskirts of the Shiretown of Guysborough. Our existing Municipal Road Policy allows us to offer a subdivision developer the opportunity for MODG to look after the maintenance and repairs of the road leading into the subdivision as long as the road meets certain conditions set forth by the Municipality. The road must be designed and constructed to Municipal & Provincial standards, there must be at least four building lots within 1000 feet of road frontage and the road must be connected to a public road or street.

The Strait of Canso Port Master Plan is a joint initiative that is being done in cooperation with the Superport Corporation, Municipality of the District of Guysborough, The Town of Mulgrave and the County of Richmond. This is a document that is currently under construction and will focus on the potential for development that exists in the Strait of Canso area. Being the deepest North American ice-free port, the possibilities are endless for future development and sustainability of the area. This document once completed is intended to be used as a navigational tool to guide stakeholders in decision-making concerning available land and infrastructure in port-related activities. It will address the existing methods of transportation that are available in the surrounding area, publicly owned waterfront properties, lands will be surveyed and results equated into opportunities available for the land development, an examination of current global trends in the

container industry, conceptual development plans of lands located near the Strait of Canso that identify all requirements and marketing and management issues will also be addressed.

“Part of the choice to live in the rural community is its abundant natural resources and the ability to access these for pleasure or for employment. We value natural resources for their impact on water quality, non-consumptive and consumptive recreational activity, eco-tourism, visual impact activities, employment and income opportunities, access to hardwood fiber, soil and sediment protection and opportunities to add value to the natural resources.”

GCRDA Community Consultation on NS Natural Resources, July 2008

Currently within the Municipality there are four large water reservoirs; Grants Lake Reservoir, Goose Harbour Lake Reservoir, Wilkin’s Lake Reservoir and the Melford Reservoir. Under the Municipal Planning Strategy, these four water basins have been designated as Conservation areas to ensure proper protection of not only the water reservoir but its drainage area. Both the Grants Lake and Goose Harbour reservoirs provide water to NewPage (coated paper manufacturer) by way of submerged pipeline located under the Strait of Canso. The Melford Reservoir provides water supply to a small Hydro Generating Plant and an Aquaculture Project. Lastly, the Wilkin’s Lake reservoir provides water supply to the Town of Canso and subsequently the community of Hazel Hill. These resources are very important to our Municipality and have been zoned in a manner that reflects so. Future buildings both residential and commercial and potential farming/forestry uses of these waters and their surrounding areas must meet strict requirements in order to locate within their proximity.



Various wilderness areas and nature preserves are also protected under the Municipal Planning Strategy; the Ogden Round Lake Wilderness area, the Bonnet Lake Barrens, the Canso Coastal Barrens and the Roman Valley Nature Reserve. All areas are designated as protected to ensure the areas remain unharmed and pristine.

Needs for Sustaining Planning & Land Use:

Ensure that there are consolidated Land Use documents that would provide clear, consistent set of rules and guidelines with respect to land use planning in the Municipality of Guysborough.

Encourage industry to develop in designated areas of the Municipality and away from residential core areas.

Work together with the Public Works Department to ensure the expansion and creation of sewer and water services throughout the Municipality to encourage residential, commercial and industrial development.

Mulgrave & Area Lakes Enhancement Association:

One great example of a group whose mission is to conserve and enhance the biodiversity of lakes and rivers within the Municipality is the Mulgrave & Area Lakes Enhancement Association. This group has, with limited resources, proven that the hard work and dedication of a small group of volunteers can definitely have a huge impact and make a difference.

One project they have focused their efforts on in the last number of years is the St. Francis Harbour River Restoration project. The objective of this restoration was to reverse the negative effects that dam construction in the 1960's has had on the habitats and ecosystems located within these bodies of water. Some of the effects of damming the St. Francis River were; the blocking of access to prime Salmon and Trout spawning grounds which of course lead to steep population declines, the changed downstream hydraulics and water flow patterns and the degradation of habitats of all species

living there. This association since the year 2000 has had great success in their efforts. To date they have raised significant amounts of money and in-kind contributions, have installed such apparatus' as fish ladders, digger logs and deflectors, cold-water siphons, brought in fill and rock to improve the riverbanks and waterways, constructed manmade rock pools, increased the population and spawning of different species of fish and are working on an estuary project.

Most all of these projects are ongoing and have all proven to enhance the habitats and populations of species. The Municipality of the District of Guysborough is very fortunate to have an organized group such as this that is dedicated the Environmental Sustainability and protection of biodiversity in our area. We as a Municipality feel that their efforts are invaluable to our environment and consider this to be an important issue going forward.

Needs for Sustaining Biodiversity:

Ensure any future industrial developments demonstrate great respect for our ecosystems and natural environments.

Increase Municipal support to local volunteer groups such as the St. Francis Water Shed group. Their efforts are necessary for survival of species.

Section 2: Economic Sustainability

1. Economic Success

As is true in every Municipality, economic sustainability is perhaps the most integral goal of all. Without economic stability a Municipality is unable to compete in the global marketplace, unable to serve its community justly, and unable to contribute to the local economy. The Municipality of the District of Guysborough is open for business. In recent citizen surveys, residents expressed their support for continued and increased economic development initiatives throughout the Municipality.

We have established the necessary conditions for success - a competitive commercial tax rate and exceptional natural resources, 14,000 acre Greenfield industrial reserve in the Melford area, a sustainable fishery, aquaculture, aggregate, minerals, forestry, oil and gas, wind and run-of-the-river hydroelectric opportunities. The Municipality has access to export pipeline, highway and railway infrastructure, the benefits of a deep water seacoast that has been the key to global trading for centuries, and a willing and able workforce.



