



Brandon's Environmental Strategic Plan

Operational Services Division-Environmental Initiatives

May 2013



Forward

In 2005 the City of Brandon recognized that Environment was an important need for our community. In 2007 the City Council of the day passed Brandon's first formal plan of this nature titled Brandon's "Environmental Strategic Plan (ESP)." This formal plan addresses environmental actions that can be implemented both on a corporate and a community level.

The topic of the Environment continues to be a growing concern at the local, provincial, federal and international level. In the last ten years there has been an increase in awareness on climate change, global warming, increasing fuel costs ,shortage of natural resources and waste disposal and are making all of us think about how we are using and treating this world.

This document is intended to provide a framework for priorities and to identify how the corporation can assist the community in moving towards sustainability. This is a living document that will be updated and reported on as changes in technology, funding and programming is made available to the community.

This plan builds on the previously approved plans such as the Greenspace Master Plan, the Recreation Facilities Master Plan, and the Affordable Housing Plan for Brandon, etc. These plans must work in conjunction in order for us as a community to reach our desired future.

This would not have been a plan if were not for a number of individuals, community groups, City staff and management who participated and provided feedback into the process. I would like to take the opportunity to recognize their contribution for creating the original document and aiding in the revision of Brandon's Environmental Strategic Plan that will guide us to a greener community over the next five years.

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Introduction

Brandon, as the second largest city in Manitoba is currently expanding in both population, estimated at 46,061 people, and land mass through expropriation. According to the Institute for Sustainable Communities, “Sustainable communities are defined as towns and cities that have taken steps to remain healthy over the long term. Sustainable communities have a strong sense of place. They have a vision that is embraced and actively promoted by all of the key sectors of society, including business, disadvantaged groups, environmentalists, civic associations, government agencies and religious organizations. They are places that build on their assets and dare to be innovative. These communities value healthy ecosystems, use resources efficiently, and actively seek to retain and enhance a locally-based economy. There is a pervasive volunteer spirit that is rewarded by concrete results partnered between and among government, the business sector, and non-profit organizations are common. Public debate in these communities is engaging, inclusive, and constructive. Unlike traditional community development approaches, sustainable strategies emphasize: the whole community (instead of just disadvantaged neighbourhoods); ecosystem protection; meaningful and broad-based citizen participation; and economic self-reliance.”

The purpose of the Environmental Strategic Plan (ESP) is to set out a series of actions for the municipality to take, over the short and long-term, to reduce the city’s negative impact on the environment. Most of the actions suggested in the ESP are related to the Corporation of the City of Brandon’s activities and operations. The Plan was developed to focus on the City’s operations so that the City may lead by example and set the standard for residents, industry and stakeholders. The City cannot accomplish these tasks without the community’s support, therefore this plan also reflects actions to engage and create opportunities for residents of our community to be more environmentally friendly.

The ESP is directly linked to the Community Strategic Plan “*Shaping Tomorrow Together*” in which the community stated their desirable future to be “*Brandon will be a recognized leader in environmental stewardship*”. It is important to recognize that while this plan focuses on actions specific to the environment, that alone it will not ensure the sustainability of our community. This plan, in conjunction with the other master planning documents such as the Brandon Transit Operating Strategy, the Greenspace Master Plan, the Brandon Area Road Network Plan, the Affordable Housing Plan and the Recreation Facilities Master Plan, must work in concert and build on the recommendations in order to achieve this goal. At the time of presentation of this document, there continues to be work done on other master planning documents that will also provide vital information for the City in making environmental decisions.

This plan was developed with input from residents, government and stakeholders who are interested and concerned about Brandon’s environmental future. There are many initiatives already underway in our community by groups not related to the City of Brandon. These groups include the Regional Health Authority, Manitoba Hydro, Marquis Project, and others. The ESP reflects input from these various

groups and in doing so they were also used as a sounding board in setting out the direction for the City (corporation) related to the environment. Updating the ESP occurred through several steps.

1. Gather public input for environmental actions they would like to see in the community (Fall 2012 Winter 2013)
 - a. Held several information sessions
 - b. Attended ward meetings
 - c. Created an idea tree for the public to post their environmental ideas on
 - d. Had an on-line contest for public ideas
 - e. Engaged municipal employees
 - f. Met with City Department Heads
2. Evaluate current action items in the ESP (Winter 2013)
3. Create a summary of environmental projects/programs that have been implemented in the community and in City operations over the last five years. (Winter 2013)
4. Update plan to reflect current, short, medium and long term initiatives for Brandon. (Spring 2013)
5. Peer Review (Spring 2013)
6. Present to City Council as information (Spring 2013)

In establishing the ESP, there were a number of goals that it set out to achieve.

- ***To establish it as a plan for local leadership.***

The ESP was the first plan of its type developed by the City of Brandon. It represents a unique opportunity for the municipality to take action on priority issues of local concern and municipal responsibility. The City has demonstrated through actions, its commitment to the environment and by following this plan, will lead by example in its commitment to environmental sustainability.

- **To be developed with the community interests.**

As this is a living document and will change as priorities are identified, this document has gathered and will continue to gather concerns in the community by using the Operational Services Division's Environmental Initiatives Manager as the key person to compile and coordinate efforts identified as priorities.

- **To ensure that progress can be measured and reported.**

The plan needs to have tools and mechanisms that measure the progress of the actions in order to ensure that progress is made. By establishing measurements of progress, it provides an indication of community attitude towards programs and projects and allows for appropriate corrections to be made.

Report Structure

When someone says “the environment”, it can mean a number of different things for different people. For some, the environment means things like acid rain, or climate change. Others might think about pesticide use and recycling. The environment is a broad topic and can encompass many different ideas and concerns.

The ESP is broken into four broad categories: air, land, water and energy. This makes it user friendly and provides a framework for recommendations and plans going forward as well as a basis for a broad discussion. The following is brief outline of the types of topics that will be discussed in each section. Some topics will be discussed under a number of topic areas depending on how they are applied.

Air:

- Local air quality issues
- Idling of motorized equipment
- Methane gas recovery
- Hydrogen
- Geothermal
- Energy audits
- Alternative Transportation

Land:

- Land use planning
- Brownfields reclamation
- Solid and hazardous waste disposal
- Recycling initiatives
- Toxins including pesticides
- Natural habitat protection and enhancement
- Active Transportation (bicycle and walk paths)
- Green procurement
- Infill development

Water:

- Local water quality issues
- Water conservation
- Sewer use by-laws
- Combined sewer overflows
- Storm water management
- Efficiency

Energy:

- Energy conservation
- Alternative energy sources
- Energy audits

In addition to breaking down the environment into these broad categories, this report has also been broken into a couple of different sections. The first part of the report provides an overview or scan of the programs and actions that are being taken in each one of these categories locally, provincially and federally. It should be noted that provincial and federal programs may have a short life span and may not exist or may be modified from year to year. The second part of the report identifies the goals, objectives and actions and the final section outlines the plan to communicate, fund and monitor progress.

Background

History

The ESP was developed with the assistance of the Brandon Environment Committee. This committee was formed in 2005, is made of a number of representatives from businesses, groups, institutions, and individuals in and around the Brandon area. This committee provides assistance and recommendations to City Council on various environmental issues and meets on a monthly basis.

The ESP is a living document and is to be revised every five years to address the community's and City's environmental needs and concerns.

Brandon's Environmental Achievements 2007-2012

Since the City of Brandon adopted the Environmental Strategic Plan in the fall of 2007, Brandon has made environment a priority in the community. The following is a summary of actions that have been implemented from the plan within the community and the City as an organization over the last five years.

Air

Goal A: Improve Air Quality- Be proactive by partnering with individuals, community groups, industry, businesses and other levels of government to improve Brandon's air quality.

Objective AA: Establish a greenhouse gas (GHG) baseline inventory for the community.

The GHG baseline inventory was completed in 2008 and continues to be monitored and updated from the 2003 baseline. The City of Brandon as a corporation had set a goal of 20% reduction, and a 6% reduction within the community by the end of 2013.

Objective AB: Reduce emissions discharged from City operations and vehicles.

The City continued to implement the schedule for replacing the City's fleet with vehicles and equipment that is less harmful to the environment taking into consideration the life cycle cost of the equipment. The City implemented an anti- idling program; by installing signage at all municipal facilities and educating new employees at employee orientation.

The City of Brandon is capturing methane gas out of the Eastview landfill as mandated by the Province of Manitoba. At the present time the methane is being flared off while the City continues to explore potential end users.

Objective AC: Reduce the amount of greenhouse gases generated in the community as a result of vehicle use.

In 2009 the City in partnership with the Brandon Neighbourhood Renewal Corporation became participants in the Department of Local Government's Community Led Emission Reduction (CLER) Program. This program provided funding for an employee and seed money for projects that would reduce greenhouse gas emissions within the community and city operations. This program funded the following projects related to reducing the amount of greenhouse gases in the community as a result of single occupancy vehicle use:

- Installing bike racks downtown at strategic locations
- Transit fare study
- Commuter Challenge Event

In 2012 Brandon Transit in partnership with Brandon University and Assiniboine Community College implemented the U-Pass for postsecondary students.

Community Services continues to implement the recommendations within the Green Space Master Plan and the Recreation Facilities Master Plan pertaining to walking/bicycling paths. To date there is 45 kilometers of pathways within the City.

All school facilities and businesses who want to participate have anti-idling signage. In 2010 the CLER program and the Brandon Environment Committee launched an awareness campaign.

Land

Goal B: Reduce Land Contamination

Objective BA: Expand the education and awareness of recycling and solid waste diversion

All city offices have been supplied with recycling containers. A paper usage baseline has been created and majority of printers have the default setting to double sided printing.

The City continues to implement the Solid Waste Diversion Plan to increase the amount of recycling in the community. In 2008 the city implemented a new refuse collection bin system. This system has increased the amount of residential recycling significantly by 363%.

In 2010 the City implemented a curbside organics collection pilot program. This program was on a voluntary basis for 500 households. The success of the pilot resulted in the City expanding the program up to 6000 households in the spring of 2013.

The City of Brandon in partnership with the Rotary Club of Brandon and Miller Environmental Group put on two Household Hazardous Waste Days bi-annually until spring of 2012. The City in spring of 2013 implemented a year round drop off depot at the Eastview Landfill. In August of 2012 Green Manitoba and product responsibility organizations launched a website that identifies locations where you can drop off paints, fluorescent bulbs, electronics, cell phones, lead-acid batteries, oil and antifreeze, mercury containing thermostats, pharmaceuticals, plastic bags, scrap metal, single use/rechargeable batteries, tires, and pesticide containers.

Objective BB: Expand the use of naturalization in the community

The Community Services Section continues to implement the Greenspace Master Plan, Recreation Facilities Master Plan, and the Riverbank Master Plan.

The Environmental Initiatives Section is working with Building, Planning and Safety Department to create a Brownfields Development Strategy for the community.

In 2008 the City completed a tree audit and developed a tree baseline. This inventory is updated periodically for new plantings, damaged trees, and loss of trees.

Water

Goal C: Reduce the Consumption of Treated Water

Objective CA: Reduce the amount of treated water consumed from City operations

City Departments have been encouraged to reduce the amount of treated water they use within their day to day operations. Over the last seven years there has been an 8% decrease in the consumption of treated water from city facilities.

The City's frozen tap program has approximately 120 homes left to complete. This continues to be a long term goal.

Objective CB: Develop and deliver an awareness program for citizens related to water consumption

Through the Community Led Emission Reduction program the City was able to offer water conservation initiatives to the community. In the spring of 2010 the City sold 555 rain barrels at a discounted price to residents of Brandon to encourage the use of using rain water to water plants opposed to using treated water. In the fall of 2010 the City launched the Low Flow Toilet Credit Program. There were 570 low flow toilets purchased and installed from fall of 2010 to fall of 2011. Home owners who participated in this program received a \$50 credit off their water bill. The Brandon Energy Efficiency Program (BEEP) completed 220 household water retrofits and 494 apartment water retrofits.

In 2008 a subcommittee of the Brandon Environment Committee was formed “Protecting Prairie Water Matters”. This subcommittee hosted several water workshops, and promoted the disadvantages of bottled water. In 2011 the subcommittee dissolved and the City’s Water Conservation Committee was formed with representatives from the public, the Province and City staff. The City of Brandon has been working on a water conservation plan to be implemented in the near future.

Goal D: Reduce the pollution levels in waste water prior to treatment-educate citizens.

Objective DA: Develop and deliver an awareness program for citizens related to the proper disposal of household products such as chemicals, grease, etc.

The City continues to promote and educate residents on the proper disposal of chemicals, paints, pesticides, medicine, and other household hazardous wastes through social media, council updates, and local media (radio, newspapers).

The French Fry bus was an initiative that converted a bus to accept the 100% bio-diesel, however due to an accident, the bus was taken out of service and was not repairable.

Energy

Goal E: Reduce Energy Consumption

Objective EA: Promote “greening” of new and existing city facilities.

Information had been given to both the Police Services Department and the Brandon Fire Department as they built their new facilities. Although the new facilities are more efficient than the previous buildings, they do not meet LEED standards (Leadership in Environmental Efficiency Design) due to budgetary concerns and lack of buy in from senior administration.

In 2007 energy audits were completed in 12 municipal buildings. Energy upgrades are done on a continuous basis; some upgrades include new boilers, lighting, and weather insulation. The Canada Games Sportsplex was involved with Manitoba Hydro’s “Commercial Building Optimization Program” that resulted in a number of energy upgrades. The CLER program funded a portion of the lighting upgrades at the Sportsplex as well as the purchase of an electric ice edger replacing the propane one.

All decorative lighting and traffic lights for the City of Brandon have been converted to LED lighting.

In the fall of 2010 the City did a pilot project by installing a solar light at the East-end off-leash dog park.

Objective: EB Promote existing programs related to residential energy conservation

The City continues to work with Manitoba Hydro to promote energy conservation programs for the community by through the environment website, earth days etc.

Miscellaneous

Goal F: Improve Sustainable Development Practices

Objective FA: Explore and incorporate sustainable development practices in the design standards for new neighbourhoods.

The City of Brandon created a “Downtown Hub” through Renaissance Brandon in the downtown area. This organization gives developers, who meet certain criteria, a tax moratorium on their upgrades, which create unique partnerships between the public and private sector. This will help bring renewal and energy to downtown Brandon.

The Environment Committee had a short lived Green Building award initiative where businesses in the community were recognized for their environmentally friendly efforts.

Objective FB: Explore and promote sustainable redevelopment practices in existing neighbourhoods.

There are several buildings that have been upgraded and retrofitted in the inner core of the city:

The new Police Station, the CP Rail building, the YMCA, the Massey Building, and the Skateboard Park just to name a few.

Goal G: Lead by Example, Promote Awareness and Measure Progress

Objective GA: Incorporate “green” in to the City of Brandon’s procurement policy.

Preliminary work is still being done to develop a “green” procurement policy with the City’s Treasury Department. The intentions are to have the policy be complete by the end of 2015.

Objective GB: Support community based environmental initiatives.

In 2009 the Brandon Environment Committee developed funding criteria for a small environmental initiatives fund. Service groups and schools were eligible to apply for up to \$200 a project. Projects that have been funded under this program are:

- Western Manitoba Science Fair awards for the best projects displaying environmental awareness
- Crocus Plains Water Festival
- St. Augustine's Litter Patrol Program
- Waverly School's Eco Club
- Brandon Earth Day Celebrations

Environmental Initiatives Staff have participated in many initiatives over the years both within the City as an organization and outside of the organization. Annual reports have and will continue to be provided by the Environmental Initiatives Manager to Mayor and Council, for annual reports from 2008-2012 see appendixes 1.

Early in 2012 the Brandon Environment Committee in partnership with Assiniboine Community College and the City's IT department launched www.brandonenvironment.ca This is the website that is administered by City staff to keep the public up to date on environmental initiatives within the community and provides helpful green tips.

Defining Brandon's Current Environmental Context

The City of Brandon in conjunction with the Province of Manitoba is leading Manitoba by example when it comes to proving that taking the steps towards being a “green” community does not mean being fiscally irresponsible. It does not mean making wholesale changes in direction, but it does require getting a community involved and engaged in making that happen.

We know as a community that we continue to face many challenges in moving towards our desirable future of being a leader in environmental stewardship. We as a community can do more by being educated on how and why incorporating environmental practices into our daily lives will make a difference in the long term. In today's day and age we have an advantage from our predecessors as information is readily available to us at our fingertips through social media, smartphones, and internet. In comparison to other communities in Canada, Brandon still has room to grow in the environmental sector. We can improve our waste disposal practices, incorporate environment in urban design, continue to educate City employees and residents on environmentally friendly practices, and become more conscious of our actions.

Responsibility for environmental actions and priority setting are shared by individuals, provincial and federal governments in addition to municipal governments. There is a decision-making and collaborative role for surrounding municipalities to play with respect to common environmental issues. This section relates some recent local, provincial and national initiatives into categories of *Air, Land, Water and Energy* that may affect the implementation of Brandon's Environmental Strategic Plan. This list, though lengthy, attempts to define the initiatives going on in the community. Due to the “grass roots” nature of many initiatives, at times they can be difficult to keep track of, but that does not mean they are any less important in moving the community forward. A list of the initiatives in the community has been provided to give an understanding of the many opportunities and threats in the community of Brandon and the immediate surrounding area.

Air

According to the Province of Manitoba, “Manitoba generally enjoys excellent air quality compared to other areas of the country. Air quality concerns in Manitoba usually tend to be of a localized nature, where an activity has an impact only on local people and their environment. Some of these impacts may include the presence of odors, noise and other air pollutants. The sources for these and other airborne pollutants include industrial operations, vehicle emissions, man-made substances released to the atmosphere and other specific activities.”

Most people in the City of Brandon would agree that we are blessed with good air quality, especially when we compare ourselves to many of the metropolitan areas across the country.

In terms of our local air, there are various types of air quality monitoring systems in place in the community, which check for levels of certain types of gases. Some community monitoring is required under the Manitoba Environment Act and in the case of Brandon, there are two separate monitoring sites in the community. The one site at Assiniboine Community College (parking lot) monitors for ammonia, nitric oxide, nitrogen dioxide, nitrous oxide, ozone, particulate matter of less than 10 microns, particulate matter of less than 2.5 microns. The second site located in the Green Acre Industrial Area monitors ammonia levels. Koch Fertilizer Canada located in the East end of Brandon tests for levels of ammonia and nitrogen through their monitoring system, while the City of Brandon tests for methane gas levels at the old and current landfills. While these types of systems ensure that a level of safety is maintained in the community, they do not address the issue that these gases are still being emitted into the air.

In terms of industry, there are a number of operations whose emissions impact our air quality.

- Manitoba Hydro operates a generation plant using a combination of fuels including sub bituminous coal, natural gas and diesel fuel. This plant can generate 360 megawatts of electricity but is generally used only as a backup resource in case of electricity distribution interruption. There is currently an Environment Act License Review taking place which will establish appropriate operating conditions and limits for the continued operation until approximately 2020. The sources of air emissions include: the exhaust gas stack, the cooling tower, dust from coal handling operations and ash storage and the combined emissions from the two gas turbines
- Methane gas from the City of Brandon's three landfill sites, current and abandoned, annually emit tonnes of greenhouse gases through the production of methane gas. Methane is twenty-one times more harmful to the environment than Carbon Dioxide (CO₂).
- Koch Fertilizer is the largest natural gas user in the Province.

