



# 2018 ENVIRONMENTAL PROGRESS REPORT



*Growing a clean,  
green and  
healthy Leduc*

PARTNERING with *nature* 

CITY OF  
**Leduc** 

# CITY STEWARDSHIP

The City of Leduc's 2018 environmental priorities included starting new initiatives, maintaining core programs and reallocating staff to reflect the city's overall budget priorities.

A flagship Environmental Services initiative was the development of Leduc's Greenhouse Gas (GHG) Reduction Action Plan. Another major initiative was the rebuilding and expansion of the Eco Station.



## *New Council, new corporate planning cycle*

The city's corporate planning in 2018 focused on engaging all sectors of the city to develop the City of Leduc Strategic Plan 2019-2022.

Results from the Engage Leduc process concluded with a responsive balance between the quality of services and amenities that make Leduc a more sustainable, attractive family community and the preservation and protection of the environment.

## 2018 CIVIC PROJECTS

The Environmental Services team worked with the Planning Department to advise the **University of Alberta Wildlife Study** team about Leduc-specific wildlife movement e.g. coyotes, deer. The study outlines suggestions on wildlife corridors in Leduc and between Leduc and surrounding areas.

The **Salt Management Plan** was completed. The plan ensures safe, efficient and cost-effective roads, recognizing the adverse effects excessive road salt can have on the environment.

The energy efficiency of the new Public Services **mini-truck** stems from a 0.6 litre (l) engine compared with an average 5.0 l engine in a conventional truck.

*We are committed to protecting our natural and built environment. We will champion environmental action. We will continue to look for ways to increase solid waste diversion rates and to be a more effective steward of our water resources. We will protect and enhance our unique natural features and built environment.*

– City of Leduc 2019-2022  
Strategic Plan

# FLUSH SMARTer

To help keep Leduc's sewer system working efficiently and cost-effectively, this made-in-Leduc initiative supports a broader regional initiative of the Alberta Capital Region Wastewater Commission.



Through a 2018 multi-media campaign linked to Leduc's Sort Smarter program, residents learned what to flush down the toilet or the sink and were reminded how to safely dispose of all other materials by sorting them into the right cart.

## 2018 REGIONAL INITIATIVES

Leduc's **Integrated Pest Management Strategy** is part of a broader regional initiative, led by the City of Leduc, to build efficiencies in managing multiple issues.

Environmental services staff again represented the City of Leduc at the **Alberta Capital Airshed** and on the **Capital Region Municipal Sustainability Group**.

Councillor Glen Finstad continues as Chair on the **Edmonton Region Waste Advisory Committee**. This committee is advocating for extended producer responsibility (EPR) legislation, requiring producers take responsibility for their goods to be recycled or disposed of in a more environmentally responsible manner.

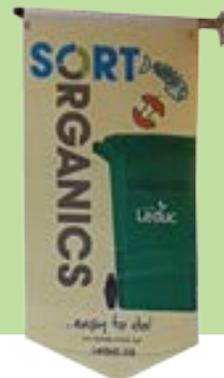
## Community Outreach & Communication highlights



**Business Expo** – About 200 people visited the Environmental Services booth to discuss initiatives including the GHG plan, waste diversion and the Pollinator Garden Challenge.

**Large Item Pickup** – A pilot project included mattresses this year. Residents disposed of 29 mattresses and 231 tonnes of large items.

**Spring and fall Community Information Registration Days** – Reinforcing ways to sort smarter.



**Festival of Trees** – The Leduc Environmental Advisory Board (LEAB) led the decoration of two trees, one for the Christmas bird count and the other profiling dark skies benefits.

**Communities in Bloom** – Continues to encourage civic pride and active involvement in our community.

# GREENHOUSE GAS (GHG) REDUCTION ACTION PLAN

...roadmap for a  
greener, cleaner Leduc

The Leduc Environmental Plan – Phase 1, approved by Council in 2012, identifies several major initiatives that will help Leduc achieve its vision of a greener, cleaner, more sustainable community.