As stated early on in the plan, there are currently many large-scale infrastructure projects in the developmental stages, some of which are anticipated to begin in 2009. These projects are welcomed with open arms and are highly anticipated. Projects of this size and nature will contribute immensely to the local economy, and will present great opportunities for the local-skilled workforce.

In order to remain economically self-sustaining, The Municipality of the District of Guysborough has developed a purchasing policy that requires that any purchase of goods and services for Municipal business be from local vendors and service providers. This policy is just one example of MODG's commitment to our local economy.

2. RDA Collaboration

The Guysborough County Regional Development Authority has proven to be a very productive and cooperative partner to the Municipality of the District of Guysborough. One common goal the GCRDA and the MODG share is the dedication to economic development and growth within our Municipality. We have worked diligently together and have shared much success; this is evident when looking at our achievements in the natural gas industry.

The GCRDA has been focusing much attention on a new strategy that will outline all potential economic endeavors that are available to not only the Municipality of the District of Guysborough but the county as a whole. This strategy was published in February of 2009 and is labeled the

GCRDA Investment Recruitment Strategy. This plan focuses mainly on what factors would affect the continued interest and attraction of investment of large scale industry such as container marine transportation, energy and mineral exploration.

The overall message that arose from this study is the existence of undeniable potential for large-scale development in this area. Our abundance of natural resources, our location in relation to major shipping routes, the availability of industrial land and the low cost of doing business are all contributing factors.

Section 3: Social Sustainability

1. Emergency Services

The Municipality of the District of Guysborough continues to maintain, improve, and build relationships with all of the Emergency Service providers. Emergency Services include Fire Protection, Emergency Health Services, RCMP, and our own Emergency Management Organization.

Emergency Management Office (EMO)

In the 1990's, Municipalities had been legislated to comply with the Emergency Management Act of Nova Scotia and have the following five things.

1. A Municipal Emergency Management By-law
2. A Municipal Emergency Management Organization
3. Appoint an Emergency Management Coordinator
4. Appoint a Committee consisting of Council Members
5. Prepare and approve an Emergency Management Plan

Currently, the Municipality is in the process of updating our plan to ensure that it is up-to-date. For 2007, the Municipal float was geared toward EMO and 'Being Prepared'. Also, the Municipality has designated a number of community halls as comfort centers to be used in an emergency. A map showing these locations is being produced. A comfort center is defined as a place to find warmth, light food, assistance and support and is staffed and maintained by the community in the event of an emergency. The Municipality of the District of Guysborough has received several recommendations from the Emergency Management Office of Nova Scotia. These recommendations are viewed as goals we wish to reach and are necessary in order to reach the desired state of sustainability in the EMO division.

Needs for a more Sustainable Emergency Management Office:

Improvement of training and exercises

Update hazards list

Increase awareness of risks

Update emergency plan

Perform vulnerability assessment

Improve upon public information & data collection

Improve storage and backup measures

Fire Protection

The Municipality of the District of Guysborough currently has 14 volunteer fire departments serving its population. 11 departments are located within the Municipality while 3 others are split between the Municipality of the District of Guysborough and neighbouring Municipal Units. In 2006/2007, a major review of all serving departments was carried out by the Municipality to produce a cross section of where the departments are presently, to provide recommendations on where they should be and what direction we will take to progress in a sustainable manner. One example of sustainable behavior two of our fire departments exhibited was an amalgamation of

departments. The Whitehead and Island View fire departments have joined forces in order to enhance their financial position and capabilities and to increase the availability of personnel and equipment. This is not a situation that is unique to this area of the Municipality. Due to the declining population in rural communities and lack of financial resources it has become increasingly viable for rural departments to join forces. The departments located in Hazel Hill and Little Dover are contemplating amalgamation in the near future.

New apparatus is beginning to replace aging and outdated trucks as well as testing for hoses and ladders, so volunteer firefighters can be assured that they are using tested and safe equipment.

Needs for a More Sustainable Fire Protection Service:

Construct new fire station in Eastern portion of Municipality

Put in place recruitment programs aimed at delivering fire protection

Increase the number of dry hydrants throughout the Municipality

Installation of emergency generator systems

Purchase equipment and provide training for ice and water rescue

Investigate training and equipment requirements for other special rescues

Upgrading program implemented for all personnel every 5 years

Provide a means of physical exercise among all volunteer personnel

Conduct road tests of all apparatus on an annual basis

Prepare 5 year plans for each department

Develop a set of general Operational Guidelines for each department

Increase fire prevention opportunities

Emergency Health Services (EHS)

Currently, the Municipality of the District of Guysborough has two EHS bases. One base is located in Country Harbour at 16600 Highway 316 in Country Harbour Mines; this is a newly constructed base that has just recently opened in 2007. The other base is located in Guysborough at 66 Queen Street. This emergency service is very valuable to this Municipality because of our large size. Sustainability goals in the future would be to simply keep both bases up and running to ensure the health needs of our residents are not jeopardized.

RCMP

The RCMP Service for the Municipality of the District of Guysborough as well as the County of Guysborough has changed over the last number of years. It is now run on a county-wide system rather than each Municipal unit having its own force. A Staff Sergeant has also been added to control the larger force. Three detachments located in Sherbrooke, Canso and Guysborough Town currently serves the entire County of Guysborough with the Guysborough location being the central office and primary location for the Staff Sergeant. The current detachment in Guysborough is reaching the half-century age mark and is in great need of complete reconstruction.