While these operations have been identified as a means for demonstrating this point, they are certainly not the only contributors to air emissions. Operations such as asphalt plants, painting companies, manufacturing, etc. all contribute to air pollution in the community.

Transportation is an area where most of us contribute to the level of emissions in the community. Idling for 10 minutes a day can produce about a quarter of a tonne of CO₂ emissions each year.

While we live in a community that facilitates the ability to not need to use vehicles for transportation, this continues to be the preferred means for individuals to get around as we are a rural community. Locally there are economic opportunities of reducing greenhouse gas emissions and fuel consumption, the increased use of public transportation, and carpooling.

The Province of Manitoba confirms that the cutting of greenhouse gas emissions will create jobs as well as cut energy costs. Local initiatives being done by many homeowners include the replacement of old furnaces to geo thermal heat or by installing mid and high efficiency natural gas furnaces to heat buildings. At the same time many people are installing programmable thermostats and increasing their insulation to reduce energy consumption.

There are many ways to improve air quality, small steps at first leading to large projects. As Brandon continues to grow and expand it will be important to have a starting point to measure successes and failures.

Below is a list organizations and initiatives that are currently underway in relation to air quality. Please note that while energy consumption and the generation of greenhouse gases is integral to air quality, many of the programs related to this will be identified under the energy section further in the report.

Federal and National Organizations and Initiatives - Air

Earth Day is a worldwide initiative and is celebrated every April 22 and is the largest, most celebrated environmental event worldwide. More than 6 million Canadians join 1 billion people in over 180 countries in staging events and projects to address local environmental issues such as air quality. Nearly every school child in Canada takes part in an Earth Day activity.

The **Partners for Climate Protection (PCP)** program is a network of more than 148 Canadian municipal governments, Brandon being one of them, who have committed to reducing greenhouse gas and acting on climate change. PCP is the Canadian component of International Council for Local Environmental Initiatives (ICLEI) as partners with the Federation of Canadian Municipalities (FCM). Cities for Climate Protection (CCP), is part of the ICLEI network that comprises more than 650 communities' world-wide making the same efforts.

Natural Resource Canada provides valuable information and support on the idling of vehicles and equipment related to combustion engines.

The **Federation of Canadian Municipalities (FCM)** is made up of more than 1,600 members. FCM represents the interests of municipalities on policy and program matters that fall within federal jurisdiction. FCM is dedicated to improving the quality of life in all communities by promoting strong, effective and accountable municipal government. FCM provides funding for projects through the Green Municipal Fund (GMF) and has supported more than 500 studies, field tests, plans and capital projects across Canada to improve the quality of our air, soil and water and to reduce greenhouse gas emissions.

Consumers

- **Chemical Substances** - The Government of Canada assesses and controls chemical substances to protect human health and the environment using a variety of tools. These range from providing information about proper use and disposal, to regulations that restrict or prohibit use. Canada's new Chemicals Management Plan takes immediate action to regulate chemicals that are harmful to human health or the environment.
- **EcoAction Community Funding Program**-The EcoAction Community Funding Program funds projects across Canada to encourage Canadians to take action to address clean air, clean water, climate change and nature issues, and to build the capacity of communities to sustain these activities into the future

- Tax Credit for Public Transit Passes - If you regularly take the bus, subway, commuter rail or ferry, a person can get a tax break equal to 15.25% of the cost of a monthly transit pass just by saving expired passes. The credit will also apply to certain weekly passes and electronic fare card purchases.

Organizations

Provincial Organizations and Initiatives - Air

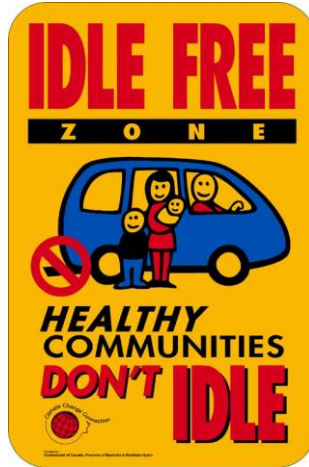
Manitoba Hydrogen Steering Committee has been formed to provide broad direction for the individual assessments of potential hydrogen opportunities for Manitoba. The Committee consists of core stakeholders with direct interest in hydrogen development. Part of the initiative includes an alternate energy source to reduce air pollution.

Stubble Burning Program is a program of the provincial government and is supported by the Manitoba Lung Association. Smoke from burning crop residues affects people's health, road safety and the environment. Manitoba's smoke management plan encompasses activities and systems that lead to a significant ongoing reduction in crop residue burning. The regulation entitled Burning of Crop Residue and Non-Crop Herbage (Regulation 77/93) was enacted in 1993 to deal with the legal aspects of crop residue burning.

Manitoba Climate Investment Pilot Program-The Manitoba Climate Investment Pilot Program was announced in the spring 2011 Budget. Its objective is to assist businesses and not-for-profit organizations in Manitoba to measure and reduce their greenhouse gas (GHG) emissions. The MCIPP is intended to advance initiatives that achieve quantifiable emissions reductions by encouraging the private and not-for-profit sectors to take action on climate change. There are two granting programs available. The Corporate Capacity Building Grant is in place to help organizations develop their baseline greenhouse gas inventories, while the Climate Mitigation Action Grant will help offset the costs associated with GHG emission reduction projects.

Local Initiatives and Organizations - Air

Anti-idling Campaign – The City of Brandon has focused on education and training with all employees on reducing the amount of idling of City vehicles. As part of this campaign, vehicles are being monitored for fuel consumption against mileage so that areas of concern can be addressed. Anti-idling signs have been installed at the railway crossings in Brandon to ask citizens to shut off their vehicles while waiting for trains. There are anti-idling signs located throughout the community at government and institutional buildings. Signs are available to the private sector on a voluntary basis upon request.



Geo-Thermal Heat Source Systems - There are a number of companies / organizations in the community that have decided to use geo-thermal or ground source heating in place of conventional natural gas or electricity systems. For example, Kelleher Ford's new building, and the City of Brandon's Material Recovery Facility all example of where geo-thermal is being used to heat the facility. Geo-thermal uses ground source water to provide heat. Ground-source heat pumps can reduce greenhouse gas emissions by 66% or more compared with conventional heating and cooling systems that use fossil fuels.



Land

The City of Brandon has a number of ecological natural areas including the Assiniboine Riverbank Corridor where a number of parks are located along with the Riverbank Discovery Centre, the site of the old Fort Brandon and numerous other riparian tree cover areas. The river corridor remains a critical element of our community's ecological uniqueness as it provides natural habitat for native wildlife and plant species for the area. It is an area where there is a balance struck between naturalization and urban development. Over the last twenty years our community has come to recognize the importance in finding that balance and as a result has supported the development of the corridor for recreation and educational purposes.

In 2001 the Greenspace Master Plan (GMP) was formally undertaken by the City of Brandon under its Community Services Department and in partnership with the Brandon and Area Planning District. The development of the GMP has been identified by the City as a key step towards reviewing the Development Plan for both the city and the Brandon and Area Planning District. The GMP was intended to establish a vision for the development and care of greenspaces in the City for 10 years. It should be noted that the GMP is to be updated in 2013. In the GMP it states that “it should be the community’s goal to protect areas of ecological significance, better understand and appreciate natural systems, and manage greenspaces and facilities in an environmentally friendly manner.” Issues that were identified that needed to be addressed included:

- The preservation of existing tree canopies, stands, wetlands and other areas of wildlife habitat;
- The preservation of existing drainage courses and patterns;
- Creating an active transportation (e.g. walking, bicycling) alternative to vehicular travel throughout the city;
- Creating opportunities to learn more about and appreciate the environment; and
- Stewardship of greenspaces in an environmentally responsible manner.

Like other communities, some of the challenge that Brandon faces is as a result of actions and behaviours of the past. There have been a number of sites that have been identified in the community as requiring remediation in order to make them safe for occupation. While the practice of brownfield redevelopment (a brownfield site is an abandoned, vacant or derelict or underutilized commercial, industrial or institutional property) has come far due to the application of technology, there are still a number of fears associated with the practice and the long term impacts of such developments. In addition, the cost and process of rehabilitating a site can at times make it cumbersome and costly for a developer to take on such a project. While legislation around the disposal of chemicals, monitoring requirements, etc. have all significantly improved it will still remain a challenge to ensure that sites are not left to the responsibility of the City for cleanup once the owner leaves.

Another challenge for a community like Brandon is related to garbage. In Manitoba, we are fortunate to have an abundance of land, but on the other side of that equation, because we have so much land it is easy to “bury” garbage and just forget about it. Brandon is coming close to reaching its goal of reduction of 50% of its waste from the landfill, a significant improvement from five years ago when we were at 17%. This is a result of various programs, legislation and educating residents, making change at the local level.

Finally it is important to understand the link between our land and our water. In Manitoba on average we receive between 300 and 500 millimeters of annual precipitation. Water travels over and through the land in order to get the rivers and in doing so will bring with it contamination. Over the past few years there has been much discussion around this topic and concern raised around the contamination levels in our rivers and lakes. In this report, air, land and water are treated all separately together they make up our ecosystem and cannot be considered in isolation of each other.

Below are a list organizations and initiatives that are currently underway in relation to land.

Federal and National Organizations and Initiatives – Land

Federal Gas Tax – In November, 2005 the Federal Government and the Province of Manitoba signed a deal that transferred \$167 million in revenues from the Federal gas tax to municipalities over five years. The purpose of the agreement is to outline a joint framework for the transfer of funds to Manitoba, the purpose of which is to provide Manitoba’s Local Governments with stable, reliable and predictable funding for environmentally sustainable infrastructure purpose. In addition it is designed to support the sustainability and prosperity of cities and communities in Manitoba, and to acknowledge the need for collaboration on other issues that affect Manitoba’s cities and communities. Since 2005 this fund has been used to provide new sidewalks, improve intersections and the reconstruction of streets. In 2011 the Federal Government made this permanent through legislation.

Canada Strategic Infrastructure Fund – represents a \$4 billion investment by the federal government for large-scale infrastructure projects across Canada. The outcomes of the investment must relate to:

- Safer and faster movement of people and goods on Canada’s major land transportation routes;
- Reduced production of greenhouse gases and airborne pollutants;
- More-effective urban development;
- Increased economic activity involving tourism;
- Use of innovative technologies and practices to minimize Green House Gas emissions.

Provincial Organizations and Initiatives – Land

Green Manitoba is delivering programs that foster environmental innovation and community development. This includes community-based approaches to promote waste reduction and the efficient use of water and energy, and focusing in the immediate term on several waste minimization priorities: tires, packaging and printed materials, household hazardous waste, electronic-waste, and paint.

Waste Reduction and Pollution Prevention (WRAPP) Fund supports projects that focus on waste reduction, pollution prevention, and integrated waste management practices. The WRAPP Fund is a broad allocation of the Sustainable Development Innovations Fund (SDIF). **WRAPP Objectives** demonstrate and promote the environmental and economic benefits of reducing or preventing waste; showcase local efforts to minimize waste; promote sustainable waste diversion or reduction activities; and demonstrate innovative approaches to reducing waste, preventing pollution, and conserving resources.

The Environment Act (Manitoba) The intent of this provincial Act is to develop and maintain an environmental management system in Manitoba which will ensure that the environment is maintained in such a manner as to sustain a high quality of life, including social and economic development, recreation and leisure for this and future generations, and in this regard, this Act:

- (a) is complementary to, and supports existing and future provincial planning and policy mechanisms;
- (b) provides for the environmental assessment of projects which are likely to have significant effects on the environment;

(c) provides for the recognition and utilization of existing effective review processes that adequately address environmental issues; and

(d) provides for public consultation in environmental decision making while recognizing the responsibility of elected government including municipal governments as decision makers.

Sustainable Development Innovations Fund (SDIF) The SDIF provides funding for the development, implementation and promotion of environmental innovation and sustainable development projects delivered by local governments, industry, community and youth groups, Aboriginal organizations, and First Nation communities. Such programs as the Waste Reduction and Pollution Prevention Fund (WRAPP) are a broad allocation of the Sustainable Development Innovations Fund (SDIF).

Through the **Environmental Youth Corps (EYC)** Manitoba's young people are offered an opportunity to prepare for the environmental challenges of tomorrow by helping them gain valuable education and experience today. The EYC encourages youth throughout the province to voluntarily participate in innovative projects that will help to improve and protect Manitoba's environment.

The **Hometown Green Team (HGT)** program is designed to create meaningful and career-oriented summer employment opportunities for students and unemployed youth aged 16 to 24 by encouraging organizations to initiate a variety of community development projects that will improve neighbourhoods and help build young leaders. In our community the HGT is actively involved with the Community Tree Inventory currently taking place.

Manitoba Conservation Pollution Prevention Branch promotes and regulates pollution prevention initiatives, and supports these initiatives through grant funding programs. Activities include planning and developing programs, policy, strategies and regulations to protect the environment and developing and distributing educational and informational materials.

Dutch Elm Disease Management Program Many hardy and beautiful American elms were planted in the urban areas of Manitoba making effective management of Dutch elm disease (DED) particularly important to many Manitoba communities. The Province of Manitoba, in cooperation with local partners, has been successfully managing DED in many of these communities for more than 35 years, significantly reducing the loss of elms to this disease. This has allowed participating communities to retain mature urban tree canopies that provide valuable benefits, such as wind reduction, shade, wildlife habitat and cleaner air. The City of Brandon is one of the communities in this program.

The Forest Health Protection Act is a provincial act that protects forest resources from invasive forest threats. The Act sets out actions by provincial inspectors and officers to prevent or control an outbreak of an invasive forest threat including access to any land; allows notices to be issued prohibiting any movement of a forest threat or related material; and gives officers and inspectors the power to issue a quarantine order, prohibiting moving or tampering with any potentially infected forest products.

The act also provides for establishment of a forest threat response zone. In such zones, moving, pruning or work on certain forest products could be prohibited. In addition, if it is deemed necessary to

eliminate a forest threat in such a zone, any trees that are potential hosts for a forest threat could be removed or other actions taken to control the pest.

The act also regulates licensing for professional arborists in Manitoba. The regulation requires all arborists or tree-care workers to possess a valid license and carry identification and proof of insurance.

Local Organizations and Initiatives – Land

Earth Day is a world-wide initiative and is celebrated every April 22 and is the largest most celebrated environmental event worldwide. More than 6 million Canadians join 500 million people in over 180 countries in staging events and projects to address local environmental issues such as air quality. In Brandon, ceremonies have taken place the last number of years at Brandon University with a number of displays and presentations taking place. Nearly every school child in Canada takes part in an Earth Day activity.

Recycling and composting is more and more seen as the right thing to do. With assistance through the Canada Manitoba Infrastructure program the City of Brandon is now home to a state of the art **Material Recovery Facility (MRF)**. The MRF came to fruition as a result of the work done by the Westman Recycling Council a non-profit volunteer group. The MRF is located at the Eastview Landfill site and operates hand in hand with International Paper Industries. All the garbage that is collected is taken via city trucks and dumped inside the MRF building then hand sorted into recyclable material, compostable or land fill garbage. Recycling reduces the depletion of natural resources through the manufacturing process to create new cans, paper, cardboard and plastics rather than land filling used materials. It also reduces the volume of garbage that is winding up in our landfill, thereby extending its life. All landfills have a limited life span and are very expensive to relocate. At the present time the life of the landfill is estimated to go until 2042.

Household Hazardous Waste Depot has been created to better serve our community in offering a year round depot for residents to properly dispose of their hazardous waste as opposed to two days of the year before 2013. The full time depot is a partnership between Product Care, Province of Manitoba and the City of Brandon

Pesticide By-law #6838 - Concerns related to the impact of pesticides on individuals with severe allergic reactions to chemicals, the Parks Department led a committee made up of industry, university experts, government and citizens to develop the pesticide by-law along with guidelines for their use. The by-law that established barriers around individual residential homes that were medically verified to have chemical reactions and prohibited the application of pesticide on government and institutional properties except under specific conditions. **The Integrated Pest Management (IPM) Plan** - outlines the formal guidelines for pest control practices that demonstrate an ecological approach to vegetation and pest management with the emphasis on the reduction of pesticide use.

Greenspace Master Plan (GMP) – The City of Brandon continues to implement the GMP that establishes a vision for the development and care of greenspaces in the city over 10 years. There were many individuals, groups and organizations involved in putting this plan together. Included in the plan were

- Guiding Principles;
- Recommendations for Greenspace Enhancement and Development; and the
- Implementation Strategy

Along with recommendations there is a section related to enhancing, developing and maintaining Greenspaces related to;

- Safety
- Signage
- Playgrounds
- Paddle and Spray Parks
- Athletic Facilities
- Trails and Walking Paths
- Storm water Management
- Environmental Responsibility
- School Grounds
- Pocket Parks and Community Gardens
- Skateboard Facility, and
- Dog Parks

In the plan under the Environmental Responsibility category it states that *“It should be the community’s goal to protect areas of ecological significance, better understand and appreciate natural systems, and manage greenspaces and facilities in an environmentally manner.”*

Hort-Line – Brandon University’s Botany Department offers advice to the public on concerns related to botanical matters at their home. This service plays an important role in the community as it provides a free service to the community assisting the public with horticulture.

The Brandon Community Garden Network- is made up of several stakeholder organizations and garden coordinator representatives from each of the 10 community gardens in and around Brandon. The overall vision of the Network is to make gardening a safe, easy and accessible alternative source of food production. Partners in this network include Healthy Brandon, Samaritan House Ministries, the City of Brandon, the Brandon Neighbourhood Renewal Corporation, the Agricultural Research Station, Shilo MFRC, Westman Seniors for Seniors, Assiniboine Community College, and several community centres. By working with the community, the network is able to teach alternative methods of food production, as well as environmentally friendly ways to produce vegetables. Instruction is provided on organic gardening, composting, soil amendments, as well as rain water recovery, and organic pest control.

To make the most use of the vegetables produced, a close connection has been made with the local food bank as well as workshop availability on food preparation using veggies directly from the gardens. Gardens locations are as follows:

- Hummingbird – 26th Street and Maryland Ave
- Kin Park - 3rd Street and Aberdeen Ave
- East End Community Centre – Frederick Street and Victoria Ave
- Park Community Centre – 15th Street and Louise Ave
- Rock Park- 15th Street and Louise Ave
- Alexandra – 12th Street and Van Horne Ave
- New Era School (LeoLot) - Fourth Street and Lorne Ave
- Westman Senior's Co-op on MacDiarmid Drive
- Westridge Community Centre- 32 Willowdale Crescent
- Military Family Resource Centre Shilo, CFB Shilo

Further information about this initiative, www.brandoninbloom.ca

Brandon Garden Club and the Westman Garden Club's – has over 75 members. Each club has and will provide assistance and expertise for the gardening community. The groups of volunteers donate many hours of their own time assisting city staff in maintaining the many parks and grounds under the Community Services Section responsibility in addition to their own activities.

Green Procurement and Reduction – The City of Brandon is investigating the possibility of implementing a Green Procurement Policy. This is the procurement of products and services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose. A green product is one that is less harmful than the next best alternative. Municipal employees can help reduce the impact of municipal government operations by promoting and following green procurement practices. By purchasing environmentally responsible goods and services, waste, resource consumption and greenhouse gas emissions are reduced. This, in turn, decreases the risk to the environment and to human health. Measures such as purchasing environmentally responsible office products and supplies as well as adopting pollution prevention criteria when purchasing goods and services are examples of initiatives to advance sound environmental management for government operations. The City of Brandon, Assiniboine Community College and other companies have instituted a practice to setup all printers to print double sided as their default. Mayor and Council have implemented a paperless agenda system that reduces the amount of paper used in the activities of Council.

