Conservation ONTARIO
Natural Champions

CALENDAR 2007

Creating a climate for change

Ontario Stewardship

Fisheries and Oceans Canada
Pêches et Océans Canada

CREATING A CLIMATE FOR CHANGE

www.latornell.ca

The theme of the 13th Annual Symposium is 'Creating A Climate for Change'. This refers to the actions that conservationists are taking in order to meet the challenges of climate change across a broad range of sectors. Climate Change will affect all aspects of our lives – our environment, economy and ultimately, our lifestyles. Climate change is compelling all of us to develop new strategies and take actions to reduce our footprint and move quickly towards greater environmental sustainability.

Saluting Conservationists

We learn by listening to those who have come before us. Each year, the A.D. Latornell Conservation Symposium celebrates and recognizes the lifetime of achievements of an admirable group of dedicated conservationists – the A.D. Latornell Conservation Pioneers. You can meet this year's four Pioneers by visiting the Symposium's website at www.latornell.ca.

In order to follow in the footsteps of one of Ontario's pre-eminent conservationists, Art Latornell, the symposium also supports and recognizes the achievements of young conservationist professionals. For the past two years, the University of Guelph has offered a professional development program for up to 12 young professionals from organizations across Ontario. The year-long Young Conservationist Professional (YCP) program is designed to provide training to developing professionals in the leadership and management skills they will need to flourish in the environmental science field. At the same time, it also meets the needs of agencies and organizations who often have limited opportunities for training.

We salute the young conservationists who are graduating at the 2006 Symposium and we offer our support and guidance as they continue to develop professionally.

The A.D. Latornell Conservation Symposium is co-hosted by:

Conservation ONTARIO
Natural Champions

UNIVERSITY of GUELPH

Arthur D. Latornell

"The YCP program taught me tangible skills that have allowed me to be more effective in my job as a manager... participating in the program has revitalized my energy and encouraged me to approach my position with creative insight."

Kristie Virgoe, 2005 YCP Graduate

December

2006

JANUARY 2007

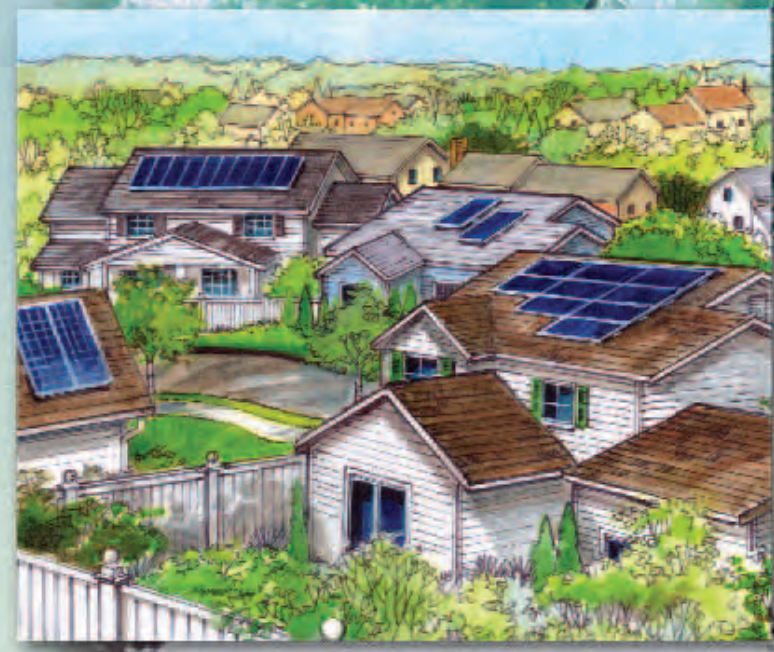
SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21 Winter begins	22	23
24/31	25 Christmas	26 Boxing Day	27	28	29	30

New Moon · First Quarter · Full Moon · last Quarter

WHAT IS CLIMATE CHANGE?

Climate change is a shift in the 'average weather' that a given region experiences. This is measured by changes in temperature, wind patterns, precipitation and storms (Environment Canada 2006).

Earth's climate has always changed, and always will, primarily because of its variable orbit and fluctuating levels of solar radiation (energy pulses) from the Sun. In response, the climate has alternated through many warming and cooling cycles, including a number of ice ages. We currently live in a period of warming. So, what's all the fuss about climate change if it is occurring naturally? Well, humans have gotten very good at accessing and burning oil, gas, and coal, which emit large amounts of heat-trapping chemicals, like carbon dioxide and methane, into the atmosphere. The warmer temperatures created by these chemicals combine with the natural change that is already occurring to increase the rate and magnitude of climate change around the world.