2. Health Services

The Guysborough Memorial Hospital located within our Municipality will undergo major construction in the near future. This hospital is a major lifeline in our Municipality and we have pledged to provide \$800,000 toward this much needed expansion. In addition to the Guysborough Memorial there are two other local hospitals which currently serve our residents which are not located within our Municipality; Eastern Memorial Hospital in Canso and St. Mary's Memorial Hospital located in the District of St. Mary's. Currently within the Municipality and County of Guysborough there are many health care issues that do impact the wellbeing of its residents and

their ability to access health services. The Guysborough County Community Health Board is a group of qualified community volunteers that are interested in the health of residents of not only within the Municipality, but the County as a whole. The Board prepared a three-year Community Health Plan in November 2007 and was able to develop a new strategic framework as well as providing three-year recommendations in order to improve the overall health of the community. The new framework set out five new strategic directions:

- Access to services and supports
- Healthy lifestyles
- Recruitment and retention of health care professionals
- Communications
- Health planning

Access to Services & Supports:

This objective serves the purpose of advocating for greater access to community health services such as clinics and programs making them mobile and bringing them to smaller communities within the Municipality. Due to the lack of public transportation and the broadness of the county, seniors and the disabled are finding it increasingly difficult to gain access to much needed health related services and clinics. This objective proposes to place community-based programs throughout the county making use of community facilities, therefore increasing the overall health of residents because of their increased access.

Healthy Lifestyles:

This strategic direction proposes to implement more support programs and services that will lead to increased levels of mental, emotional, physical and social health of all individuals. These initiatives will tackle prominent issues both in this Municipality and the County of Guysborough: high chronic disease rates, lack of physical activity, obesity, food

insecurity, youth smoking, second hand smoke, and drug and alcohol abuse.

Recruitment and Retention of Health Care Professionals:

This initiative will be implemented to promote the support and training of local individuals in health related professions. There are many shortages in the following categories: Physicians, Nurses, Nurse Practitioners, Lab and X-Ray Technicians and Dietitians. The shortage of these professionals certainly affects the overall health of community members.

Communications:

This approach is designed to increase the public's awareness of both the Community Health Board as well as GASHA (Guysborough Antigonish Strait Health Authority). Increased communication will heighten public knowledge of the programs and services that are offered by both groups and will inevitably encourage people to take charge of their own health and wellbeing.

Health Planning:

Health planning focuses on the role the Community Health Board intends to play in supporting the community participation in the planning of their health and strengthening the partnerships between the community and GASHA. The CHB also

intends to strengthen their skills and knowledge to better enable them to perform their duties as a societal organization. Not only did the plan outline the new objectives of the group, but it established how the board is going to go about achieving sustainability in the health sector in the future.

As a result of public consultation, many priority issues were developed and recognized.

Barriers to services for some residents based on their race, level of income, and education/literacy levels

Lack of affordable, accessible, community-based transportation

Small, aging population in a very large geographic area

Potential of seniors moving to larger centers in fear of not being able to access health services within Guysborough.

Difficulty in attracting skilled professionals to rural communities.

Needs for More Sustainable Health Services:

Increase ability to treat patients by constructing new wing on Guysborough Memorial Hospital

Increase public awareness and availability of health programs and services

Increase support and training of local residents in health care professions

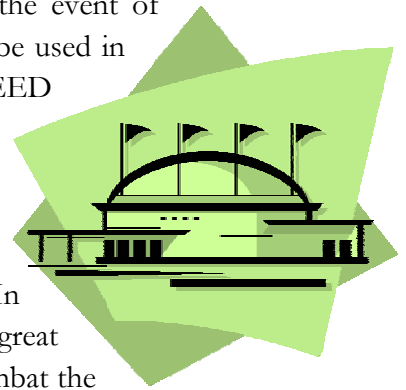
More training for current health care providers

3. Recreation:

In 2007 our Recreation Department worked diligently along side a consultant to compose an 80 page Functional Use Study that focused on the construction of a new recreational facility in Guysborough. This study was conducted with much public input byway of general public meetings in various communities, meetings comprised of representatives of community groups that would potentially use the facility. Important information was extracted from classrooms throughout the

Municipality in order to get the student's perspectives and ideas in regards to recreation. The proposed facility would contain a regulation sized ice surface, seating for 600, a walking track surrounding the perimeter, and a community warm-room.

A facility of this nature would benefit not only our Municipality but the surrounding communities as well. All four pillars of sustainability would be impacted positively in the event of construction of this center. The proposed design and materials that will be used in the construction of the building will be energy efficient and will meet LEED standards. We are proposing to heat the building geothermally which is an energy efficient means of heating existing groundwater and circulating it through the building. Any excess heat that is produced has the potential to be piped to the adjacent school, drastically reducing their annual energy costs and being extremely efficient at the same time. In addition to being environmentally sustainable this facility will be a great marketing tool for attracting new residents to the community, helping combat the current population decline that our Municipality is facing. With the anticipated development that is set to take place in our Industrial Parks, families will be expected to locate near this activity. We feel that a facility such as this would positively impact migrants' decision to relocate in our Municipality versus other surrounding Towns. Another benefit that the Municipality of the District of Guysborough will reap from this facility is the added opportunity to become physically active as a community. Physical inactivity and high chronic disease rates are problems amongst residents as well as obesity. Obesity rates, according to The Canadian Community Health Survey, are higher in Zone 4 (which includes the MODG) than comparable regions across the Country.



