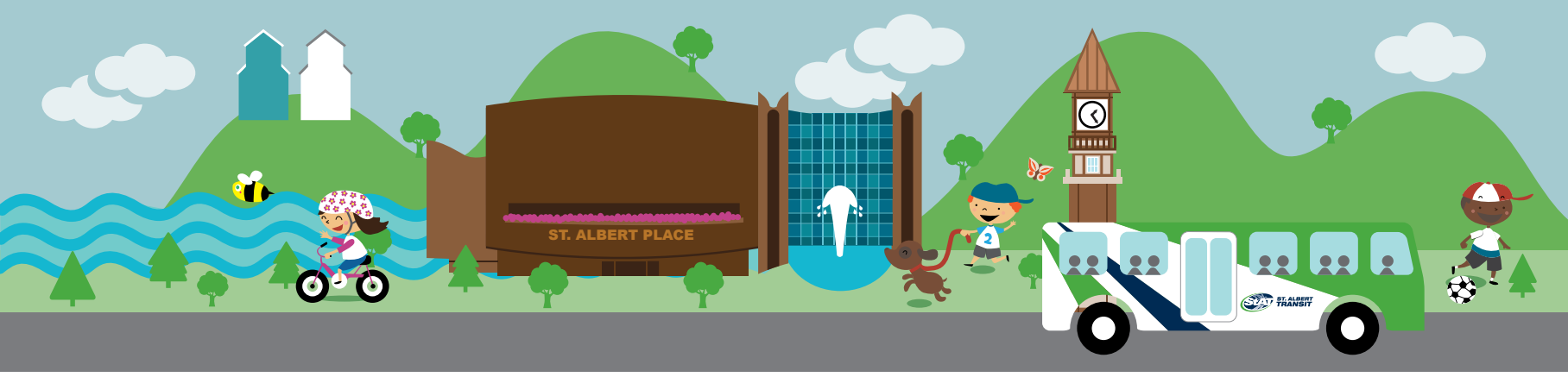


2015 REPORT ON THE ENVIRONMENT

April 30, 2016

The Environmental Master Plan (EMP) is a long-term community plan that identifies, prioritizes and sets specific goals and targets for key environmental issues for the City and the community. To read the full EMP visit **stalbert.ca** and search **Environmental Master Plan**'.

Each year, the City reports our progress to the community through the Report on the Environment. It provides a snapshot of our progress, as well as highlights, key projects and achievements.

We would love to hear what you think of our report. Visit **stalbert.ca** and search '**Report on Environment**' to take a short survey.

AIR AND ENERGY

GOAL 1

MANAGE AIR QUALITY:

Air Quality Monitoring Station

After years of planning and advocacy, the City will be celebrating the opening of an Air Quality Monitoring Station in June 2016. The station will add to the extensive air quality monitoring network already in operation in the Capital Region. It will measure particulate matter, oxides of nitrogen and ozone that are components of urban smog which can impact your health.

The measurements taken by the air quality station are used by the Province of Alberta and Environment Canada to report the Air Quality Health Index (AQHI).

What is the AQHI scale?

The AQHI is a coloured scale from 1-10+ designed to help you understand what the outdoor air quality means to your health. The index values are grouped into health risk categories as shown below. These categories help you to easily and quickly identify your level of risk. Visit **stalbert.ca** in June 2016 to download the air quality app.

AIR QUALITY HEALTH INDEX (AQHI)



GOAL 2

REDUCE ENERGY CONSUMPTION AND GREENHOUSE GAS EMISSIONS:

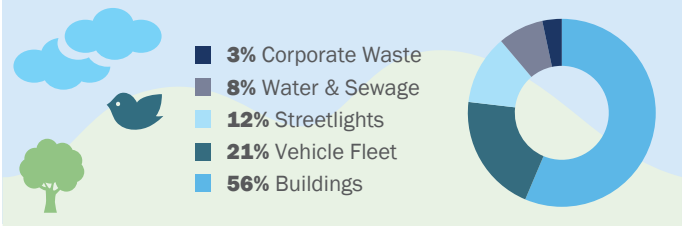
Corporate (City) Greenhouse Gas Emissions

Overall, St. Albert's 2015 corporate emissions were calculated to be approximately 8% below 2008 levels. The target is to reduce emissions to 20% below 2008 levels by 2020, which means there is still work required to achieve the target.