January 2007

DECEMBER 2006

FEBRUARY 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1  New Year's Day	2	3 	4	5	6
7	8	9	10	11 	12	13
14	15	16	17	18	19 	20
21	22	23	24	25 	26	27
28	29	30	31			

WHAT ARE GREENHOUSE GASES?

THEY ARE CRITICAL TO LIFE ON EARTH

Greenhouse gases occur naturally in the atmosphere and are critical to life on Earth. For example, water vapour, carbon dioxide and methane help regulate climate by trapping the Sun's energy that has been re-radiated from Earth's surface in the form of heat. These gases work as an insular blanket to maintain Earth's surface temperature about 33°C warmer than it would be if the blanket did not exist. This is the natural greenhouse effect.

The greenhouse blanket provides enough heat for life on Earth as we know it – less greenhouse gas means colder temperatures and more greenhouse gas means warmer temperatures. This blanket is made of a delicately balanced mix of chemicals. Although most of the atmosphere is comprised of nitrogen (approximately 78%) and oxygen (approximately 21%), a number of other gases that circulate in very small amounts also are very important, including carbon dioxide (approximately 0.03%) and methane (approximately 0.002%). These and other gases trap heat that is trying to escape Earth's atmosphere into outer space, and because the concentrations of these gases are increasing as a result of human activities, the atmospheric chemical blanket is getting denser and the Ecosphere is getting warmer.

The Ecosphere is Earth's largest ecosystem.
An ecosystem can be described as a recognizable piece of Earth space in which the flow of energy and the transformation of matter in-space-in-time creates networks of organisms, atmosphere, rock, soil, and water, interacting with each other and with other ecosystems.

February

JANUARY 2007

MARCH 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2 Ground Hog Day World Wetland Day	3
4	5	6	7	8	9	10
11	12	13	14 Valentine's Day	15	16	17
18	19	20	21	22	23	24
25	26	27	28			

HOW DOES CLIMATE AFFECT US?

While it is difficult to predict with certainty the impacts of climate change, all ecosystems and the people who live and work in them will be affected in some way, and Ontarians will need to respond.

Air pollution and greenhouse gases have significant, long-term impacts to the health, social, economic and ecological well-being of Ontario. The province is located in the northern latitudes, and likely will be subjected to greater temperature changes than more southerly regions of the world.

The impacts of climate change in Ontario could include:

- Increase in average temperatures
- More drought (drier conditions create more heat waves, forest fires and a greater need for irrigation)
- More frequent severe weather (thunderstorms, ice storms, tornadoes, floods)
- Lower Great Lakes water levels affecting recreation and transportation
- Greater evaporation and transpiration rates creating decreased availability of water and lower water flows which would affect municipal drinking water supplies
- Decreased cold water fisheries habitats
- Increased air pollution affecting people's health

While there may some benefits to warmer temperatures such as a longer growing season and lower demand for winter heating, it comes at a cost.

Adapting to climate change can start taking place right now.
We can be part of the solution.

March 2007

FEBRUARY 2007

APRIL 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17 St. Patrick's Day
18	19	20 Spring begins	21	22 World Water Day	23	24
25	26	27	28	29	30	31