Salt Management Plan –The Streets and Roads Section of Brandon's Public Works is working to reduce the amount of salt, sand and chlorides used on municipal streets and roads. By replacing gravel roads with hard surfaces, the amount of dust is minimized and reduces the amount of chlorides used to manage dust by nearly two thirds of its original use. The effects of these improvements have improved road quality while simultaneously reducing the amount of salt, sand and chloride runoff into soil and waterways. During winter months it is estimated that 3000 tonnes of sand and 450 tonnes of salt are spread over the City streets to provide adequate traction and to keep them safe for vehicle traffic. This means the streets; boulevards and sidewalks need to be swept in the spring using a fleet of street sweepers to. The collected material is reused for pit restoration or cover at the landfill.

Brandon has a number of **Brownfields** (i.e., lands on which industrial or commercial activity took place in the past and that may need to be cleaned up before they can be redeveloped). In conjunction with the provincial government the City of Brandon is currently working on remediation of these sites and are monitoring test wells, and reviewing reports related to various locations in Brandon. The City is working on a Brownfield Redevelopment Strategy that will include options for developers to move forward in addressing these properties.

Infill Housing - As Brandon continues to grow and change so does its neighbourhoods. For a variety of reasons old homes are torn down only to be replaced with a new and often larger building. This process of building new homes in already established neighbourhoods is "infill housing". This process extends the life of neighbourhoods, limits suburban sprawl and uses existing infrastructure to service the development. The Affordable Housing in Brandon that was released in April 2007 outlines a number of actions that can be taken to increase the amount of infill activity in the community.

Food Assessment Study- Several community groups on Brandon are collaborating to do an assessment on food in Brandon. The assessment will include how far people travel to get their food, and how much is wasted.

Assiniboine Community College Fruit Tree Nursery: ACC is in the early stages of implementing a fruit tree nursery at their North hill campus for research and distribution purposes. The tree nursery will include native prairie fruit tree species as a sister location to the tree nursery in Morden, MB.

Water Residual to Farmland Program – The City of Brandon through its Water Treatment Plant (WTP) has implemented a program called the Water Residual to Farmland Program. This program is an environmentally responsible way to deal with waste residuals that are produced as a bi-product from the water treatment process and has been in place since 1999. The waste residuals are used as a soil conditioner for acidic soils in the agricultural community to raise the pH level of the soil to optimize plant growth. The waste residuals, approximately 12,600 tonnes on average, had been traditionally sent to the landfill for disposal. A group of farmers in the area now casts this waste residual on their land. Primarily potato farmers, the group has noticed a yield increase in production. Regular soil reports are submitted through a consultant for the group to Manitoba Conservation for review.

Bio Solids to Farmlands Program – Digested activated sludge from the Municipal and Industrial Waste Water Treatment Plants are offered free of charge two times a year, spring and fall, to area farmers. This sludge, which is high in nutrient level, is injected into the land and provides a benefit as a fertilizer replacement to those using it. The municipal plant provides approximately 600 tonnes a year in addition to the approximate 450 tonnes of sludge a year from the industrial plant. The program has been in place for over 15 years and is overseen by an Environmental License from Manitoba Conservation.

The City of Brandon participates in a national program called "**Call2Recycle**" with the Rechargeable Battery Recycling Corporation (RBRC). Rechargeable batteries and old cellular phones are collected and returned to the RBRC for recycling. These batteries are commonly found in cordless power tools, cellular and cordless phones, lap top computers, camcorders, digital cameras and remote control toys. This program is dedicated to keeping rechargeable batteries and cell phones out of the solid waste stream.

Recreation Facilities Master Plan – In the fall of 2006, the Operational Services Division identified the need for an overall recreation facility plan as a result of issues being raised in the community. The plan, which was approved by City Council in February 2007, now assists in making informed, and forward thinking decisions on facilities, greenspace use and partnerships with the community. A detailed list of recommendations is included in the report including: Field and Pitch Recreation; Diamond Recreation; Racquet Recreation; Water Recreation; Ice Recreation; Specialty Recreation and Leisure Recreation. The report also identifies future “Hubs” in the community and lists all of the Green Space properties in the community. The list can be accessed at www.brandon.ca

Manitoba Hydro’s Forest Enhancement Program has been used several times in Brandon. The program funds tree planting, forest education, and innovative research, demonstration, and development projects. The Program is aimed primarily at non-profit, non-government organizations, including citizen, school, youth, conservation, cultural, heritage, environmental, community and service club groups, as well as higher educational institutions.

Manitoba Recycling-In August of 2012 Green Manitoba launched a website and smartphone app of where various items can be taken to be properly disposed of at several businesses in the community in. These items include:

- Cell phones
- Electronics (televisions, computer monitors, desktop computers, laptop computers, printers, DVD players, telephones, scanners/copiers/fax machines and microwaves).
- Household Fluorescent Lights/Lamps
- Household Packaging & Printed Paper
- Lead-Acid Batteries
- Mercury Containing Thermostats
- Multi-item depot
- Oil & Antifreeze
- Paint
- Pesticide Containers
- Pharmaceuticals
- Plastic Bags
- Scrap Metal
- Tires
- Single use and Rechargeable Batteries

The household hazardous waste depot at the City’s landfill is one of the locations on this website.

Assiniboine Community College and Brandon University - In the community there are a number of opportunities to learn about the environment at the higher education level. Brandon University offers an Environmental Science course which includes the interdisciplinary study of the environment, its functioning and its relationship to human activities. It encompasses many of the traditional science disciplines but uses these in the study of terrestrial, aquatic and atmospheric systems and their

interactions. At Assiniboine Community College courses on the environment are being offered or are being planned on being offered in Land & Water Management, Wind Turbine Technician and Environmental Horticulture. In addition to the courses being offered Assiniboine Community College is developing its new campus to a LEED (Leadership in Energy and Environmental Design) Silver level as a minimum as part of its strategic planning. A Centre for Innovation in Agriculture & Environment is being considered as a hub for applied research and training in renewable energy and sustainable crop production.



Water

Manitoba recognizes the critical role that water plays in the environmental, economic and social well-being of Manitobans and is committed to maintain an abundance of high quality water to meet present and future needs. Canada ranks second only to the United States in per capita use of water. Unsustainable land use practices and other activities have led to decreased water quality in many of the provinces lakes, rivers and aquifers. Manitobans are very wasteful with our water as a result of inefficient infrastructure and personal behaviour Critical steps must be taken that promote effective use of water to ensure the sustainability of this invaluable resource.

The City needs to work with the stewardship organizations to develop a comprehensive water conservation and efficiency strategy in the community. In 2012 Brandon became a part of the Assiniboine Hills Conservation District (AHCD). Working with key partners such as Water Stewardship and our local Conservation Districts will help us reach our goal of a supply of clean, fresh water both entering our water system and as it leaves when discharged back into the Assiniboine River. In 2013 the City of Brandon approved it's first-ever stand- alone Water Conservation Plan. The purpose of the plan is to set out a series of actions for the city and the community to implement to reduce the City's water consumption while still maintaining excellent quality and quantity for current and future generations.

The City needs to continue on implementing water conservation techniques in public and private operations such as conversion to low flush or no flush technology for toilets; low volume shower heads and to continue to be a leader in leak repair and replace our infrastructure, using rain water for lawns and decorative plants. As in the case of our land, we are fortunate in Manitoba to have an abundance of this resource at a low cost. These two factors contribute to how we use or in some cases waste this

valuable resource. Small things like running water while brushing your teeth, running water consuming appliances only half full, watering the lawn are wasteful as we deplete this valuable resource.

The Water Conservation Plan discusses reducing the impact of storm water and urban runoff on the environment. It has been listed here in the Water category due to the runoff effect but it is also considered a land issue because of the effect on turf and flowerbeds. The city will continue to monitor the use of road salt and sand that it applies to the roadways in the community as this can enter the Assiniboine River causing water pollution that is costly to treat downstream. There are areas in the community where nutrients and phosphates enter the waterways mostly due to storm water overloads and to fertilization of turf at various parks and the golf course. Mentioned in the ESP is the consideration of expanding the use of retention ponds in new developments to further filter the surface runoff before it reaches the Assiniboine River.

Federal and National Organizations and Initiatives – Water

Health Canada and Environment Canada are involved in many activities related to water quality, including; developing national drinking water guidelines with provincial and territorial drinking water authorities and guidelines for water used for recreational activities.

Provincial Organizations and Initiatives – Water

The Water Protection Act puts water quality standards under legislation and establishes water quality management zones to better protect sensitive ground and surface water. The act also promotes watershed based planning. Manitoba's abundance of fresh water sustains our ecosystems, our communities and our economy. Given its importance to our way of life, we know we cannot take our wealth of clean water for granted. Protecting drinking water, improving the health of Lake Winnipeg and conserving water supplies are all priorities that need to be addressed to ensure our water will be protected and preserved for the benefit of future generations. It is up to all of us to protect and conserve our province's vast water resources. With fully 70% of our water flowing into Manitoba from other jurisdictions, we must also work towards common water quality goals and standards. Recognizing the importance of water to Manitoba was the driving force behind initiatives like the creation of **Manitoba Conservation Water Stewardship** - the first department of its kind in Canada - banning the bulk exportation of water from our province, introducing new planning and water protection laws. Manitoba Water Stewardship is quite involved with the **Lake Winnipeg Action Plan** that includes comprehensive measures for allowable nutrient limits being discharged into the Assiniboine River.

Conservation District – A Conservation District (CD) is a group of neighboring rural municipalities (RMs) working in partnership with the Province of Manitoba to develop programs to effectively manage the natural resources of their area including water. Conservation Districts are established under the authority of The Conservation Districts Act. Currently, there are 18 CDs in Manitoba covering over 60%

of Agro-Manitoba. Individual District boundaries may vary, however they are usually based on the drainage basin or watershed of the major river in the area. As previously mentioned the City of Brandon became a member of Assiniboine Hills Conservation District (AHCD) in 2012. Assiniboine Hills Conservation District (AHCD) was established in 2008 after a series of meetings between the Mid Assiniboine River and Tiger Hills Conservation Districts. The partial merger and expansion with new partners was the preliminary steps in the movement to provide an actual watershed boundary alignment. The new district covers approximately 6,349 km² and is located in southwest Manitoba. With the current expansion/merger the district occupies the RMs of Argyle, Cornwallis, Glenwood, Oakland, Riverside, South Cypress, Strathcona, and Whitewater. It also includes the Town of Souris and Villages of Glenboro and Wawanesa. Along with its partners AHCD is committed to manage water and environmental resources to promote a healthy watershed and a sustainable lifestyle for current and future generations. This will lead to a future where communities, agriculture and the environment are healthy, sustainable and in balance with one another.

Local Organizations and Initiatives – Water

The **City of Brandon's Water Treatment Facility (WTF)** provides a water supply capacity of 54 million litres per day and operates between 45% and 75% capacity, depending on demand. The Assiniboine River, which runs through the city, is the sole source of water during normal operation. There is a limited 90 day supply of water provided by wells. The river flows are augmented during low flow periods by the release of water from the Shellmouth Reservoir. The City operates a state-of-the-art secondary wastewater treatment facility for all wastewater generated within the City. The City of Brandon's Water Treatment Facility uses lime/soda ash water softening process as well as a coagulant for enhancement of sedimentation. The facility removes the solid particles from the process waste stream. The solid waste is transported to local area fields to be used as a soil amendment for agriculture. The equipment used to remove the solids is "Belt Filter Presses" and has the capacity to treat the wastes generated from the water treatment facility.

The **City of Brandon's Municipal Wastewater Treatment** history starts in 1963 with the construction of the waste water lagoons. Prior to this there was no treatment of wastewater and the Assiniboine River received the City's waste water and was expected to assimilate the entire waste load. The lagoon system consisted of a sewage pumping station located at the current Wastewater Treatment Facility site as well as a grit removal system. In 1975 an aeration system was added at the wastewater treatment site to reduce the organic components of the wastewater. In 1994 one of the lagoon cells was converted into a stand-alone treatment system to treat the wastewater generated by Ayerst Organics.

This method of wastewater treatment for the entire City continued until 1994 when the current treatment system was put into operation. The current system consists of primary treatment and secondary treatment as well as disinfection. All domestic or sanitary sewers run through the Waste Water Treatment Plant or to the Lagoons for treatment before being discharged into the Assiniboine River. The majority of the Stormwater or surface run-off flows directly into the Assiniboine River. In a

few instances Stormwater does run through the Municipal Waste Water Treatment Plant before being discharged into the Assiniboine River.

The **Industrial Wastewater Treatment** for the treatment of wastewater generated by the Maple Leaf Pork Hog Kill Facility is treated in a treatment facility dedicated to Maple Leaf wastewater only. This facility is operated by City staff under an Environment Act Licence issued to the City; however Maple Leaf Pork pays 100% of the operating costs. The treatment includes anaerobic and aerobic wastewater treatment process followed by ultra violet light disinfect before final discharge to the Assiniboine River.

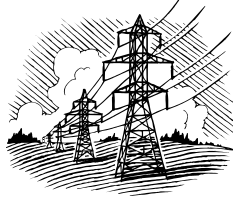
In early fall of 2013 the Waste Water Treatment Plan will be amalgamated with the Industrial Waste Water Reclamation Facility by acting as a lift station to the IWWRF.

In May of 2013 the City of Brandon completed a Water Conservation plan. In the plan is a series of actions outlined for the Corporation and community to undertake in the short-long term to ensure we are being responsible stewards of our water resource for present and future populations.

Water and Wastewater Control By-Law No. 5957/114/91 – is a City by-law to provide for the maintenance, management and conduct of the Brandon Waterworks System. It also regulates the use of public and private sewers and drains, the disposal of wastewater and the discharge of industrial wastewater in to the Brandon Wastewater System. The by-law gives the City the right to prohibit, regulate and inspect the discharge of sewage into the system.

Water Retention Facilities - Area retention generally refers to larger facilities that are easily maintained and, generally, more cost effective to build. The City of Brandon believes that area retention provides an effective way to control localized runoff. The City of Brandon encourages developers to provide area-wide retention facilities. In the Durham drive area of the city there are retention ponds in place and functioning as designed.

Storm-water Improvements-The City of Brandon currently has a program to eliminate combined sewers where sanitary and storm waters are combined. In 1986 a detailed study of the sanitary wastewater collection system was conducted and a number of recommendations were advanced to reduce the amount of combined sewers. This continues to date and the Combined Sewer Catchment Area has reduced from 121.6 hectares in 1986 to 39.0 hectares in 2006.



Energy

In terms of energy use, environmental benefits can be realized in two main ways; reducing energy usage and sourcing ways to switch to alternative fuel sources with fewer emissions. The rising cost of fuel and electricity across North America is of concern to consumers and in the recent years we hearing more and more about individuals taking the initiative to energy fit their homes or to explore alternative transportation methods is common.

It takes a lot of energy to run a building for heating, cooling and lighting. By installing an energy efficient furnace savings up to 25% of the total heating costs each year and reduction of greenhouse gas emissions are possible depending on the efficiency of the existing furnace. Techniques such as caulking and weather-stripping in homes can reduce heating by up to 20% for a very small cost. It has been reported by Natural Resources Canada that if every household in Canada changed just one traditional incandescent light bulb to a compact fluorescent bulb that Canadians would save over \$73 million in energy costs each year or the equivalent of saving the greenhouse gas of 66,000 automobiles. In Manitoba we are fortunate to have hydro-generation of electricity that keeps our cost relatively reasonable for most consumers. Because of our climate the amount of energy we use can be quite high during winter months.

Some ongoing national, provincial and local programs are briefly outlined below.

Federal and National Organizations and Initiatives - Energy

R-2000 Homes - R-2000 homes are the most energy-efficient and environmentally responsible new homes on the market. They are built to demanding standards for energy efficiency and indoor air quality that far surpass others in the marketplace. The R-2000 Standard is a series of technical requirements for new home performance that go way beyond building codes. They are designed and constructed by extraordinary builders, who are committed to providing the very best for their customers. They are backed by a quality assurance process that's unique in the industry. Every R-2000 home is certified by the Government of Canada. The Canadian Home Builders' Association works with Natural Resources Canada's (NRCan's) Office of Energy Efficiency (OEE) which manages R-2000 on behalf of the federal government in support of R-2000 technology, builders and consumers.

LEED (Leadership in Energy and Environmental Design) is a voluntary American national standards program for developing high-performance, sustainable buildings. In Canada the program is overseen by the Canada Green Building Council. LEED standards can be applied to neighbourhoods, commercial construction and homes. LEED emphasizes strategies for sustainable site development, water savings, energy efficiency, materials selection and indoor environment quality. Sustainable buildings have significantly lower operating and maintenance costs. These financial benefits are realized during the life of the building. In an environment where energy, water and sewer rates continue to rise, the LEED initiatives will play a continuous and important role in lower operating and maintenance costs.

Canada Mortgage and Housing Corporation (CMHC) is Canada's national housing agency and offers a 10 percent refund on its mortgage loan insurance premium when a borrower buys or builds an energy-efficient home or makes energy-saving renovations to an existing home.

Provincial Organizations and Initiatives - Energy

Manitoba Hydro – has a number of programs available for residential, commercial and Industrial customers. These include but are not limited to:

- **Geothermal Heat Pumps and solar water heaters** Upgrades are offered through the Earth Power Loan. This loan promotes the most efficient and environmentally friendly electric heating and cooling systems available. Geothermal heat pumps are more expensive to install than other heating and cooling systems but can cut annual heating costs between 50 and 70 percent.

Residential:

- **Refrigerator Retirement Program** where you can retire your old fridge or freezer; it will be picked up for free and you receive \$40.
- **Furnace and Boiler Replacement Program** when replacing a natural gas furnace or boiler with an "ENERGY STAR" furnace or boiler a rebate may be available to those that qualify.
- **Home Insulation Program** offers incentives to upgrade the insulation in the home.
- **PAYS Financing** is an extended term financing for energy efficiency upgrades.
- **Low Income Energy Efficiency Program** for qualifying low income households can become more energy efficient. Financing and free upgrades available.

Commercial:

- **Agricultural Heat Pads**-Switch from heat lamps to heat pads in farrowing crates to reduce your electricity costs by up to 70 per cent.
- **Building Envelope**-Upgrade your building's envelope, including air barriers, insulation, and windows, to reduce air leaks, and heating and cooling loads.
- **Building Optimization**-Identify energy conservation opportunities with short payback periods, which will help return commercial buildings to their top intended performance.
- **Clothes Washers**-We offer incentives to help you upgrade to energy efficient, front-loading commercial clothes washers.

- **Custom Measures**-Electrical and natural gas savings and measures custom-designed for commercial buildings.
- **Geothermal Heat Pumps**-Cut your heating, cooling, and water heating costs and increase comfort with energy efficient and environmentally friendly geothermal heat pumps.
- **HVAC**-Reduce maintenance and operating costs through the use of energy efficient heating, ventilation, and cooling systems.
- **Kitchen Appliances**-Upgrade your commercial steamers and fryers to save on your annual energy bills and qualify for rebates.
- **Lighting**-Tips and incentives to install the most appropriate energy efficient lighting in new construction and renovation projects.
- **Network Energy Management Program**-Rebate available for eligible software programs that manage personal computer energy use.
- **New Buildings Program**-Design, build and operate your new building to Power Smart standards; we offer technical guidance and financial incentives.
- **Parking Lot Controllers**-Depending on outside temperatures, control the amount of electricity going to an outdoor plug to reduce your electricity costs by up to 50 per cent.
- **Recreation Facilities**-Work towards reducing your facility's operating costs by completing our survey. We'll review and provide you a report that includes potential energy saving measures.
- **Refrigeration**-More than 15 different incentives for retail stores and restaurants to make energy efficient equipment upgrades.
- **Religious Buildings Initiative**-Through an assessment and financial support, find out how you can reduce your energy costs.