One of the initiatives is the development of a plan to reduce GHG emissions throughout our community. This significant undertaking builds on and reinforces key decisions made to date with related projects already completed or underway. **GHG emissions are a leading cause of our changing climate.**

The city's success with projects including organic sorting, rooftop solar panels, LED lights and facility retrofits effectively sets the groundwork for the GHG reduction plan.

Successful plan development also needed the participation of virtually all civic departments. The initial in-depth community engagement related to the made-in-Leduc plan took place between April and June 2018.

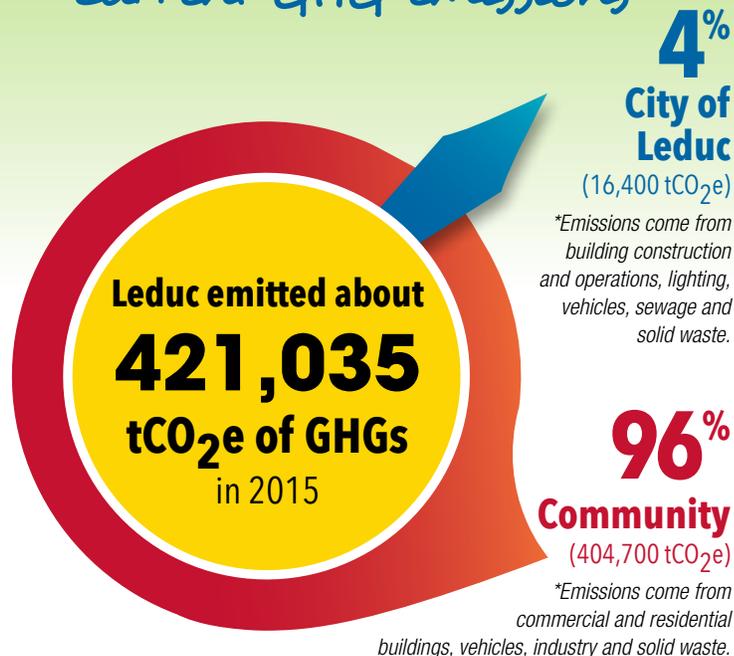
The completed plan will help chart GHG reduction priorities in these departments for years to come.

Benefits of  
reducing  
GHG  
emissions

## Our local action plan can:

- produce a cleaner, healthier, safer community,
- save the city, residents and business money,
- increase community resiliency against future regulations and pricing, and
- reduce impacts to our climate.

Understanding Leduc's  
current GHG emissions



By 2030, total community emissions are projected to rise to 460,740 tCO<sub>2</sub>e, equivalent to an annual average compound growth rate of +0.6%.

Leduc's GHG Reduction Action Plan will chart a course to reduce these emissions over the next 10 years.



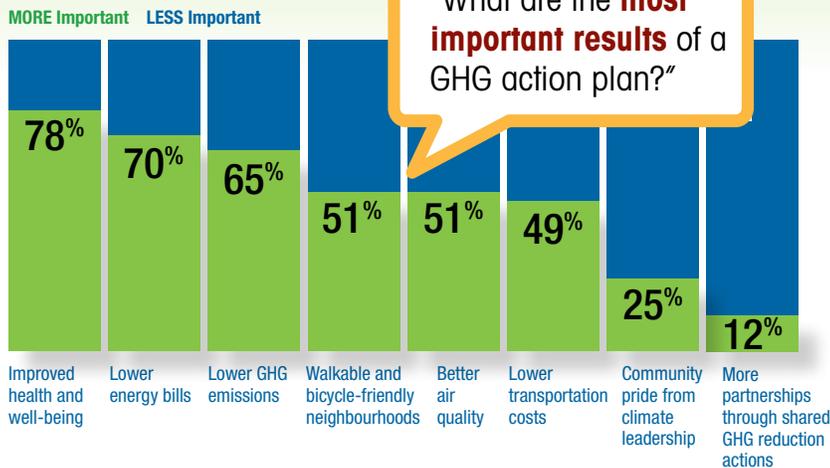
# Let's talk our climate solutions

## ENGAGEMENT RESULTS

### What we heard

#### Online survey results

(247 respondents)



### Engagement display boards

The engagement display boards attracted 94 community comments. It was available throughout the spring at the:

- 2018 Business Expo
- Leduc Public Library
- Leduc Recreation Centre
- Leduc Civic Centre

### Stakeholder workshop

Representatives from 11 organizations from utilities to home builders provided input into reduction ideas.