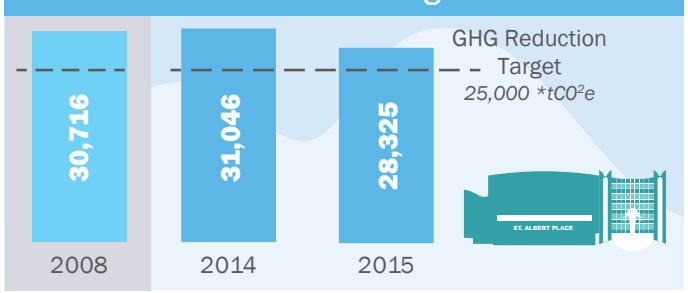
Likely due to the unusually warm winter, the St. Albert civic facilities emissions decreased over 10% from 2014 levels.

In 2015, energy efficiency audits were conducted at 11 City facilities and the final report recommended several energy conservation measures, including the installation of solar panels.

2015 Corporate (City) Greenhouse Gas Emissions



Corporate (City) Emissions Compared to Baseline Target



*Tonnes of carbon dioxide equivalent.

The Eco-Solar Home Tour
June 4-5
Learn first-hand from homeowners the benefits of solar and home energy efficiency retrofits. Visit **ecosolar.ca**

Solar Energy

Solar photovoltaic (PV) systems are a source of renewable energy that can be used for heating and electricity. By using solar technology, you can reduce the need to burn fossil fuels and lessen your carbon footprint. Installation of solar systems is permitted in St. Albert and examples can be seen on residential and other buildings, such as Fire Hall #3.

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AIR AND ENERGY

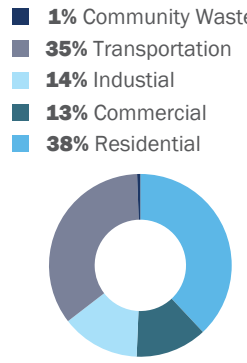
Community Greenhouse Gas Emissions

In 2015, the community emissions inventory showed an 8% reduction below 2008 levels. The data indicates that St. Albert has achieved the target of a 6% reduction below 2008 levels by 2020 (4 years earlier than expected!).

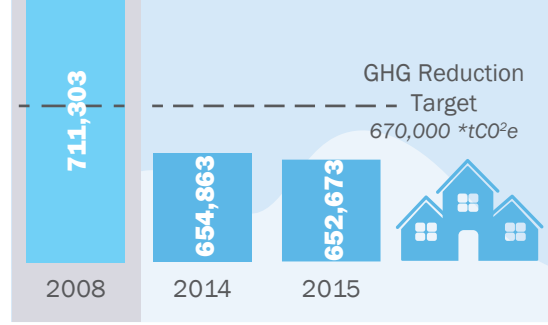
Although a warmer winter may have contributed to these community reductions, the trend is positive. A decrease in community emissions is also likely attributed to the improved energy efficiency of new homes. Greenhouse gas emissions will likely continue to decrease as renewable energy sources and natural gas replace coal-fired power plants.

If the community emissions continue this downward trend, the Environmental Advisory Committee will review and update this target.

2015 Community Greenhouse Gas Emissions



Community Emissions Compared to Baseline Target



*Tonnes of carbon dioxide equivalent.

LAND

GOAL 3

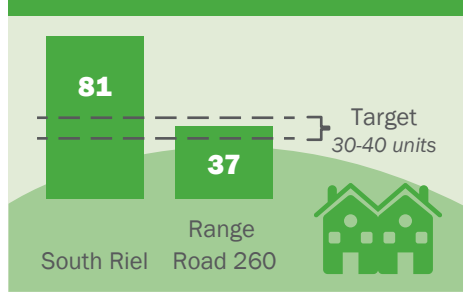
PROMOTE SUSTAINABLE NEIGHBOURHOODS AND TRANSPORTATION CHOICES:

Neighbourhood Density Targets

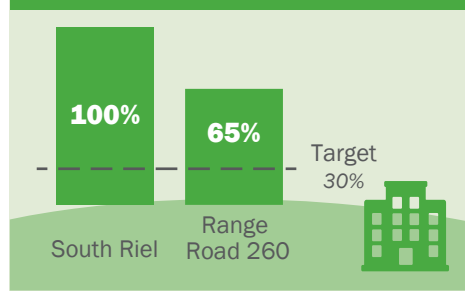
As part of the city planning process, new neighbourhood designs must meet specific density targets that reduce urban sprawl, infrastructure costs and the city's ecological footprint.

In 2015, these targets were met or exceeded by new neighbourhood plans for South Riel and Range Road 260.