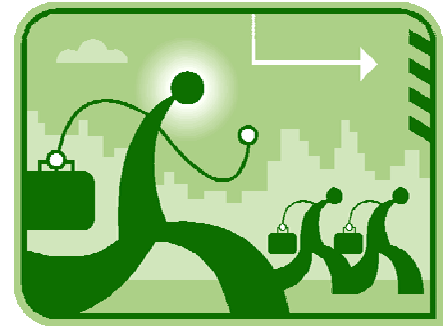
One environmentally friendly sustainable project our Recreation Department is looking forward to the conversion of our current method of heating our community pool from propane to solar power. There is a steady trend of rising heating costs each year and no expected changes in the future, therefore the investment in solar power as a means of heating the pool will pay off within the first couple of seasons.

In December 2008, our Municipality's Recreation Department compiled their Physical Activity Plan. This plan was designed to address the low levels of physical activity within the Municipality and, with feedback from residents, devise an action plan that would mitigate these problems. The department prepared a list of top priorities for the Municipality during an organized Planning Session early in 2007. As a result of these sessions many objectives were identified:

- Increase residents' access to recreation opportunities
- Increase participation levels
- Have a positive impact on health and lifestyle of residents

- Improve quality and conditions of recreational facilities, equipment and parks.
- Maintain/increase resident's levels of satisfaction with opportunities and facilities.
- Maintain relationships with community and non-community organizations.

As stated in the Environmental Sustainability section of this plan, MODG's Recreation Department is presently working on initiating an Active Transportation Plan which will initiate changes in the current infrastructure such as adding bike racks to locations throughout the Municipality and assessing what can be done to improve heavily used walking routes. This plan will ideally increase the awareness of Active Transportation in our Municipality and change the current patterns of vehicle use as well. The AT Plan will not only focus on commuting to work or everyday errands, but all trails and trail networks throughout MODG used for recreational purposes. It is the intent of our Recreation Department to better integrate our portion of the Trans-Canada Trail and others listed in the RDA's "Get Out In Guysborough County" guide book more efficiently. In order for this integration to be successful trail maintenance and development will be an important focus of the department. Maintaining local trails allow not only for outdoor activities, but provide residents with the opportunity to experience the natural beauty of this area and make great use of them.



Needs for More Sustainable Recreation:

Construct LEED-Certified multi-use facility with ice surface & walking track

Develop an Active Transportation Plan

Install bike racks throughout MODG

Increase the number of parks and walking trails

Construct outdoor recreation infrastructure in Country Harbour, Dover and Melford.

Work with local organizations to build stronger trail networks

Expansion of recreational programs for Seniors and Youth

Develop indoor walking programs for seniors throughout the Municipality

Purchase new equipment for the three fitness centers in the Municipality

Make personal training more readily available in all three centers

Increase marketing efforts for all programs offered by the department

Maintain existing infrastructure such as baseball fields and outdoor facilities in communities throughout MODG.

Offer programs that coincide with our natural environment and proximity to the ocean such as sailing programs and training.

4. Affordable Housing:

Affordable housing is a very high priority for three cohorts of people; current residents of this Municipality, former residents who would like to return home and those who would like to make this Municipality home. Past lifelong residents have had to relocate to larger centers due to the lack of affordable housing in their respective communities. Currently there are residents who have chosen to remain in their communities and are enduring unfit living conditions and condemned housing just to remain in their homes. Making affordable housing available in the smaller communities throughout the Municipality would undoubtedly combat the population decline enabling former residents to return home and elders of those areas would not be forced to leave.

The county of Guysborough has the lowest household income in the province and an unemployment rate of 23%; growing families as well as the elderly and the disabled are facing the challenge of finding adequate affordable housing throughout our Municipality. The GCRDA developed an Affordable Housing Steering Committee made up of local residents and business professionals, the committee was designed to address issues such as demand, supply and need for such housing.

A survey was sent to every home in Guysborough County and approximately 10% of surveys were returned. Residents expressed need for affordable housing throughout the county, especially as time goes on and these residents age. Over 50% of respondents stated that the best location for affordable housing units would be in the Shiretown of Guysborough due to its close proximity to all amenities.

Section 4: Cultural Sustainability

1. Heritage

The Guysborough County Heritage Association is a County-wide association that is in operation in order to share historical information and promote heritage awareness. Preserving local museums, artifacts and historical sites are of very high priority for this association. With seventeen heritage sites located throughout the county, there are many opportunities for residents and tourists alike to become well educated on the heritage and history of Guysborough. Throughout the Shiretown of Guysborough there are name-plates fixed on the exterior of heritage homes, their original owners/builders, and their year of construction. This project is one that the Guysborough Heritage Society initiated in 2004. The Municipality has embarked on a new heritage project with the Nova Scotia Historic Places Initiative. This initiative is an effort put forth by both the Federal and Provincial governments attempting to identify and recognize all historic properties across the country. Our Municipality has taken on this initiative and will be working in conjunction with the Guysborough Historical Society over the next year to ensure that current Municipally-registered properties are recognized nationally. This project is a great example of Cultural Sustainability and demonstrates the importance of preserving this information for future generations not only from Guysborough but Canada-wide.



It is also a goal of the Municipality to update our heritage property recognition records and focus more attention to this as in the past it has gone to the wayside. As stated earlier the volunteer historic groups within our Municipality devote much time and effort into preserving and documenting our colorful history, so we as a governing-body would like to contribute a sufficient amount of dedication as well.

