



earth
wise®
thunder bay

Annual Report 2011



2011

2011 EARTHWISE® ANNUAL REPORT

Contents

EarthWise® Advisory Committee and Working Group Volunteers	04
Message from the CEAP Coordinator(s)	05
Message from the EWAC Chair(s)	06
Introduction	07
ENERGY & TRANSPORTATION	09
Active Transportation	09
Energy	12
Green Building	18
LANDS & WATER	21
Community Greening	21
Land Use	23
Water	23
HUMAN & ENVIRONMENTAL HEALTH	27
Air Quality	27
Food	28
Waste	30
COMMUNITY SUSTAINABILITY	35
Education	35
Economy	35

EarthWise® is a registered trademark used under license from Cambridge and North Dumfries Energy Solutions Inc.

Cover image by Mathew Noble. www.pixelshifting.com

Thank You

Citizens working together for a sustainable future.

Our thanks go out to everyone who has touched the EarthWise® process over the last year. As always, there may be other participants whose names are not reflected here. We apologize if we have missed your name - please let us know!

EarthWise® Advisory Committee (EWAC)

Councillor Rebecca Johnson
Councillor Andrew Foulds
Kerri Marshall, Manager, Environment Division
Sarah Kerton, CEAP Coordinator
Kelsey Johansen, Acting CEAP Coordinator
Lynn Duffield, EWAC Chair
Jane Todd, EWAC Co-Chair
Shannon Costigan
Ashleigh Nicholson-Marchl
Jay Stapleton
John Stephenson
Kirsti Tasala

EarthWise® WG Members in 2011

Brad Adams	Marilyn Grudniski	Curniss McGoldrick	Gordon Shepherd
Murray Armstrong	Allan Hall	Ellen Mortfield	Jason Sherband
Jim Bailey	Marc Hardiejowski	Dan Munshaw	Josh Singh
Glenn Berst	Scott Harris	Kerstin Muth	Shannon Smith
Rod Bessel	Jonathan Hendel	Nadine Mymryk	Tim Smith
Chris Beveridge	Sheelagh Hendrick	Angela Newman	Tessa Soderberg
Cathy Bevilacqua	Jay Henderson	Jennifer Nichols	Hilarie Sorenson
Richard Boon	Larry Hogard	Aaron Nicholson	Lynne Soromaki
Hugh Briggs	Hanna Janiec	Ashleigh Nicholson-Marchl	Stasia Starr
Linda Bruins	Susan Jaward	David Noonan	Heather St. Clair
Sarag Bryenton	Kelsey Johansen	Mary Nucci	John Stephenson
Charles Campbell	Rebecca Johnson	Don Mitchell	Rob Stewart
Martina Campbell	Sarah Kerton	Keith Mymark	Graham Strickert
Thora Cartlidge	Maureen Kahn	Gwen O'Reilly	Heidi Strobl
Diane Coloumbe	Steve Kissin	Anne Ostrom	Jim Suffak
Ruth Cook	Steve Kozak	Bob Payne	Kirsti Tasala
Tom Cook	Ron Kresack	Brigitte Petersen	Jane Todd
Tammy Cook	Adam Krupper	Glenn Porter	Helen Trochimchuk
Karen Copeland	Lucy Laframboise	Royden Potvin	Katherine Turner
Shannon Costigan	Pat Laroque	Ashley Priem	Felicia Ulloa
Ina Chomyshyn	Rick Latta	Bruce Pritchard	Gordon VanFleet
Lesley Curthoys	Lucie Lavoie	Andy Pruys	Vesa Vanska
Vanessa Degiacomo-Zwaresch	Lynne Legros	Jenny Rainthorpe	Shelley Vescio
Brad Doff	Winston Loh	Todd Randal	Davis Viehbeck
Michael Dorval	Decio Lopes	Don Rutledge	Rena Viehbeck
Lynn Duffield	Ryan Love	Derek Tessier	Mike Vogrig
Robert Eady	Judi Marton	Wendy Savoy	Jim Vukmanich
Frank Edgeson	Lisa Martellini	Amanda Sauerman	Chris Walton
Stephanie Elder	Pat Mauro	Catherine Sajna	Bill Willis
Leslie Essentlne	Randy McAllister	Werner Schwar	Kestrel Wraggett
Cathy Farrell	Michelle McChristie	Catherine Schwartz Mendez	
Paul Fayrick	Leslie McEachern	Tyler Seed	
Dan Fulton	Randy Mehagan	Ian Sgambelluri	
Susan Forbes	Leslie McEachern	Raphael Shay	
Carl Goodwin			



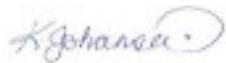
Message from the CEAP Coordinator(s)

EarthWise® Thunder Bay continues to be a catalyst for change within the community. Through the participation of individuals and organizations from a broad spectrum of sectors, EarthWise® is able to create connections across gaps that have historically been barriers to action. This ability to act as an umbrella organization, focusing the energy, involvement, and collective wisdom of the community, allows us to work towards improving not just the environmental health of our region, but also the social and economic wellbeing of future generations.

Our third annual report highlights projects and progress areas from 2011, including hosting the second annual “Go Green Expo,” the installation of a rain garden at the Bare Point Water Treatment Plant, new bike lanes, the increasing number of bike rack uses on municipal Transit buses, and the increasing availability, and use of, local foods. This year also saw the development of additional municipal policy architecture that supports the implementation of the CEAP, such as the “Urban Design Guidelines” and “Image Route Guidelines,” “The 2011-2014 Strategic Plan of Council,” and the “Urban Forest Master Plan.”

Additionally, EarthWise® Thunder Bay recruited four local families as “Climate Idols.” These families participated in quarterly challenges in the areas of Energy, Transportation, Food and Lifestyle. The project was a partnership between EarthWise® Thunder Bay and Duluth Sister Cities International, as part of Thunder Bay’s Sister Cities program. Coaching was provided by parallel families in Duluth’s Sister City, Växjö, Sweden. Many of our community partners provided support on the local level. We hope that one day every citizen of Thunder Bay will be a climate idol!

We are progressing as a community. Many thanks go out to City Council, Administration, and all of our volunteers and partners. As we move forward through 2012, please join us in building a community vision for sustainable living.



K. Johansen
Acting CEAP Coordinator
City of Thunder Bay



S. Kerton
CEAP Coordinator
City of Thunder Bay



Message from the EWAC Chair(s)

The EarthWise® Advisory Committee is fully engaged in supporting the creation of a connected, healthy, vibrant and strong community. We believe that the EarthWise® Community Environmental Action Plan (CEAP) is a cornerstone document in moving this vision forward. In 1997, when the City originally signed on to the Federation of Canadian Municipalities Partners for Climate Protection (PCP) Program, Thunder Bay was a very different place. In fact, the world was a very different place.

In the 15 years since then, the impact of human decisions and actions on the environment has garnered more mainstream understanding. Many of us now realize the time for meaningful action is narrowing. As Chair(s) of the EWAC, and longtime proponents of the CEAP, we are proud of our progress and the recognition we have received. This document marks our third year of reporting on the CEAP's implementation. Among many other achievements you will read about on the following pages, this year Mayor Hobbs was invited to give a panel presentation on "Thunder Bay's journey in adapting to climate change," at the Great Lakes and St. Lawrence Cities Initiative meeting; we launched Climate Idols; were nominated for the Chamber of Commerce Environmental Stewardship Business Award; and began the process of applying for our 4th PCP Program Milestone.