This is just a partial list of the many programs offered by Manitoba Hydro. A full list is available at their website at www.hydro.mb.ca/savings.

Trends

The City's environment is impacted by the many trends and patterns elsewhere in Manitoba, across Canada, the United States and around the world. This section reviews some of the broad trends that are affecting, or may affect our community. They are provided as a "think piece" to use in considering the impacts, if any, on Brandon's Environmental Strategic Plan's implementation.

Changing Patterns of Development in Surrounding Municipalities

The changing patterns of development in surrounding areas such as Cornwallis and Elton may have an impact of the level of service provisions within Brandon. Parcels of land that were historically used as productive farmland are being considered to change into residential tracts. Because the City remains the dominant employment and activity centre in the region, this trend may put pressure on the City in many ways; traffic flows, managing shifting population trends in the City, and potential loss of revenue. The

long standing trend of population shift from small rural farming communities moving into larger centre, such as Brandon, remains a concern.

The Brandon and Area Planning District (BAPD) is a partnership between the City of Brandon, the Rural Municipality of Cornwallis and the Rural Municipality of Elton, whose purpose is to provide for coordination and cooperation among the participating municipal corporations, primarily with regard to land use and land development issues. The Development Plan and Growth Strategy are two documents that help direct development and manage change within City boundaries and in the surrounding Rural Municipalities. Both documents are reviewed and updated every 5-10 years, taking into account past, current and future trends. The City of Brandon Planning & Building Safety Department is involved with ensuring policies in the Development Plan and Growth Strategy are followed and that strategies are implemented. Both documents are available for viewing online at www.brandon.ca/planning.

The City of Brandon is currently undertaking a Growth Strategy to direct growth in the region in a sustainable manner. Within this Growth Strategy, Secondary Plans will be prepared for new areas ensuring that the areas are walkable, inclusive, and liveable.

Changing Demographics

There are various aspects to the topic of demographics. The following is a brief summary of some of the demographic changes in Brandon and around the world.

- Trends show that the longevity and health of people, particularly those living in Northern Europe and North America is increasing.
- The influx of new ethnic groups moving into the community, such as Salvadoran, Mexican and Chinese, may have an effect on individual and family structure and relationships, as well as business development and broad policy areas of quality of life and environmental conditions.
- Population figures from Statistics Canada for Brandon show that the population increased from 2006 to 2011 by 11%.
- Density in Brandon reflects 31.1. People per square kilometer in comparison to Manitoba with 2.2 people per square kilometer.

When you look at some of this information you can see that environmental action is starting to take place and that it is growing. As our world-wide population continues to grow the demand for resources continues to increase, the concerns related to the depletion of those resources is also prevalent.

Technological Changes

Our society and culture are evolving and changing rapidly. The changes of the past century have been substantial. The changes of the next decade or two will be even more significant and far reaching. There are some significant technological changes in the offing, which will lead to broad changes in lifestyle and day-to-day activities. Technological expansion is happening at a previously unforeseen rapid rate. Central to the technological changes are the expansion of microchip and nano-chip technology. Some technological improvements may be used to abate industrial, air and/or water pollution. Others such as internet and telephone communication technologies already help mitigate the need for travel, through use of internet shopping, telecommuting, ATM banking and so on.

Looking to Brandon’s Environmental Future: a Corporate Environmental Commitment

The Environmental Strategic Plan

The Environmental Strategic Plan has been developed based on the strategic direction set out in the City of Brandon’s Community Strategic Plan – “Brandon will be a leader in environmental stewardship”. As mentioned earlier, this plan details the role that the City has in moving us toward this desirable future and clearly illustrates that we can all play a role in getting to this goal.



As illustrated above, from that strategic direction a set of guiding principles were established and from there the development of goals, objectives to support those goals and then action plans was carried out.

Guiding Principles

The Environmental Strategic Plan was developed based on the following guiding principles:

- **Partnerships:** We will pursue partnerships between the City and the community, other levels of government, private and voluntary sectors to work towards solutions to environmental challenges and opportunities.
- **Engage Citizens:** We will strive to build awareness, actively involve stakeholders, and seek feedback on the ESP’s development and progress.
- **Focus on Innovation and Balance:** We will review and consider best practices while balancing economic, social and ecological considerations.
- **Work Together:** Internally, the Corporation and its agencies will collaborate and communicate about the ESP’s implementation.
- **Lead by Example:** We will act as leaders by providing responsible and proactive service to our citizens.
- **Track Our Progress:** We will monitor, evaluate and report on the ESP’s progress to the community-at-large and implement follow-up actions.
- **Achieve Realism:** We will strive for a balance between ambitious and achievable planning.

Action Plan

Environmental Goals and Objectives Summary

Goal A: Improve Air Quality; Be proactive by partnering with individuals, community groups, industry, business and other levels of government to improve Brandon’s air quality.

- Objective AA: Establish a greenhouse gas baseline for the community.
- Objective AB: Reduce emissions discharged from City operations and vehicles.
- Objective AC: Reduce the amount of greenhouse gases generated in the community as a result of vehicle use.

Goal B: Reduce Land Contamination; Be proactive by partnering with Community Groups, Industry, and other levels of Government to understand and limit the means by which land becomes contaminated.

- Objective BA: Expand the education and awareness of recycling and solid waste diversion.
- Objective BB: Expand the use of naturalization in the community.

Goal C: Reduce the Consumption of Treated Water; Be proactive by partnering with individuals, community groups, business and industry to reduce the quantity of treated water consumed in the community.

Objective CA: Reduce the amount of treated water consumed from City operations.

Objective CB: Develop and deliver an awareness program for citizens related to water consumption.

Objective CC: Investigate and evaluate programs utilizing incentives or legislation to reduce water consumption.

Goal D: Reduce the Pollution Levels in Waste Water Prior to Treatment; Educate citizens around proper disposal methods in order to reduce the amount of pollution in the waste water prior to treatment.

Objective DA: Develop and deliver an awareness program for citizens related to the proper disposal of household products such as chemicals, grease, etc.

Goal E: Reduce Energy Consumption; Be proactive by partnering with individuals, community groups, business, industry, and other levels of government to reduce the amount of energy consumed.

Objective EA: Promote “greening” of new and existing city facilities.

Objective EB: Promote existing programs related to residential energy conservation

Goal F: Improve Sustainable Development Practices; Incorporate sustainable development practices in the design and redevelopment of neighborhoods, homes and businesses.

Objective FA: Explore and incorporate sustainable development practices in the design standards for new neighbourhoods.

Objective FB: Explore and promote sustainable redevelopment practices in existing neighbourhoods.

Goal G: Lead by Example, Promote Awareness and Measure Progress; Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.

Objective GA: Incorporate “green” into the City’s existing procurement policy.

Objective GB: Support community based environmental initiatives.

Objective GC: Assess, evaluate and report on the City’s environmental performance

Objective GD: Assess, evaluate and report on Municipal Employees’ environmental performance

Action Plan Legend

Goal	Goals are general statements of desired ends to be achieved over an unspecified period of time. Goals are more specific articulation of the strategic direction and will chart the direction for the ESP; they are not expected to be measurable.
Objective	Objectives are more specific statements of the general goals. Each objective is associated with a detailed action plan and is measurable.
Action	Typically, actions are quantifiable and time sensitive; they must be taken to achieve the objective.
Step	The individual tasks that need to be taken to aptly achieve the action. There can be multiple steps for each action.
Indicator	A measure used to assess the degree of success in meeting the proposed objectives. It is a single measurable feature.
Time Frame	Indication of the time period in which the step will be initiated: Short-term: within one to two years (ST) Medium-term: within two to five years (MT) Long-term: beyond five years (LT) Continuous: Ongoing (C)
Responsibility	Indicates the individual or group that will take the lead on implementing that specific step. It does not depict those individuals or groups that will be involved in carrying out the step.

Goal A: Improve Air Quality

Be proactive by partnering with individuals, community groups, industry, business and other levels of government to improve Brandon's air quality.

Objective AA: Establish a greenhouse gas baseline for the community.

Action	Steps	Indicators	Time Frame	Responsibility
<p>Compare community baseline related to greenhouse gas (GHG) emissions to 2013 levels.</p>	<ul style="list-style-type: none"> • Continue to implement the five milestone process performance-based model associated with the Federation of Canadian Municipalities' Partners for Climate Protection (PCP) program. PCP is based on the Cities for Climate Protection (CCP) campaign of a five milestone framework used to guide municipalities to reduce greenhouse gas emissions. The five milestones are: <ul style="list-style-type: none"> • Creating a GHG inventory and forecast; • Setting an emissions reductions target; • Develop a local action plan; • Implement the local action plan or a set of activities; and • Monitor progress & report results. 	<ul style="list-style-type: none"> • Measure 2013 GHG • Established target • Adjusted Plan 	<p>MT</p>	<ul style="list-style-type: none"> • Environmental Initiatives Manager • Council • Environmental Initiatives Manager

Goal A: Improve Air Quality				
Be proactive by partnering with individuals, community groups, industry, business and other levels of government to improve Brandon's air quality.				
Objective AB: Reduce emissions discharged from City operations and vehicles.				
Action	Steps	Indicators	Time Frame	Responsibility
Reduce air pollution caused by City activities.	<ul style="list-style-type: none"> Continue to implement the schedule for replacing the City's fleet with vehicles and equipment that is less harmful to the environment taking into consideration the life cycle cost of the equipment. 	<ul style="list-style-type: none"> Replacement schedule 	C	<ul style="list-style-type: none"> Fleet Services
	<ul style="list-style-type: none"> Explore the use of automatic shutoff technologies on all new vehicle purchases. 	<ul style="list-style-type: none"> Report 	C	<ul style="list-style-type: none"> Fleet Services
	<ul style="list-style-type: none"> Suggest the use of proven technologies (vetted through the Environmental Technology Verification (ETV Canada) program. 	<ul style="list-style-type: none"> Approved technologies 	C	<ul style="list-style-type: none"> Fleet Services
	<ul style="list-style-type: none"> Continue to implement and monitor the progress of the City's anti-idling program. 	<ul style="list-style-type: none"> Department measures 	ST	<ul style="list-style-type: none"> Environmental Initiatives Manager
Encourage staff to lead by example in reducing GHG emissions.	<ul style="list-style-type: none"> Implement a plan that encourages city staff to use public or alternative transportation to travel to and 	<ul style="list-style-type: none"> Formal approved program 	ST	<ul style="list-style-type: none"> Environmental Initiatives Manager

	from work.			
Continue to explore alternatives related to methane gas utilization at the Eastview Landfill site.	<ul style="list-style-type: none"> Continue to explore end use for methane gas 	<ul style="list-style-type: none"> Implemented end use 	MT	<ul style="list-style-type: none"> Environmental Initiatives Manager

Goal A: Improve Air Quality				
Be proactive by partnering with individuals, community groups, industry, business and other levels of government to improve Brandon's air quality.				
Objective AC: Reduce the amount of greenhouse gases generated in the community as a result of vehicle use.				
Action	Steps	Indicators	Time Frame	Responsibility
Continue to engage other levels of government for funding of alternative transportation sources.	<ul style="list-style-type: none"> Continue to push the other levels of government to increase funding for transit and to fund active transportation infrastructure development for biking and walk paths. 	<ul style="list-style-type: none"> # of formal requests Amount of financial assistance received 	MT	<ul style="list-style-type: none"> Mayor and Council
Engage the community to reduce single occupancy vehicle use	<ul style="list-style-type: none"> Work with organizations in the community to take part in the Commuter Challenge 	<ul style="list-style-type: none"> # of years of participation 	ST	<ul style="list-style-type: none"> Environmental Initiatives Manager
Maintain, develop and expand the network of safe bicycling and walking paths / corridors.	<ul style="list-style-type: none"> Implement the recommendations of the Greenspace Master Plan and the Recreation Facilities Master Plan pertaining to bicycle/walking paths. Identify and implement tools / signage to promote the use of the path network. 	<ul style="list-style-type: none"> Number of kilometers of bicycle and walking paths Number of people riding or walking 	C ST	<ul style="list-style-type: none"> Operations / Development Services Community Services Development Services
Develop and implement a corporate and community anti-idling program.	<ul style="list-style-type: none"> Expand the City's anti-idling program into the community and through other business and community groups. 	<ul style="list-style-type: none"> # of presentations 	MT	<ul style="list-style-type: none"> Environmental Initiatives Manager
Explore possibilities with new technology to	<ul style="list-style-type: none"> Work with the Province and City Departments to create flow of 	<ul style="list-style-type: none"> # of new technologies explored/implemented 	LT	<ul style="list-style-type: none"> Engineering Department

reduce less idling in traffic flow.	traffic by using new technology such as infrared sensors, cameras etc.)			<ul style="list-style-type: none">• Environmental Initiatives Manager
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Goal B: Reduce Land Contamination

Be proactive by partnering with Community Groups, Industry, and other levels of Government to understand and limit the means by which land becomes contaminated.

Objective BA: Expand the education and awareness of recycling and solid waste diversion.

Action	Steps	Indicators	Time Frame	Responsibility
<p>Increase the amount of recyclable material collected on-site at all City facilities by 10% by the end of 2018.</p>	<ul style="list-style-type: none"> • Conduct a solid waste audit on all City facilities. • Inform and educate staff on the results of the audit and of the benefits of recycling – seek feedback on recycling barriers. • Identify and purchase appropriate recycling containers to support the program • Develop a social marketing campaign to be piloted with City employees related to workplace recycling. • Establish periodic measurement system. • Develop ongoing monitoring report / corrective action plan format • Implement and support 	<ul style="list-style-type: none"> • Completed waste audit • Staff presentations • Number of containers • Workplace campaign • Measurement system • Reporting format • Program 	<p>ST</p> <p>ST</p> <p>ST</p> <p>ST</p> <p>ST</p> <p>ST</p> <p>ST</p>	<ul style="list-style-type: none"> • Sanitation • Environmental Initiatives Manager • Environmental Initiatives Manager • Environmental Initiatives Manager • Environmental Initiatives Manager • Environmental Initiatives Manager • Environmental

	recycling program			<p>Initiatives Manager</p> <ul style="list-style-type: none"> • Management
Continue to reduce paper usage within City operation by 5% by the end of 2018.	<ul style="list-style-type: none"> • Develop and implement a paper reduction plan by: • Soliciting creative ideas for paper reduction • Promoting two-sided copying • Promote electronic document management TRIM • Compare the amount of paper used on an annual basis • Communicate the plan to the organization. • Track progress. 	<ul style="list-style-type: none"> • Team report • Communicated paper reduction plan 	<p>MT</p> <p>MT</p>	<ul style="list-style-type: none"> • Environmental Initiatives Manager • All Departments
Support the implementation of the Solid Waste Diversion plan in order to increase the amount of recycling in the community.	<ul style="list-style-type: none"> • Implement the recommendations contained in the Council approved plan. 	<ul style="list-style-type: none"> • Diversion levels 	ST/LT	<ul style="list-style-type: none"> • Sanitation
Support the implementation of the Green Cart Collection Program	<ul style="list-style-type: none"> • Implement the Green Cart Program • Communicate to residents the benefit of the program. 	<ul style="list-style-type: none"> • # of participating households • # of tonnes of organics collected 	MT	<ul style="list-style-type: none"> • Sanitation
Increase the specialty	<ul style="list-style-type: none"> • Continue to push the other 	<ul style="list-style-type: none"> • # of formal requests 	MT	<ul style="list-style-type: none"> • Mayor and

<p>programs related to waste diversion such as Hazardous Waste and construction materials</p>	<p>levels of government to increase funding for specialty programs related to waste diversion.</p> <ul style="list-style-type: none"> • Implement a full time drop off depot at Eastview Landfill • Partner with stewardship programs to increase the waste diversion 	<ul style="list-style-type: none"> • Amount of assistance received • Site installed • # of specialty programs • # of partnerships 	<p>MT</p>	<p>Council</p> <ul style="list-style-type: none"> • Sanitation • Sanitation • Sanitation
<p>Start an organics collection program within City Facilities</p>	<ul style="list-style-type: none"> • Implement organics collection program with in city facilities 	<ul style="list-style-type: none"> • Amount of organics being diverted from the landfill 	<p>MT</p>	<ul style="list-style-type: none"> • Environmental Initiatives Manager • All Departments

Goal B: Reduce Land Contamination Be proactive by partnering with Community Groups, Industry, and other levels of Government to understand and limit the means by which land becomes contaminated.				
Objective BB: Expand the use of Natural Areas in the community.				
Action	Steps	Indicators	Time Frame	Responsibility
Rehabilitate and naturalize derelict and underutilized lands in the community.	<ul style="list-style-type: none"> • Support the implementations of the Greenspace Master Plan, the Recreation Facilities Master Plan and the Riverbank Master Plan. • Investigate and develop a Brownfield redevelopment guideline and incentive strategy. • Develop a Protected Spaces Network to convert some manicure areas back into natural areas in the community. 	<ul style="list-style-type: none"> • Plan implementation • Brownfield redevelopment strategy • Naturalization plan 	LT ST LT	<ul style="list-style-type: none"> • Operation / Development Services • Development Services • Environmental Initiatives Manager • All Departments as appropriate and applicable organizations in the community

<p>Continue to expand and maintain a healthy green canopy in the community.</p>	<ul style="list-style-type: none"> • Establish a plan to ensure that the tree baseline is maintained and / or expanded baseline as a result of loss / life cycle / damage. • Work with the Province to prepare for potential attack of new invasive forest species • Support the implementation of a fruit orchard in the community 	<ul style="list-style-type: none"> • Replacement plan • # of forestry programs the City participates in. • # of fruit trees planted 	<p>MT</p> <p>LT</p> <p>LT</p>	<ul style="list-style-type: none"> • Operation Services • Community Services Dept. • Community Services Dept., ACC
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Goal C: Reduce the Consumption of Treated Water Be proactive by partnering with individuals, community groups, business and industry to reduce the quantity of treated water consumed in the community.				
Objective CA: Reduce the amount of treated water consumed from City operations.				
Action	Steps	Indicators	Time Frame	Responsibility
Reduce the amount of water used in City facilities by 10% every 10 years as per the City's Water Conservation Plan	<ul style="list-style-type: none"> Establish and publish a water consumption baseline for each City owned facility. Conduct a "water use" audit of each facility and develop recommendations to reduce use. Budget and implement the recommendations of the audit. Install rain water collection devices/systems 	<ul style="list-style-type: none"> Baseline by facility Completed audit Lower water consumed # of rain water collection devices/systems installed 	MT	<ul style="list-style-type: none"> Environmental Initiatives Manager Environmental Initiatives Manager
			MT	<ul style="list-style-type: none"> All Departments Water Conservation Committee
Repair all frozen water services by 2020.	<ul style="list-style-type: none"> Develop a plan and budget to repair all outstanding frozen water services. Provide an annual status on plan progress. 	<ul style="list-style-type: none"> Frozen Water Service Plan Annual report 	LT	<ul style="list-style-type: none"> Utility – distribution Utility - distribution

