



# ENVIRONMENTAL PROGRESS REPORT 2012/2013

Growing a clean, green and healthy Leduc



PARTNERING with *nature* 

CITY OF  
**Leduc**

[leduc.ca](http://leduc.ca)

The City of Leduc Environmental Plan - Phase 1, which outlines our community's commitment to the environment, was developed with broad community input, thoughtfulness and a deep respect for our natural surroundings.

The plan was approved by Leduc City Council in February 2012, setting the city's policy direction on environmental initiatives for the next 10 years.

The environmental plan identifies priority actions to move our community toward the 10-year targets set out in the document, and the 2012/2013 Environmental Progress Report offers an overview of the City of Leduc's progress over the past two years toward achieving those goals.

It is important to note that achieving goals is a long-term process, with results built incrementally over the 10 years of the plan. Work in 2012 and 2013 focused on waste management and tree planting throughout our community. Next year, other areas will step into the spotlight as more initiatives are developed and implemented.

While reaching our targets takes time, celebrating our success is important. Each milestone we achieve results in a cleaner, healthier and more sustainable environment for generations to come.

Our entire community can take pride in our achievements and the ongoing initiatives that will be highlighted in 2014 and beyond. At the same time, we know much remains to be done before we reach our goals.

*“ I chose Leduc as my home because of the community's commitment to the environment. I want to be part of a city that underlines its philosophical support of our natural world with thoughtful, successful programs. ”*

— Jaimee Morozoff

Member, 2013 Leduc  
Environmental Advisory Board



# CITY STEWARDSHIP

leads to a healthy  
environmental future



City council's leadership ensures the vision to create a community that offers a high quality of life while sustaining our enviable environment — and the resources needed for a broad range of environmental initiatives.

Key stakeholders including the Leduc Environmental Advisory Board (LEAB) ensure initiatives represent the unique direction forged by our community.

## Policy development

- Council approved the environmental plan and the budget for priority actions focusing on education, capacity building and leadership.

## Capacity building & industry liaison

- The LEAB's commitment to the environmental plan helps keep the broader community involved and aware of the plan's progress and value.
- City memberships in environmental organizations help keep the civic administration up to date with emerging trends, technologies and best practices that hold potential for Leduc. These organizations include:
  - » Alberta Capital Airshed
  - » Association of Alberta Coordinated Action for Recycling Enterprises (Alberta CARE)
  - » Canada Green Building Council
  - » Capital Region Waste Minimization Advisory Committee
  - » ICLEI – Local Governments for Sustainability

## Program development & implementation

- An independent third-party environmental compliance audit conducted in 2012 concluded that the city is satisfactorily managing its environmental obligations and will follow up on a few specific operational areas.

These third-party audits are not mandatory but have been completed every three years since 2000 as good environmental practice.



**LEAB**  
Leduc Environmental  
Advisory Board

*Advisory committee in action*



## Communication & community outreach

- Mayor Greg Krischke proclaimed Environment Week, encouraging residents to get involved.
- Significantly increased resources including an enhanced website, waste reduction materials, etc. are available to residents.
- The new '**Partnering with nature**' brand provides a strong, consistent message linking waste diversion initiatives with a healthy environment.
- The International Communities in Bloom (CIB) competition earned Leduc '5 blooms' with special mention in floral designs. Mayor Krischke presided as co-chair during the 2012 National CIB Symposium and Awards event held in Edmonton.
- Environmental activities for children and youth help young people gain respect for our environment and learn how to keep it healthy.
  - » The LEAB hosted environmentally themed performances in 2012 and 2013 to all Leduc Grade 4 students, about 400 children each year, to give the youngsters a focus on nature and biodiversity.
  - » Civic staff presented eco-friendly subjects to Grades 3, 4 and 5 students in 2012 and 2013.
- The LEAB held a Waste Reduction Fair during Environment Week to highlight the connection between waste reduction and a healthy environment.
- The City of Leduc continued several established initiatives:
  - » the Citizens of Distinction Environmental Achievement Award, with former LEAB Board Chair Ron Roesch honoured in 2012 and LEAB Board Chair Andrew Tait honoured in 2013,
  - » Environment Week activities, and
  - » participation in farmers' markets and other community events including the Black Gold Rodeo, Main Street Festival and Canada Day.



# RESPONSIBLE WASTE MANAGEMENT

*key to a healthy environment*



Responsible waste management was the City of Leduc's environmental focus in 2012 and 2013.