City Council reaffirmed the importance of the CEAP with the adoption of the City of Thunder Bay Strategic Plan, 2011-2014. The Strategic Plan identifies the implementation of the CEAP as Goal 10. It also outlines strategic directions that have come to the fore through the EarthWise® process. An example is Strategic Direction 9.1 "Reduce the total carbon-based energy consumption within The Corporation of the City of Thunder Bay below 2005 energy baseline levels."

As we go forward, the EWAC has identified three areas of focus for 2012: reviewing the EarthWise® brand; integrating sustainability thinking across the corporation through the development of a Corporate Green Team; and improving the functionality of the Working Groups and CEAP Coordinator Position. The goal of these focus areas is a stronger partnership that will carry us through 2012 as we begin to prepare for our five year review in 2013.

On behalf of the EWAC, we want to thank our Working Group volunteers, Community Partners, and all those in the community who have engaged with and supported the EarthWise® process. We look forward to what the next 15 years will bring!

Councillor Andrew Foulds, Chair
Jane Todd, Co-Chair
EarthWise® Advisory Committee of Council
City of Thunder Bay

Introduction

EarthWise® provides an interface for the Corporation of the City of Thunder Bay, and the community at large, to work together on issues related to sustainability. As a member of the Partners for Climate Protection (PCP) program, Thunder Bay has a commitment to reduce its greenhouse gas emissions (GHG). Up to half of Canada's emissions fall under direct or indirect municipal control.

Partners for Climate Protection

Thunder Bay is working on Milestones Four and Five of the PCP Program - implementing the CEAP, monitoring progress, and reporting results.

City of Thunder Bay Strategic Plan

The 2011-2014 City of Thunder Bay Strategic Plan guides the decisions and actions of City Council and Administration. While the Plan coincides with the term of Council and is intended to guide municipal work, its goals are longer term and reflect the vision of the community: Thunder Bay - Connected, Healthy, Vibrant, Strong. For the purposes of this process, a 10-year planning horizon was adopted. Council, Administration, and the community each have a part to play in its implementation.

The Plan is based around the four pillars of: economy, lifestyle, environment and governance; and outlines 13 goals. Two goals relate directly to EarthWise®: Goal 9 is to reduce greenhouse gas emissions through the wise use of energy, Goal 10 is the promotion of a more sustainable community recognizing that environment, economy, society and culture are linked through the implementation of the Community Environmental Action Plan. These goals have specific actions to support implementation.

EarthWise® Mission Statement

EarthWise® Thunder Bay will focus the energy, involvement, and collective wisdom of the community to secure the environmental health of our region, and thereby improve the social and economic wellbeing of future generations.





ENERGY & TRANSPORTATION

ENERGY & TRANSPORTATION

ENERGY & TRANSPORTATION

Active Transportation

Goal: To increase the personal and environmental health of local residents and the area, provide economic benefits, and reduce GHG emissions, through leadership, planning, and partnerships; making Thunder Bay a safe, healthy, and environmentally friendly community where active transportation is a key component of an integrated transportation system that links where we all live, work, and play.

Objective: Improved safety for people who are engaged in active transportation (AT) activities.

Indicator:	2006	2007	2008	2009	2010	2011
# of traffic injuries to pedestrians (pedestrian-only data available - CTB TCAP)	73	62	73	28	46	43
# of emergency dept. visits for cycling injuries (TBDHU - TBDistrict data)	534	492	448	374	403	441
# of hospitalizations for cycling injuries (TBDHU - TBDistrict data)	35	30	28	30	21	25

Objective: Increase the number of people walking, biking, or traveling by other human-powered means.

Indicator:	2007	2008	2009	2010	2011
# of uses of bike racks on buses	-	-	7,290	13,746	21,060
# of transit rider trips per capita	28.6	31.2	33	31.7	33.01
Traffic Volume (vehicle km traveled per lane km on major roads - OMBI data - in millions)	1,501	1,472	1,333	1,361	1,372

Progress Highlights:

- Bike rack usage on Thunder Bay Transit buses increased 52% from 2010
- In June, the City of Thunder Bay participated in the annual Commuter Challenge. The City and St. Joseph's Care Group hosted a series of pre-challenge lectures on safe cycling, transit use and walking, and took the challenge to the Community. In total, 6 organizations took up the challenge recruiting 61 participants. Participants in the Challenge travelled 7,300 kilometers, and avoided generating 1,478 kg of CO₂, saving 609L of fuel, and burning 306,296 calories in just 7 days!! As a result, the City of Thunder Bay placed 3rd nationally among Municipalities with populations between 100,000 and 249,999.

Objective: Develop infrastructure that supports active transportation.

Indicator:	2007	2008	2009	2010	2011
Wayfinding - # of new signs	-	-	-	-	-
kms of bike-lanes and shared lanes	0	0	0	10	20
kms of multi-use trails	33.4	35.4	36	36	37.5
Dedicated AT Funding (in thousands)	0	0	28.5	130	130

Progress Highlights:

- 20 new 'Superwood' benches (made of 100% recycled HDPE plastic) were installed at City of Thunder Bay Transit stops to provide connection points between active transportation users and the transit system.
- 10 kms of new bike lanes and shared lanes

Objective: Develop policies that support active transportation.**Progress Highlights:**

- Active Transportation was firmly enshrined in the City of Thunder Bay 2011-2014 Strategic Plan.
- The Thunder Bay Travel Smart Plan (Transportation Demand Management Plan) was adopted in principle by City Council.
- Active Transportation Committee members participated in the development of Urban Design Guidelines and Image Route Design Guidelines.

Objective: Develop community partnerships committed to implementing a dynamic and sustainable Active Transportation plan/strategy.

Indicator:	2008	2009	2010	2011
# of presentations on Active Transportation	2	14	30	43
# of people reached through presentations	175	560	2,954	2,098
# of community organizations engaged	8	18	22	25

Progress Highlights:

- In April 2011, the Thunder Bay District Health Unit (TBDHU) held a walkON workshop for residents, municipal staff and City Councilors aimed at engaging our community more directly on land use planning issues related to active transportation. Participants learned what makes a community "walkable," or supportive of active transportation, and discussed what improvements are needed in their neighbourhoods. Featured was Gil Penalosa, an internationally renowned speaker, urban form expert and executive director of Canada-based 8-80 Cities. He discussed the importance of parks, trails and other public spaces that foster healthier communities with happier residents. Presentations to the community were also made.

- A school travel planning session and walkabout was facilitated by the TBDHU to examine issues of safety and "walkability" of school routes and properties.
- As a follow up to the walkON event, additional workshops were held in June in order to gain support for developing and implementing a walkability action plan for our community. Forty participants had an opportunity to identify priorities for action based on the International Charter for Walking.
- Using lessons learned from 2010, Engineering determined the best use for shared lane markings and a refined standard.
- Thunder Bay bike lane standards were also refined, and the addition of 'no parking' boxes and directional signs seeks to improve driver and cyclist understanding of how to use the lanes.
- Walkability Committee established. A strong partnership with the TBDHU has given this initiative leadership and additional resources.
- While the City of Thunder Bay has not hired a dedicated staff person to implement the Active Transportation Plan in the long-term, funds have been allocated for the hiring of a one-year intern. In 2011, the City of Thunder Bay successfully applied to the Northern Ontario Heritage Fund Corporation for a one-year internship through this program, expected to start in early 2012.
- The City's Clean, Green, and Beautiful Committee provided funding for a program entitled, "Bike Racks for Business." This program, run through the Engineering Division, is a cost-sharing program that will offer bike racks to local businesses at a discount.
- The Infrastructure and Operations Department continues to provide funding for the implementation of the Active Transportation Program.