Goal D: Reduce the Pollution Levels in Waste Water prior to Treatment Educate citizens around proper disposal methods in order to reduce the amount of pollution in the waste water prior to treatment.				
Objective DA: Develop and deliver an awareness program for citizens related to the proper disposal of household products such as chemicals, grease, etc.				
Action	Steps	Indicators	Time Frame	Responsibility
Reduce the pre-treated pollution levels of waste water.	<ul style="list-style-type: none"> Publish section on environment website on the proper disposal of chemicals (paints, etc.) other than down the drain. Develop a list of environmentally friendly chemicals, cleaning solutions. Develop a public campaign to promote proper disposal and alternative chemicals. 	<ul style="list-style-type: none"> Brochure Alternative List Launched campaign 	MT	<ul style="list-style-type: none"> Environmental Initiatives Manager Environmental Initiatives Manager Environmental Initiatives Manager

Goal E: Reduce Energy Consumption				
Be proactive by partnering with individuals, community groups, business, industry, and other levels of government to reduce the amount of energy consumed.				
Objective EA: Promote “greening” of new and existing city facilities.				
Action	Steps	Indicators	Time Frame	Responsibility
Incorporate / give consideration to “green” technology on all significantly renovated municipal buildings.	<ul style="list-style-type: none"> • Develop a list of “green” technology that should be considered in a building renovation. • Develop a “green” technology justification process to ensure that consideration has been given at the time of project planning. • Develop education material about LEED for staff, contractors and City Council. 	<ul style="list-style-type: none"> • Green technology guideline • Green technology justification process • LEED information 	MT MT ST	<ul style="list-style-type: none"> • Development Services • Environmental Initiatives Manager • Environmental Initiatives Manager
Promote adaptive reuse of buildings.	<ul style="list-style-type: none"> • Develop a municipal policy to reuse existing buildings and materials. 	<ul style="list-style-type: none"> • Policy 	MT	<ul style="list-style-type: none"> • Environmental Initiatives Manager
Reduce the amount of energy used in municipal buildings by 15% by 2020	<ul style="list-style-type: none"> • Establish baseline electrical and natural gas numbers for the entire organization. • Establish a cross functional team to brainstorm usage reducing options. • Develop communication plan to encourage staff to participate in reducing energy consumption. • Implement equipment / system retrofits identified in the Municipal Building Energy Audit. 	<ul style="list-style-type: none"> • Natural gas and electricity baselines • Usage reducing option list • Communication plan • Implemented plan 	ST ST ST LT	<ul style="list-style-type: none"> • Environmental Initiatives Manager • Environmental Initiatives Manager • All Departments • Municipal building operators

Goal E: Reduce Energy Consumption				
Be proactive by partnering with individuals, community groups, business, industry, and other levels of government to reduce the amount of energy consumed.				
Objective EB: Promote existing programs related to residential energy conservation.				
Action	Steps	Indicators	Time Frame	Responsibility
Continue to work with Manitoba Hydro to continue to promote their residential energy conservation programs.	<ul style="list-style-type: none"> Meet with Manitoba Hydro representative to discuss options on how the City of Brandon could promote programs. 	<ul style="list-style-type: none"> Promotion program 	ST	<ul style="list-style-type: none"> Environmental Initiatives Manager

Goal F: Improve Sustainable Development Practices; Incorporate sustainable development practices in the design and redevelopment of neighborhoods, homes and businesses.				
Objective FA: Explore and incorporate sustainable development practices in the design standards for new neighbourhoods.				
Action	Steps	Indicators	Time Frame	Responsibility
Consideration be given to include water retention facilities when planning and constructing new developments	<ul style="list-style-type: none"> Continue to promote and construct Water Retention Facilities in new developments. These facilities store runoff and release it slowly after the storm subsides. 	<ul style="list-style-type: none"> Number of retention facilities in place Water quality entering the Assiniboine River 	LT	<ul style="list-style-type: none"> Development Services
Encourage the construction of energy efficient homes and businesses in Brandon (i.e. LEED, Energy Star).	<ul style="list-style-type: none"> Create an educational campaign to residents and builders about the environmental and financial benefits of energy efficient homes and businesses. 	<ul style="list-style-type: none"> Education campaign Number of energy efficient homes and businesses 	C C	<ul style="list-style-type: none"> Environmental Initiatives Manager
Increase the number of sustainable design features in the development of neighbourhoods, homes and businesses	<ul style="list-style-type: none"> City Planning and Building Department (CPBD) to develop a booklet outlining the benefits of and the sustainability options available to homeowners and businesses. The guide may include considerations for: <ul style="list-style-type: none"> green roofs landscape regulations housing orientation Insulation parking windows 	<ul style="list-style-type: none"> Booklet Number of building permits issued to sustainable build 	MT C	<ul style="list-style-type: none"> Development Services

	<ul style="list-style-type: none"> ○ temperature control features ○ alternative energy sources ● Identify and make available applications for provincial and federal programs for funding ● Incorporate sustainable design policies within BAPD development plan and Secondary Plans. 	<ul style="list-style-type: none"> ● Funding information ● Percentage of greenspace within new neighbourhoods. ● Net density of new neighbourhoods. 	ST	<ul style="list-style-type: none"> ● Environmental Initiatives Manager
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Goal F: Improve Sustainable Development Practices; Incorporate sustainable development practices in the design and redevelopment of neighborhoods, homes and businesses.				
Objective FB: Explore and promote sustainable redevelopment practices in existing neighbourhoods.				
Action	Steps	Indicators	Time Frame	Responsibility
Encourage in-fill in established community areas	<ul style="list-style-type: none"> • Develop a plan on how to promote the reuse of buildings or land as they have infrastructure, such as sewer, water, streets, schools, transit, already in place. • Support opportunities that provide alternatives to driving in established communities (transit, walking, bicycling) such as no drive zones. • Design commercial and residential land use to encourage residents to consider public transit. • Continue the implementation of community improvement plans such as the Renaissance District tax incentives to encourage investment in the downtown core. 	<ul style="list-style-type: none"> • Plan • Number of no drive zones • Ridership • Number of businesses taking advantage of the Renaissance District opportunities 	<p>C</p> <p>LT</p> <p>LT</p>	<ul style="list-style-type: none"> • Development Services • Development Services • Transit / Development Services • Development Services
Increase infill development.	<ul style="list-style-type: none"> • Implement & support the recommendations contained in the Council approved plan. 	<ul style="list-style-type: none"> • Infill housing 	ST/LT	<ul style="list-style-type: none"> • Economic Development

Goal G: Lead by Example, Promote Awareness and Measure Progress Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.				
Objective GA: Incorporate “green” into the City’s existing procurement policy.				
Action	Steps	Indicators	Time Frame	Responsibility
Develop and adopt a Green Procurement purchasing policy by 2015	<ul style="list-style-type: none"> • Revise and publish purchasing policy to incorporate wording related to “green” alternatives being given priority in cases where minimal cost difference is present. 	<ul style="list-style-type: none"> • Revised policy 	MT	<ul style="list-style-type: none"> • Purchasing
	<ul style="list-style-type: none"> • Develop a list of “green” attributes of suppliers, contractors and products for inclusion in the policy. 	<ul style="list-style-type: none"> • Attribute list 	MT	<ul style="list-style-type: none"> • Environmental Initiatives Manager
	<ul style="list-style-type: none"> • Develop a cost benefit analysis process to evaluate environmentally friendly alternatives. 	<ul style="list-style-type: none"> • Process 	MT	<ul style="list-style-type: none"> • Purchasing
	<ul style="list-style-type: none"> • Inform suppliers and contractors about the change in the City’s policy. 	<ul style="list-style-type: none"> • Informed suppliers 	MT	<ul style="list-style-type: none"> • Purchasing

Goal G: Lead by Example, Promote Awareness and Measure Progress				
Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.				
Objective GB: Support community based environmental initiatives.				
Action	Steps	Indicators	Time Frame	Responsibility
Continue to provide support for environmentally friendly initiatives.	<ul style="list-style-type: none"> Support and promote environmental initiatives within the community update funding guideline related to financial support (seed funds) for initiatives in the community Participate in organizations, committees, groups relative to environmental initiatives locally, regional, provincially and federally Develop an annual report outlining community participation. 	<ul style="list-style-type: none"> Funding Guideline Amount of funds dispersed Number of initiatives in the community Annual report 	<p>ST</p> <p>ST</p> <p>C</p> <p>C</p>	<ul style="list-style-type: none"> Environmental Initiatives Manager All Departments (as appropriate) Environmental Initiatives Manager
Continue to engage the business community in environmental initiatives	<ul style="list-style-type: none"> Partner with the Chamber of Commerce. Continue to foster relationships with the business community 	<ul style="list-style-type: none"> # of initiatives with the business community 	C	<ul style="list-style-type: none"> Environmental Initiatives Manager
Continue to build on tidiness programs	<ul style="list-style-type: none"> Research other communities on their litter clean-up programs. Implement a Corporate adopt-a-block program. Continue to work organizations in the community for Community clean-up programs. 	<ul style="list-style-type: none"> Implement program # of blocks adopted 	MT	<ul style="list-style-type: none"> Environmental Initiatives Manager

Goal G: Lead by Example, Promote Awareness and Measure Progress				
Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.				
Objective GC: Assess, evaluate and report on the City's environmental performance.				
Action	Steps	Indicators	Time Frame	Responsibility
Provide an annual report to Council and the community on progress to this plan.	<ul style="list-style-type: none"> Completed annual report. 	<ul style="list-style-type: none"> Annual report 	C	<ul style="list-style-type: none"> Environmental Initiatives Manager
Continue to update environment website to incorporate all environmental information.	<ul style="list-style-type: none"> Ensure that all information developed as a result of this plan is accessible on the Brandon environment website www.brandonenvironment.ca 	<ul style="list-style-type: none"> Updated website # of hits on an annual basis 	C	<ul style="list-style-type: none"> Environmental Initiatives Manager

Goal G: Lead by Example, Promote Awareness and Measure Progress				
Foster and engage the City employees to understand their impact on the environment and provide ongoing communication on progress in reaching goals.				
Objective GD: Assess, evaluate and report on municipal employees' environmental performance.				
Action	Steps	Indicators	Time Frame	Responsibility
Provide an annual report to Council and the community on progress to this plan.	<ul style="list-style-type: none"> Completed annual report. 	<ul style="list-style-type: none"> Annual report 	C	<ul style="list-style-type: none"> Environmental Initiatives Manager
Develop a Green Team made up of representatives from City Departments	<ul style="list-style-type: none"> Develop a municipal engagement strategy for environmental practices on the job 	<ul style="list-style-type: none"> Established internal green team # internal engagement initiatives carried out 	ST	<ul style="list-style-type: none"> Environmental Initiatives Manager

Implementation

A plan is only as good as its implementation. Many of the actions include the involvement of various departments in the City in some way or another. There are three elements that will be critical to the ongoing implementation of this plan: funding, management and reporting.

The Environmental Strategic Plan is situated in the City's administrative structure in the Operations Services Division. Answering to the General Manager of Operational Services, the Environmental Initiatives Manager will continue to work hand in hand with all departments on environmental issues. As a number of the current initiatives that are underway are located in this section it will provide continued momentum to move forward on the ESP. The Environmental Initiatives Manager will;

- Be a "champion" to generate awareness and continue to build momentum throughout the implementation of the ESP.
- Be responsible for follow-up as well as the various responsibilities inherent to this type of position such monitoring, liaison, tracking, etc. Administrative support will come from existing staffing located within the Operational Services Division.
- Continue to be funded through existing budgets at the Operational Services.
- Act intra-departmentally, and coordinate the various activities of a number of areas as required.
- Communicate the ESP to City Council, administration, staff and the community.
- Be responsible for the overall plan and will compile a report on an annual basis.

In addition, communication and partnerships with community groups, industry, schools and residents will also be vital. Brandon is a diverse community and the outreach strategies will need to reach all segments of the population. As the ESP is a living document and will change as priorities are identified, updates will be given to the corporation and the community as they arise. Milestones of identified objectives will be celebrated along with any new initiatives that are added to the Plan.

Funding

Many of the activities proposed in the action plan will be conducted by leveraging existing resources within current operating budgets. Other initiatives are likely to require additional financial or human resources. These will be identified through both the annual and long term operating and capital budgets of the City of Brandon.

It is expected that other sources of funding will be available for many of the environmental initiatives proposed in the action plans through federal, provincial programs and other funding agencies. As the City explores incentives for responsible environmental management within the Corporation, opportunities for some cost recovery will be identified and will act as leverage to

continue to expand programs. Improving the City's environmental performance will, at times, may require a large initial outlay of funds, but over the long terms the savings will generally offset these expenditures.

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Appendix A

Glossary and List of Acronyms

Term	Explanation
ACC	Assiniboine Community College. Local community college in Brandon.
Action	Time-sensitive and quantifiable items that must be undertaken to achieve the objective.
Action Plan	The overall plan to achieve specific objectives. Answers the “What”, “When” and “Who” questions associated with the ESP. Indicators can be measured through monitoring and tracking.
AHCD	Assiniboine Hills Conservation District.
BEC	Brandon Environment Committee -An unofficial arm’s length committee of City Council. Acts as an advisory committee for the community comprised of several individuals representing the community at large, and local industries, businesses and institutions.
Brandon Transit Operating Strategy	An overall strategy that directs the activities of Brandon Transit
Brownfields	Lands on which industrial or commercial activity took place in the past and that may need to be remediated before they can be used for alternative purposes.
CCP	Cities for Climate Protection: An international partnership of over 650 communities and Governments committed to reducing greenhouse gases and acting on climate change.
CD	Conservation District: A Conservation District (CD) is a group of neighboring rural municipalities(RMs) working in partnership with the Province of Manitoba to develop programs to effectively manage the natural resources of their area including water.
CO	Carbon Monoxide: a toxic air pollutant
CO ₂	Carbon Dioxide: a non-toxic greenhouse gas
Corporation	Refers to the City of Brandon as a business
Electronic Waste	Items such as cellular phones, monitors, CPUs and hard drives, laptops, keyboards, printers, scanners, copiers, fax machines, rechargeable batteries and microwaves that are at the end of their life cycle.
ESP	Environmental Strategic Plan: A guiding document for the City of Brandon in regards to environmental issues. This ESP focuses on actions the city can take to protect and improve its environment over the short and long term.

Term	Explanation
Goals	General statements of desired ends to be achieved over an unspecified period of time. A specific expression of the strategic direction for the ESP. This is not expected to be measurable.
GHG	Greenhouse Gas Emissions: Greenhouse gases (GHG's) are gases in the atmosphere that trap energy from the sun. GHG's include carbon dioxide, methane and nitrous oxide. Increase GHG emissions are said to be leading to climate change.
Greenspace	A network of natural environment and recreation elements including neighbourhood parks, playgrounds, recreation facilities and other green infrastructure in the community.
GMP	Greenspace Master Plan: Establishes a vision for the development and care of greenspaces in the city spanning over 10 years. The plan was implemented in 2002.
Green Manitoba	Green Manitoba is a new branch within the provincial government and is dedicated to achieving goals outlined in the government's Green and Growing publication including programs to foster environmental innovation and community development.
HHW	Household Hazardous Waste consists of materials such as paints and solvents, motor oil, wet and dry cell batteries, household cleaners and detergents that is harmful to the landfill.
IPM	Integrated Pest Management Plan: establishes a formal guide for pest control in the community.
LED	Light Emitting Diodes: A long lasting electronic device that emits visible or infrared light when current passes through it.
LEED	Leadership in Energy and Environmental Design is a certification given to building projects that have demonstrated a commitment to meeting higher performance standards in environmental responsibility and energy efficiency ³
MARCD	Mid Assiniboine River Conservation District
Methane Gas	Is a greenhouse gas 21 times more harmful to the environment than CO ² and is present at the Brandon Landfill. A feasibility study is underway to determine how this can be harvested.

Term	Explanation
MRF	Material Recovery Facility is a state of the art recycling centre located on sight at the Brandon Landfill
Natural Areas	Areas that have ecological and environmental significance that have been undisturbed.
NRCan	Natural Resources Canada
Objectives	Specific statements of the general goals. Each objective is associated with an action plan.
PCP	Partners for Climate Protection: a network of more than 148 Canadian municipalities who have committed to reducing greenhouse gases and acting on climate change.
Recreation Facilities Master Plan (RFMP)	In conjunction with the Greenspace Master Plan (GMP) the Recreation Facilities Master Plan defines physical facilities to be “programmed “ by service groups, individuals, private industry, or the City as required to ensure that recreation needs are met in the community.
SDIF	Sustainable Development Innovation Fund is a Provincial program that funds innovative projects.
Shaping Tomorrow Together	City of Brandon’s Community Strategic Plan that outlines what the community has said what they want as a community focusing on nine focus statements.
Timeframe	Indication of the time period in which a step will be initiated or completed.
WRAPP	Waste Reduction and Pollution Prevention fund is a program of the Provincial Government that supported waste reduction and pollution prevention. This program has been eliminated but the Methane Gas Recovery Project continues to receive funding.

Appendix B

Environmental Initiatives Annual Reports 2008-2012

Environmental Strategic Plan Annual Report

The Environmental Strategic Plan (ESP) that was presented to, and approved by, City Council in October of 2007 required that a report of the plan's progress be provided to City Council and the community annually. This report will identify the actions taken to date, and timelines for completion of outstanding initiatives.

Please note that with the assistance of Brandon's Environment Committee, chaired by Councillor Doug Paterson, the ESP is moving ahead, however there are still many environmental concerns in the community and the corporation which need to be addressed.

Goal A: *Improve Air Quality-Be proactive by partnering with individuals, community groups, industry, business and other levels of government to improve Brandon's air quality.*

1. As participants in the Federation of Canadian Municipalities "Partners for Climate Protection", we are required to conduct a Greenhouse Gas Inventory. In May 2008, a greenhouse gas (GHG) inventory and forecast was started for both the community and the City of Brandon as a corporation. This project was funded by Green Manitoba, an arm of: the provincial government. The year 2003 has been used for the initial baseline inventory which has been sent to the Federation of Canadian Municipalities for certification. The Committee is awaiting its return. Once certified, it will be presented to City Council for approval. The inventory includes a forecast for the community and the corporation that projects three GHG's levels 10 years out. The first projection is Business as Usual (BAU), which refers to doing nothing to fight GHG levels while the population continues to grow. The second forecast is if a 10% reduction in GHG levels was realized through an education process and the implementation of easy reduction projects. The third level of the forecast was based on creating an optimal program where GHG levels were actively fought on a daily basis resulting in a 20% reduction.

2. Through the Methane Gas Project at the Eastview Landfill Site, the Committee is actively investigating a potential reduction of GHG levels while seeking a new revenue stream by harvesting the very harmful GHG, methane gas.

3. New Transit buses are now being used which produce fewer emissions and are more efficient.

4. Seven hybrid vehicles are now part of the city fleet of vehicles.

5. City staff continues to be educated on the cost and harmful effects of unnecessarily idling vehicles.
6. Signage has been installed at all Municipal and Brandon School Division buildings advising the public those healthy communities don't idle.
7. Consideration is given to rightsizing vehicles when they are being replaced.
8. A Bio-Fuel Processor Plant is being installed at the Eastview Landfill site which will process used cooking oil to fuel Transit buses.
9. Through Brandon Transit, educational and promotional material continues to result in reduced dependence on automobiles and increased ridership.
10. Discussions are underway to partner with Brandon Neighbourhood Renewal Corporation in the development of a cross town link bike path. There is currently 40+ kilometers of walkway bike paths in the City of Brandon.