CLIMATE CHANGE AND OUR WATERSHEDS

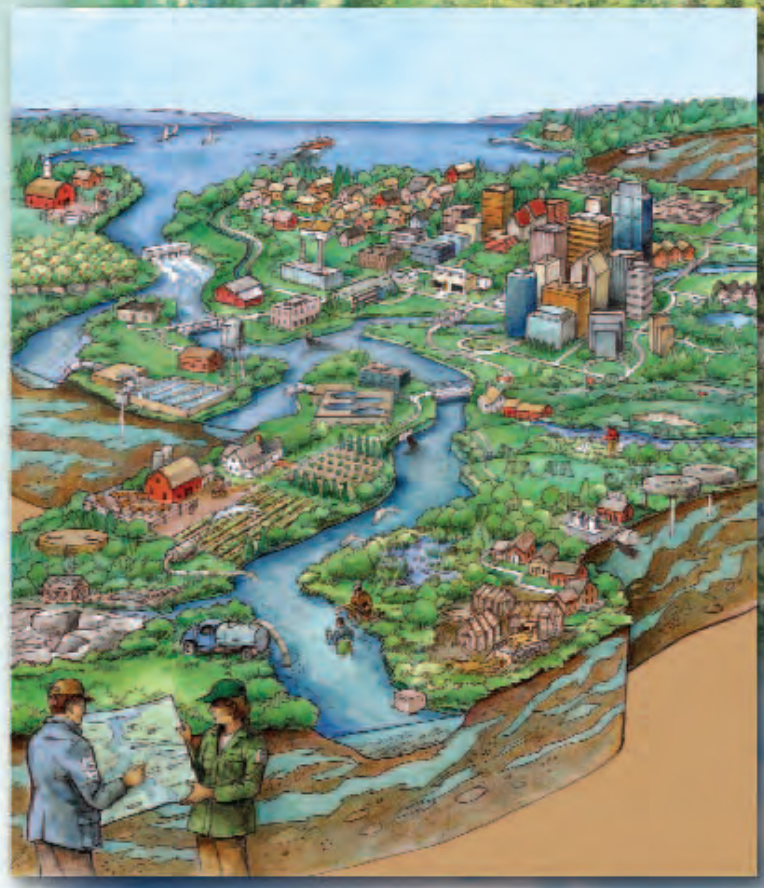
A BALANCING ACT

We all live in watersheds. Watersheds are areas of land made up of forests, wetlands, rivers, lakes, groundwater, wildlife and natural areas – all connected by the water cycle. In a watershed, what happens upstream in one community or in one home, affects conditions downstream. The health of our watersheds is reflected in the health of things such as the availability and quality of our water, habitats for wildlife, forests and wetlands.

The extent to which a watershed community is vulnerable to the impacts of climate change is partly determined by its ability and willingness to take measures to adapt. Traditional land and water uses need to be assessed in light of climate change in order to ensure the long term protection of our land and water resources. And, in addition to changes in the management of resources, adaptation could also include the use of new technologies.

When assessing the impacts of climate change on the planning and management of natural resources, we need to be able to better estimate future water demand and supply, have a good understanding of the impacts of climate change on resources and promote more sustainable water use and management overall.

Conservation Authorities work with local partners and decision-makers to plan and implement smart strategies that protect our natural resources which are critical to healthy communities. The key will be balancing economic, environmental and human interests.



Did you know?

There are 36 Conservation Authorities in Ontario – five located in northern regions and 31 located in Southern and Eastern Ontario. To find your Conservation Authority, please visit Conservation Ontario's website at www.conservation-ontario.on.ca

April

2007

MARCH 2007

MAY 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 All Fools Day	2	3	4	5	6 Good Friday	7
8 Easter	9 Easter Monday National Wildlife Week	10	11	12	13	14
15	16	17	18	19	20	21
22 Earth Day	23	24	25	26	27	28
29 Arbour Day	30					

WEATHERING THE STORM

COPING WITH EXTREME WEATHER

We have already noticed shifting patterns in our weather and experienced more severe weather events such as tornadoes, hurricanes, ice storms, thunderstorms, floods and drought.

Extreme weather occurs outside of an area's normal range of weather conditions, and is uncommon. But even so, it can be destructive and dangerous. More heat-trapping chemicals in the atmosphere means that there is more energy and an increased likelihood of stormy weather. For example, a warmer atmosphere will cause higher rates of precipitation (e.g. more rain and snow), evaporation, fewer cold spells and more heat waves.

This increase in the number and frequency of damaging rain storms, tornadoes, ice storms, dangerous heat waves with SMOG alerts, and other extreme events jeopardizes human health and safety. Buildings and other infrastructure are susceptible to climate change as well, and new designs and construction standards will be needed to help communities cope with extreme events. For example, extreme rain storms may challenge or exceed the capacity of existing culverts, water discharge pipes and sewers to handle large volumes of water over short periods of time.

Extreme rainfall events caused severe and destructive flooding in northwestern Ontario in 2002, in Peterborough in 2004 and in Toronto in 2005. These storms caused millions of dollars in damage.

Adaptation strategies are a key component of local and regional planning needed to ensure that new facilities can withstand increased size and frequency of extreme events like rainstorms, modifications to existing infrastructure and continued emergency response preparedness.

Did you know?