Energy

Goal: To reduce greenhouse gas emissions through the wise use of energy, and to promote the transition to a carbon-neutral future.

Objective: Reduce total energy usage by 35 % within the Corporation of the City of Thunder Bay, and 10% within the community at large, below 2005 levels by 2017.

Indicator:	2005	2010	2011	2005 vs 2011	2010 vs 2011	GHG Reduction/ Increase (2010 vs 2011)
City of Thunder Bay - kWh of electricity						tonnes
Buildings	24,349,609	24,136,018	24,105,052*	(244,557)	(30,966)	(3.09)
Parking Authority, Traffic, Street, and other outdoor lights	13,327,175	12,813,912	12,843,236	(483,939)	29,324	2.93
Water and Wastewater	20,822,415	23,486,421	21,481,940	659,525	(2,004,481)	(200.45)
TOTAL ELECTRICAL CONSUMPTION	58,499,199	60,436,351	58,430,228	(68,971)	(2,006,123)	(200.61)
City of Thunder Bay - m3 of Natural gas						
Buildings	4,814,845	4,742,920	4,882,170	67,325	139,250	262.4
Parking Authority, Traffic, Street, and other outdoor lights		2,149	2,470		321	0.6
Water and Wastewater	327,103**	943,420	1,094,010	766,907	150,590	283.13
TOTAL NATURAL GAS CONSUMPTION	5,141,948	5,688,489	5,978,650	834,232	290,161***	545.54
City of Thunder Bay - Litres of fossil fuel ****						GHG Total for 2011 (tonnes)
City of Thunder Bay - Diesel	1,002,089	1,036,114	1,133,323	131,234	97,206	2927.32
City of Thunder Bay - Gasoline	811,143	1,059,530	1,044,938	233,795	(14,592)	2466.06
City of Thunder Bay - Transit Operations (Diesel)	1,681,140	1,823,943	1,873,812	192,672	46,869	4853.17
City of Thunder Bay - Transit Operations (Gasoline)	18,834	15,177	14,048	(4,876)	(1,129)	33.15

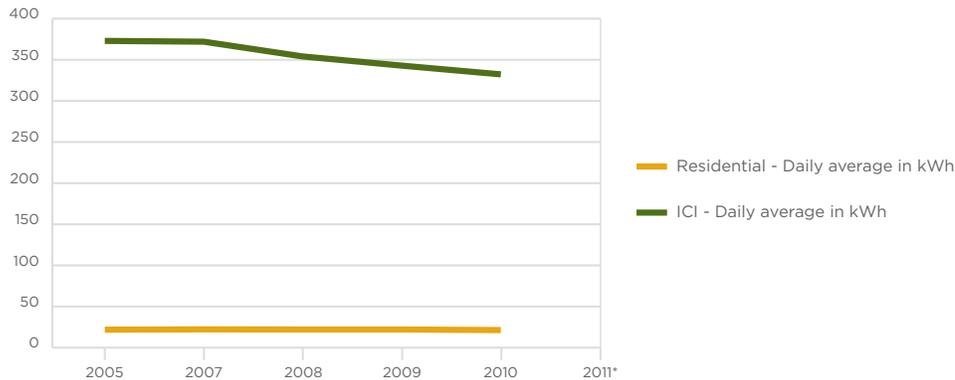
* Decommissioning of facilities include: Gibson Yard Office Building, Brodie St. and Paterson Park Parking lots.

** The 2005 ICLEI report was not inclusive of the natural gas consumption for the water and wastewater facilities

***There was an increase in the number of heating degree days between 2010 (4998.4) and 2011 (5322.4). WPCP boilers consumed more natural gas due to cogeneration facility consuming plant digester gas to create electricity.

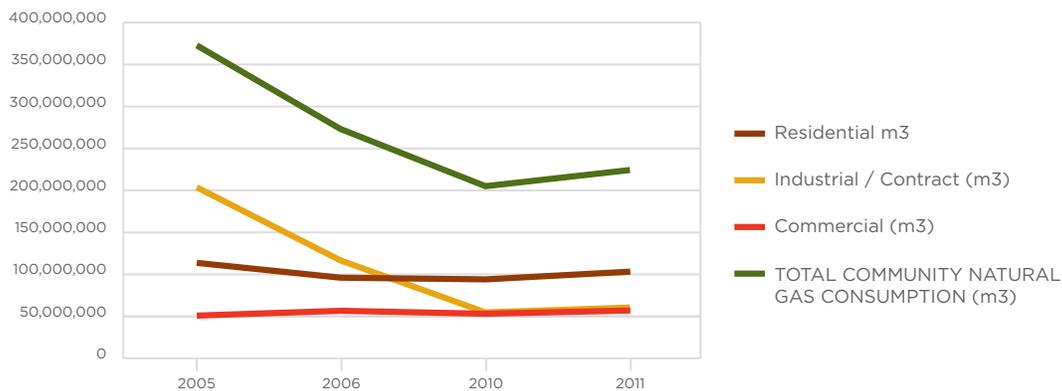
****Diesel and Gas consumption does not include Transit operations.

Community Electricity Consumption by Consumer Type



*Not available from Thunder Bay Hydro until August 2012

Natural Gas Consumption by Consumer type



Progress:

- From 2010 to 2011, Corporate facilities and operations successfully reduced electricity consumption by 2,006,123 kwh, reducing greenhouse gas emissions by 200.61 tonnes. The natural gas consumption increased by 290,161 m3, increasing the GHG emissions by 545.54 tonnes. An increase in heating degree days is a contributing factor to the increase in natural gas consumption for corporate buildings.
- The net savings for 2011 in natural gas and electricity expenditures for all Corporate facilities is approximately \$91,000.
- The Water Pollution Control Plant (WPCP) commissioned a cogeneration facility in January which allowed them to harness energy that was previously wasted.
- The Corporate Energy Management Plan was approved by City Council in December 2011.
- Energy and Support Services Division is continuing to work with each Division to raise awareness and create a culture of conservation for the wise use of energy within all facilities and operations.
- The Construction and Renovations Services Division undertook energy audits at the Mountdale Vehicle Storage Garage and Fort William Gardens.
- The Environment Division undertook an energy audit at the WPCP.
- Continued to work with the AMO-LAS Energy Task Force to advise the Board of Directors of AMO on issues, preferred policy outcomes and advocacy possibilities related to energy conservation, local and distributed energy generation, climate change, and related issues.

Energy Efficiencies at City of Thunder Bay Facilities

The following are a listing of the energy efficient projects and process improvements undertaken within City of Thunder Bay Facilities in 2011 that led to savings in the consumption of electricity and/or natural gas.