Goal B: Reduce Land Contamination-Be proactive by partnering with Community Groups, industry, and other levels of government to understand and limit the means by which land becomes contaminated.

1. With the implementation of the new refuse collection system, it is anticipated there will be a large increase in the amount of recyclables that are recovered at the Eastview Landfill Site.
2. The City of Brandon, in cooperation with the Rotary Club of Brandon, holds two Household Hazardous Waste Days to which the public delivers their Household Hazardous Waste disposed of properly. This diverts a large amount of harmful waste from going to the landfill.
3. City Council continues to receive paperless agendas and related material for meetings. In addition, a tracking system is planned for 2009, which will identify the amount of paper being used throughout the civic departments with a goal to reduce this amount by 5% in the following year. Achievement of this goal will be possible through the implementation of a two sided printing policy on all City of Brandon printers and promoting the increased use of Dom Doc (an electronic file recovery system already in place).
4. Green Manitoba and the City of Brandon continue to provide an Electronic Roundup of used electronic devices for proper disposal.
5. A presentation was made to City Council regarding the harmful effects of plastic shopping bags on the environment. Civic administration and provincial government representatives are currently discussing the potential recovery and recycling of one time use shopping bags, beverage containers, tires and other items.

6. In 2010, a plan will be developed to convert some manicured areas back into natural areas within the community. In partnership with other levels of government, civic administration will continue to implement the Greenspace Master Plan, the Recreation Facilities Master Plan and the Riverbank Master Plan. The Committee will continue to support the rehabilitation of contaminated sites such as 1st Street and Pacific Avenue.

7. A tree audit has been completed by the Parks Section of Community Services. This will enable staff to track tree losses due to damage and life cycling, and implement a replacement program as required.

Goal C: Reduce the Consumption of Treated Water- Be proactive by partnering with individuals, community groups, business, and industry to reduce the quality of treated water consumed in the community.

1. Working in conjunction with the Water Meter Section of Public Works, a plan has been developed to identify the number of residences involved in a program to leave domestic water running. The purpose of the program is to ensure that the service does not freeze in winter as a result of insufficient water line depth. The plan includes an inventory of all locations and timelines for replacement of the lines.

2. Each city facility will be given a report in 2009 detailing the volume of domestic water used over the last 5 years, and a challenge will be issued to reduce consumption by 10% on average.

3. The Building Maintenance Section has replaced a number of conventional toilets with low flush toilets in facilities where replacement has been feasible. This will continue to happen as replacements are required due to breakage or malfunction.

4. The Treasury Section of Corporate Services has received approval from The Public Utilities Board (PUB) for a new water rate structure.

5. The Committee is promoting the reduction of treated water consumption in the community through public workshops and a media campaign to target water efficiency in gardening, low flow shower heads and toilets, front loading washer and other. This began in 2008 and will increase up to 2013.

6. In 2010, large domestic water users in the community will be identified and approached to discuss possibilities of reducing the level of domestic water used.

7. From 2008 to 2010, Development Services will be assisting in reviewing the benefits of joining the Little Saskatchewan River Conservation District (LSRCD). The LSRCD covers 1,633 square miles and includes areas upstream of Brandon.

8. In 2008, the Recreation Hub #1 located at 3rd and Aberdeen Ave. incorporated a spray park that will recirculate the water after being filtered and treated. This will reduce water consumption through water reuse.

Goal D: Reduce the pollution levels in waste water prior to treatment- educate citizens around the proper disposal methods in order to reduce the amount of pollution in the waste water prior to treatment.

1. Proper disposal methods will be encouraged through an education campaign to promote the Household Hazardous Waste Days and the benefits to the community of properly disposing of hazardous waste. A brochure has been developed called "Brandon's Green Brochure" which focuses on smart ways to save money and the environment. These brochures are distributed to new Brandonites when they move into the city through the Economic Development Office and through distribution at shopping malls, postings on bulletin boards and as handouts.

2. Another booklet being developed is called "Sustainability at Home, A Toolkit", This booklet is designed to assist homeowners on making everyday decisions when purchasing items or services for the home. The booklet will be completed and distributed in 2009.

3. Following completion of the Bio-Fuel Processor at the Eastview Landfill Site in 2009, a campaign will commence to encourage residents to drop off their used cooking oil at selected sites around the city. The residential used cooking oil will be collected, along with restaurant used oil, and processed for fuel rather than taken to the landfill or worse, poured down the sewer drains along with other chemicals.

Goal E: Reduce Energy Consumption- Be proactive by partnering with individuals, community groups, business, and industry and other levels of government to reduce the amount of energy consumed.

1. In 2007, an Energy Audit of 11 municipal buildings was completed. The recommendations from this audit were forwarded to the people responsible for each of the buildings. Upgrades were completed where existing budgets could absorb the costs. For those projects requiring substantial investment, it was suggested that operators use the Capital Budget process to have the project approved and funded. Tied in with the Greenhouse Gas inventory, the goal is to reduce energy consumption in municipal buildings by 15% by 2013.

2. Representatives from Green Building Canada met with representatives from the Fire Department and Police Service to discuss the benefits of a "Green Building" for consideration in the planning stages of the new fire hall and renovated police station. Important aspects of a "Green Building" are the life cycle of the building, the long term financial benefits, and how it will benefit the employees working in the facility.

3. By 2010, a municipal policy will be presented for consideration that promotes adaptive reuse of municipal buildings. The goal will be to use the "old fire hall" as a case study for wording the policy and subsequently, implementing that wording for future venues.

4. All decorative lighting has been converted to either Light Emitting Diode (LED) or Compact Fluorescent Lighting (CFL) in the City of Brandon. In cooperation with Manitoba Hydro and Operational Services, decorative lighting on city streets and at the Waterfall of Lights park are all LED lights and the decorative street lamps downtown have been switched over to CFL. Approximately 80% of City of Brandon Traffic Signals have been converted to LED, which has been partially funded by Manitoba. It is expected that the conversion will be completed by the end of 2009.

5. For the second year, Environmental Green Pages will be in "The Telephone Book Company" pages. Manitoba Hydro, Assiniboine Community College, and the City of Brandon will be co-sponsoring these pages which highlight environmental considerations to the public.

6. Work continues with industries such as Manitoba Hydro, automobile manufacturers and others to promote energy conservation and the use of hybrid vehicles through events such as Earth Day and various conferences.

Goal F: Improve Sustainable Development Practices-Incorporate sustainable development practices in the design and redevelopment of neighbourhoods, homes, and businesses.

1. Over the next few years as new neighbourhoods are developed and the city grows, consideration will be given to include water retention facilities such as ponds in the planning process. Development Services has been considering this and will implement such strategies where they will be beneficial. The intent is for water retention facilities to act as settling ponds which should eliminate some of the sand and salt making its way to the river.

2. A proposal will be forwarded to City Council in 2009, recommending the reduction of development charges for construction of energy efficient homes and businesses in the community. The Environment Coordinator will be meeting with Development Services, developers, planners and business owners. The Brandon Environment Committee initiated a Green Building Award program in 2008 which recognizes businesses and groups that make a conscientious effort in implementing environmental stewardship. In 2008, the awards went to Kelleher Ford and the Brandon Energy Efficiency Program (BEEP).

3. As stated earlier, a booklet for homeowners is being developed to assist in making environmental decision making easier when either building a new or renovated home. This booklet "Sustainability at Home, A Toolkit" will be available in 2009.

4. It is intended to meet with Development Services of the City of Brandon to develop a plan by 2011, designed to encourage in-fill in established community areas. This plan will promote the reuse of buildings or land that is already serviced with infrastructure such as water, sewer,

.streets, schools, and transit. Tied in with the plan will be alternative modes of safe transportation such as walkways bike paths, and transit with a goal to lessening motorized transportation. Neighbourhoods could possibly be designed to encourage walking or convenient public transportation. The plan will possibly have a continuation of a community improvement plan such as the Renaissance District tax incentive to encourage more affordable housing in Brandon as outlined in the City Council approved plan.

Goal G: Lead by Example, Promote Awareness and Measure Progress- Foster and engage the community to understand their impact on the environment and provide ongoing communication on the progress in reaching goals.

1. The Purchasing Section of the City of Brandon and the Environmental Coordinator are working on a "Green Procurement Policy" for the City. The policy will eventually include wording for consideration of procuring "green" alternatives when purchasing items, provided that the cost difference is minimal. A cost benefit analysis process to evaluate environmentally friendly alternatives will be included in the policy. An education process to inform suppliers and contractors about the considerations will be an important inclusion. The policy is scheduled to be implemented in 2010.

2. With cooperation from the Brandon Environment Committee, there will be a program launched in early 2009 that will encourage small environmental projects to take place in the community. There will be four projects considered for implementation with each to receive \$250.00 in financial support. These projects are obviously small in nature and the administration of the funds will be overseen by the Brandon Environment Committee and expended from the existing budget.

3. In accordance with the ESP, and in addition to this annual written report, the Environment Coordinator will provide a verbal report to the Brandon Environment Committee in May of each year. The written report will be posted on the City of Brandon website and will be available in hard copy to those requesting it.

Environmental Strategic Plan Update For 2009

The Environmental Strategic Plan (ESP) that was approved by Brandon City Council in November of 2007 has been making progress in reducing the Greenhouse Gases (GHG) in the community and at the same time engaging citizens to make a difference at the grass root level. There were five specific areas that the ESP focused on which are Air, Land, Water, Energy and Miscellaneous. This is the third yearly report card identifying the progress being made in the five areas

GOAL A: *Improve Air Quality - Be proactive by partnering with individuals, community groups, industry, businesses and other levels of government to improve Brandon's air quality.*

Objective AA: Establish a greenhouse gas baseline for the community.

The GHG inventory baseline was completed in 2008 and continues to be monitored and updated from the 2003 baseline. The City of Brandon has set a goal of a 20% reduction by 2013.

Objective AB: Reduce emissions discharged from City operations and vehicles.

The City of Brandon continues to upgrade its vehicle fleet by replacing older vehicles with more efficient vehicles. The City of Brandon currently has 9 hybrid vehicles and consideration will be given in the future when technology advances regarding electric vehicles. In 2010 Brandon Transit will be replacing 11 buses that are significantly more efficient and less polluting than past units.

There are 11 City owned buildings that have had energy audits completed. Upgrades are taking place that were recommended in the audit. The Brandon Neighbourhood Renewal Corporation (BNRC) initiated a program called Brandon Energy Efficiency Program (BEEP) that will reduce energy costs by improving home insulation and water upgrades.

The methane gas project continues to move forward with a possible pipeline installation to move the GHG from the landfill site to a potential end user. As required by provincial legislation, this project is estimated to be in place by December 2010.

The bio-diesel project has had a minor setback as the bus that was converted to accept the 100% bio-diesel was taken out of service due to an accident and was not repairable. The bio-diesel processor has been located to the Eastview Landfill Site. The City of Brandon is working with the Province of Manitoba, Science, Technology, Energy and Mines to get the Department of Labour approval to operate the processor at its current location.

Objective AC: Reduce the amount of greenhouse gases generated in the community as a result of vehicle use.

The City of Brandon has installed signage at all the schools to create Idle Free Zones encouraging the public not to idle while waiting for pickup or drop-off of students. In addition, all City of Brandon

buildings have the signage in place. These signs have been offered to businesses, universities and colleges for their use.

Promotions to encourage the public to ride the bus, walk to work and to leave their vehicles at home, are ongoing in the community. '

The City of Brandon continues to work with the provincial and federal governments and receives transportation funding under the Federal Gas Tax program.

As stated in the Brandon Transit's Operating Strategy, the City of Brandon continues to work to reduce the dependence on vehicles. The strategy approved by council makes recommendations regarding the fare structure, routes, handy-transit and the transit fleet development.

The City of Brandon continues to develop and maintain the network of bicycling and walking trails throughout the community. In 2009, there was an expansion of the trail system by approximately 1.87 km throughout the city for a total of 52.15 km of pathways. The City of Brandon and the Brandon Neighbourhood Renewal Corporation (BNRC) is also looking at developing an east/west cross town linkage to further encourage biking and walking in a safe manner.

Objective BA: Expand the education and awareness of recycling and solid waste diversion.

With the recent implementation of the new collection bins and the public awareness to recycle, there has been an increase of 1080.61 tonnes of recyclables being collected in Brandon. As of October 2009, there was a total of 3191.15 tonnes collected which is up from the same time period in 2008 of 2110.54 tonnes. Some of this increase has been from businesses and contractors turning to recycling to keep their disposal costs down as there is an additional fee assessed for material going directly to the landfill and not being recycled.

All City of Brandon offices have been provided with recycle bins to encourage employees to recycle in their workplace. In 2010, there will be solid waste audits to measure the effectiveness of recycling in the workplace.

The City of Brandon has been tracking the overall paper usage within all departments. Over the past six years, this has decreased by approximately 18%. This decrease is due to a number of initiatives including double sided printing, city council paperless agenda's and a general awareness of reducing consumption.

The City of Brandon has been working with community groups to provide a bi-annual collection of household hazardous waste (HHW). The Rotary Club of Brandon and the local Air Cadets have provided the manpower to help collect the HHW. In 2009, over 897 vehicles participated in this project. Items collected included waste paints and aerosols, batteries, flammable liquids, pesticides, mercury, oil and filters, adhesives, fluorescent bulbs and more.

Objective BB: Expand the use of naturalization in the community.

The main area of focus of 2009 was the redevelopment of 1st Street and Pacific Avenue where the contaminated soil has been encapsulated as per the Remediation Action Plan approved by Manitoba Conservation. This area was covered with topsoil and sod, landscaped with trees and walk paths were constructed. This initiative was led by the Engineering Department and the Community Services Department (Parks Department), which ensured this project, was aesthetically pleasing for the community.

In 2009, the Parks Department planted approximately 200 new trees throughout the City. These trees were planted along various walk and bike paths and in some parks in the community. This number does not include the trees planted by developers as stated in their Development Agreement.

Earlier this year, Brandon City Council was given a presentation on the effects of plastic bags on the environment as information.

A community concern is the amount of sand and salt the City of Brandon applies to the roads during the winter months. Over the past several years, the amount of salt added to the sand has declined from 15% to approximately 3% with no significant adverse effect on the road conditions.

The Pesticide By-law was revisited by the committee with some adjustments made to the signage so that more information of the pesticide being applied could be included. Signs are to be placed on the property for at least 2 days after the application to give residents information on the pesticide product in the event of accidental overspray and/or contact with the product.

The Brandon Environment Committee has been looking into a procedure to properly dispose of florescent light bulbs. Currently, most florescent bulbs are being disposed in the landfill. These bulbs contain mercury, phosphorus and other materials that are dangerous to the groundwater.

GOAL C: Reduce the Consumption of Treated Water - Be proactive by partnering with individuals, community groups, businesses and industry to reduce the quantity of treated water consumed in the community.

Objective CA: Reduce the amount of treated water consumed from City of Brandon operations.

A baseline reading for water consumption at city facilities will take place this year and will be tracked over the next 4 years to encourage public facilities to be aware of the volume of water that is used and to possibly reduce consumption.

The City of Brandon will continue to work on replacing water lines that are susceptible to freezing during the winter months. Working with the homeowner, the City of Brandon has a schedule that it works on for replacement. For those water lines that have frozen in the past the city allows those homeowners to trickle their water without charge to prevent freezing.

Objective CB: Develop and deliver an awareness program for citizens related to water consumption.

The Brandon Neighbourhood Renewal Corporation's (BNRC) program called Brandon Energy Efficiency Program (BEEP) provides retrofits to homes at a greatly reduced price that includes both a low flow toilet and low flow showerheads. At least one hundred homes have been retrofitted with much success.

Protecting Prairie Water Matters (PPWM) is a sub-committee of the Environmental Committee which has hosted workshops in the community on water issues. PPWM has received funding from the Royal Bank of Canada to provide an awareness program in the Brandon School Division on the concerns over water. PPWM has also sent out with the City of Brandon's quarterly water bills, an information sheet along with a contest to encourage citizens to be aware of water issues on the prairies. Brochures are also available for handout called "River to Tap, We Treat it Right" and "Only Tap Water Delivers".

PPWM also held a poster making contest in the Brandon schools relating to water issues. The posters were displayed in City Hall over the summer and a pizza party was held for all of those that participated in the contest.

Objective CC: Investigate and evaluate programs utilizing incentives or legislation to reduce water consumption.

Preliminary discussions have taken place with the City of Brandon Planning Department on introducing a by-law to City Council that would encourage low flow water technology in all new buildings and homes.

GOAL D: Reduce the Pollution Levels in Waste Water Prior to Treatment - Educate citizens regarding proper disposal methods to reduce the amount of pollution in the waste water prior to treatment.

Objective DA: Develop and deliver an awareness program for citizens related to the proper disposal of household products such as chemicals, grease, etc.

The City of Brandon will continue to promote the proper disposal of chemicals, paints and pesticides through its Household Hazardous Waste (HHW) days. This will encourage people not to dump these items down drains and/or sewers but rather to dispose of them properly through the Environ Centre at the Eastview Landfill Site or at HHW days.

GOAL E: Reduce Energy Consumption - Be proactive by partnering with individuals, community groups, business, industry, and other levels of government to reduce the amount of energy consumed.

Objective EA: Promote greening of new and existing City Facilities.

Information has been given to both the Police Services Department and the Brandon Fire Department as they advance and build their new facilities. Consideration is being given to increasing their specific buildings where it is financially and economically beneficial to the construction.

Work is continuing at the various city facilities where energy audits were completed. Lighting upgrades, boiler replacements and weather insulation are some of the many initiatives being carried out.

All decorative lighting for the City of Brandon has now been converted to LED lighting. There are three traffic intersections that remain to be converted to LED fixtures for both the traffic signal and the pedestrian heads which should be completed in 2010.

Work on the development of the methane gas project at the Eastview Landfill Site continues where the methane gas may be used as a new source of fuel for an end user and at the same time as destructing the harmful GHG.

Work also continues on the Bio-fuel plant where used cooking oil is processed and can be used as a fuel for equipment. We are currently waiting for government approval to start the operation of the processor.

The Canada Games Sportsplex continues to be involved with the Manitoba Hydro's CBOP (Commercial Building Optimization Program) that increases the building energy efficiency.

Objective EB: Promote existing programs related to residential energy conservation.

The City of Brandon will continue to work with Manitoba Hydro to promote its energy saving programs such as the Power Smart Savings programs for both residential and commercial customers.

The City of Brandon, Brandon Neighbourhood Renewal Corporation (BNRC) and Manitoba Department of Local Government (formerly known as Intergovernmental Affairs) have entered into a four year agreement to work on reducing greenhouse gas emissions in the community. A staff person has been hired to oversee this initiative. Funding is being provided by the Manitoba Department of Local Government and the program will come to an end in March 2012. This program is in its infant stage and will be beneficial for the City of Brandon to reduce the GHG's by 20% by 2013.

GOAL F: Improve Sustainable Development Practices - Incorporate sustainable practices in the design and redevelopment of neighbourhoods, homes and businesses.

Objective FA: Explore and incorporate sustainable development practices in the design standards for new neighbourhoods.

The future development of the new neighbourhood at 1st Street North and Veteran's Way contain some environmental concerns which are under consideration. Some of these concerns include sidewalks, retention ponds, storm water use, orientation for solar heating, green space, bus routes and density.

