2012 REPORT ON THE ENVIRONMENT

The 2012 Report on the Environment is our way of sharing progress and achievements on the eight goals and targets of the City of St. Albert's Environmental Master Plan (EMP). To read the EMP, visit **www.st.albert.ca/our-environment.**

CITY OF ST. ALBERT'S ENVIRONMENTAL POLICY

The City of St. Albert is committed to maintaining a healthy natural environment and ensuring its sustainability for future generations.
The City accomplishes this by adopting the following standards:

- compliance with all environmental regulations
- pollution prevention
- use of environmental management systems to manage day-to-day operations
- communication of its environmental goals to staff and the community
- continuous improvement of its environmental performance

The City's Office of Environment has changed its name to the Office of Community Sustainability. We will continue to be the community resource for the environment but will be expanding our focus to include balancing economic prosperity and community vitality while preserving and protecting our natural environment for future generations.

City of St. Albert **Office of Community Sustainability**
Green by nature



stalbert.ca/our-environment

City of St. Albert Cultivate Life

AIR

GOAL: **MAINTAIN AIR QUALITY**

Where are we now?

Alberta Environment and Sustainable Resource Development classifies St. Albert's air quality as 'good'; however, they have noted that the levels of ozone and particulates are approaching excessive levels under National Air Quality Standards. The City of St. Albert has worked with Alberta Environment and Sustainable Resource Development and Alberta Capital Region Airshed (***www.capitalairshed.ca***) to secure a permanent air quality monitoring station for St. Albert. The site will be selected in 2013 and the air quality monitoring station should be built and operating by 2014.

Where do we want to be?

The air quality monitoring station will help to provide a better understanding of the air quality in St. Albert by gathering data to establish a baseline of information. The City will be working with stakeholders and other municipalities in the region so we have the most clear picture of the health of our airshed to date. The data will be used to monitor the air as the entire region takes measures to help reduce greenhouse gas emissions and other air pollution prevention initiatives.

How are we reaching our target?

- The City has successfully completed getting an air quality monitoring station in St. Albert.
- The next steps will include:
  - Establish a baseline of air quality data for the next three to five years.
  - Once a baseline is established, develop targets to help maintain air quality in St. Albert.
  - Work with Alberta Capital Region Airshed and regional partners to develop and promote air quality initiatives such as Clean Air Day, Carpool Week and Idle Free Bylaws.

St. Albert will have the 12th **air quality monitoring station** in the Capital Region. Air quality monitoring stations measure things like particulate matter and ozone. These measurements are used by Environment Canada to report the Air Quality Health Index (AQHI). Find out more information about the air quality index at ***www.ec.gc.ca/rnspa-naps/***



Example of an air quality monitoring station in Wood Buffalo

GOAL: **REDUCE NON-RENEWABLE ENERGY CONSUMPTION AND GREENHOUSE GAS (GHG) EMISSIONS**

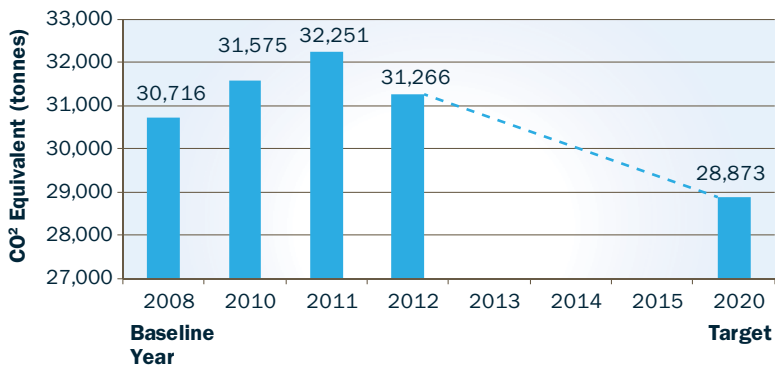
Where are we now?

- Baseline information (2008) was calculated in 2010 through the Greenhouse Gas Emissions Inventory Project. Based on recommendations from this report, community emissions are calculated every three to five years and corporate (City) emissions are calculated every year. To view the full inventory and forecast document, visit ***www.stalbert.ca/greenhouse-gas-emissions.***
- In 2012, the City's GHG emissions decreased 3.1% for a total increase of 1.8% over 2008 levels.