Residential Density
Dwelling Units per net residential hectare



Medium and/or High Density
Per cent per new neighbourhood



Annual St. Albert Transit Commuter Ridership

A successful electric bus pilot completed in 2015 has resulted in St. Albert Transit ordering three new electric buses for its fleet in 2016.

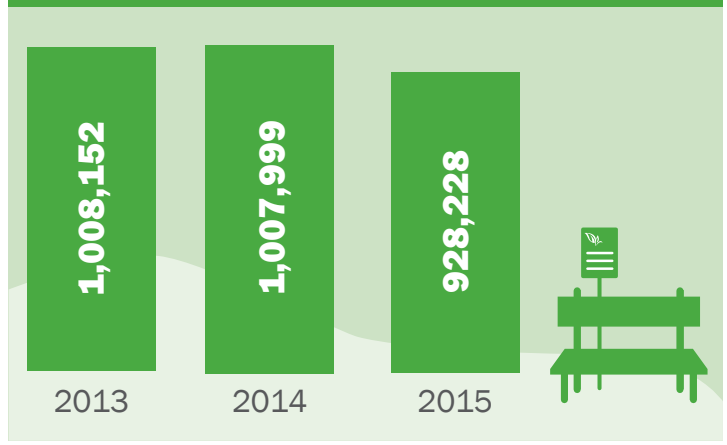


A newly formed Transit Route Committee conducted a customer survey to help improve local transit routes. Here are a few highlights from the survey:

- Overall, riders are 80% satisfied with the service
- 61% of commuter passengers utilize local routes to transit stations
- 74% of non-users' rate transit as important to the City

The target in the Environmental Master Plan is to increase transit ridership equal to or greater than population growth. In 2015, the population in St. Albert grew 1.8% and the ridership decreased 8.6%. The new advisory committee will also be using the survey information to assess why St. Albert Transit Ridership decreased in 2015.

Annual St. Albert Transit Commuter Ridership
Number of Commuters



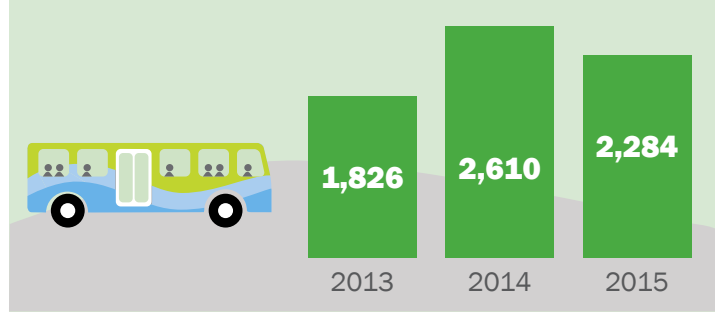
Stage two of the St. Albert LRT Consultation Planning Study was completed and a recommendation was made to dedicate land for future LRT expansion along St. Albert Trail. Need help visualizing what the LRT looks like in St. Albert? Check out the concept video at **stalbert.ca** and search '**LRT Consultation**'.

The Botanical Loop bus service runs in the summer and helps connect tourists and residents to three key botanically-themed attractions including:

- The St. Albert Botanic Park
- The St. Albert Farmers' Market
- The Enjoy Centre

Check out this years schedule at **stalbert.ca/botanical-loop**.

Botanical Loop Ridership Numbers



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LAND

GOAL 4

PRESERVE AND MANAGE TREES, PARKS AND NATURAL AREAS:

A Natural Areas Assessment and a City Wide Natural Areas Management Plan were completed in 2015 and will aid in the protection and restoration of City natural areas such as our ravines and river valley.



As part of a coordinated effort to maintain ecological sustainability and assist in the longevity of the Grey Nuns White Spruce Park (GNWSP), the GNWSP Working Group collected approximately 13,000 seeds from native White Spruce cones in the park. These seeds were transferred to a northern Alberta tree nursery and approximately 5,000 seedlings will be ready for spring planting in 2016. The Working Group also secured an Environmental Initiatives Grant in the amount of $12,200 to implement this reforestation project.

Tree Canopy

St. Albert's tree canopy covers over 10% of our land area. There are many benefits we receive from our tree canopy including clean air, shade, habitat for native species and an enjoyable landscape. The City will develop a tree canopy target as part of the Urban Forest Management Plan in 2016-2017.