The City of Brandon has created a "Renaissance District" in the downtown area. This initiative gives developers, who meet certain criteria, a tax moratorium on their upgrades, which will create unique partnerships between public and private sectors. This will help bring renewal and energy to downtown Brandon.

Through the Environment Committee, a Green Building Award has been developed where businesses in the community are recognized for their efforts on being environmentally friendly. In 2009 there were two recipients of the award: McKenzie Seeds for its effort in designing its new building in the Private Sector category and the Brandon Regional Health Authority for its effort in its building and staff education regarding the importation of thinking green in the Public Sector category.

Objective FB: Explore and promote sustainable redevelopment practices in existing neighbourhoods.

Consideration was given on the location of the new Police Station. The station will be located in the old Safeway building at the corner of 10th Street and Victoria Avenue. There are also other buildings being considered or are being upgraded and retrofitted in the inner core of the city. Buildings such as the old CP Rail station, the old Strand Theatre, and the old Fire Hall that are or are being considered. In addition, work will begin on the renovation to the YMCA and to the new Skateboard Park that will be located at 9th Street and Princess Avenue

GOAL G: Lead by Example, Promote Awareness and Measure Progress - Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.

Objective GA: Incorporate "green" into the City of Brandon's procurement policy.

Working with the Purchasing Section, investigation is underway to identify a working statement that will enable the City of Brandon to implement a purchasing policy to incorporate wording related to "green" alternatives being given priority in cases where minimal cost difference is present.

Objective GB: Support Community based environmental initiatives.

Through the Environmental Committee, funds were made available to community groups needing seed money to implement four small environmental projects. Funding was also given to a school and to a group wanting to repair bicycles. The Environmental Committee also received funds (\$1,000.00) from the Brandon and Area Community Foundation to match up to \$250.00 for future projects.

The Environmental Committee also works with the Brandon Environmental Council on hosting Earth Day Celebrations in the City.

A television show has been produced and aired on the local access television stations on topics regarding communities recycling.

A sub-committee of the Environmental Committee has also worked together with Brandon University and Assiniboine Community College on various projects.

Objective GC: Assess, evaluate and report on the City's environmental performance.

A web site has been set up showing the focus of the Environmental Committee including all the committee agenda and minutes. The web site is www.brandon.ca/main.nsf/Pages+by+ID/236 and is accessible through the City of Brandon's home page.

TITLE: 2011 Environment Update		
PRESENTER: Tom Keep Environmental Initiatives Manager		Page 1 of 8
DEPARTMENT: Operational Services Division Environment Section		ATTACHMENTS: Nil
CLEARANCES: Nil	DATE: January 9th, 2012	
APPROVALS:		
Rod Sage		Scott Hildebrand
Department Head	Date	City Manager Date

SUMMARY OF HISTORY/DISCUSSION & FUNDING:

The Environmental Strategic Plan (ESP) is intended to provide a framework for priorities which identify how the corporation can assist the community in moving towards sustainability. The ESP is a living document that is updated and reported on as changes in technology, funding and programming are made available to the community.

The Environmental Strategic Plan builds on previously approved plans such as the Greenspace Master Plan, the Recreation Facilities Master Plan, the Affordable Housing Plan for Brandon, as well as others.

Since the Environmental Strategic Plan was originally approved by City Council in 2007, the City has made substantial progress in reducing Greenhouse Gases (GHG) both as a corporation and in the community. Since 2007 the City of Brandon has been working in partnership with many groups including the Province of Manitoba and the Brandon Neighbourhood Renewal program to continue to reduce GHG's in a proactive manner.

One of the Action Plans of the Environmental Strategic Plan was to provide City Council with an annual update of how the corporation and the community progresses. Please find attached Brandon's Environmental Strategic Plan Update for 2010 outlining the progress to date in the various categories.

RECOMMENDATION:

That Brandon's Environmental Strategic Plan Update for 2010 is received as information.

Environmental Strategic Plan Update For 2010

The Environmental Strategic Plan (ESP) that was approved by Brandon City Council in November of 2007 has been making progress in reducing the Greenhouse Gases (GHG) in the community and at the same time engaging citizens to make a difference at the grass roots level. There were five specific areas that the ESP focused on which are Air, Land, Water, Energy and Miscellaneous. This is the third yearly report card identifying the progress being made in the five areas.

GOAL A: Improve Air Quality - Be proactive by partnering with individuals, community groups, industry, businesses and other levels of government to improve Brandon's air quality.

Objective AA: Establish a greenhouse gas baseline for the community.

The GHG inventory baseline was completed in 2008 and continues to be monitored and updated from the 2003 baseline. The City of Brandon has set a goal of a 20% reduction by 2013 for the corporation and a 6% reduction for the community.

Objective AB: Reduce emissions discharged from City operations and vehicle.

The City of Brandon continues to upgrade its vehicle fleet by replacing older vehicles with more efficient vehicles. The City of Brandon currently has 11 hybrid vehicles and consideration will be given in the future when technology advances regarding electric vehicles. In 2010 Brandon Transit replaced 11 buses that are significantly more efficient and less polluting than past units.

There are 11 City owned buildings that have had energy audits completed. Upgrades are taking place that were recommended in the audit. Though not directly related to the city operations, Brandon Neighbourhood Renewal Corporation (BNRC) has continued the program called Brandon Energy Efficiency Program (BEEP) that reduces energy costs to housing units by" improving home insulation and water upgrades.

The landfill gas project continues to move forward and will be commissioned in early 2011. This project will reduce greenhouse gases by an estimated 50,000 tonnes equivalent in carbon dioxide equivalents each year. In phase II, an end user for the gas will be identified and negotiated with. A possible pipeline installation will be investigated to move the gas to an end user.

Work is being done on the possibility of setting up a system to encourage people that live out of town to network and to carpool to the city.

Objective AC: Reduce the amount of greenhouse gases generated in the community as a result of vehicle use.

The City of Brandon has installed signage at all the schools to create Idle Free Zones encouraging the public not to idle while waiting for pickup or drop-off of students. In addition, all City of Brandon buildings have the signage in place. These signs have been offered to businesses, the university and college for their use.

Promotions to encourage the public to ride the bus, walk to work and to leave their vehicles at home, are ongoing in the community.

The City of Brandon continues to work with the provincial and federal governments and receives transportation funding under the Federal Gas Tax program.

As stated in the Brandon Transit's Operating Strategy, the City of Brandon continues to work to reduce the dependence on vehicles. The strategy approved by council makes recommendations regarding the fare structure, routes, handi- transit and the transit fleet development.

The City of Brandon continues to develop, maintain and upgrade the network of bicycling and walking trails throughout the community. The City of Brandon, the Brandon Neighbourhood Renewal Corporation (BNRC) and the Community Led Emissions Reduction (CLER) program continue to look at developing an east/west cross town linkage to further encourage biking and walking in a safe manner. The City of Brandon Transit Division has had bicycle racks installed on the 11 new buses that were purchased in 2010. This encourages people to ride their bikes and to get to their destination if there is inclement weather.

GOAL B: Reduce Land Contamination - Be proactive by partnering with community groups, industry and other levels of Government to understand and limit the means by which land becomes contaminated.

Objective BA: Expand the education and awareness of recycling and solid waste diversion.

With the recent implementation of the new collection bins and the public awareness to recycle, there has been an increase from 17% to 34% of recyclables being collected in Brandon. Some of this increase has been from businesses and contractors turning to recycling to keep their disposal costs down as there is an additional fee assessed for material going directly to the landfill and not being recycled.

An 18 month pilot project was started in July of 2010 related to curbside composting. There are 500 households voluntarily participating in the program. Early results are encouraging as in the first two months of the program there was approximately 51 tonnes of compostable material diverted from the landfill.

All City of Brandon offices have been provided with recycle bins to encourage employees to recycle in their workplace. Waste audits are scheduled at selected facilities during the summer months in 2011

The City of Brandon has been tracking the overall paper usage within all departments. Over the past seven years, this has decreased by approximately

18%. This decrease is due to a number of initiatives including double sided printing, city council paperless agendas and a general awareness of reducing consumption.

The City of Brandon has been working with community groups to provide a bi- annual collection of household hazardous waste (HHW). The Rotary Club of Brandon and the local Air Cadets have provided the manpower to help collect the HHW. In 2010, approximately 1012 vehicles participated in this project. Items collected included waste paints and aerosols, batteries, flammable liquids, pesticides, mercury, oil and filters, adhesives, fluorescent bulbs and more.

Objective BA: Expand the use of naturalization in the community.

The main area of focus of 2009 & 2010 was the redevelopment of 1st Street and Pacific Avenue where the contaminated soil has been encapsulated as per the Remediation Action Plan approved by Manitoba Conservation. This area was covered with topsoil and sod landscaped with trees and walk paths were constructed. This initiative was led by the Engineering Department and the Community Services Department (Parks Department), which ensured this project was aesthetically pleasing for the community.

In 2009, the Parks Department planted approximately 100 new trees throughout the City. These trees were planted along various walk and bike paths and in some parks in the community. This number does not include the trees planted by developers as required through their Development Agreements.

In 2009 Brandon City Council was given a presentation on the effects of plastic bags on the environment as information. This problem still continues not just in our community but around the world. There has been a grass movement happening encouraging people to use cloth or renewable bags, or not to use bags if not needed.

A community concern is the amount of sand and salt the City of Brandon applies to the roads during the winter months. Over the past several years, the amount of salt added to the sand has declined from 15% to approximately 3% with no significant adverse effect on the road conditions.

The Pesticide By-law was revisited in 2009 by the committee with some adjustments made to the signage so that more information on the pesticide being applied could be included. Signs are to be placed on the property for at least 2 days after the application to give residents information on the pesticide product in the event of accidental overspray and/or contact with the product.

The Brandon Environment Committee has been looking into a procedure to properly dispose of florescent light bulbs. It has been reported that there may be a more effective way of dealing with florescent bulbs starting in 2011. The committee will assess the opportunity before making a recommendation to administration. Currently, most florescent bulbs are being disposed in the landfill. These bulbs contain mercury, phosphorus and other materials that are dangerous to the groundwater.

GOAL C: Reduce the Consumption of Treated Water - Be proactive by partnering with individuals, community groups, businesses and industry to reduce the quantity of treated water consumed in the community.

Objective CA: Reduce the amount of treated water consumed from City of Brandon operations.

A baseline reading for water consumption at city facilities will take place this year and consumption will be tracked over the next 4 years to encourage public facilities to be aware of the volume of water that is used and to possibly reduce consumption. The four facilities are the Canada Games Sportsplex, City Hall, the Parks Building and the Civic Services Building. Water consumption records dating back to 2005 have been retrieved and analyzed. Meetings have taken place from each of those facilities to identify the activities that use water and make consumption more efficient if possible.

The City of Brandon will continue to work on replacing water lines that are susceptible to freezing during the winter months. Working with the homeowner, the City of Brandon has a schedule that it works on for replacement. For those water lines that have frozen in the past the city allows those homeowners to trickle their water without charge to prevent freezing.

Objective CB: Develop and deliver an awareness program for citizens related to water consumption.

The Brandon Neighbourhood Renewal Corporation's (BNRC) program called Brandon Energy Efficiency Program (BEEP) provides retrofits to homes at a greatly reduced price that includes both a low flow toilet and low flow showerheads. From inception in June 2007 to December 2010 there have been 332 Manitoba Housing units, 16 private homes, 494 water retrofits to apartments and 108 rural Manitoba Housing Units that have been upgraded through the BEEP program.

There was a presentation to City Council in 2010 from the Brandon University Students Union encouraging City Council to ban the use of bottle water at City Hall. City Council approved this recommendation and as a result a new combination bottle water filling station and water fountain was installed at City Hall. The same fountain has been installed at the Civic Services Complex. As funds are available these combination fountains will be installed at various city facilities around the city.

Protecting Prairie Water (PPW) is a sub-committee of the Environmental Committee which has hosted workshops in the community on water issues. PPW has received funding from the Royal Bank of Canada to provide an awareness program in the Brandon School Division on the concerns over water. PPWM has also sent out with the City of Brandon's quarterly water bills, an information sheet along with a contest to encourage citizens to be aware of water issues on the prairies. Brochures are also available for handout called "River to Tap, We Treat it Right" and "Only Tap Water Delivers".

PPW also held a poster making contest in the Brandon schools relating to water issues. The posters were displayed in City Hall over the summer and a pizza party was held for all of those that participated in the contest.

Objective CC: Investigate and evaluate programs utilizing incentives or legislation to reduce water consumption.

Preliminary discussions have taken place with the City of Brandon Planning Department on introducing a by-law to City Council that would encourage low flow water technology in all new buildings and homes.

GOAL D Reduce the Pollution levels in Waste Water Prior to Treatment. Educate citizens regarding proper disposal methods to reduce the amount of pollution in the waste water prior to treatment.

Objective DA: Develop and deliver an awareness program for citizens related to the proper disposal of household products such as chemicals, grease, etc.

The City of Brandon will continue to promote the proper disposal of chemicals, paints and pesticides through its Household Hazardous Waste (HHW) days. This will encourage people not to dump these items down drains and/or sewers but rather to dispose of them properly through the Enviro Centre at the Eastview Landfill Site or at HHW days. Information to the community was distributed through the water bills

and by advertisements in the local media of the long term adverse effects the pollution has on the environment.

GOAL E: *Reduce Energy Consumption - Be proactive by partnering with individuals, community groups, business, industry, and other levels of government to reduce the amount of energy consumed.*

Objective EA: Promote greening of new and existing city facilities.

Information was given to both the Brandon Police Service and the Brandon Fire & Emergency Services as they advanced and built their new facilities. Consideration was and is given to "greening" their specific buildings where it is financially and economically beneficial to the construction.

Work is continuing at the various city facilities where energy audits were completed. Lighting upgrades, boiler replacements and weather insulation are some of the many initiatives being carried out.

All decorative lighting for the City of Brandon has now been converted to LED lighting. There four traffic intersections that remain to be converted to LED fixtures for the traffic signal head. The pedestrian heads at those four intersections were completed in 2010.

Work on the development of the methane gas project at the Eastview Landfill Site continues where the methane gas may be used as a new source of fuel for an end user and at the same time as destructing the harmful GHG. An estimated destruction of 50,000 tonnes annually will be realized.

The Canada Games Sportsplex continues to be involved with the Manitoba Hydro's CBOP (Commercial Building Optimization Program) that increases the building energy efficiency.

Objective EB: Promote existing programs related to residential energy conservation.

The City of Brandon will continue to work with Manitoba Hydro to promote its energy saving programs such as the Power Smart Savings programs for both residential and commercial customers.

The City of Brandon, Brandon Neighbourhood Renewal Corporation (BNRC) and Manitoba Department of Local Government (formerly known as Intergovernmental Affairs) have entered into a four year agreement called the Community Led Emissions Reduction (CLER) program. The CLER program objective is to reduce greenhouse gas emissions in the community. A staff person has been hired to oversee this initiative. Funding is being provided by the Manitoba Department of Local Government and the program will come to an end in March 2012. This program is in its infant stage and will be beneficial for the City of Brandon's plan to reduce the GHG's by 20% by 2013. Programs of the CLER program include the very popular Rain Barrel program, the Toilet Rebate Program and the Sportsplex Lighting upgrade.

GOAL F: Improve Sustainable Development Practices - Incorporate sustainable practices in the design and redevelopment of neighbourhoods/ homes and businesses.

Objective FA: Explore and incorporate sustainable development practices in the design standards for new neighbourhoods.

The future development of the new neighbourhood at 1st Street North and Veteran's Way contains some environmental concerns which are under consideration. Some of these concerns include sidewalks, retention ponds, storm water use, orientation for solar heating/ green space/ bus routes and density.

The City of Brandon has created a "Renaissance District" in the downtown area. This initiative gives developers, who meet certain criteria, a tax moratorium on their upgrades, which will create unique partnerships between public and private sectors. This will help bring renewal and energy to downtown Brandon.

Through the Environment Committee, a Green Building Award has been developed where businesses in the community are recognized for their efforts on being environmentally friendly.

Objective FB: Explore and promote sustainable redevelopment practices in existing neighbourhoods.

Consideration was given on the location of the new Police Station. The station will be located in the old Safeway building at the corner of 10th Street and Victoria Avenue. There are also other buildings being considered or are being upgraded and retrofitted in the inner core of the city. Buildings such as the old CP Rail station, the old Strand Theatre, and the old Fire Hall are being considered. Work at the new Kristopher Campbell Skateboard Park that is located at 9th Street and Princess Avenue has been completed.

GOAL G: Lead by Example, Promote Awareness and Measure Progress - Foster and engage the community to understand their impact on the environment and provide ongoing communication on progress in reaching goals.

Objective GA: Incorporate "green" into the City of Brandon's procurement policy.

Working with the Purchasing Section, work is underway to identify a working statement that will enable the City of Brandon to implement a purchasing policy to incorporate wording related to "green" alternatives being given priority in cases where minimal cost difference is present.

Objective GB: Support community based environmental initiatives.

Through the Environmental Committee, funds were made available to community groups needing seed money to implement four small environmental projects. Funding was also given to a school and to a group wanting to repair bicycles. The Environmental Committee also received funds (\$1,000.00) from the Brandon and Area Community Foundation to match up to \$250.00 for future projects. School groups and the Brandon Youth Soccer Association were benefactors of the funds this year.

The Environmental Committee also works with the Brandon Environmental Council on hosting Earth Day Celebrations in the City.

A television show has been produced and aired on the local access television stations on topics regarding communities recycling.

A sub-committee of the Environmental Committee has also worked together with Brandon University and Assiniboine Community College in the past on various projects.

"Ecoville" is scheduled to be launched in 2011 that will enable people to easily access information related to the environment in Brandon.

Objective GC: Assess, evaluate and report on the City's environmental performance.

A website has been set up showing the focus of the Environmental Committee including all the committee agenda and minutes. The website is accessible through the City of Brandon's home page.

TITLE: 2011 Environment Update		
PRESENTER: Tom Keep Environmental Initiatives Manager		Page 1 of 8
DEPARTMENT: Operational Services Division Environment Section		ATTACHMENTS: Nil
CLEARANCES: Nil	DATE: January 9th, 2012	
APPROVALS:		
Rod Sage		Scott Hildebrand
Department Head	Date	City Manager Date

SUMMARY OF HISTORY:

The City of Brandon has an Environmental Strategic Plan that was approved by City Council in November of 2007. This living document provides guidance and direction on environmental initiatives and concerns in the community. Below you will find many of the initiatives being addressed directly by city staff or in partnerships with other groups in the community. The Brandon Environment Committee (BEC) consists of a number of businesses, groups and individuals in and around the Brandon area and provides assistance and recommendations to City Council on various environmental issues. This report has also been submitted to the Environment Committee for their knowledge.

SUMMARY OF DISCUSSION:

Environmental Strategic Plan (ESP)

The Environmental Strategic Plan was compiled for the community with the public's input and approved by City Council in October of 2007. The ESP is a living document and is linked to the Community Strategic Plan "*Shaping Tomorrow Together*" where the community stated their desirable future to be "*Brandon will be a recognized leader in environmental stewardship*". Through the ESP a series of actions are for the municipality to take over the short and long-term, to reduce the city's negative impact on the environment. The ESP is scheduled to be revisited at the end of 2012 where the community will have the opportunity to provide their input for the future document.