### Public and stakeholder input themes



### Next steps

Final input was gathered in early 2019 at a public open house. All feedback was considered and integrated into a final report for Council's consideration in spring 2019.

#### Actions the CITY OF LEDUC could take

The majority of respondents supported all the actions the city proposed for ways it could reduce GHG emissions. The top three actions the city should do are:

Plant more trees and preserve natural areas	Encourage residents to recycle and compost	Encourage businesses to recycle and compost
<b>90%*</b>	<b>87%*</b>	<b>87%*</b>

#### Actions LOCAL RESIDENTS and BUSINESS could take

The majority of respondents also agreed with the proposed actions residents and businesses could take to reduce GHG emissions. The top three actions are:

Plant more trees and gardens	Recycle and compost more to put less in landfill which emits GHGs	Make their homes and businesses more energy efficient
<b>90%*</b>	<b>87%*</b>	<b>85%*</b>

\*of respondents strongly agree/agree

## Waste diversion... we **Sort Smarter**

The City of Leduc's waste diversion priorities in 2018 reflected wide-ranging realities – keeping the many core programs on the right course for continued community participation while introducing some new initiatives that support Leduc's waste management objectives.

### Communication & community outreach

- Environment Week continued to provide a focus for several spring initiatives including the Peter Puffin school presentation to 322 Grade 4 students. Other environmental events also held around Environment Week were Clean Air Day and the spring bird count.
- A Sort Smarter public education campaign continued to encourage correct sorting.
- The city explored options for a major upgrade to the Sort Smarter app in 2019.
- In a new pilot project, surplus chips from the Yard Waste Transfer Station were used at a farm for bedding.



## WHAT WE ACHIEVED



Leduc residents and businesses continue to take advantage of the many programs and services available in Leduc to make sorting and material disposal easy, convenient and quick.

Events around Environment Week in the spring continue to be well attended. The Green Gold event at RONA again saw residents tote home dozens of rain barrels and discounted composters. The addition of mattress pickup during the Large Item Pickup proved popular and will continue in 2019.

Eco Station visits have increased 52% since 2014 with residents, businesses and Leduc County residents routinely using the busy facility. Even though the facility operated a smaller site for much of 2018, the Eco Station recorded a 10% increase in visits, a testament to its usefulness to our entire community.





## Curbside ORGANICS\*

\* INCLUDES CHRISTMAS TREES PICKED UP BY SPECIAL COLLECTION  
 \* CURBSIDE SERVICE STARTED IN SEPTEMBER 2012



	2014	2015	2016	2017	2018
MATERIAL COLLECTED (TONNES)	2,415	2,375	2,675	2,802	<b>2,564</b>
PER HOUSEHOLD (KG)	318	294	319	323	<b>291</b>

## Curbside BLUE BAG RECYCLABLES



	2014	2015	2016	2017	2018
MATERIAL COLLECTED (TONNES)	1,439	1,328	1,197	1,126	<b>1,250</b>
PER HOUSEHOLD (KG)	189	165	143	130	<b>142</b>