Corporate Information and Technology Division – Construction & Renovation Division:	
Data Centre	<ul style="list-style-type: none"> Implemented Server Virtualization which is a technology that allows many "virtual" servers to run on one physical server, thereby reducing its Physical Servers in the Data Centre by more than 50%, resulting in Energy Savings as less devices are in use and less air conditioning is required at the Data Centre to cool the physical devices.
City Hall	<ul style="list-style-type: none"> Installed a new ducted Air Conditioning unit in the City Hall Data Centre, which will make it easier to reach the required set point, resulting in energy savings as the unit will cycle on and off as required.
Environment Division:	
Water Pollution Control Plant (WPCP)	<ul style="list-style-type: none"> Commissioning of the cogeneration plant Completed an energy audit
Bare Point Water Treatment Plant	<ul style="list-style-type: none"> Completed a lighting audit of Bare Point. Completed a thermal image scan of outside of Bare Point, pumping stations and reservoirs. Completed an audit of all heaters in the pumping stations and reservoirs. Implemented an occupancy control program at 2 stations that turns heat to minimum when unoccupied. Implemented a control program to turn off Hodder Stand Pipe heaters when outside temperature is above a minimum. Reduction of 50ML of waste water being sent to the WPCP. Rehabilitation of and installation of siding to Low Lift building, resulting in reduced heating costs. Addition of on-demand water-heater for wash water in chemical storage area reduced heating costs and water usage for clean up and preventative maintenance.
Facility Services / Construction & Renovation Division – Corporate Facilities:	
Archives	<ul style="list-style-type: none"> Energy efficient lighting upgrades Installation of new high efficiency steamer
Human Resources	<ul style="list-style-type: none"> Upgrade of electrical system
Victoriaville Civic Centre	<ul style="list-style-type: none"> Installation of new energy efficient heat pumps Refurbished washroom exhaust system

Construction & Renovation Services Division – Commercial Properties:	
Whalen Building 6th Floor Renovation	<ul style="list-style-type: none"> • Energy efficient lighting upgrades • Installation of occupancy sensors • New low-flow washroom fixtures with automatic flush valves • New VAV Boxes with occupancy sensors tied into existing perimeter heating system
Facility Services Division and Parks Division – Arena and Stadia Operations:	
Delaney Arena	<ul style="list-style-type: none"> • Installation of new exterior induction lighting
Current River Arena	<ul style="list-style-type: none"> • Installation of new exterior induction lighting
Parks Division – Fort William Gardens Operations:	
Fort William Gardens	<ul style="list-style-type: none"> • Completed Energy Audit • Installed Variable Speed Drives (4) on the Condenser Fans, Glycol Pumps • Changed all remaining T12 fluorescent and incandescent lights with T5 fluorescent fixtures. • Removed 75 1000 watt incandescent ice surface lights and replaced with 30 324 watt T5 fixtures • Replaced 24 1000 watt M/H fixtures with new high efficient 1000 M/H fixtures
Construction & Renovation Services Division and Parks Division – Parks Operations:	
Chippewa Park	<ul style="list-style-type: none"> • New temperature controls were installed in maintenance shop • 1600 sq. ft. of heated work shop at feed house turned into cold storage • Energy efficient appliances installed in lunch room. • Employees made aware to turn light off when not in use
Conservatory	<ul style="list-style-type: none"> • Employees made aware to turn lights off when not in use • Realigned work areas to cut down on travel times thus saving fuel and lowering emissions
Outdoor Rinks	<ul style="list-style-type: none"> • Piloting new energy efficient lighting on one outdoor rink
Frank Charry Park and Tarbutt Park	<ul style="list-style-type: none"> • Installed new weather stripping and door sweeps to combat seasonal heat loss
Centennial Park Chalet	<ul style="list-style-type: none"> • New energy efficient interior lights with occupancy sensors • New low-flow washroom fixtures with automatic flush valves
Trail lighting	<ul style="list-style-type: none"> • Continue to upgrade to induction / LED lighting
Facility Services Division – Recreation & Culture Division - Aquatic Operations & Wellness Operations:	
Volunteer Pool	<ul style="list-style-type: none"> • Replacement of new energy efficient lighting in locker rooms • Upgraded 4 windows to Energy Star® • Installation of ridge venting for more efficient attic ventilation
Churchill Pool	<ul style="list-style-type: none"> • Installation of induction lighting • Installation of weather stripping on exterior doors

Facility Services Division – Recreation & Culture Division - Canada Games Complex Operations:	
Canada Games Complex	<ul style="list-style-type: none"> • Hot water controls for hot tubs • Installation of energy efficient lighting • Use of liquid pool cover and cover for hot tubs • Upgrade of heat pump controls
Facility Services /Construction & Renovation Services Division – Community Centres Operations:	
West Arthur CC	<ul style="list-style-type: none"> • Installation of new energy efficient make up air unit in kitchen area
Vale CC	<ul style="list-style-type: none"> • Energy efficient lighting upgrades • Reduction in number of lighting fixtures
Vickers Heights CC	<ul style="list-style-type: none"> • Installation of new energy efficient lighting • 30% reduction of fixtures
Various Facilities	<ul style="list-style-type: none"> • Replacement of weather stripping as required
Facility Services Division and Recreation & Culture Division – Thunder Bay 55+ Centre Operations:	
Thunder Bay 55+ Centre	<ul style="list-style-type: none"> • Piloted the installation of LED lights in front entrance • Changed eastside building lights to LED
Facility Services Division – Tourism Division:	
Terry Fox Tourism Centre	<ul style="list-style-type: none"> • Installed new HRV system
Facility Services Division/Construction & Renovation Division and Animal Services Centre – Animal Services Operations:	
Animal Services	<ul style="list-style-type: none"> • Installed new energy efficient A/C unit • Re-caulked exterior of building • Installed new low-flow toilets in washroom
Construction & Renovations Services /Facility Services Division – Fire Rescue Services Operations:	
Hodder Ave Fire Station	<ul style="list-style-type: none"> • Installation of new energy efficient entrance doors
Junot Ave Fire Station	<ul style="list-style-type: none"> • Installation of new Heat Recovery Ventilation (HRV) system
Various Fire Stations	<ul style="list-style-type: none"> • Energy efficient interior lighting for the apparatus area • Replaced 30 xenon lamp hand lights with LED type which increased battery life from 5 hours per unit to 336 hours per unit which greatly reduces the purchase and disposal of batteries • Ongoing preventative maintenance to our heating systems
Construction & Renovations Services /Facility Services Division – Police Services:	
Balmoral St Police Station	<ul style="list-style-type: none"> • Replacement of new energy efficient heat pumps • Installation of new motor in cooling tower

Facility Services Division – Public Works Yards:	
North Operations Yard	<ul style="list-style-type: none"> • Installation of exterior induction lighting
South Operations Yard	<ul style="list-style-type: none"> • Completed energy audit for Vehicle Storage Garage • Installation of on-demand hot water tank in wash bay • Installation of new high pressure pump • Installation of automatic flush valves in washroom • Installation of low-flow toilet in scale shack
Traffic Control and Streetlights Building	<ul style="list-style-type: none"> • Installation of new high efficiency suspended furnace
Facility Services Division and Transit Division – Transit Operations:	
Fort William Road Transit Headquarters	<ul style="list-style-type: none"> • Installation of new high speed door at wash bay entry • Installation of new high efficiency suspended furnace • Installation of lock boxes on thermostats • Replacement of one down-draft vent • Three (3) new buses purchased with the following environmental benefits: <ul style="list-style-type: none"> • 90% reduction in soot emissions compared to buses being replaced • Lighter weight to reduce fuel consumption • First Thunder Bay Transit buses to use electric engine & transmission cooling, which reduces fuel consumption by up to 15% • All incandescent and halogen bulbs on board have been replaced with LED to reduce replacement waste and electrical consumption • New bus idling procedure implemented where any bus that is idling for over 3 minutes at a stop or transfer location will be turned off. This is in an effort to reduce vehicle emissions, fuel expenses and maintain adherence to the Highway Traffic Act and Occupational Health & Safety Act requirements. • Transit engaged the organizers of Thunder Bay’s Annual Bluesfest to implement a ‘Ticket to Ride’ program where concert ticket holders could ride Transit for free to and from the event. This reduced the event’s carbon footprint, eased parking and traffic in the Waterfront District, and introduced many first-time-riders to Transit.
Roads Division – Streetlighting:	
Streetlighting	<ul style="list-style-type: none"> • Continued research into streetlighting LED technology to decrease energy consumption.
Construction & Renovations Services Division - Superior North EMS (SNEMS):	
Superior North EMS District Headquarters & North Station	<ul style="list-style-type: none"> • New build designed to LEED Gold Standard • Energy efficient lighting and HVAC with occupancy sensors • Installation of a Solar Wall • Low-flow washroom fixtures with automatic flush valves
Fleet Services Division:	
Corporate Vehicles	<ul style="list-style-type: none"> • Initiated the use of B-10 biodiesel during summer months (May –September) • Replaced 35 older model vehicles with new fuel efficient vehicles

Progress Highlights:

- The City of Thunder Bay and EcoSuperior developed an updated Net Zero for Homes Guide.
- The CEAP Coordinator delivered a presentation on the Net-Zero for Businesses Guide to the Thunder Bay Executives (approximately 35 people representing local businesses and BIAs attended).
- Thunder Bay Hydro presented 10 Time of Use Seminars to residential and small commercial customers in 2011. The sessions were well attended and filled to capacity in most cases. Customers learned how to understand their bills and how to take advantage of shifting energy use to off peak periods.