2. Tourism

Within the Municipality of the District of Guysborough we are fortunate enough to have a vibrant festival and event circuit. In coordination with the Antigonish & Eastern Shore Tourist Association, Towns and surrounding Municipalities are afforded the opportunity to attend many cultural events all through the year. Part of the uniqueness of our culture is our passion for celebrating it. Music, theatre and history have always been a vital part of our culture and we commemorate it in many ways. Some examples of festivals and events that you can take part in are the infamous Stan Rogers

Folk Festival, Guysborough Come Home Week festivities, Smokey Hallow Days, the Guysborough-Antigonish-Pictou Gathering of the Arts Exhibit, many events at the Sherbrooke Village Historical Site, attend a play at the Mulgrave Road Theater, Larry's River annual picnic and the list goes on.

3. Arts & Culture

In addition to the numerous festivals and strong historic presence within our Municipality, as mentioned in the introductory pages of this report our varied cultural backgrounds serve as great learning and celebratory experiences. Our large Afrikan-Canadian and Acadian populations allow for many cultural events and experiences that we would not otherwise be subjected to without these groups being present. The undeniable Celtic existence throughout our Municipality is also a large part of our heritage. Celtic music and dance as well as food and drink are very important aspects within our close-knit community.



The legendary Mulgrave Road theatre has played an integral role in ensuring that the arts are an important part of our culture and community. Since its inception in 1977 the theatre group has entertained thousands of people across the country and abroad.

Section 5: Sustainable Development Goals & Actions

Municipal Sustainability Issues/Topics	Goals	Actions
<u>Environmental Sustainability</u>		
Water Supply	<p>Extend Municipal water services to communities which are currently underserved.</p> <p>Extend Municipal Water services to industrial areas that are not currently equipped to sustain development</p>	<p>Secure infrastructure financing, map out strategy and implement based on community need.</p> <p>Use water and wastewater management strategy to decipher which projects rank as high priority and repair/upgrade in that order</p>
Wastewater & Sewer	<p>Extend Municipal sewer & wastewater services to communities which are not currently serviced</p> <p>RBC & Lagoon upgrades</p> <p>Meet and maintain new Federal and Provincial standards</p> <p>Implement strategy to minimize wastewater by minimizing water consumption</p>	<p>Use water and wastewater management strategy to decipher which projects rank as high priority and repair/upgrade in that order</p> <p>Upgrades to existing sewer & wastewater system to a more cost effective, efficient processes</p> <p>Remain current on changing and newly implemented standards.</p> <p>Ensure operators trained up to date and execute best practices.</p> <p>Educate users about water conservation through water meter tracking and Municipal newsletter.</p>
Solid Waste Management	<p>Increase capabilities at site in order to remain sustainable</p> <p>Operate provinces only tire recycling operation, shredded aggregate sold to market for use in road construction and backfilling, as well as rubber products</p>	<p>Continually monitor site for methane gas levels. If proper amount exists methane could be captured and used as a sustainable fuel</p> <p>Run pilot projects for value-added products such as dismantling mattresses & box springs.</p> <p>Operate a larger diverted materials facility that will be equipped to receive such materials as scrap metal, organics, waste wood, tires asphalt shingles & hazardous household waste.</p> <p>Keep open relationship with RRFB</p>

Municipal Energy Use	Promote recycling & composting	Implement green cart program, collect compost road-side and increase size of composting operation. Further process & bag compost for retail sales.
	Reduce Municipal Greenhouse Gas emissions	Conduct a GHG emissions audit on all Municipal buildings, implement all recommendations. Any future Municipal vehicle fleet purchase will be hybrids or have the ability to run on flex fuel. Implement LEED building standards in future building construction. Energy efficient upgrades to existing Municipal Building and Construct new energy efficient Municipal Building by 2015 Implement “Office Greening” practices and adopt a document/policy demonstrating this Install LED street lights Develop an energy use strategy Extend energy audit to Waste Management Facility Better energy practices and uses at the Milford Haven Home.
	Implement wind energy thorough out MODG	Wind studies already conducted, continue working with wind companies
Transportation	Burn methane gas at WMF as a source of power	Once methane reaches appropriate level, trap it and use for heating
	Encourage & promote health as well as reduced GHG through Active Transportation and carpooling	Implement transportation strategy that not only pertains to public transportation but pedestrian-friendliness of streets, benches, trails, sidewalks. Use RDA’s Transportation Survey as a guide. Install sidewalks throughout village of Guysborough. Extend from Main Street to Mall & School and from Main Street to Hospital.
Protection of Biodiversity	Protect natural resources, protected areas, coasts and wildlife	Ensure all industrial development respects the environment & wildlife habitats located there. Increased Municipal support to such groups as the Mulgrave & Area Lakes Enhancement Association, either through monetary or in-kind support.
Sustainable Infrastructure & Land-Use Planning	Encourage development on existing serviced land.	Offering to be responsible for the maintenance of roads and streets if construction of new subdivisions take

Economic Sustainability Economic Development	Implement Strategic Plan	place. Increase services offered in core areas (in and surrounding the town)
	Encourage future development of both small-medium sized business and large scale industrial	MODG has a Draft Strategic Plan, we consider this as a working document that we can pull recommendations from and continue to add to. Make it an attractive place to do business as well as raise a family, and provide necessary conditions Investigate potential for a satellite campus through a post-secondary institution to provide education/training in MODG.
	Increase population and combat out-migration of young people and skilled workers.	Provide incentives for people to move here, repatriate old residents and attract new ones. Investigate provincial immigration policies, advertise this area Was a destination for immigrants
	Develop Growth Strategy	Secure resources in order to develop growth strategy.
Social Sustainability Emergency Services	Improve preparedness in the event of an emergency	Attract more volunteers, improve fire training & exercises, and implement mandatory upgrading every 5 years, complete 5 year plans for each department.
	Upgrade emergency infrastructure	Construct new fire station in Eastern portion of MODG, new fire hydrants, new police detachment
	Increase training and resources available to the Emergency Management Office officials	Explore Municipal, Provincial and Federal funding opportunities in order to enhance committee and stakeholders.
Health Services	Improve health of all residents of MODG	New wing on Guysborough Memorial Hospital Promote health-related clinics, programs and services & improve access to all healthcare services for all residents. Increase remote visits throughout the Municipality. Attract health care professionals to the area; provide incentives for local people to study in these fields.
Recreation	Improve health and physical activity of all residents through recreation programs & services.	Construct Ice Surface/Multi-use recreational facility. Use Physical Activity Plan as a guide