Conservation Authorities, the Ontario Ministry of Natural Resources and Environment Canada are responsible for forecasting where and when flooding is likely to occur and issues flood alerts and warnings to municipalities and the general public.

May 2007

APRIL 2007

JUNE 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
		1	2	3	4	5
6	7	8	9 International Migratory Bird Day	10	11	12
13 Mother's Day	14	15	16	17	18	19
20	21 Victoria Day	22 International Day for Biological Diversity	23	24	25	26
27 Canadian Environment Week	28	29	30	31		

THE WATER OF LIFE

Temperature, precipitation and wind significantly influence the Earth's water cycle. There will be many changes to a climate-modified water cycle during the 21st century. The amount of precipitation in Ontario increased during the 20th century, and most of the climate models predict that precipitation will continue to increase during this century. But warmer air temperatures increase the amount of evaporation, which in many areas may contribute to a drop in river and lake water levels.

Lower water levels will cause a series of problems requiring adaptation strategies. Impacts could include loss of access to marinas, cottages and houses, reduced hydroelectric capacity, declining water quality and loss of wetlands.

Wetlands recharge groundwater, help to keep the shoreline intact, reduce erosion, absorb excess storm water, filter contaminants, and provide fish and wildlife habitat to thousands of plants, animals and other organisms. They can also help to offset the impacts of climate change.

Wetlands are particularly vulnerable to climatic variation and extreme events. Water supply is of particular concern. Hotter, drier summers and the increased use of water for irrigation could reduce the supply of water for wetlands. Small changes in temperature or water supply could have significant effects on wetland animals, plants and microbes.

However, wetlands can play an important role in reducing the impact of climate change because they have the potential to remove and store greenhouse gases. Research is being conducted to test the ability of wetlands to act as carbon sinks, removing excess carbon from the atmosphere.

For more information, www.ducks.ca

June 2007

MAY 2007

JULY 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
					1 Clean Air Day	2
3 Canadian Environment Week	4	5 World Environment Day	6	7	8 World Oceans Day	9
10	11	12 National Rivers Day	13	14	15	16
17 Father's Day	18	19	20 Summer begins	21 National Aboriginal Day	22	23
24	25	26	27	28	29	30

BIODIVERSITY – LIFE IN OUR WATERSHEDS

Biodiversity refers to the variety of life in Ontario's ecosystems, including watersheds. Warmer temperatures and changed precipitation patterns will contribute to significant shifts in the distribution and abundance of many species. Because changes in temperature and precipitation will vary by season, determining the response by plants and animals will be a complex job.

Most warming likely will occur in winter and spring, while the least warming will occur in fall. Therefore, plants and animals that are limited in their distribution by cold winter temperatures will have more flexibility to move and migrate into new areas. We are starting to see changes already. For example, the southern flying squirrel has extended its range northward in Ontario because of continued access to food and warmer January temperatures.

On the other hand, plants and animals that are adapted to cooler and/or cold climates may be negatively impacted. For example, without sea ice, polar bears can not efficiently hunt and catch seals. And, as lake and river waters get warmer, cold water fish species like lake trout will lose critical habitat while warm water species like bass will gain habitat.

Protecting the biodiversity of Ontario's watersheds will require careful integrated planning and continued effective monitoring in order to be able to predict more fully the impacts of climate change.

Ontario's Biodiversity Strategy can be viewed and downloaded at: www.mnr.gov.on.ca/mnr/biodiversity

July 2007

JUNE 2007

AUGUST 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
1 Canada Day	2	3	4	5	6	7 National Family Fishing Week
8	9	10	11 World Population Day	12	13 Ontario Family Fishing Weekend	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

SPECIES AT RISK

A growing number of wildlife species in Canada face a very real – and in many cases, immediate – threat of extincton. Some of these species are important to industries such as Canada's fisheries. Some of them are the last of their kind in the world, and all of them have an essential role to play in the ecosystems where they live.

Throughout Ontario and Canada, government teams, along with partners, are working to recover species at risk. While pressures on these species come from a variety of sources and could include climate change, it is important that we do what we can today to protect and restore these species for future generations. You can help ensure that these species will remain part of our natural heritage and legacy by making the right choices for your land.