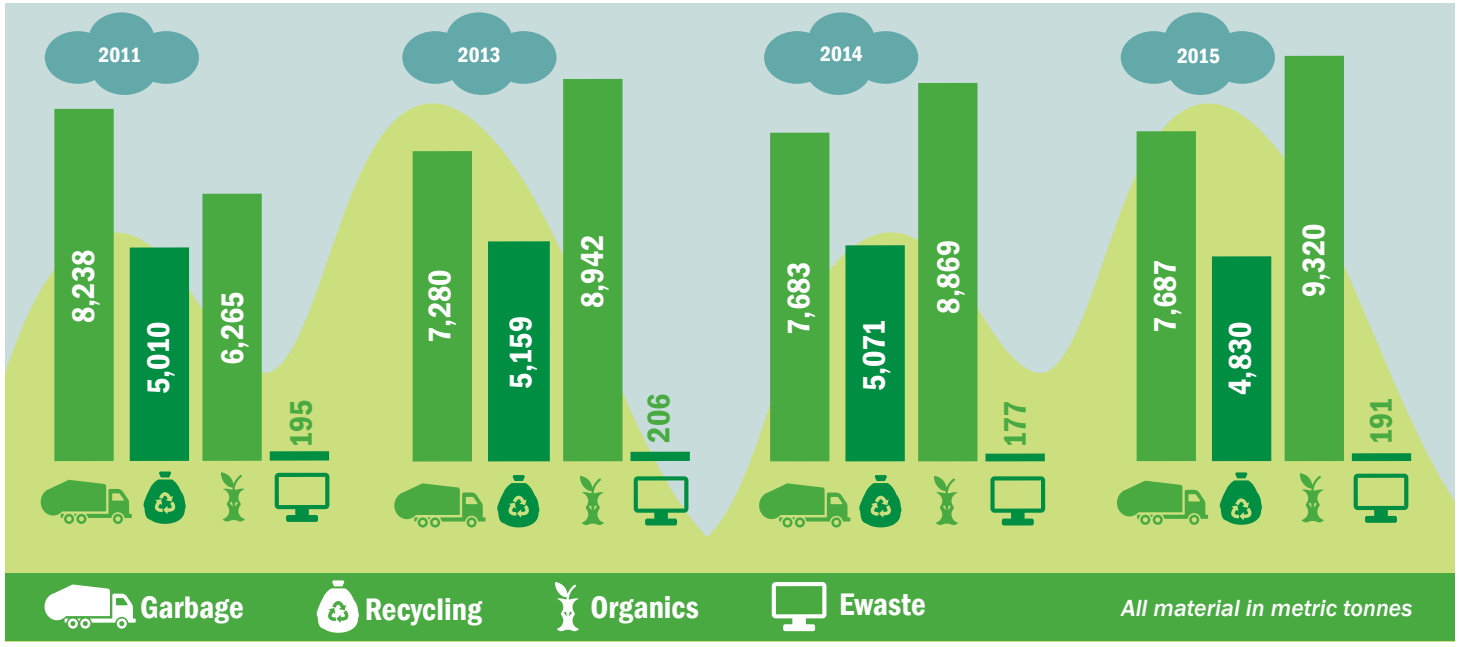


The above photo was taken from an aerial point-of-view. Remote sensing technology was used to highlight the tree canopy as shown by the colour purple.

GOAL 5

FIVE YEAR ANNUAL RESIDENTIAL WASTE COMPOSITION COMPARISON:

The graph below shows the amount of waste (in tonnes) per waste stream during 2011 to 2015. Since the introduction of the organic collection program in June 2011, the City of St. Albert is seeing a substantial reduction of landfill waste.