<div></div>	Improved energy efficiency	<p>for improving recreational offerings. Improved access to recreational amenities for all residents by creating small facilities and traveling groups in each community Develop an Active Transportation Plan and promote AT throughout the Municipality. Improve Trail systems Increase marketing of current facilities so residents know what is available to them. Install bike racks throughout MODG Convert the heating system of outdoor pool from propane to solar.</p>
	Affordable Housing	<p>Make affordable housing available to seniors and low-income families/individuals</p> <p>RDA has completed an affordable housing survey; work with them to develop a strategy.</p>
	Community Design	<p>Improved community façade in order to improve the appeal for new residents and current ones.</p> <p>Streetlights, possible mandatory standards for houses and business owners located on main street & in commercial areas.</p>
	<u>Cultural Sustainability</u> Heritage Preservation	<p>Ensure that our rich local heritage is preserved in every means possible</p> <p>Promote historic property registration/designation Re-activate heritage committee.</p>

Section 6: Eligible Projects

Funding Codes:

BCF (Federal/Provincial)-Building Canada Fund

GCR-General Capital Reserve

GTF-Gas Tax Funds

FR-Fund Raising

FGTRF-Federal Gas Tax Reserve Fund

MFC-Municipal Finance Corp

MRIF-Municipal Rural Infrastructure Fund

OF-Operating Fund

ORF-Operating Reserve Fund

O-Other

PCAP-Provincial Capital Assistance Program

SP-Special Purpose Tax Reserve Fund

Potential Projects	Estimated Cost	Funding
<u>Water</u>		
Little Dover Water Distribution lines	\$2,073,100	ORF, BCF-P, BCF-F, O
Pilot water Project in Lincolnville		
<u>Waste Water</u>		
Construction work Guysborough Sewer System	\$546,000	ORF, BCF-P/F, PCAP-P, GTF, GCR
Sewer tank access & acquisition of pumps	\$10,000	OF
Repairs and mods. at the Guysborough Lagoon	\$20,000	ORF
Guysborough Sewer pumps	\$5,000	ORF
Design new waste water system	\$60,000	FGTRF, PCAP-P
Improvements to waste water system	\$250,000	ORF, FGTRF, BCF-P, BCF-F, O
<u>Infrastructure & Transportation</u>		
Convert heating of pool from propane to solar	\$70,000	O
Domestic solar heating system	\$23,350	OF
Design of sidewalks in Village	\$20,000	OF
Construction of Sidewalks in Village	\$250,000	ORF
Interior & Exterior Municipal Building modifications (LEED Standards)	\$258,000	OF, O
Construction of Indoor rink & walking track	\$10,200,000	OF, O, MRIF-F, FR, MFC
Purchase Hybrid Public Works truck	\$30,000	ORF
Active Transportation Plan	\$50,000	OF
Installation of bike racks	\$7,000	OF
<u>Solid Waste</u>		
Old site closure	\$30,000	SP
Cap Cell 1	\$200,000	OF
Construct Cell 3	\$5,500,000	MFC
Replace loader with more efficient one	\$200,000	ORF
Other equipment upgrades	\$25,000	ORF
Replace Compost Building	\$250,000	OF
Tire Shredding Facility	\$2,277,000	MFC

Section 7: Project Details & Community Benefits

Construction work at Guysborough Sewer (Cleaner Water)

Source of Funding	Budget Year 2009-2010
Operating Reserve Fund	169,000
General Capital Reserve	17,000
Gas Tax Funds (Federal)	276,000
SNSMR-PCAP	20,000
Other	64,000
TOTAL	546,000

The Municipality of the District of Guysborough is currently in the process of completing a Wastewater Infrastructure Plan to upgrade the existing sewer system within the village that will result in twenty additional hookups in the wastewater district. This plan is based on the Water and Wastewater Strategy that was completed in 2006. This will be the first phase of a two phase project which is slotted for completion in 2010-2011. The second phase will include expanding the treatment facility and all other work that goes along with it.

This extension will provide service to areas which are currently not served and will allow for the possibility of new development outside the downtown area. These upgrades will have positive environmental impacts which will result in better treatment practices.

Little Dover Water Distribution Project (Cleaner Water)

Source of Funding	Budget Year 2009-2010
Operating Reserve Fund	333,334
Building Canada Fund (NS)	666,667
Building Canada Fund (Federal)	666,666
Other	333,333
Operating Fund	48,100
SNSMR-PCAP	25,000
TOTAL	2,073,100

The Little Dover water distribution system would be a 3500 meter transmission line that would distribute water to 130 homes in the village of Little Dover. This project is set to begin in the 2009-2010 budget year. The magnitude of such a project is huge and would provide numerous benefits to the residents of Little Dover. This distribution system would ensure that the quality of water that residents are receiving is top-notch, and also make certain that quantities are closely monitored. A system such as this would alleviate the need for private on-site dug or drilled wells and any maintenance that accompanies them once the homes are connected.