As a property owner, you can protect the habitat of these species from disturbances or even enhance their chances of survival through good environmental management practices. You can learn which species are at risk by contacting your local Conservation Authority, Stewardship Council, Ministry of Natural Resources, Parks Canada Agency, Environment Canada or Fisheries and Oceans Canada office. Information can also be found on the Internet, including at the following websites:

www.sararegistry.gc.ca
www.speciesatrisk.gc.ca
www.dfo-mpo.gc.ca/species-especes
www.mnr.gov.on.ca/mnr/speciesatrisk

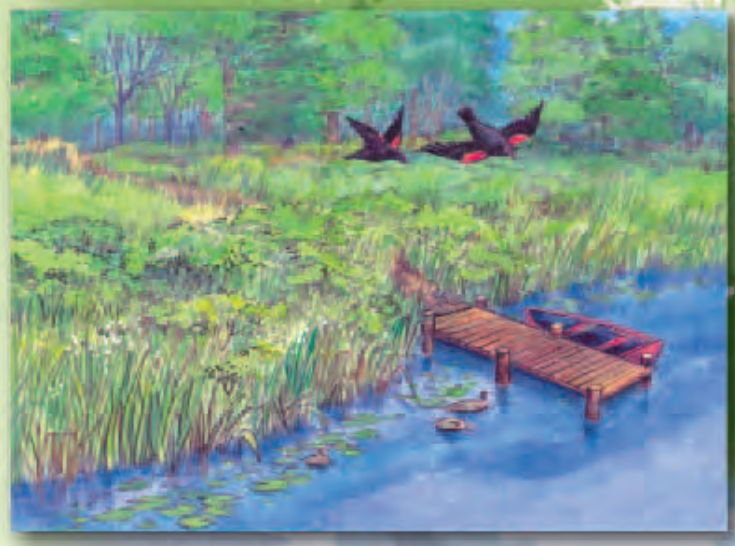
Did you know?

The *Federal Species at Risk Act* (SARA) came into full effect on June 1, 2004.

In Ontario, there are 24 aquatic species at risk including 16 fish species and 8 mussel species, some of which are shown here.

Fundulus natatus
Blackstipe Topminnow
(Special Concern)

Lepomis gulosus
Warmouth
(Special Concern)



Lepisosteus oculatus
Spotted Gar
(Threatened)

Noturus stigmosus
Northern Madtom
(Endangered)

Obovaria subrotunda
Round Hickorynut
(Endangered)

August

2007

JULY 2007

SEPTEMBER 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
			1	2	3	4
5	6	7	8	9	10	11
	Civic/Provincial Day					
12	13	14	15	16	17	18
International Youth Day						
19	20	21	22	23	24	25
26	27	28	29	30	31	

FORESTS CAN HELP REDUCE THE IMPACTS OF CLIMATE CHANGE

Ontario encompasses Carolinian forest in the southwest, the Great Lakes-St. Lawrence mixed hardwood-softwood forest in eastern and central Ontario, and the northern boreal forest. These forests help clean the air, retain ground water, provide habitat for thousands of plants, animals and other organisms, and provide great recreational and economic opportunities throughout the province.

Climate change potentially will contribute to significant change in the composition and structure of the province's forested ecosystems. For example, temperature and precipitation pattern changes could increase the frequency and severity of forest fire, the distribution of defoliating insects such as the spruce budworm, and diseases such as Dutch Elm disease. In addition, increased drought conditions in some ecosystems and associated loss of water from the soil could cause die-offs of some species.

Forest management and protection programs will need to include work designed to understand and reduce the impacts of climate change and to develop and apply adaptation tools and techniques.

Did you know?

That the forest fire season in parts of northwestern Ontario along the Manitoba border is a week longer than it was 40 years ago.

That the Common Dandelion and the Perennial Sow-Thistle, two invasive species from Europe which were traditionally restricted to more temperate climates in Southern Ontario, now grow near James Bay.

September

2007

AUGUST 2007

OCTOBER 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3 Labour Day	4	5	6	7	8
9	10	11	12	13	14	15 World Preservation of the Ozone Day
16	17	18 International Plowing Match and Rural Expo	19	20	21	22 Autumn begins
23/30	24	25	26	27	28	29

PRACTICING STEWARDSHIP

Maintaining and enhancing healthy and productive forests and shoreline vegetation in our watersheds is important to ecosystem health and human health. The Conservation Authorities, the Ministry of Natural Resources, the Department of Fisheries and Oceans and other agencies work with organizations, farmers and other landowners to create buffers, shelterbelts, constructed wetlands and other effective best management practices to improve water and soil quality, to help control the flow of water, and to provide habitat for plants, animals and other organisms.