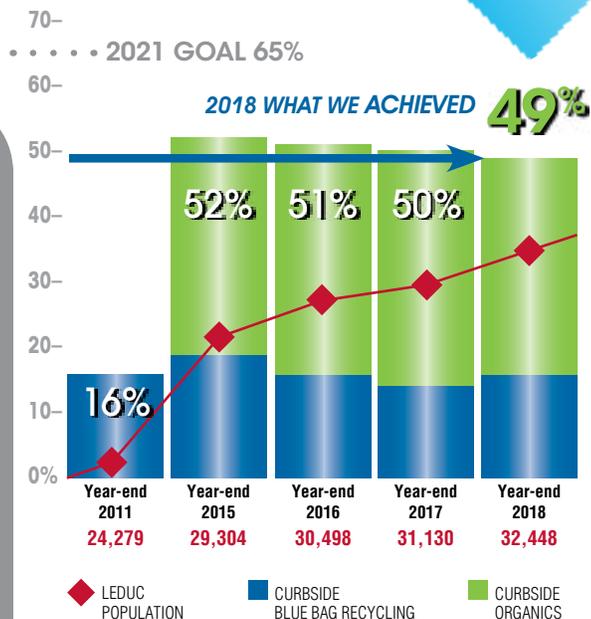
## Curbside WASTE COLLECTION



	2014	2015	2016	2017	2018
MATERIAL COLLECTED (TONNES)	3,327	3,395	3,683	4,005	<b>3,926</b>
PER HOUSEHOLD (KG)	437	421	440	462	<b>445</b>

## RESULTS:

### % RESIDENTIAL CURBSIDE DIVERSION

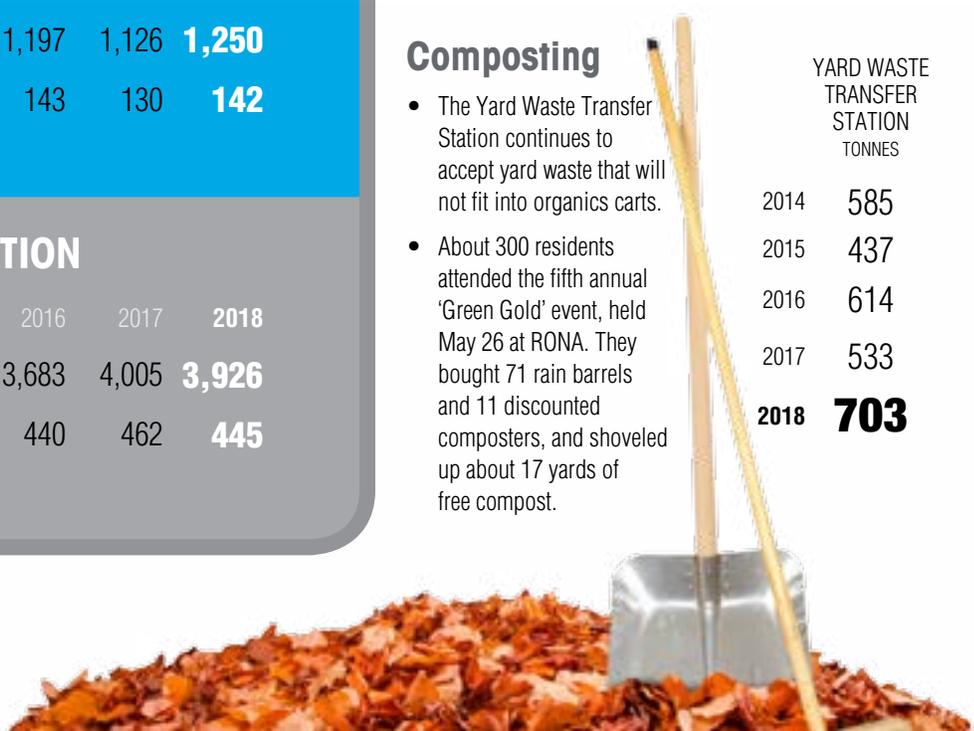


## Composting

- The Yard Waste Transfer Station continues to accept yard waste that will not fit into organics carts.
- About 300 residents attended the fifth annual 'Green Gold' event, held May 26 at RONA. They bought 71 rain barrels and 11 discounted composters, and shoveled up about 17 yards of free compost.