Objective: Encourage the development and use of renewable energy technologies.

Indicator: % energy supplied by clean/renewable energy sources

Progress Highlights:

- Water Pollution Control Plant commissioned the cogeneration facility. The biogas project will generate approximately 10,000 kw/day, allowing the plant to offset energy needs.
- Methane Capture and power generation at the Solid Waste & Recycling Facility was commissioned in 2010 and continues to generate power.
- The City of Thunder Bay continues to work with Thunder Bay Hydro to maximize solar energy opportunities at potential City Facilities. Six roof mounted sites and three ground mounted sites have been selected for further investigation.

Green Building

Goal: To promote community sustainability, develop leadership and economic diversification in our building sector, and greatly reduce greenhouse gas emissions, by encouraging the use of green building strategies, technologies, incentives and regulations to reduce energy consumption, promote conservation, and create safe and healthy places to live, work and play.

Objective: Promote the use of best design practices and guidelines for sustainable design and construction practices within the community.

Progress:

- A Green Building WG member completed the development and design of blueprints for a replicable year-round greenhouse. A scaled model was created and opportunities to partner to build it continue to be explored.

Objective: Develop and promote a standard that reflects best practices for all publicly funded buildings, both new construction and retrofits.

Indicator: Development of a sustainable building policy for the City of Thunder Bay.

Progress:

- The Renovation & Construction Division continues to incorporate sustainable design principles into municipal buildings where possible.

Objective: Achieve long-term savings to the citizens of Thunder Bay through reduced operating and life-cycle costs of municipal and private facilities.

Progress:

- Energy upgrades across the Corporation (see energy section).

Objective: Share and expand local knowledge and experience between designers, builders, utilities, the public, and consumers through networking and education.

Progress:

- The Green Building WG participated in the Go Green Expo offering citizens the opportunity to learn about the development and design of blueprints for a replicable year-round greenhouse, and to learn about green building opportunities for both home builders, and home-renovators.
- A green roof was installed on the Water Pavilion building at Prince Arthur's Landing. The City of Thunder Bay and Union Gas have provided funds to EcoSuperior to offer citizens a how-to workshop on building a green roof for a simple storage shed.

Objective: Foster a focus on the economic development potential of green building materials and products.

Progress:

The working group has agreed to take on an advisory role in a demonstration house project by EcoSuperior, which is expected to provide opportunities to showcase green building materials and products.

EcoSuperior conducted 749 home energy audits in 2011 under Natural Resources Canada's ecoEnergy Home Retrofits program, bringing over \$200,000 in renovation grants to the community. Since 2007, EcoSuperior has enabled Thunder Bay homeowners to receive \$3.8 million in grants. This total does not include other service providers in the community.



LANDS & WATER

LANDS & WATER

LANDS & WATER

Community Greening

Goal: To protect, improve and maintain the biodiversity, ecosystems and the well-being of the urban and rural ecology of Thunder Bay.

Objective: Develop, implement, and provide sustained funding for a comprehensive Urban Forest Master Plan (UFMP) that integrates people, the environment, trees and their continual change and interaction with each other.

Indicator: Annual Benefits of the Urban Street Tree Inventory	2011
Electrical Savings	2,383 MW
Gas Savings	319,000 Therms
Absorption (of pollutants)	13,525 kg
Reduction of CO2	2,500,000 kg

Progress:

- Itree software was used to provide an estimate of the amount of Greenhouse Gasses being absorbed or avoided by the urban forest (street trees).
- Began creation of Complete Streets “model” for Thunder Bay, pertaining to the review of policies related to the tree-planting component of roadwork.

Objective: Use best management practices to develop and maintain an inventory of trees.

Progress:

- City summer students updated and helped to improve the City tree inventory.
- Creation of the Emerald Ash Borer (EAB) Task Force for Northwestern Ontario, to prevent and/or reduce the spread of EAB in all Northwestern Ontario forests, including the urban trees in our communities.
- Three summer students were employed by the City to do EAB sampling, and determined that we do not have the pest as of yet.
- Creation of document: Tree Planting Opportunities in City of Thunder Bay Parks and Open Spaces.
- First year of successful Citizen Pruner Program with over 20 volunteers trained to properly pro-actively prune young boulevard trees. This program helps to enhance the survival rate of existing trees.
- Continuation of the Notable Tree Program.

Objective: Increase green space within the community.

Indicator:	2008	2009	2010	2011
# trees planted annually vs. removals	n/a	-109	34	452
# trees planted through the tree stewardship program	83	97	59	60
% of municipality dedicated to parkland	5.1	-	5.1	4.6*

*Note - There was an actual increase in Parkland within City limits in 2011. However, our calculating tools are much more accurate and now show that we are at 4.6% parkland space.

Progress:

- Sustained funding for the coordination of the Tree Stewardship Program: The City hired a full time permanent 'Urban Forest Program Specialist' to coordinate the Tree Stewardship Program and other urban forestry programs.
- The Tree Stewardship Program planted over 60 new trees on Boulevards.
- Successful Arbor Day held at Boulevard Lake Park, along the new recreational trails on the west side of the lake with approx. 150 new trees being planted.
- 10 Commemorative trees were planted in City Parks.
- Realty Services and the Planning Division are to beginning to review how to promote brownfield re-development as opposed to greenfield development. Also discussions regarding protecting vacant forested land as something other than parkland have started.
- Revision of 'Parks Division Guidelines and Specifications' to improve tree approval process, as well as topsoil and tree quality. Revised some additional details in Engineering Standards.

Objective: Creation of a Biodiversity Action Plan that includes aquatics and wetlands.

Indicator: Increase community awareness and support for the protection and enhancement of the biodiversity and ecology of the Urban forest, waterways and corridors.

Progress:

- Launch of new Urban Forestry Thunder Bay web page within the City web site
- Launch of 'Urban Forestry Thunder Bay' facebook page, now with over 500 'friends'



Land Use

Goal: To promote land use and development which feature healthy, sustainable communities that make wise use of existing resources; and to ensure that municipal policies, programs and regulations are thereby supportive.

Objective: Protect, enhance, and showcase cultural heritage and ecological features.

Objective: Champion Smart Growth focusing on best design practices and guidelines for sustainable design.

Progress:

- In 2011, City staff began background research that will provide a foundation for the review of the City's Official Plan (OP). In support of the OP review, the Thunder Bay District Health Unit has partnered with the Planning Division through the Healthy Communities program to have the OP reviewed from a healthy communities perspective.

Objective: Encourage the sharing of local knowledge and experiences between designers, builders, utilities, and cultural groups through partnerships.