Trees and other vegetation that are planted will also increase the amount of carbon dioxide absorbed from the atmosphere.

Stewardship of our land will help to maintain and improve water quality and promote water conservation both today and in future climatic conditions. Actions taken upstream will improve conditions downstream.

Did you know?

Greencover Canada offers funding programs to assist agricultural producers under Environmental Farm Plans to plan and implement a number of beneficial management practices. This program is being delivered by Ontario Soil and Crop Improvement Association with assistance from a number of Conservation Authorities. For more information: www.ontariosoilcrop.org

October

2007

SEPTEMBER 2007

NOVEMBER 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
	1	2	3	4	5	6
7	8 Thanksgiving	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31 Halloween			

KEEPING OUR LAKES 'GREAT'

The Great Lakes region offers a variety of rich natural resources that are important to keep our watersheds healthy – rugged forests, spectacular lakes, important wetlands, fertile soils and important habitat for fish and wildlife.

The Great Lakes basin is home to 33 million people, including 9.2 million Canadians and eight of Canada's 20 largest cities. Climate change will impact every ecosystem with potentially significant ecological, cultural, social and economic implications to people.

The impact of climate change is already affecting:

- Surface and groundwater levels
- Shoreline wetlands and other habitats
- Wildlife and fish habitat
- Recreational activities

Many of the actions that can be taken now to reduce the impacts of climate change will provide benefits such as cleaner air and water, improved habitat and recreational opportunities, cost benefits and enhanced quality of life in communities throughout the Great Lakes region.

Water programs that account and manage for the impacts of climate change will be an important part of work completed cooperatively by the Conservation Authorities, the Ministry of Natural Resources, the Department of Fisheries and Oceans Canada and other partners.

Did you know?

The Great Lakes region is home to 25% of Canada's population, 45% of Canada's industries and provides the foundation for $150 billion in annual Canada/U.S. trade.

The Great Lakes are the direct source of drinking water for 9.2 million Canadians and impact the health and well being of a further three million Canadians living downstream along the St. Lawrence River.

The Basin covers an area including almost all of southern Ontario, parts of northern Ontario and much of eight U.S. states.

November

2007

OCTOBER 2007

DECEMBER 2007

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
				1 All Saints Day	2	3
4	5	6	7	8	9	10
11 Remembrance Day	12	13	14 A.D. Latornell Conservation Symposium	15	16	17
18	19	20	21 World Fisheries Day	22	23	24
25	26	27	28	29	30	

HELP BE A PART OF THE SOLUTION

We all contribute to greenhouse gas emissions. Every time we turn on a light, log onto our computer or hop in a car, we use power generated from fossil fuels, which ends up producing greenhouse gases. Actions taken by individuals can have a significant impact on reducing the use of fossil fuels.

Ten steps you can take to reduce your impact include:

1. Drive an efficient car and keep it tuned up.
2. Drive less and car pool more.
3. Avoid idling.
4. Replace old 'energy-hog' appliances with new, energy efficient ones whenever possible.
5. Unplug the freezer and other appliances when you're not using them.
6. Replace old light bulbs with energy saving bulbs.
7. Plant a tree for shade (deciduous trees on the south and west sides, conifers on the north and east sides) and as a way to extract carbon dioxide from the air.
8. Compost and recycle to reduce waste, reduce landfill space and cut down on greenhouse gas emissions.
9. Turn off the lights when you leave the room.
10. Use your air conditioner only when you absolutely need it, and operate it to normal room temperature.

Did you know?

The award-winning documentary, 'An Inconvenient Truth' starring former U.S. Vice President Al Gore, takes a passionate and inspirational look at the climate crisis. www.climatecrises.net

December

2007

NOVEMBER 2007

JANUARY 2008

SUNDAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21 Winter begins	22
23/30	24/31 New Year's Eve	25 Christmas	26 Boxing Day	27	28	29

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Peterborough, ON K9J 8M5
Telephone (705) 755-3578 Fax (705) 755-3289
The Ontario Stewardship Program represents 40 Stewardship Councils
www.ontariostewardship.org

Fisheries and Oceans Canada Pêches et Océans Canada

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Central and Arctic Region
Ontario-Great Lakes Area
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This calendar has been printed in conjunction with the 2006 A.D. Latornell Conservation Symposium. www.latornell.ca

Cette publication est également desponible en français.

Canada

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