### YARD WASTE TRANSFER STATION TONNES

2014	585
2015	437
2016	614
2017	533
<b>2018</b>	<b>703</b>





# ECO STATION



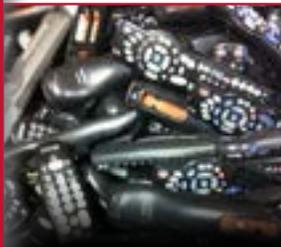
More people served!

Eco Station visits increased **52%** since 2014 thanks in part to our partnership with Leduc County and the strong commitment from City of Leduc businesses and residents to divert waste responsibly.

This year's **10% increase** is even more noteworthy because the Eco Station has operated a smaller site for much of the year while upgrades to the permanent site have taken place.

	VISITS	BLUE BAG RECYCLABLES	CARDBOARD	ELECTRONIC WASTE <sup>‡</sup>		HOUSEHOLD HAZARDOUS WASTE <sup>‡</sup>
		TONNES	TONNES	UNITS	TONNES	LITRES
2014	20,119	344	15.39**	3,316	59.5	54,608
2015	25,786	271	29.65**	3,944	68.6	92,865
2016	27,995	302	28.93**	3,447	59.3	90,645
2017	27,666	133	N/A	3,499	63.8	99,354
<b>2018</b>	<b>30,512</b>	<b>147</b>	<b>N/A</b>	<b>3,330</b>	<b>62.7</b>	<b>101,272</b>

<sup>‡</sup> INCLUDING MATERIALS COLLECTED AT THE OCTOBER 2018 TOXIC & E-WASTE ROUNDUP  
<sup>\*\*</sup> COMPACTED CARDBOARD ONLY



## Toxic & E-Waste Roundup

- The October 13th Roundup attracted 334 vehicles.
- About 130 people visited the information tent.
- Residents dropped off seven bins of paint products, 950 litres of used oil and 115 used propane tanks.

	ELECTRONIC WASTE		HOUSEHOLD HAZARDOUS WASTE
	UNITS	TONNES	LITRES
2014	104	2.1	<b>8,010</b>
2015	240	4.4	<b>11,410</b>
2016	125	2.0	<b>9,597</b>
2017	144	2.5	<b>9,562</b>
<b>2018</b>	<b>86</b>	<b>1.8</b>	<b>5,352</b>





## Evaluating our waste diversion communication effectiveness

Leduc's ongoing communication and marketing program has proven key to the success of Leduc's waste reduction and diversion program – focusing on reusable tools that minimize material that could end up in the landfill.

A 15-minute telephone survey was completed in the fall of 2018 by 403 randomly selected residents. With a margin of error of  $\pm 4.8\%$ , the results help enhance the effectiveness of the program and its communication support.

### Leduc.ca grows as information source

	COLLECTION CALENDAR	ECO STATION PAGE	SORTING & CART PREP
2018 PAGE VIEWS	14,017	7,010	1,400-1,900
% OF INCREASE OVER 2017	<b>8%</b>	<b>17%</b>	<b>SIMILAR</b>



## Lessons learned from research

While 85% of residents felt the existing tools and communication programs addressed their needs and are valued, a few information gaps were noted, especially by newer residents. These gaps are currently under review by the Administration.

- More information on the Eco Station services and how to use them (16%)
- Specific product-sorting information (7%)
- Curbside collection and placement (6%)

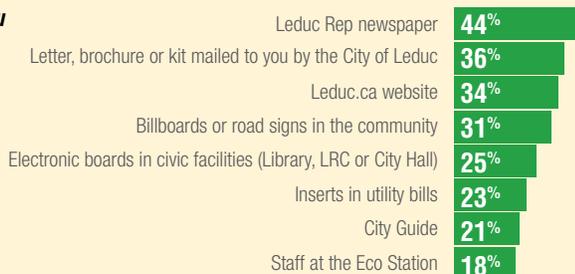
The evaluation also generated program improvement suggestions including:

- Increase curbside waste collection frequency (17%)
- Expand Eco Station hours (12%)
- Recycle more products at curbside (11%)
- Recycle glass at the curbside (8%) and/or Eco Station (9%)