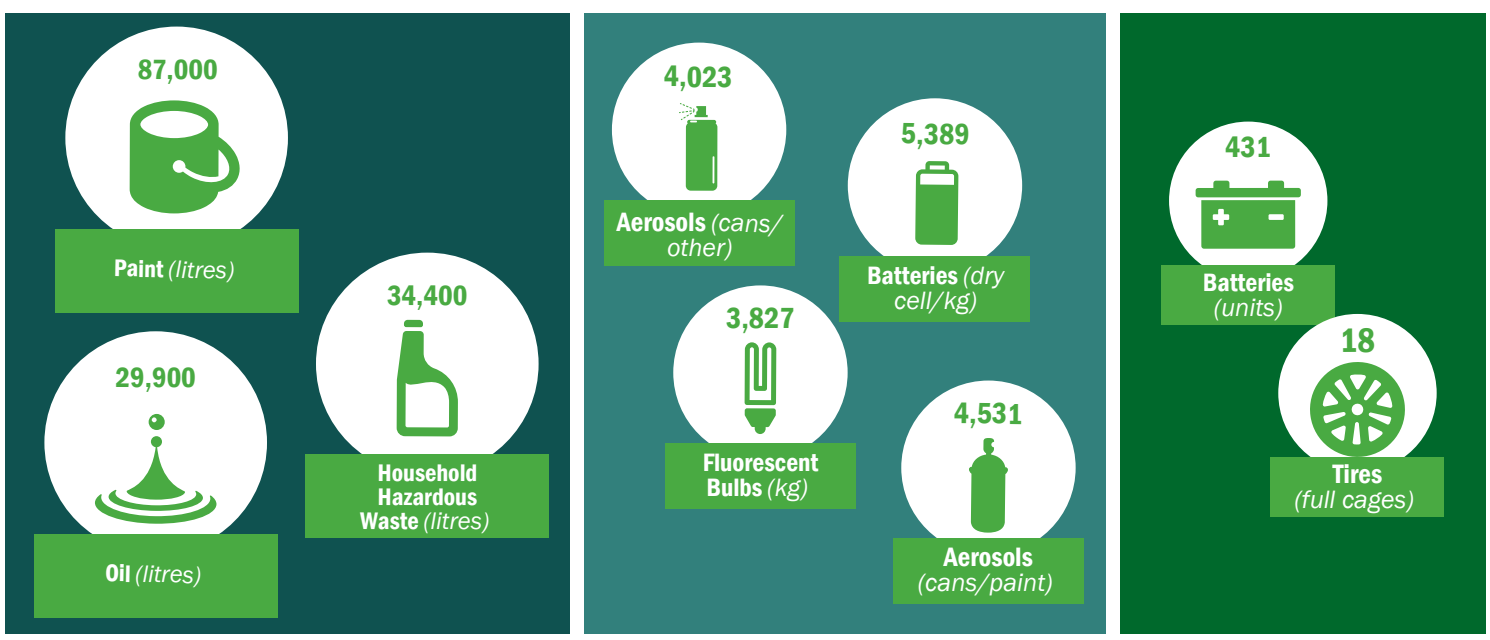


The City of St. Albert accepts a range of hazardous and hard to dispose of household materials for **FREE** at the Mike Mitchell Recycling Depot (7 Chevigny Street).

Hazardous Waste

The Mike Mitchell Recycling Depot accepts various hazardous or hard to recycle materials, including paint, aerosols, hazardous household chemicals, motor oil, fluorescent bulbs, automotive and household batteries and automotive tires. While some of these materials are incinerated for disposal (such as hazardous chemicals) many of these materials are recycled and turn into new products.

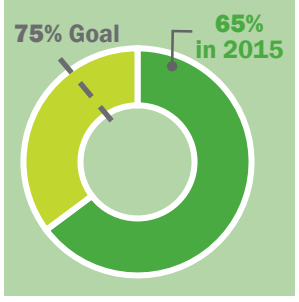
More information about the City's recycling depot can be found at **stalbert.ca/recyclingdepot**.



Continued on next page

LAND

The waste diversion rate was 65% in each of the last 4 years.



Did you know?

At 65% waste diversion, the City of St. Albert is one of the **leaders in Canada** for residential landfill waste diversion!



Waste Diversion Percentage

'Waste Diversion Percentage' is a great stat for St. Albert residents to help identify the total amount of material leaving each household as waste and the destination of that waste. 'Diversion' is when waste does not go to the landfill, and when waste can be recycled into new materials or turned into nutrient rich compost.

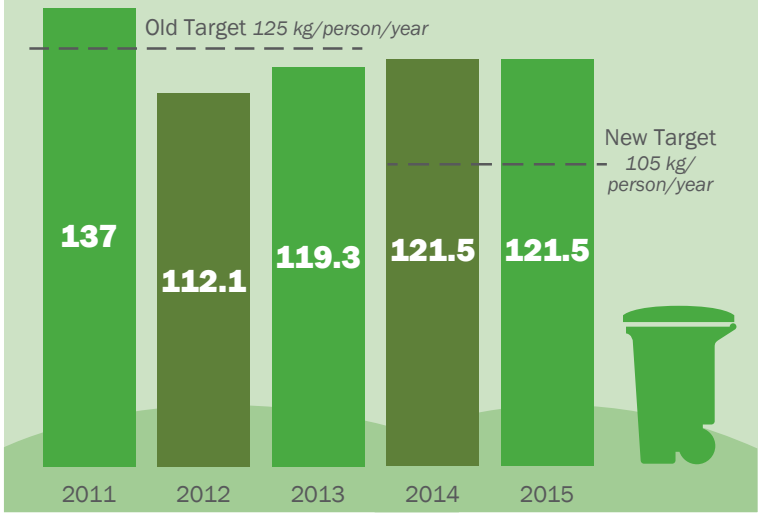
The Environmental Master Plan was recently updated in 2014 and has identified a new 'Waste Diversion' goal of 75% by 2020.