The community embraced a new curbside organics collection program, at the same time significantly increasing residents' participation in blue bag recycling and increasing the amount of material they took to the expanded Eco Station.

Responsible waste management reduces ground and air pollution, maximizes the raw materials in recycled products and saves money by extending the life of the landfill.

## Policy development

- The city studied various options to reach a residential waste diversion target of 65 per cent by 2021, set out in the Environmental Report. Best practice research from similar municipalities showed the target could be met through a residential organics collection initiative. Council approved the new curbside organics collection program with no increase in the residential utility user fee of \$21.50 per month.
- The city's land-use bylaw includes several new 'green' features including the requirement of new apartment buildings to include space for both waste and recycle containers as well as new sections on energy and water efficiency.

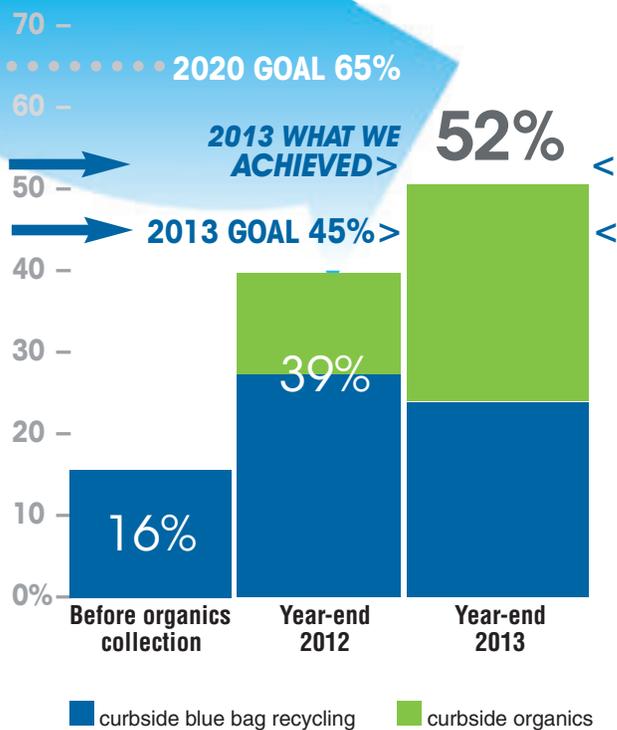




## WHAT WE ACHIEVED:

# RESULTS:

## % RESIDENTIAL CURBSIDE DIVERSION



### Curbside organics

(Includes special curbside yard waste collection)

- Curbside organics collection was implemented city-wide by early October 2012.



#### CURBSIDE ORGANICS

2012*	2013
278	<b>2,138</b>
	(TONNES)

\*Service started Sept. 2012

### Curbside blue bag recycling

- Residents recycled record amounts of blue bag materials because of the new limit on the amount of waste and increased resident awareness.



#### CURBSIDE BLUE BAG RECYCLABLES

2012	2013
1,075	<b>1,360</b>
	(TONNES)



#### CURBSIDE WASTE COLLECTION

2012	2013
4,423	<b>3,148</b>
	(TONNES)

## Eco Station

- Capital and service improvements to the Eco Station, formerly called the recycling depot, were undertaken in 2012 to increase the amount of material residents diverted from the landfill. The improvements, which took effect in September 2012, included staffing the Eco Station, improving signage and accepting household hazardous and electronic waste year around.



### ECO STATION MATERIALS

	BLUE BAG RECYCLABLES (TONNES)	ELECTRONIC WASTE (TONNES)	HOUSEHOLD HAZARDOUS WASTE* (LITRES)
2012	688	14.9	13,872
2013	<b>263</b>	<b>56.1</b>	<b>60,094</b>

\* Including materials collected at the October 2013 Toxic & E-Waste Roundup



### TOXIC & E-WASTE ROUNDUP MATERIALS

	ELECTRONIC WASTE (TONNES)	HOUSEHOLD HAZARDOUS WASTE (LITRES)
2011	3.7	9,380
2013	<b>2.3</b>	<b>14,370</b>



## Composting

- Residents were encouraged to drop off extra yard waste that wouldn't fit in their organics carts at the Yard Waste Transfer Station.
- The city also offered special curbside yard waste collection both years over two weeks in late October.
- The city then composted the material and offered compost back to residents in the spring.
- In 2012, the city offered a discount on backyard composters. In total, 21 composters were purchased through the promotion.