Progress:

- In 2011, the Planning Department began the process of developing an Urban Design Guideline document; a number of successful community engagement / input gathering events were held. Members of various stakeholder groups and the general public had the opportunity to share their knowledge and experience through hands-on workshops and to participate in an interactive open house where they were able to "walk" the proposed streetscape designs through a series of drawings and images.
- EWAC continues to advise Council on the implementation of the EarthWise® CEAP.
- Through an extensive community consultation plan, the Inspire Thunder Bay Culture Plan was developed, and in May 2011 the City Council adopted its first-ever strategic plan for culture.

Objective: Curb Thunder Bay's urban sprawl to reduce energy consumption and greenhouse gas emissions.

Progress:

- None.

Water

Goal: Engage various stakeholders to protect the integrity of the local watershed and maintain a safe and reliable supply of potable water now and in the future.

Objective: Build watershed partnerships and work in collaboration with various stakeholders and local citizens on local water issues.

Progress:

- The Environment Division continues to collaborate with external environmental groups, with a representative on the Lake Superior Binational Forum, the Source Water Protection Committee, and the Remedial Action Plan Advisory Committee.
- The EarthWise® Water Working Group, made up of stakeholders from water agencies, across Thunder Bay, and the community, continues to work towards the development of a comprehensive stormwater management plan, as well as to raise awareness about alternative methods of stormwater management.
- The EarthWise® Water Working Group partnered with EcoSuperior in the preparation and planning of a Stormwater Conference.
- The EarthWise® Water Working Group, in conjunction with the Environment Division, advised on a Stormwater Management scoping study.

Objective: Promote the collection and analysis of data and publicize to a diverse range of stakeholders

The EarthWise® Water Working Group, in collaboration with the City's Central Support Division, developed a water resource website for the City of Thunder Bay. The purpose of this project was to generate the capacity to identify gaps in water management, facilitate and initiate collaboration between stakeholders, and develop a community interface to provide information to stakeholders and local citizens on water resources.

Objective: Create and support education and awareness programs for stakeholders and local citizens that promote stewardship of the local watersheds, with a focus on areas of public concern.

Indicator:	2008	2009	2010	2011
Ultra low-flush toilet rebates (residential)	239	350	200	150
Ultra low-flush toilet rebates (IC&I)	114	17	n/a	n/a

Progress:

- The City of Thunder Bay contracts EcoSuperior to deliver water conservation programs to both the residential and industrial, commercial, and institutional sectors. Programs include education and outreach..
 - A total of 375 rain barrels were sold with rebates from the City water program. Another 142 rain barrels were sold without rebates.
 - 21 Lake to Lake presentations, and 9 WaterWorks presentations to over 30 public school classes reaching over 1000 students.
 - EcoSuperior also staffed information displays at the Rain Barrel Sale Event (May 2011), Lake Superior Day (September), the Go Green Expo (October), and NorthWest Ontario WaterWorks (October).
 - The portable Water Bar was made available at 22 different public events. The water bar provides municipal drinking water to those carrying refillable water bottles and targeted more youth and sports events.
 - EcoSuperior offered a Permeable Paving workshop in August 2011, in partnership with Lockstone Yard & Patio Centre.
 - EcoSuperior facilitated two hands-on Rain Garden workshops in the Fall of 2011. The first session was held at EcoSuperior's office, as part of the front yard makeover, which included constructing a rain garden and installing permeable paving.
 - The City of Thunder Bay and EcoSuperior were recognized by the Ministry of the Environment for Environmental Excellence.

- The Environment Division continues to promote tours of the Bare Point Water Treatment Plant and Atlantic Avenue Wastewater Treatment Plant. In 2011, approximately 1700 people toured these facilities, representing an increase in tour numbers of over 200%.
- A demonstration water garden was established at the Bare Point Water Treatment Plant. Sod was removed and soil amended; native shrubbery was planted along the swale. This rain garden serves to capture the runoff from the roof and the parking lot at the Water Treatment Plant, preventing it from rushing directly into Lake Superior.

Objective: Promote best water management practices.

Indicator:	2007	2008	2009	2010	2011
Liters of treated water per capita per day (residential & ICI sectors)	442	407	400	391	369

Progress:

- Eliminated approximately 34,000 L of sodium hypochlorite used for pre chlorination and membrane cleaning at Bare Point Water Treatment Plant through the use of pilot plant research data; saving \$16,000 and 180 kWh.
- Reduced waste water generation at Bare Point Water Treatment Plant by 51 million liters; saving \$17,000.

Objective: Promote projects and/or studies that generate useful information to protect the integrity of the local watershed and make all relevant information available to stakeholders and local citizens.

Progress:

- The Water Working Group attended the Go Green Expo to educate the public on water issues in Thunder Bay.
- Lakehead University and the North Shore Remedial Action Plan continue to work in collaboration with the EarthWise® Water Working Group to study the effects of Stormwater on local water bodies.
- In 2011, the Remedial Action Plan Advisory Committee completed Phase 2 of a 3 phase Stormwater Remedial Action Plan for McVicar creek, and also completed phase 1 and 2 of a Stormwater Remedial Action Plan for the Current River. Plans to complete these Stormwater Remedial Action Plans are underway
- The City of Thunder Bay continues to take the lead on studies relating to Source Water Protection at the Bare Point intake.
- The Environment Division participates in the Ontario Municipal Benchmarking Initiative Water and Wastewater Expert Panel sharing practice, policies and development of Best Practices to improve operating performance - including reducing the carbon footprint of water and wastewater operations.
- The 2011 Drinking Water Quality Annual Report was completed and can be viewed via the internet from the City of Thunder Bay's website (www.thunderbay.ca/water).
- Highlights contained in the report include excellent drinking water quality results, program accomplishments, and information regarding source water protection and wise water use.
- Hard copies of the report are available at the Bare Point Treatment Plant, branches of the Thunder Bay District Library, City Hall and the Environment Division Office in Victoriaville.



HUMAN & ENVIRONMENTAL HEALTH

HUMAN & ENVIRONMENTAL HEALTH

HUMAN & ENVIRONMENTAL HEALTH

Air Quality

Goal: To improve outdoor and indoor air quality by reducing air pollutants and greenhouse gas emissions.

Objective: Educate the community about the impacts of air pollution, and how to reduce personal contributions to air emissions.

Progress:

- New City of Thunder Bay bus idling procedures were implemented. Any bus idling for over 3 minutes at a stop or transfer location will be turned off.
- In 2011, EcoSuperior launched several projects and activities aimed at informing the public of the hazards (both health and environmental) of burning garbage. The primary tool for this outreach was “Bernie the Burn Barrel,” constructed last year by Blue Rhino Productions, a museum exhibit design firm in Minneapolis.
- A promotional package was prepared and mailed to all provincial parks in the Thunder Bay and north shore region with an offer to provide Bernie and the associated display panels for loan. Bernie was displayed at Kakabeka Falls Provincial Park for a week in August. EcoSuperior also exhibited Bernie at Lake Superior Day in Thunder Bay, Murillo Fall Fair, Central Canada Outdoor Show, Seedy Saturday in South Gillies, CLE Home & Garden Show
- A fact sheet on Burning Garbage was sent out to rural addresses in Thunder Bay, surrounding townships and north shore communities.
- The TBDHU’s Children’s Environmental Health Program delivered 40 presentations and attended over 25 events in the City providing information about the impact of air quality on children’s health.
- In June 2011, The Canadian Partnership for Children’s Health and Environment Toxic Use Reduction Project in which TBDHU was a partner released an insert in the Today’s Parent magazine entitled “Creating Healthy Environments for Children.” It featured the Top 5 Tips to decrease children’s exposure to toxic chemicals, particularly indoors. The final pilot phase included the provincial pilot of a video which focused on the 5 tips. Staff from the TBDHU were involved in piloting the video locally with more than 150 parents and 40 service providers.