Waste Per Capita

'Waste per Capita' is calculated by taking the total amount of landfill waste recorded from St. Albert's residential sector and dividing that number by the population. This number represents approximately how much material each resident in St. Albert produces, so the lower the number the better!

The 'Waste per Capita' goal in the Environmental Master Plan was updated in 2014 with a target of 105 kg/person/year. Residents are encouraged to continue making use of the City's diversion programs (such as recycling and organic collection) and to minimize waste production in your everyday life to help reach our target.

Solid Waste Per Capita (*kg/person/year*)



WATER

GOAL 6

PROTECT AND IMPROVE THE STURGEON RIVER WATERSHED:



The Sturgeon River Watershed Alliance (SRWA) is a multi-stakeholder group that is dedicated to protecting the Sturgeon River watershed.

The primary objective of SRWA is to develop and implement a management plan for Sturgeon River Watershed that focuses on land use, water quantity and ecological health.

In 2015, the Alliance gathered preliminary data on the number of water licenses (allocation of water quantity) in the watershed. This information will help SRWA understand how natural ecosystems are affected by human water use. To learn more visit **stalbert.ca** and search '**Watershed**'.

GOAL 7

IMPROVE WATER QUALITY OF THE STURGEON RIVER:

River Quality

The City regularly tests water quality at five locations along the Sturgeon River and four locations along Carrot Creek. Based on the 2015 testing results:

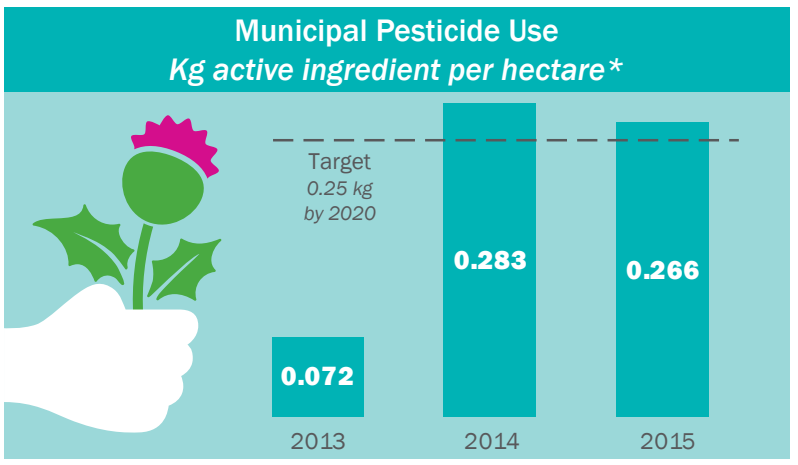
- Pesticides were detected along the Sturgeon River with slightly higher concentrations than 2014. Overall pesticide concentrations have decreased since 2010.
- Levels of nitrogen in Carrot Creek continue to be well above guidelines for protecting the health of the aquatic ecosystems. Fertilizer is often a source of nitrogen and the surface runoff from homes, businesses and agricultural fields can contribute to high nitrogen levels in the aquatic system.
- Bacterial levels continue to be high in Carrot Creek and the Sturgeon River. These are natural systems that receive water from agricultural (e.g. livestock) and urban environments (e.g. dog feces) that can contribute to bacterial levels.

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WATER

Reduce Municipal Pesticide Use

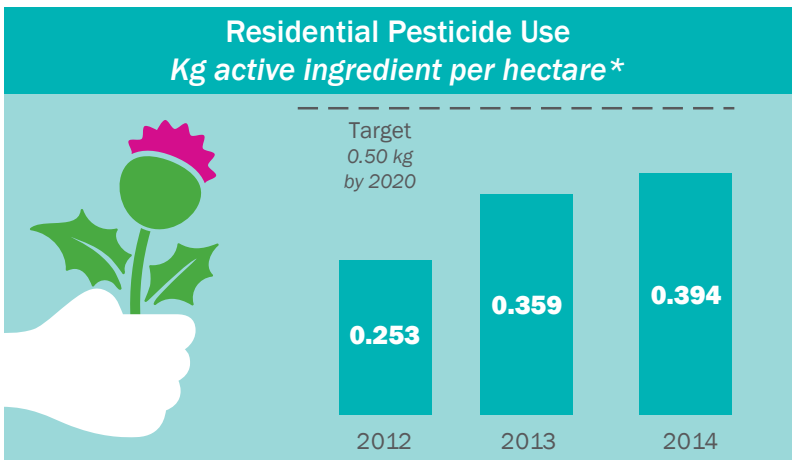
The amount of pesticide used by the City varies and is dependent on the weather, the types of weed and pest infestations addressed and the management techniques utilized. The City's pesticide use slightly exceeded the target in 2015 due to the hybrid Poplar removal program and the management of invasive species. The City does not use pesticides for cosmetic purposes, however is compelled under provincial legislation to take action on invasive species.