## Program is working, Survey says

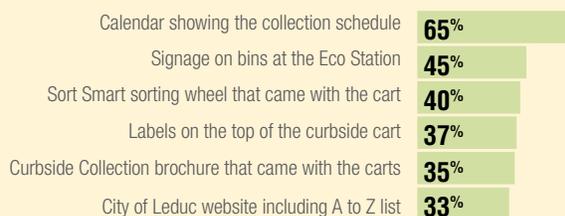
**Over the past year have you seen, heard or received information regarding the City of Leduc's waste collection or sorting program from any of the following sources?**

Total households n=403



**In the last few months, how useful have each of the following been to help with sorting or to check cart collection information?**

Total households receiving curbside collection n=391



**Overall satisfaction high** with program and communication material

**93%** of residents satisfied with curbside program

**65%** of households use the Eco Station 2-4 times/year

Information reaching **85%** of households through various channels over the past year

Different information tools used by different residents with **90%** finding at least one information tool useful

**Messages strongly supported** with all audiences, especially women



Reducing waste is everyone's responsibility



Sorting material helps to divert it from landfill



The cart program is easy to do

# ENHANCING *our natural areas*

## Program development & implementation

### Pollinator garden expansion.

The garden has been extended to the east, along the south side of Telford Lake. The city and the Leduc Rotary Club have formed a partnership with the Rotary Club donating trees and shrubs to the garden.

### Pollinator Garden Challenge.

This successful new initiative, part of a North American-wide initiative, attracted 76 participants who planted pollinator gardens in Leduc.

### Integrated Pest Management Strategy completion.

The strategy includes increased funding for tree replacement, initiation of a tree reserve, work to minimize tree disease and coyote management.

### Leduc Lions Park grand opening.

About 2.5 kilometres of trail through Lions Park and the east end of Telford Lake was completed. The work is part of the first phase of the Telford Lake Trail Alignment.

### Dark Skies initiative.

This program, developed by the Leduc Environmental Advisory Board (LEAB), focused on dark skies as a key to a natural, healthy world. It was promoted through digital and social media.

### Healthy air quality better than provincial objectives.

According to the air monitoring program at the dog park, Leduc's average annual nitrogen dioxide (NO<sub>2</sub>) reading in 2018 was 4.0 parts per billion (ppb), well below the annual Alberta Ambient Air Quality Monitoring Objective (AAQMO) of 24 ppb. The average monthly sulphur dioxide (SO<sub>2</sub>) reading in Leduc is 0.6 ppb, well below the monthly AAQMO of 11 ppb.

### Spring and winter bird guides.

LEAB and the city developed these two guides, with support from Canadian Tire, to help residents identify and enjoy the many birds that make our community home.



## WHAT WE ACHIEVED:

### TREE PLANTING

# Volunteers	# Planted
2015: 70	2015: 600
2016: 200	2016: 600
2017: 180	2017: 1,050
2018*: <b>250</b>	2018*: <b>800</b>

\*The City of Leduc gratefully acknowledges the Canada 150 sponsorship of the 2017 Arbour Day ceremonies.

### SPRING BIRD COUNT

Birds	Bird Species
2015: 1,022	101
2016: 1,253	98
2017: 1,489	94
2018: <b>2,368</b>	<b>108</b>

### CHRISTMAS BIRD COUNT

Birds	Bird Species
2015: 677	30
2016: 744	28
2017: 473	26
2018: <b>678</b>	<b>25</b>