Objective: Assess and report on local air quality.

Indicator: Air Quality Index (AQI) of Ontario Annual Reports, and daily air quality readings.

Indicator:	2007	2008	2009	2010	2011
Moderate Air Quality days (AQI) *	16	8	15	13	6
Poor Air Quality days (AQI) *	0	0	0	0	1**

* AQI includes the following categories: Very good, good, moderate, poor, very poor – TBay had no poor or very poor days prior to 2011.

** 2011’s singular Poor Air quality day was a result of over 90 forest fires burning in Northern Ontario and associated elevated levels of Fine Particulate Matter PM2.5 microns in diameter and less – TBay had no very poor days in 2011.

Progress Highlights:

- Lakehead University and the Air Quality WG began a research partnership to undertake a baseline assessment of air quality in and around Thunder Bay area schools. The project is still in the development stages.
- Transit engaged the organizers of Thunder Bay’s Annual BluesFest to implement a ‘Ticket to Ride’ program where ticket holders could ride Transit for free to and from the event. This reduced the event’s carbon footprint, eased parking and traffic in the Waterfront District, and introduced many first-time-riders to Transit.
- Re-launched Bio-Bus marketing campaign with Transit’s new environmental theme branding.

Objective: Ensure that the importance of air quality in Northwestern Ontario is made clear to those wishing to do business in the area. While it is critical to be ‘open for business,’ it can’t be at the cost of human health and the environment.

Indicator:	2008	2009	2010	2011
# of noise complaints to local authorities (CTB stats)	14	21	N/A*	11
NPRI data for IC&I Sector Air Emissions (in Tonnes)	N/A**	3,933,705	3,792,946	N/A***

*All noise complaints received by the City of Thunder Bay Licensing and Enforcement Division in 2010 were resolved.
 ** Not available.
 *** Not available until September 2012.

Progress Highlights:

- IC&I Sector Air Emissions (including Stack and Fugitive Emissions, Spills and Other Sources) were reduced by 3.6%, or 140,759 tonnes, from 2009 to 2010.
- The AWG identified a need to develop a strategy for communicating the importance of air quality to new and existing CTB businesses.

Food

Goal: To build a more just and sustainable local food system in Thunder Bay that promotes social justice and supports local production, storage, processing, sale and distribution of food.

Objective: Use the Thunder Bay Food Charter to guide related decision-making and policy development within the city.

Progress Highlights:

- The 2011-2014 City of Thunder Bay Strategic Plan includes Action 5.2(b) Support the development of a comprehensive local food strategy.

Objective: Increase the amount of food grown, hunted, gathered, processed, and consumed locally.

Indicator:	2008	2009	2010	2011
# of events that promote local foods	13	16	16	15
# of participants at "Eat Local" Workshops	350	400	425	400
# of participants at "Seedy Saturday" Workshops	-	-	-	107

Progress Highlights:

- Framed certificates were presented to 6 restaurants/caterers at the 2011 Get Fresh Guide Launch recognizing their supporting of local food producers. These restaurants/caterers meet the criteria by purchasing at least 10% of their food purchases from at least 3 local farms and/or growing their own during the months of July to October.

Objective: Reduce the transportation requirements and environmental impacts of the food system.

Indicator: Increase in availability and demand for local food.

Progress Highlights:

- The Thunder Bay Country Market includes between 40 and 70 vendors every Market day and is the largest producer-based market in Northwestern Ontario. An average of 6,000 visitors shop for local meats, cheese, eggs, produce, baking, meals and crafts every week. The Thunder Bay Country Market is held Saturdays year-round, with the addition of harvest season hours on Thursdays in 2011. The Market is supported by the Ontario Farmer's Market Strategy, part of Growing Forward, a Federal-Provincial-Territorial initiative.

The Market is a sustainable engine of the Thunder Bay economy, with a real impact of close to \$5 million annually on our community.

Objective: Develop an integrated food waste management system that minimizes the environmental impacts of food production and consumption.

Progress Highlights:

- The City of Thunder Bay began planning to undertake the development of a Solid Waste Management (see Waste section).

Objective: Support and develop sustainable energy initiatives for local food production and processing industries.

Progress Highlights:

- None.

Objective: Integrate social justice and health concerns into environmental planning and policies in order to create a food system that is just and therefore truly sustainable.

Indicator:	2008	2009	2010	2011
% annual change in food bank + soup kitchen usage (OAFB Data)	+28.5	+46	+32	+32
Cost of a Nutritious Food Basket for a Family of Four in our area in \$ / month (TBDHU data)	\$627.68	\$705.47	\$789.97	\$795.20
# of community gardens	5	6	6	7

Progress Highlights:

- Inclusion as a strategic action item within the City’s Strategic Plan 2011-2014 - Lifestyle ‘Pillar’ - Goal 5, A caring, welcoming, inclusive city - Strategic Direction 5.2, Responding to all residents’ need for high quality of life
- Public presentations were delivered at regional and international planning and public health conferences in 2011 on concepts of integrating food system into land use planning.
- A successful “Get Fresh, Eat Local” workshop series was held at the public library during the summer, with 10 sessions and an average of 25 participants. Topics included local food storage, meal planning, grilling, baby food making, sprouts, herbal tea, baking and slow cookers.

Waste

Goal: Adopt a goal of Zero Waste to secure the environmental health of the Thunder Bay region, thereby reducing greenhouse gas emissions, conserving and protecting our natural resources, and creating employment opportunities as a sustainable community.

Objective: Develop and implement a long-range comprehensive, Integrated Waste Management Master Plan adhering to Zero Waste principles.

Progress:

- The City of Thunder Bay continues to participate in provincial waste minimization programs, such as the Blue Box Program (blue bag), Municipal Hazardous or Special Waste Program, Waste Electrical and Electronics Equipment Program, and the Used Tire Program.
- The City of Thunder Bay began planning to undertake the development of a Solid Waste Management Strategy that will provide direction for optimizing current and future residential and Industrial, Commercial, and Institutional (ICI) sector solid waste programs to best meet the financial, environmental and sustainability needs of Thunder Bay over the next twenty years.
- EcoSuperior conducted a ‘build your own dog waste digester’ workshop at Central Natural Environment Gardens.

Objective: Increase the reduction and diversion of hazardous waste.

Indicator:	2007	2008	2009	2010	2011
Amount diverted through the HHW Depot in Metric Tonnes	178	157	165	276	362

Progress:

- Facilities Services continues to manage designated substances, the Corporate ESA program, and promote recycling of lamps, batteries, and various liquids.
- Take-back programs by businesses in the community.
- The City of Thunder Bay Roads Division partnered with Thunder Bay Public Library to offer a new public space recycling program in municipal facilities for non-rechargeable (single use) and rechargeable batteries.
- Local pharmacies continued to offer take back programs aimed at diverting mercury thermometers and unused pharmaceuticals from the landfill; this included participation in the Annual (February) Pharmaceutical Take Back Month.
- Ongoing social marketing aimed at increasing awareness and participation in diversion programs.

Objective: Expand on leaf and yard waste collection and other composting initiatives.