Municipal Office Domestic Solar Heating System (Reduced Greenhouse Gases, Cleaner Air)

Source of Funding	Budget Year 2010-2011
Operating Fund	23,350
TOTAL	23,350

A new solar hot water heating system will be a priority project in the future for our Public Works Department. The domestic solar system will be the primary source of energy for heating all water in the Municipal Office. This project will reduce both greenhouse gas emissions and heating costs for the building which has the highest costs of any Municipal owned building. Usage of a boiler will still exist but only as a backup.

Indoor Arena/Walking track (Reduced Greenhouse Gases, Cleaner Air)

Source of Funding	Budget Year 2009-2010	Budget Year 2010-2011	TOTAL
Operating Fund	200,000		200,000
Other – Provincial Grant		3,000,000	3,000,000
Municipal Rural Infrastructure Fund		5,000,000	5,000,000
Fund Raising		500,000	500,000
Municipal Finance Corporation		1,500,000	1,500,000
TOTAL	200,000	10,500,000	10,700,000

This indoor arena/walking track is the largest project in the 5 year Capital Investment Plan. This facility will house a regulation size ice surface, a walking track, seating for 600 spectators, community use rooms and a canteen facility. The construction of this building will impact our Municipality economically, socially and environmentally. The building will be approximately 40,000 square feet and will conform to LEED Building Standards. It will boast an energy efficient design which will result in a significant reduction in energy consumption, greenhouse gas production and operating costs.

One system that will be included is a geothermal design that will utilize earth energy and more conventional ammonia refrigeration systems that utilize heat recovery and storage systems. The payback for a system such as this is between 5-10 years. With rising energy costs each year, this system will most likely pay for itself in a shorter period of time.

Aside from environmental sustainability, this facility will provide economic prosperity as well. A center such as this will inevitably bring people into the Municipality to make use of the amenities. Additional sports teams and recreational events will most certainly increase the volumes of traffic that will be in the area. Spinoff opportunities will then exist for service providers and retailers in the area, such as food and accommodation suppliers, service stations & fuel vendors.

The health benefits that would result from the construction of the center would also impact the community as a whole. As walking and running are popular past-times of residents it will provide a safe and practical option for such activities year round- especially in the winter months. Chronic health problems such as cancer, diabetes and heart disease are a major issue in Nova Scotia and in our Municipality. A leading cause of all three of these diseases is obesity, which could be combated through increased physical activity.

New Wastewater System Design (Cleaner Water)

Source of Funding	Budget Year 2010-2011
Federal Gas Tax Reserve Fund	30,000
SNSMR-PCAP	30,000
TOTAL	60,000

This capacity building amount is budgeted for design of a new wastewater system in accordance with the sequence of projects in the Water & Wastewater Management Strategy. Each year this amount is set aside for consulting, engineering and design of a new system and the proceeding year follows with an improvement & implementation budget. Although the location is yet undecided, according to the priority list of communities in the Strategy the next system will be implemented in Lincolnville, Boylston or Larry's River.

Each of these communities are in great need of a proper sewage disposal system, with the implementation of such a system the result will be less raw sewage being disposed of in an unauthorized manner and therefore cleaner water. Installing a wastewater system in any community will have many benefits other than proper disposal. It will also result in negating environmental impacts that take place due to unsafe disposal of waste water, provide for the opportunity to increase housing development and take the responsibilities of regular system maintenance off of the homeowner.

Wastewater System Improvements (Cleaner Water)

Source of Funding	Budget Year 2011-2012
Operating Reserve Fund	35,000
Federal Gas Tax Reserve Fund	50,000
Building Canada Fund (NS)	82,500
Building Canada Fund (Federal)	82,500
TOTAL	250,000

This amount is listed in the budget for upgrades and improvements of the current wastewater systems. The community that will receive the next installment of improvements will be derived from the Water & Wastewater Management Strategy. The community is currently unknown as studies will need to be conducted, the Strategy will need to be reviewed and Council will make the decision as to which project will go ahead.

As stated in the previous project description although the current location is undecided for improvements it will be in one of the three prospective communities; Lincolnville, Larry's River or Boylston.

Sidewalk Construction (Reduced Greenhouse Gases, Cleaner Air)

Source of Funding	Budget Year 2010-2011	Budget Year 2011-2012	TOTAL
Operating Reserve Fund	250,000	250,000	500,000
TOTAL	250,000	250,000	500,000

Sidewalks will be constructed in the village of Guysborough in two phases. The first phase of construction will be to connect the downtown area to the shopping center, school and the adjacent community of Sunnyville. Sidewalks currently only exist on Main Street and continue on to Pleasant and Church Streets. A number of people in the community use walking and cycling as their main mode of transportation, the lack of sidewalks in key areas impede their ability to transport safely. Once sidewalks are installed there will then be a direct link between two cohorts of living areas (Guysborough & Sunnyville) the Grocery store, Hardware store, Laundromat, School, recreation facilities, coffee shop etc. In addition to retail goods and services, many school children in the area will also be able to utilize the sidewalks in order to travel to school, increasing their physical activity levels and reducing the need for buses. This project will begin in the 2010-2011 budget year.

The second phase of construction would be on the opposite end of town, extending the downtown area to the Hospital and Nursing Home as well as other residential areas. This phase of construction is set to begin in the 2011-2012 budget year.

The installation of sidewalks will not only increase the interconnectedness of the Shiretown of Guysborough but will increase the walkability, provide for increased levels of Active Transportation and will reduce the reliance on vehicles and therefore levels of emitted greenhouse gases. Additional spinoff benefits would be increased physical activity and cleaner air.