### COMPOSTING MATERIALS



	YARD WASTE TRANSFER STATION (TONNES)
2012	1,566
2013	<b>1,041</b>



## That's progress!

Families using backyard composters bought through the city's 2012 promotion will reduce greenhouse gas emissions by more than 2,600 kilograms every year. Decomposing organics in landfills create methane gas; backyard composters produce significantly less methane gas.

## Communication & community outreach

- To ensure residents had enough information to participate fully in all waste diversion initiatives, the city developed and implemented the first two years of a three-year waste reduction social marketing strategy.
- The city supported Waste Reduction Week 2013 by hosting the Toxic and E-Waste Roundup in October.



### WHAT WE ACHIEVED:

- A self-directed online survey posted on the city website in late 2012 was completed by 428 residents. The survey indicated the following trends:
  - » almost 80 per cent of respondents had no remaining questions about the organics collection program after reading the supplied materials,
  - » almost 90 per cent of respondents used the brochure,
  - » more than 85 per cent of respondents used the calendar, and
  - » website traffic on the enhanced waste diversion pages on the City of Leduc's website trailed only the city's home page and job section.

- An April 2013 check of the material in organics carts found that more than 95 per cent of households are sorting only correct, compostable material into their organics carts.
- The communication program for Leduc's waste diversion initiatives won three International Association of Business Communicators (IABC) peer-reviewed awards in 2013.



### 2014 priorities

*With the foundational residential waste diversion programs in place, the city's 2014 waste diversion priorities include multi-family and commercial waste reduction and increased outreach to school children.*



# ENHANCING *our natural areas*

Our trees, parks and natural areas are a welcome and familiar part of our community. Ensuring they stay healthy and abundant over the long term is a priority for Leduc.

As our city grows, we need more houses, stores, services and roads — all important parts of our urban lifestyle. Each new building or road, however, highlights our need to preserve and enhance our natural environment to ensure a healthy and ongoing interaction between nature and our residents.

Besides being a beautiful part of our everyday life, our natural areas offer opportunities now and in the future to learn first-hand about nature and even increase the amount of food we produce ourselves. Healthy trees and natural areas also attract birds — enhancing our enjoyment of the sights and sounds of nature.

Effective management of our natural areas supports Leduc's vision of a healthy and sustainable community.

## Policy development

- A naturalization plan developed by civic administration and stakeholders including the LEAB was presented to council as a blueprint for increasing the number of trees and the number of natural areas in the city. The plan ensures trees are considered for every area of the city while containing the cost of maintaining natural areas.

## »» *Going forward...* **2014 priorities**

*The city's purchase of land on the northwest shore of Telford Lake in 2013 adds more than 66 acres of natural area to the North Telford Recreational Lands. The land, identified in the Telford Lake Master Plan, provides a large natural area within city boundaries for residents to enjoy.*

## Program development & implementation

- The city's tree planting and replacement program proceeded on schedule.
- The LEAB hosts an annual Arbour Day tree-planting event. The city hosts several smaller tree-planting events each year.
- The LEAB and the City of Leduc sponsored the first-ever Leduc Christmas bird count in 2012. In 2013, the LEAB held an inaugural Environment Week bird count as well as the second annual Christmas bird count.
- The LEAB produced Leduc's first bird species inventory and is working toward an urban wildlife management program.
- City crews maintained 295 hectares of park space.



## WHAT WE ACHIEVED:

### TREES PLANTED



2012:

**600** Deer Valley Ravine  
**250** Robert Dietrich Park

2013:

**900** Deer Valley Ravine

### TREE PLANTING



**235** participating  
volunteers  
in 2012/13

### CHRISTMAS BIRD COUNTS



**530** birds  
(30 species - 2012)

**357** birds  
(25 species - 2013)

### SPRING BIRD COUNT

**1,645** birds  
(97 species - 2013)



### *That's progress!*

Leduc's urban forest program inventory increased to more than 10,000 trees. That means **Leduc has 10 trees for every 25 people.**

# ENERGY CONSERVATION

helps contain climate change

Our 21st century lives depend on having a stable, reliable and affordable energy supply.

As good environmental stewards, we also recognize the importance of sustained energy conservation — to control greenhouse gas emissions, the principal cause of climate change — and to save money. Each of us can make a difference in the amount of energy we consume.