Reduce Residential Pesticide Use

Residential pesticide use is based on the sale of pesticides used on plants. The most recent provincial data available is from 2014. Pesticide use from 2012-2014 has increased slightly but is still below the set target.

To learn more about common weeds visit **st.albert.ca** and search '**Invasive Plants and Noxious Weeds**'.



***Active ingredients (ai) per hectare is a measure of the amount of kilograms of active pesticide substance used over a defined area.**

Did you know?
Alternatives to pesticide use on lawns include over seeding, aerating, and mulching. For more tips visit **stalbert.ca** and search '**Good Growing Neighbours**'.

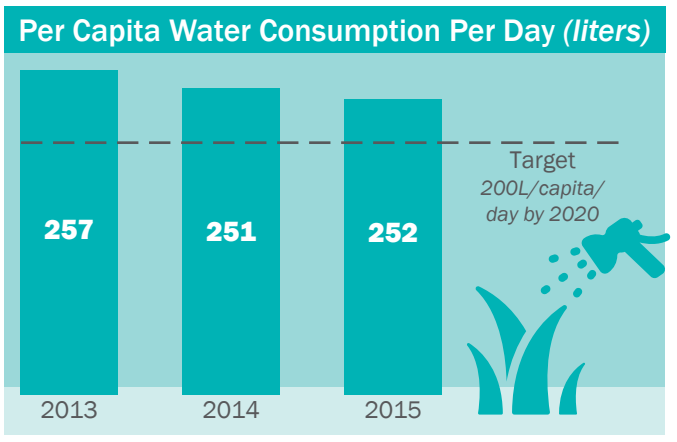
GOAL 8

REDUCE WATER CONSUMPTION:

Since 2009, daily per capita water consumption has decreased but the trend has leveled off in the last two years. In an effort to support conservation, a Toilet Rebate Program was introduced in 2015, providing residents with a $50 rebate to replace high-flow toilets with a low-flow WaterSense labeled toilet. The Toilet Rebate Program closed in early 2016, after providing 608 rebates with an estimated water savings of over 27 million litres of water per year!

Water savings is calculated using the WaterSense online calculator which is based on an average of 3 people per household.

A Water Conservation Bylaw was approved by Council and will come into effect on January 1, 2018. Visit **stalbert.ca** and search '**Water Conservation Bylaw**' for details.



Rain Barrel Program

In an effort to help residents reduce the use of treated water for gardening and landscaping, the City has provided access to low-cost rain barrels. Residents have purchased over 4,200 rain barrels since the program was launched in 2006.

2016 is the **10th anniversary** of the City of St. Albert Rain Barrel Program.

PEOPLE

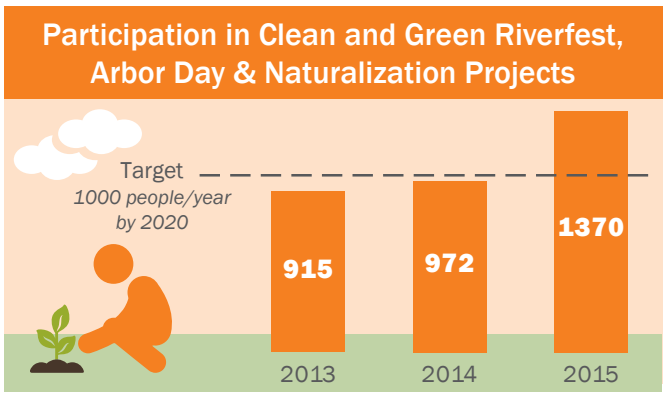
GOAL 9

FOSTER COMMUNITY ENVIRONMENTAL STEWARDSHIP:

Engaged Citizens

The culture of environmental stewardship and collaboration is rapidly growing in St. Albert. Help us celebrate the environment-focused activities in our community and learn how you can get involved in the coming year in the event listings on the next page.