Municipal Buildings Modifications: LEED Standards (Reduced Greenhouse Gases)

Source of Funding	Budget Year 2011-2012
Operating Fund	258,000
TOTAL	258,000

MODG's Municipal Building was originally built in 1973. Since then many modifications have been made such as reconfiguring the floor space in order to create additional office space. The Public Works Department has recently completed an Energy Audit for the building and would like to implement the recommendations that were listed in it. One goal of this project is to ensure that LEED Building Standards are met in order to make the building energy efficient. We hope that converting to more energy efficient means will serve as an example for any new construction within in the Municipality either residential or commercial.

In the 2009-2010 year a new boiler replaced an old inefficient model as well as installing new efficient windows and doors. Lighting retrofits will take place in the Spring of 2010 due to the older and varied styles of lighting throughout the building. There are currently T8, fluorescent, incandescent and high pressure sodium lamps and it is the intention to replace all older T8s, T12s, 32W bulbs with new T8, 28W bulbs and install electronic ballasts in each system and replace all incandescent lamps with compact fluorescent lamps. This section of the retrofit will be done through Nova Scotia Power's Smart Lighting Solution Program which is being done as a Pilot Project throughout the Province free of charge. This change alone will have long term energy savings and a reduction of greenhouse gases of approximately 9.33 tonnes.

Aside from interior renovations, the exterior of the building would also receive a facelift that will visually enhance the appearance of the building reflecting the interior upgrades and demonstrating professionalism at the workplace.

This project in its entirety would reduce our Municipality's greenhouse gas contributions by 38 tonnes and hopefully act as an example for future building projects.

Bike Rack Installation (Cleaner Air, Reduced Greenhouse Gases)

Source of Funding	Budget Year 2010-2011
Operating Fund	7,000
TOTAL	7,000

Although this project is inexpensive its impact when completed will be great. Our Recreation Department is in the investigative stages of preparing an Active Transportation Plan. This plan will demonstrate our commitment to walking, cycling, and any other form of transportation using physical activity within our Municipality. In order for Active Transportation to exist the necessary infrastructure must be in place. Things such as accessible, clearly marked trails, presence of sidewalks, crosswalks and bike racks play an important role in the success of AT.

MODG's Recreation Department has installed its first bike rack which is situated between the Municipal Office and the Cyril Ward Memorial Library. It is the intention of the Recreation Department to continue installing others in various parks throughout the Municipality and in proximity to retail locations.

Many people are making the choice to use their bicycles as either a mode of commuting to work or school and to the library.

Installing bike racks not only increases the convenience and security for cyclists when they reach their destination, but makes a positive statement that we are committed to active transportation and those members of the public that wish to make a contribution to the environment by leaving their cars at home and becoming more physically active.

Solar Panel Installation at Pool & Chedabucto Education Center (Cleaner Air, Reduced Greenhouse Gases)

Source of Funding	Budget Year 2010-2011
ecoNova Scotia Municipal Program	94,000
Strait Regional School Board	55,000
Operating Fund	40,000
TOTAL	189,000

This project demonstrates what can be achieved when two groups work together in a Municipal Unit. MODG and the Strait Regional School Board are teaming up to make this project a reality. By installing a shared dual purpose solar system that will provide heating to the Municipal Pool, Fitness Center and domestic hot water at Chedabucto Education Center we are not only conserving energy, costs and greenhouse gases but are demonstrating the importance of alternative energy to students, residents and other Municipalities.

This project involves the installation of approximately 40 roof-mounted thermal solar panels, storage tanks for the schools domestic hot water, and three separate heat exchangers. Currently, the pool is heated by way of propane consuming approximately 9645 liters per season and emitting 15 tonnes of CO². With the installation of a system the annual production of CO² will decrease by 4 tonnes and there will be an annual cost savings of approximately \$7,000. Propane will then be only used as a backup measure in the event of any downtime.

This project will begin in the spring of 2010 and will be operational for June 2010.

The system will consist of 40 flat-plate unglazed collectors that will be circulating the pool water in a closed-loop configuration. A typical flat-plate unglazed solar hot water system can last for up to 25 years or even longer with very little maintenance or replacement costs. Typically, the pool water is circulated through the collectors where the sun's radiation heats the water and transfers it into the pool. A project such as this will provide the opportunity for our Municipality to reduce our contribution of greenhouse gases to the environment in addition to saving money each year. This project will result in a 6-7 year payback period.

Several Solar Hot Water Assessment Reports have been completed for MODG's pool & CEC's domestic hot water heating and it was determined that the overall potential for solar-heated water was excellent. This project will cost just under \$200,000 in total with up to 50% funding coming from the ecoNova Scotia Clean Air and Climate Change Fund and the remainder split between the Strait Regional School Board and MODG.

Conclusion

Implementing sustainable changes in rural Municipalities often poses challenges due to smaller populations, limited resources and lack of desire to change. However, the Municipality of the District of Guysborough is approaching the four pillars of sustainability proactively and head-on. We feel that in order to expect a commitment to change from our communities' residents, we as a governing body must first set an example and show that every change, no matter the size, makes a difference in the fight against reducing the effects of climate change.

In the coming fiscal years MODG has included environmental, economic, social and cultural projects in our budgets which further demonstrates our commitment to the sustainability of our Municipality. The coming years will be some of the most memorable as far as development is concerned. The impending industrial development, construction of the recreational facility and expansions of water and sewer services will only draw more residential development and economic prosperity to the area; this accompanied by proactive Residents, Council and Staff ensures that the future can only be bright for our Municipality.

Sources

Documents:

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