## Program development & implementation

- The city reduced its energy use by:
  - » installing eight new LED streetlights,
  - » installing three solar-powered pedestrian crossing signals, and
  - » purchasing its first hybrid car.
- The city completed its three-year Energy-efficient Appliances Rebate Program in 2012. The program encouraged homeowners to install energy-efficient and/or water-efficient clothes washers, furnaces and low flush/low flow toilets.
- The city sent more than 500 tonnes of wood chips to the Dapp Power Biofuels Recycling Centre near Westlock in 2012. Power generated at Dapp is considered renewable energy and the nutrient-rich byproduct, wood ash, is used to add nutrients to agricultural land. The wood chips were made from branches residents dropped off at the Yard Waste Transfer Station.



## WHAT WE ACHIEVED:

### APPLIANCES REBATE PROGRAM — WHAT WE CONSERVED THROUGH MORE THAN 1,000 REBATES



**\$60,000**  
in residential  
utility costs



**17,000**  
cubic metres  
of water



**400**  
tonnes -  
reduced  
greenhouse  
gas emissions



**4,300**  
gigajoules of  
natural gas



**200**  
megawatts  
of electricity



*That's progress!*

Reducing greenhouse gas emissions by 400 tonnes  
is like taking 67 passenger vehicles off the road for a year.

## MANAGING the impact of light and noise

Leduc has worked with various community partners to reduce the impact of light and noise pollution in our community without compromising our quality of life.

Evidence is emerging that concludes light and noise pollution has an adverse effect on human and environmental health.

### Policy development

- The city continued to develop noise guidelines.

### Program development & implementation

- As a pilot project, the city installed new downcast LED lighting along 50th Street between Rollyview Road and Highway 2A in 2012 to contain the spread of light. This successful pilot project paves the way for future projects.

## MANAGING our precious water resources

Water and its effective management is a key to the long-term health and safety of our community.

Together, we own our water resources. Together, we are responsible for using water efficiently for ourselves and for others using the same water source, the North Saskatchewan River Basin.

Water use also has implications related to the potential effects of climate change. More severe weather such as summer floods or drought will strain our water and sewer infrastructure. The city's capital and operating budgets must be planned to accommodate required updates or expansions of our water infrastructure.

### Program development & implementation

- The city's commercial and residential water meters were replaced or upgraded in 2013. This initiative will help the city track water use and will help water users conserve water. As part of the program, each home received information on conserving water.
- The city initiated the development of a water efficiency plan in 2013, supporting the Government of Alberta's Water for Life strategy.
- To ensure residents have access to a convenient, cost-effective means of conserving water, the city continued its practice in 2012 of offering a discount on a household rain barrel. In total, 56 rain barrels were purchased through the promotion.
- The city also continued the rain gauge program to promote water-efficient lawn watering.



### That's progress!

More efficient appliances bought through the appliance rebate program saved enough water to serve a family of four for more than 42 years.



### WHAT WE ACHIEVED:



Rain barrels bought in the 2012 promotion could collect **275,580** litres of water during the summer.

# HEALTHY ECOSYSTEMS *depend on good air quality*

Municipalities fulfil an important role in helping to maintain good air quality, an important part of overall environmental stewardship.

Poor air quality can lead to health issues. It can also increase the acidity of our local lakes and streams, adversely impact the nutrient levels in soils and damage local agricultural crops. This can lead to poor water quality and reduced plant growth and crop yields.

Available data in proximity to Leduc indicates our region enjoys air quality with low or moderate health risk 99 per cent of the time. Following direction outlined in the environmental plan, the city will work with local partners to acquire air data specific to our community.



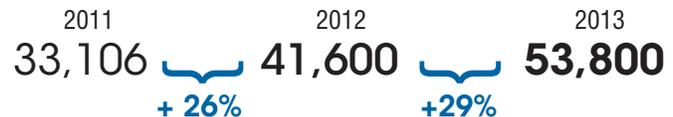
## Transit ridership reduces air pollution

Vehicles are a significant source of greenhouse gas (GHG) emissions. Leduc's C-Line transit service has reduced the number of private vehicles on our roads, reducing GHG emissions by more than 150 tonnes since the service began.



### WHAT WE ACHIEVED:

INCREASING TRANSIT RIDERSHIP  
REDUCES USE OF PRIVATE VEHICLES



#### FOR MORE INFORMATION:

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