Arbor Day is a annual Canadian tree planting celebration. In 2015, 418 grade one students planted 433 trees in Flagstone Park.

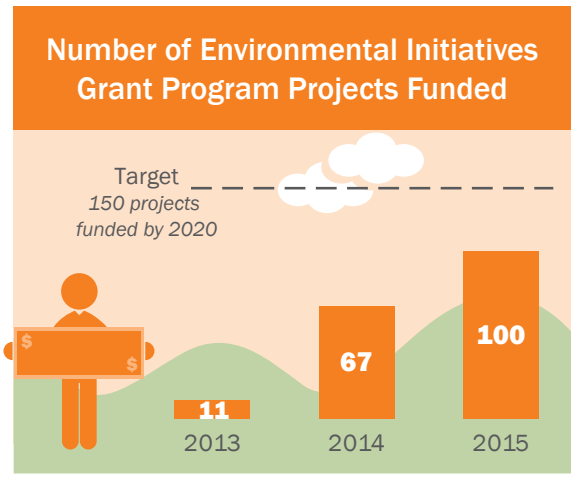


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PEOPLE

Environmental Initiatives Grant Program

An updated grant application will be available in June 2016. It's never been easier to launch an environmental initiative in St. Albert. For more information and project ideas visit **stalbert.ca/environmental-initiatives-grant-program**.



Environmental Management Systems

The City of St. Albert shows its continued commitment to the protection of the environment by maintaining their ISO-14001 certification. This internationally recognized standard helps the City maintain a high level of compliance and minimize their environmental impacts.

Corporate environmental management systems are aligned with the City's Environmental Sustainability Policy.

Some additional examples of environmental protection actions include:

- Activities that minimize road sand and salt from entering the Sturgeon River
- Proper handling and disposal of hazardous waste (i.e. used oil, tires, car batteries)
- Having a corporate spill response policy

The St. Albert Environmental Advisory Committee

The City of St. Albert Environmental Advisory Committee is comprised of seven volunteer residents and one City Councillor. This committee provides advice to Council on key environment priorities.

For more information visit **stalbert.ca** and search '**Environment Committee**'.

GET INVOLVED

There are numerous environment-focused events for you and your family to participation in during 2016. For more information visit the Community Events Calendar at **stalbert.ca** and search '**Events**'.

Event Name	Date	Location/Website
COMPOST GIVEAWAY	Available now	*stalbert.ca/recyclingdepot*
CLEAN AND GREEN RIVERFEST	Saturday, May 7	Search this event at *stalbert.ca*
RAIN BARREL EVENT	Saturday, May 14	L.B.H Building Centre - *stalbert.ca/rain-barrel-program*
PUBLIC WORKS DAY	May 28	*Jack Kraft Public Works Facility* - search this event at *stalbert.ca*
YELLOW FISH ROAD PROGRAM	June – September	*stalbert.ca/yellow-fish-road*
ECO-SOLAR HOME TOUR	June 4 – 5	*ecosolar.ca*
CLEAN AIR DAY	Wednesday, June 8	*stalbert.ca/clean-air-day*
TAKE IT OR LEAVE IT	Saturday, June 25	Search this event at *stalbert.ca*
LARGE ITEM DROP OFF	Saturday, July 23	Search this event at *stalbert.ca*
WASTE REDUCTION WEEK	October 17 – 23	*wrwcanada.com*



Your Feedback is Important to Us

We would appreciate your feedback so that we can continually improve this report.

Visit **stalbert.ca** and search '**Report on Environment**' to take a short survey.

Contact Environment

City of St. Albert
Environment branch

29 Sir Winston Churchill Ave
St. Albert, AB T8N 6Z8

Phone: 780-459-1735

Email: environment@stalbert.ca

City Highlights Newsletter

The City of St. Albert has launched a monthly resident newsletter called City Highlights. It will complement the weekly Citylights feature in the St. Albert Gazette. Citylights will continue to provide residents with timely information on events, meetings and activities in St. Albert. City Highlights will begin to provide residents with a quick snapshot of some of the interesting things they may not know are happening in their city. The first issue of City Highlights was posted to **stalbert.ca** on April 8. Future issues of the newsletter will be emailed directly to residents who sign up to receive it each month.

For more information on City Highlights, to subscribe, and to learn more about some of the great things taking place in our community, visit the homepage of the City's website at **stalbert.ca**, then scroll down to the '**City Highlights**' section.