Indicator:	2007	2008	2009	2010	2011
Organic waste diverted from landfill through City programs (IC&I Sector) in Metric Tonnes	1,625	1,387	922	1,093	1,106
Organic waste diverted from landfill through City programs (Residential Sector) in Metric Tonnes	941	900	1,181	1,384	1,351
% of population who compost at home (IPSOS Reid, 2009)	-	-	51%	-	-

Progress:

- Continued to offer the Annual Christmas Tree Chipping program, Put Jack in the Box pumpkin collection, and biannual curbside leaf and yard waste collection.
- Subsidized backyard home-composters for sale at EcoSuperior
- Year round drop off of leaf and yard waste at landfill site composting area.
- Kraft paper bag giveaways (spring/fall) aimed at promoting paper bag use (instead of plastic bags) during the Leaf and Yard Waste curbside collection programs



The City of Thunder Bay funds, and participates in, numerous community based waste minimization programs, including Spring Up to Clean Up , Leaf and Yard Waste Collection, Put Jack in the Box, and the Christmas Tree Collection Program.

Objective: Increase waste reduction and diversion in the residential sector

Indicator:	2007	2008	2009	2010	2011
Total residential waste generated in Metric Tonnes	48,100	50,500	50,100	52,800	55,400
Total residential waste diverted in Metric Tonnes	12,800	13,900	15,300	16,500	18,000
% of residential solid waste diverted from landfill	27%	28%	30%	31%	32.5%

Progress:

- Ongoing operation of the Electronic Waste Depot at the Solid Waste and Recycling Facility.
- Various organizations and businesses within the community hosted Electronic Waste collection event days.
- Industrial / Commercial Plastic Bag Reduction Survey (targeted 20 stores to determine best practices and receptivity to plastic bag recycling / reusable bag use)
- Created a survey for plastic bag use for the community
- Continue to promote and distribute reusable bags as part of social marketing campaign
- Ongoing comprehensive social marketing campaign aimed at promoting waste diversion and recycling initiatives within the community.
- Thunder Bay Transit's new 20-Ride punch passes were printed on FSC approved material and using ESC approved printing processes.
- Reusable coffee cups were added to the staff lunch rooms at the Conservatory and Chippewa Park.
- Chippewa Park discontinued the used of bottled water.

Indicator: Share experiences and successes with others in the region.

Progress:

- City of Thunder Bay was recognized for best practices in Waste Diversion Promotion. The City received the following 2011 Promotion and Education Awards from the Ontario Municipal Waste Association:
- First place 'Campaign' category, for Thunder Bay's Leaf and Yard Waste promotion campaign;
- First place 'Single Print Ad' category for 'One Can Make a Difference' advertisements;
- Third place for the development of the 'Play it Safe' Household Hazardous Waste brochure.
- The City of Thunder Bay had a display booth at the Go Green Expo educating residents on the various waste diversion programs and initiatives going on within the community.

Objective: Reduce littering in Thunder Bay through a preventative approach with an emphasis on public education and incorporate recycling/litter prevention opportunities for people at play and away from home.

Progress:

- Ongoing EcoSuperior Program promoting this initiative
- 5 new waste containers installed at Thunder Bay Transit stops to reduce litter.
- Ongoing twin recycling and waste receptacles being distributed throughout the City through a partnership between Litter Free Thunder Bay and the City of Thunder Bay
- Ongoing Community Services 5 year recycling strategy

Objective: Work with large and small IC&I waste generators to develop and implement waste reduction/diversion strategies.

Progress:

- Ongoing support for the IC&I sector through various community partnerships.
- The Thunder Bay Regional Health Science Centre began recycling shrink wrap, along with all Plastics #1 - #7.

Objective: Develop and promote green procurement capacity within Thunder Bay by adopting sustainable environmental and ethical purchasing policies (SEPP).

Progress:

- Late in 2011 as part of the Earthwise® recommendations, the Supply Management Division brought forward to Council a revised procurement by-law which contained enhanced sustainable environmental and ethical procurement (SEEP) guidelines. Council unanimously approved the new Supply Management By-Law containing the new SEEP procurement requirements.
- The City of Thunder Bay revised supply management to improve supply chain, sustainable, social and energy business practices.
- At least 5% of RFP weighted criteria has been allocated to “Demonstrated Environmental Stewardship – environmental friendliness of the product or service and/or unique environmental initiative(s) the company has undertaken.”
- Biodegradable dishes and cutlery are available for internal functions through the City Stores.



COMMUNITY SUSTAINABILITY

COMMUNITY SUSTAINABILITY

COMMUNITY SUSTAINABILITY

Economy

Goal: To identify and promote sustainable economic opportunities to the public and private sectors, and to assist in the update and implementation of the economic aspects of the EarthWise® Thunder Bay Community Environmental Action Plan.

Progress:

- ReNew Thunder Bay commitment to Green infrastructure fund.

Education

Goal: The citizenry of Thunder Bay and region adopt behaviours necessary to maintain a healthy ecological relationship between human activity and the environmental resources upon which it depends.

Objective: Coordinate environmental initiatives within the City of Thunder Bay and region.

Progress:

- Hosted the Go Green Expo at the CLE grounds, with a tradeshow, workshops and keynote speaker, reaching approximately 1100 attendees.
- Education Working Group meetings provide an opportunity for volunteers to network, share updates and resources, and support each other on environmental initiatives.

Objective: Remove barriers to the adoption of sustainable behaviours.

Progress:

- Lakehead Public School Board and the Thunder Bay Catholic District School Board continue to green their curriculum where possible.
- Claude E. Garton Public School hosted a Go Green Night, an interactive, fun and informative evening focused on enjoying and celebrating the environment, in May 2011, reaching approximately 200 attendees. EarthWise® and the Active Transportation Working Group attended the event which was aimed at students and their families as well as the larger School community.

Objective: Develop a culture of ecological consciousness.

Indicator:	2008	2009	2010	2011
# of presentations, displays, interviews, and workshops	40	30	25	20
# of people reached (estimated)	2000+	600+	1800+	2500+

Progress:

- The 2nd Annual Go Green Expo was held, as a 1-day event on October 1st, 2011.
- Facilitated “Climate Idols,” an educational project that partners Thunder Bay with Sister-City Duluth, MN, and their Sister-City, Vaxjo SE. The four local climate idol families undertook four challenges (Energy, Transportation, Food, and Lifestyle) over 2011.
- The CEAP Coordinator gave 20 separate presentations, workshops, and interviews, including display set-ups at regional events during 2011.
- These public engagements included a Net-Zero for Businesses presentation to the Thunder Bay Executives about how small businesses can reduce their energy consumption, a presentation at the Lakehead University Climate Change Conference and a display at the 2011 Elder and Youth Gathering at Fort William Historical Park.
- Enviro-Tips are written by the CEAP Coordinator and shared across the community; these Enviro-Tips are now syndicated by Lakehead University’s Student Union and Office of Sustainability.
- A Weekly Upcoming Events Bulletin is written by the CEAP Coordinator and shared across the community.
- EarthWise® participated in the Terrace Bay Green Tradeshow, making connections regionally – May 2011.
- The CEAP Coordinator attended the EcoCities World Summit and ICLEI Liveable Communities Forum in Montréal, making national and international connections – August 2011.
- The CEAP Coordinator designed and delivered a community learning day on the environment for Leadership Thunder Bay.
- Re-launched Thunder Bay Transit’s Bio-Bus marketing campaign with new environmental theme branding.



2011

2011 EARTHWISE® ANNUAL REPORT



Cover image by Mathew Noble, www.pixelshit.com

EarthWise® Thunder Bay
Transportation & Works Department – Environment Division
Victoriaville Civic Centre
111 Syndicate Ave. S.
PO Box 800
Thunder Bay, ON
P7C 5K4

p (807) 625-2411
f (807) 625-3588

earth
Wise®
thunder bay

Annual Report 2011