Recycling

The City of Brandon through its Sanitation Department is providing an educational campaign on the benefits of recycling. Recycling volumes have increased over the last few years due mainly in part to the "new" container system and the convenience it provides. Each residential household is provided with both a recycle blue lidded bin and a conventional black lidded bin for regular garbage. The recycling pickup is done on the same day as the regular garbage. Recycling is taken to the MRF (Material Recovery Facility) building where it is rough sorted before either being sent to Winnipeg for further sorting or sold to markets

directly from Brandon. The City of Brandon has a processing contract with a recycling facility in Winnipeg where the recyclables are sorted in groups before being sold to various markets. The City of Brandon is part of the "Recycle Everywhere" program where through the product stewardship program of the Province of Manitoba 80 recycle bins are located throughout the city to encourage recycling of beverage containers. These bins have been provided to the City of Brandon at no cost. The Sanitation Department is responsible for emptying the containers and putting the material into the recycle stream.

Community Led Emission Reduction Program (CLER)

The CLER program is a partnership between Brandon Neighbourhood Renewal Corporation (BNRC), the provincial Department of Local Government and the City of Brandon. The Department of Local Government provided funding for an employee and projects starting in the fall of 2009. BNRC and the City of Brandon partnered to have one employee to run joint programs both for the city of Brandon and as well for the BNRC catchment area. The program will run until the end of March 2012. The program is designed to reduce Greenhouse Gases (GHG) in the community. There are a number of programs being run in the program including.

Toilet Rebate Program

This program provided rebates to residents in the City of Brandon that switched their conventional toilets to low flow units. Each qualifying homeowner was eligible to receive rebates of \$50 per unit for up to 2 units.

Brandon's Waste Reduction School Challenge

This program partnered with the BSD to measure the amount of recyclables and organic waste that ten classes could divert during the national Waste Reduction Week in October of 2011. The program included that each participant would receive a T-Shirt and a chance to win prizes. Each class pledged a waste reduction initiative that they would carry out for the rest of the school year, i.e. green teams to collect organics in the school.

Sportsplex Lighting Upgrade

The CLER program provided funding to assist the Canada Games Sportsplex to upgrade the lighting in the facility. The project had been identified in the Energy Audit that was performed in 2007.

Sportsplex Ice Edger

Funding was provided to the Canada Games Sportsplex to upgrade its Ice Edger from a normally propane powered ice edger to an electric ice edger. This has made the arena safer for participants and spectators as exhaust fumes in the closed in arena are greatly reduced.

Master Composter Program

A Master Composter Program was offered through the CLER program where people in the community would become certified Master Composters and would assist the public on the do's and don'ts related to composting. This program is beneficial because it has the potential to divert organics from the landfill and engage the community on the benefits of composting.

Compost Days & Trees for Tomorrow

In cooperation with the City of Brandon's Sanitation Department, the CLER program offered free compost in June to the public. This was held over two days and was located at the Keystone Centre South Grounds. The public were encouraged to come down and get information on composting and to pick up free compost. In addition the organizers were able to distribute free tree seedlings of White Spruce and Hybrid Poplar courtesy of the Tree's For Tomorrow program. The Tree's for Tomorrow program has a goal of planting 5 million trees over 5 years.

Earth Day Celebrations

The CLER program assists in the running of the annual event in April. The event focuses on environmentally friendly opportunities that the public are encouraged to participate in. Many different initiatives are showcased at the event including a static display for the public to try using the new bicycle racks on the Brandon Transit buses along with displays of hybrid vehicles. Brandon Transit has provided additional prizes including free bus tickets for the public to try the transit system. The event is organized by concerned citizens and is truly a community event.

Rain Barrel Promotion

The CLER program provided funding to provide rain barrels to the people of Brandon on a greatly reduced cost. There were 555 rain barrels sold over 2 events. The Brandon Rotary Club and citizens at large assisted in the two events by providing people to assist in the handling and sales. This program was very popular and sold out each time it was held. Funding from CLER included staffing and 50% cost of the barrels.

Brandon Commuter Challenge & Car Pool Survey

In June of 2011 the CLER coordinator ran a community commuter challenge. A number of businesses and agencies participated in the week long challenge including the Brandon Regional Health Centre. Prizes were distributed to those participating in the event. As well, a car pool survey was completed on those wishing to participate in a voluntary survey on carpooling.

Green Procurement Policy

The CLER coordinator is working establishing a green procurement policy for the City of Brandon. This started in the fall of 2010 and is low in priority. This will assist the City of Brandon's Purchasing Department in implementing a policy. This was identified in the Environment Strategic Plan as one of the items identified as a project that would benefit the City of Brandon's environment internally.

Brandon Transit Fare Study

Through the CLER program funding was available to assist the City of Brandon's Transit department in conducting a fare study. The consulting firm SNC Lavalin was identified by the provincial government to receive funding for various studies. SNC Lavalin and senior management of Brandon Transit discussed various opportunities and a new fare structure is under consideration for Brandon.

Anti-Idling Initiative

The CLER program is continuing the public education component of the damage that idling vehicles have on the environment. This is done by media advertising and the placement of signage at all public locations in the community including all schools.

Upgrades to City Hall Boilers

The CLER program provided financial assistance to upgrading of the two boilers at City Hall. The program had been identified in the Energy Audit that was done on all major municipal buildings in the City of Brandon in 2007.

Landfill Gas Recovery

The destruction of landfill gas is continuing at the Eastview Landfill Site. The City of Brandon has contracted out to COM COR to develop the gas field; to meet the requirements identified in the provincial legislation and to find end users. The provincial government has provided up to \$1.275 million dollars to destruct the harmful GHG related to methane. This program will continue into the future with a life expectancy of 20 to 25 years.

Water Conservation Strategic Plan

The City of Brandon is developing a Water Conservation Strategic Plan that will be presented to City Council and then submitted to the provincial government as part of the Public Utilities Board submission for licensing. The plan will focus on many opportunities for the community including conservation, quality and quantity. There are both city staff and the public assisting in compiling the plan. The committee is dedicated to *"Conserve and protect water use for present and future generations on both a community and corporate level"*.

Brandon Environment Committee (BEC)

The Brandon Environment Committee is an arm length's committee for City Council and provides information related to environmental issues in the community. The committee is made up of city staff, business representatives, public, students and a city councillor. The committee meets on a monthly basis and deals with many issues in the community. The committee also provides funding for small environmental initiatives in the community. An upgrade to the committee's web page is underway and it is expected to provide an easier format for the public to access information.

Curbside Organics Collection

The City of Brandon participated in an 18 month pilot project related to curbside organics collection program where 500 households were involved in a scheduled pickup of their kitchen and yard waste items. Over the 12 month of pickup and the 6 month time of monitoring the Sanitation Department was able to divert over 216

tonnes of organics from the landfill. Upon having the product analyzed by a certified laboratory the finished product is considered a Class "A" compost. From these findings the Sanitation Department is considering a voluntary curbside collection program for the whole community.

Brownfields

The City is investigating the number of "Brownfields" in the community. A Brownfield is an abandoned or underutilized industrial, community or commercial property where expansion or redevelopment is complicated by real or perceived environmental contamination. Abandoned gas stations, industrial sites or operations that used questionable chemicals are considered as a Brownfield. A number of these sites were usually built during the community's formative years, they often occupy prime locations in the downtown area. The city is working with the provincial government to address some of these locations.

Electric Vehicle Infrastructure

The City of Brandon has a representative on the provincial committee discussing concerns related to preparing for the possible influx of electric vehicles in Manitoba communities. A report will be prepared and submitted to the provincial government addressing issues related to: INFRASTRUCTURE; BUSINESS/ECONOMIC OPPORTUNITIES; TECHNOLOGY & ADAPTATION and EDUCATION/PUBLIC INFORMATION & RESEARCH; REGULATIONS/INSURANCE/SAFETY; and INITIATIVES TO ACCELERATE ADOPTION. The goal is to have the report in the hands of the provincial government for their consideration.

Household Hazardous Waste Depot

Historically the City of Brandon has had the Rotary Club of Brandon oversee the operation of two Household Hazardous Waste Days during the year. The Rotary Club of Brandon gets help from the Air Cadets to offload the many different wastes that the public drops off at the Civic Services Complex. The waste is disposed of through Miller Environmental Group in an environmentally friendly manner. The disposal costs have been paid by the provincial government. Starting in 2012 a full time depot is being proposed to deal with the long vehicle lineups. There are approximately 500 vehicles at each of the events. The city is currently in negotiations on the operation of the full time depot. Also in discussion is how to deal with mercury in thermostats and the disposal of medical prescriptions.

Solar Light Pilot Project

The City of Brandon is working with a high school student that has proposed more use of solar power in the community. A solar light has been installed in one of the dog parks in the city and is being monitored by the high school student for operation and maintenance. Early monitoring results are encouraging. The potential for future uses could include remote walkway lighting and cross country ski trail lighting where electrical services are limited.

Assiniboine Hills Conservation District (AHCD)

The City of Brandon is in the process of joining the Assiniboine Hills Conservation District (AHCD). The mission of the AHCD is to manage water and environmental resources to promote a healthy watershed and sustainable lifestyle for current and future generations. The vision is that in the future communities, agriculture, and the environment are healthy, sustainable and in balance with one another. The City of Brandon representatives will be attending the Manitoba Conservation District Association conference being held in Brandon in December.

Battery Recycling

The City of Brandon continues to be a part of the "Call 2 Recycle" battery recycling program. Collection boxes are located at City Hall and at the Civic Services Complex. The program includes free freight to a facility in Ontario. All types of rechargeable batteries are included in the program. In 2011 the program expanded to all types of batteries (other than automotive) to include non-rechargeable batteries. The city is in the process of changing out of its lithium batteries for the 6,000 electronic water meters in the community and a request has been sent to "Call 2 Recycle" to see if they will accept these batteries in the program.

One 2 One with the City of Brandon Television Show

The City of Brandon has a television show on the local access television station that focuses on many topics including Recycling, Household Hazardous Waste, Fire Safety, Winter Festival and Water Conservation. The format is where an interviewer hosts people in the community that have special interests on topics. The show is then shown during various times throughout the week.

Traffic Signal Lights

All traffic signal lights under the cities responsibility (21) have been converted from incandescent to LED. With the funding assistance of Manitoba Hydro the city electrical section has done the conversion of both the signals and the pedestrian fixtures. In May of 2011 Manitoba Hydro contacted the City of Brandon to inform them that due to the conversion to LED that they have credited back to the overall account \$20,000 due to less consumption. The City of Brandon is now looking at the viability of having crosswalks converted to LED technology.

Decorative Lighting

All seasonal decorative in the City of Brandon has been converted from incandescent to LED technology. Manitoba Hydro had provided funding for replacement of all of the strings of lighting. The Community Services Section is responsible for the operation and maintenance of the "Water Fall of Lights" display where the public have the opportunity to drive through the park to view the many displays that are sponsored by many of the businesses in the community.

Brandon Transit Upgrade of Buses

The City of Brandon's Transit Section has upgraded its fleet of buses to include 10 new "New Flyer" buses that are more energy efficient than the older units. These new buses have fewer emissions than the retired buses. All buses in the fleet now have bicycle racks installed to accommodate two bicycles at a time. The public can ride their pedal bicycles one way and if it is raining can put their bicycle on the front rack and ride home in comfort.

Recycle Bins in all Offices

All offices in the City of Brandon have recycle bins to divert recyclables away from the garbage stream. This is one way that the City of Brandon has been able to increase its recyclable rate. Another way that paper has been reduced is by encouraging staff to use two sided printing on documents. Also City Council continues to go with a paperless agenda and all agenda's and meeting minutes are available electronically.

Water Festival

The City of Brandon and the Brandon Neighbourhood Renewal Corporation (BNRC) participated in the inaugural Brandon School Division Water Festival. The festival was held outside at Crocus Plains High School sports field where all of the Grade 4 students in the division were encouraged to participate to learn about water and its uses. There were many stations where the students spent approximately 15 minutes at each station. The festival was deemed a success due to the large effort of one of the teachers at Crocus Plains.


Tap Open Program

The City of Brandon is continuing to work away on reducing the number of "Tap Open" locations in the city. The "Tap Open" program deals with water services that are susceptible to freezing because they were not buried deep enough on original installation. There are approximately 180 of these sights left. Depending on the amount of workload in the water services section and budgets determines the number of locations that are dealt with in a year. In a normal year there are approximately 25 - 30 locations rectified. Of the 180 that are still outstanding approximately 50 are very difficult to deal with either because of either the whole main needs to be lowered or there is other infrastructure in the way.

RECOMMENDATION:

That the report of the Environmental Initiatives Manager dated January 9th, 2012 be received as information.

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TITLE: 2012 Environment Update			
PRESENTER: Lindsay Hargreaves Environmental Initiatives		Page 1 of 4	
DEPARTMENT: Operational Services Division Environment Section		ATTACHMENTS: Nil	
CLEARANCES:		DATE: February 1st, 2013	
APPROVALS:			
Rod Sage	<u>February 4 2013</u>	Scott Hildebrand	<u>February 6, 2013</u>
Department Head	Date	City Manager	Date

SUMMARY OF HISTORY/DISCUSSION:

The City of Brandon has an Environmental Strategic Plan (ESP) that was approved by City Council in November of 2007. This living document provides guidance and direction on environmental initiatives and concerns in the community and the city as a corporation. This report will provide an update with regards to many of the initiatives being addressed directly by city staff or in partnerships with other groups in the community.

The Brandon Environment Committee (BEC) is a vital component of environmental initiatives and concerns in the community. The BEC consists of a number of businesses, institutional, groups, and individuals in and around the Brandon area and provides assistance and recommendations to City Council on various environmental issues.

Environmental Strategic Plan (ESP)

The Environmental Strategic Plan (ESP) was compiled for the community with the public’s input and approved by City Council in November of 2007. The ESP is a living document and is linked to the Community Strategic Plan “*Shaping Tomorrow Together*” where the community stated their desirable future to be “*Brandon will be a recognized leader in environmental stewardship.*”

Through the ESP, a series of actions over the short and long-term will reduce the city’s negative impact on the environment. The ESP was revisited at the end of 2012 where the community had the opportunity to provide their input for the future of this living document.

Brandon Environment Committee (BEC)

The Brandon Environment Committee is an arm length's committee for City Council and provides information related to environmental issues in the community. The committee is made up of city staff, citizens at large, business representatives, and students. The committee meets on a monthly basis and deals with many issues in the community.

The committee provides funding for small environmental initiatives in the community. Early in 2012 the committee launched a website www.brandonenvironment.ca to provide an easier format for the public to access information.

Public Engagement:**Brandon Earth Day Celebrations:**

This annual family event in April is put on by the Brandon Environment Committee with partnerships in the community such as BNRC, CAA, and ACC. This eco-friendly day brings the community together by local entertainment, compost giveaways, exhibits from local organizations/businesses show casing their product/service, and offering opportunities for the general public to participate in.

Brandon Waste Reduction School Challenge:

This event has been running for two years in partnership with the Brandon School Division and Multi-Material Stewardship Manitoba (MMSM). This program involves students in grades 1-6 to measure out their recyclables and organic waste, and take part in waste reduction activities to earn points. The classroom who had the most points won the challenge. All participants received mini recycle bins and t-shirts. Each participating class had to pledge a waste reduction initiative they would carry out for the rest of the school year (organics program, litter-less lunches, engage other students in recycling).

Inform the public at large:

Environmental Initiatives staff continues to engage the broader public on environmental issues such as anti-idling through the website, council updates, PSA's, ads in local media and through WCG local TV channel "one to one with the City of Brandon."

Up-coming

Brandon's Enviro Expo will be a two day celebration of our community's environmental achievements, initiatives, and programs during National Environment Week in the first week in June 2013. The event will be highlighting the achievements of students who were involved in Brandon's Waste Reduction School Challenge & other students from Brandon schools involved in eco-club activities. During the Enviro Expo students will go on tours of the city's landfill and recycling facility; showcase their environmental school projects, take part in small workshops/activities led by environmental stewards within the community and surrounding area as well as and will be addressed by a keynote speaker.

Mobile Education Unit

The Environmental Initiatives Staff are working on securing partnerships for the mobile education unit. The MEU will be an interactive display that will travel to schools and community events within Brandon and surrounding area. It is intended that the focus areas of the MEU will be recycling, energy and water conservation and miscellaneous.

City Corporation Initiatives:**Landfill gas**

The destruction of landfill gas is continuing at the Eastview Landfill Site. This program will continue in the future with a life expectancy of 20-25 years.

Water Conservation Plan

The Environmental Initiatives Staff have been involved in developing the City's Water Conservation Plan. This plan will be presented to City Council and then submitted to the Province as part of the Public Utilities Board submission for licensing. The plan will focus on conserving and protecting water use for present and future generations on both a community and corporate level.

Brandon Transit

This past year Brandon Transit reduced their fares to increase ridership within the community, and partnered with Assiniboine Community College and Brandon University to offer a U-pass to students. This is a \$15 fee included in student's tuition that allows students to show their student card to ride the bus from Sept. through to August annually.

Green Cart Program

In late fall of 2012 the City of Brandon in partnership with Green Manitoba and Brandon Neighbourhood Renewal started the launch of the expanded curbside organics collection program. The Green Cart Program is being implemented after seeing successful results from the pilot program done in 2010. The pilot program had 500 residents participate on a voluntary basis, the expanded program will allow up to 6000 residents to take advantage of the program. The benefits of this program will extend the life of the landfill and help the City reach its goal of diverting more than 50% from the waste stream, create a natural fertilizer to use within our city, and reduce the amount of greenhouse gases.

Electric Vehicle Infrastructure

The City of Brandon had a representative on the provincial committee discussing concerns related to preparing for the possible influx of electric vehicles in Manitoba communities. A report was prepared and submitted to the provincial government addressing issues related to: INFRASTRUCTURE;

BUSINESS/ECONOMIC OPPORTUNITIES; TECHNOLOGY & ADAPTATION and EDUCATION/PUBLIC INFORMATION & RESEARCH; REGULATIONS/INSURANCE/SAFETY; AND INITIATIVES TO ACCELERATE ADOPTION.

Brownfields

The City is continuing to investigate the number of “Brownfields” in the community. City staff will continue to meet with stakeholders to develop a strategy to remediate these sites in the future.

Household Hazardous Waste Depot

In the past the City of Brandon has had the Rotary Club of Brandon oversee the operation of Household Hazardous Waste Days during the year. With the help of the Air Cadets the Rotary Club of Brandon off-loads the many different wastes that the public drops off at the Civic Services Complex. The waste is disposed of through Miller Environmental Group in an environmentally friendly manner. The disposal costs have been covered by the Province.

This past year we held one Household Hazardous Waste Day, the City is in negotiations with Province to have a full time depot here in the City sometime in the near future.

Battery recycling

The City of Brandon continues to be a part of the “Call 2 Recycle” battery and phone recycling program. Collection boxes are located at City Hall and at the Civic Services Complex. The program includes free freight to a facility in Ontario. All types of batteries (except automotive) are accepted in this program.

Assiniboine Hills Conservation District

The City of Brandon officially became a member of the Assiniboine Hills Conservation District (AHCD) in 2012. The Brandon Environment Committee and AHCD staff have had discussions on what type of projects/programs we will potentially be able to partner on together in the future.

Municipal Employees

Environmental initiatives staff continues to educate City employees on ways they can incorporate environmental practice into their daily work tasks. Some examples include turning off monitors at the end of a shift, recycling, double sided print, no idling city vehicles. Environmental Initiatives staff sees value in educating our city employees as we will be seen as environmental leaders in our community.

RECOMMENDATION:

That the report of the Environmental Initiatives Section dated February 4th, 2013 providing an update on environmental initiatives being addressed in Brandon be received.