# ENERGY CONSERVATION

-reducing our carbon footprint

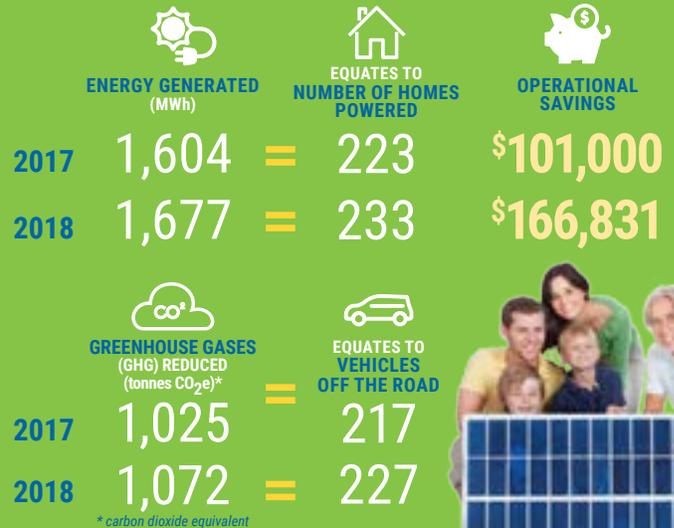


## Leduc LRC and Operations Building solar project.

Leduc's major solar project started in mid-2016 in preparation for the 2016 Alberta Summer Games.

The city, in partnership with ENMAX, completed installation in 2018 of a major display at the LRC telling the solar power story and highlighting the benefits accruing to Leduc because of the solar project.

## LRC & Operations Building solar energy benefits



# MANAGING

our water resources

## Program development & implementation

### Creek surface water study.

The city participated in a regional initiative to develop the Blackmud/Whitemud Creek Surface Water Study that identifies potential drainage, flooding and erosion issues to protect the watershed.



## Expanding our commitment to solar energy.

The city installed seven solar pedestrian crossings, upgraded one existing crossing to solar lighting, installed solar on-demand lights at 13 transit stops and solar lights in the dog park parking lot – combining safety, energy conservation and light pollution reduction.

# PUBLIC TRANSIT

good for the environment

Leduc residents are on board with public transit – literally. With steadily increasing ridership and boarding numbers, it's clear Leduc Transit is taking residents where they need to go for work, school or recreation efficiently, cost effectively – and through an environmentally friendly operation.

Leduc Transit is an inter-municipal transit partnership between the City of Leduc and Leduc County, funded in part by the Government of Alberta's Green Transit Incentives Program (GreenTRIP).

- Leduc residents now have several Leduc Transit route options between the city, the Premium Outlet Collection at Edmonton International Airport (EIA) and EIA. The enhanced service started in May 2018. With the Regional Transit Service to EIA cost share agreement, Leduc passengers enjoy cost-effective fares on these routes. Route 10 now connects Leduc to EIA seven days a week.
- Leduc residents identified transit as a top priority through the Engage Leduc consultation process to develop the City of Leduc Strategic Plan 2019-2022.
- Solar on-demand lights, funded in partnership with the Government of Alberta and Government of Canada, were installed at 13 transit stops, providing light when needed for safety but also conserving energy and reducing light pollution when no one is at the bus stop.
- Three-stream sorting stations were installed at several transit stops.



## WHAT WE ACHIEVED:



% Difference from start of service in 2011 (ridership & boardings: 33,106)

	2014	2015	2016	2017	2018
RIDERSHIP*	58,269	69,031	68,641	81,654	<b>94,956</b>
BOARDINGS+	59,548	76,775	77,664	90,504	<b>101,723</b>

\*A PASSENGER IS COUNTED ONCE EVEN IF HE OR SHE TRANSFERS MULTIPLE TIMES.

+A PASSENGER IS COUNTED EACH TIME HE OR SHE BOARDS A BUS.

### CLEAN AIR DAY June 6, 2018 Promotion Boosts Ridership



	Average # Passengers May 2018	2018 Clean Air Day # Passengers June 6, 2018	% Increase Over Average Ridership
Leduc Transit	322	<b>379</b>	<b>18%</b>
LATS	105	<b>123</b>	<b>17%</b>

#### FOR MORE INFORMATION:

City of Leduc Civic Centre #1 Alexandra Park Leduc AB T9E 4C4

Eco-smart Hotline: 780-980-7107 E-mail: [ecosmart@Leduc.ca](mailto:ecosmart@Leduc.ca)