Where do we want to be?

- Reduce total corporate (City) emissions to 20% below 2008 levels by 2020.
- Reduce total community GHG emissions to 6% below 2008 levels by 2020.

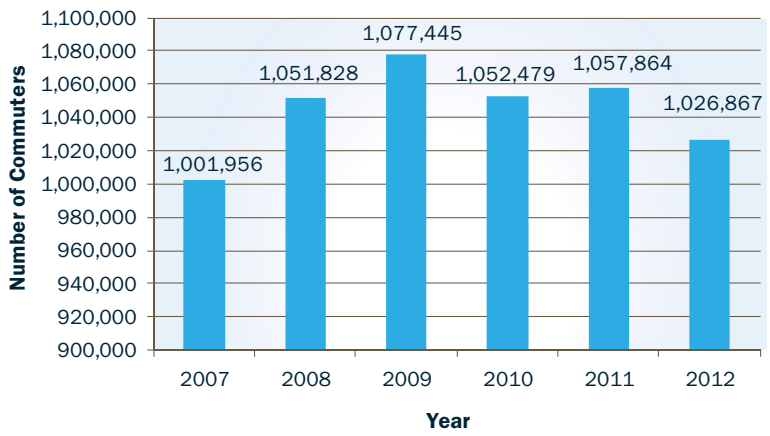
TOTAL CORPORATE (CITY) GREENHOUSE GAS
Emissions (tonnes)



How are we reaching our targets?

- The City has completed two of the five milestones for the Partner for Climate Protection program, and is currently working on the third milestone. This involved working with a consultant, City staff and the Environmental Advisory Committee to develop a Corporate and Community Greenhouse Gas (GHG) Action Plan.
- In order to help increase StAT ridership and at the same time reduce car emissions, administration is working with the City of Edmonton and the Province to plan for construction of the Campbell Road Transit Centre/Park and Ride which is proposed to have approximately 1,650 stalls.

TOTAL ANNUAL STAT COMMUTER RIDERSHIP



- Commuter ridership was down in 2012, likely due to fare increases and the loss of park and ride stalls at the Village Transit Station.

The City of St. Albert is part of the **Partners for Climate Protection (PCP)**. The City has completed milestones 1 and 2, and is currently working with consultants from the Pembina Institute and Whistler Center for Sustainability to complete milestone 3: the creation of a Local and Community GHG Action Plan.

Milestone 1 - *Completed*
Creating a greenhouse gas emissions inventory and forecast

Milestone 2 - *Completed*
Setting an emissions reductions target

Milestone 3 - *In Progress*
Developing a local action plan

Milestone 4
Implementing the local action plan or a set of activities

Milestone 5
Monitoring progress and reporting results

WATER

GOAL: **PROTECTING AND MAINTAINING THE STURGEON RIVER WATERSHED**

Where are we now?

The City regularly tests water quality at five locations along the Sturgeon River and four locations along Carrot Creek. Based on the 2012 testing results:

- Pesticides were detected in lower numbers and concentrations in 2012 which may be attributed to the provincial ban of Weed and Feed products in 2010.
- The levels of nitrogen and phosphorus continue to be well above guidelines for protecting the health of the river. Nitrogen and phosphorus, the main ingredients in fertilizers, are detected at high concentrations throughout St. Albert.
- Although within acceptable levels for protection of aquatic life, bacteria levels continue to increase through the city. High bacteria levels from stormwater outfalls are likely related to animal waste or unexpected waste water releases.
- Through the annual stormwater catch basin cleaning and spring street sweeping, the City continues to reduce the amount of grit and sand that reaches the river.

Where do we want to be?

- Maintain Sturgeon River quality as the water moves through St. Albert.
- Capture 90% of municipal winter road sanding material by 2020.

How are we reaching our targets?

- The Sedimentation and Erosion Control project continued with the design and retrofit of eight high-priority outfalls locations along the Sturgeon River. Grit interceptor structures were designed for three outfalls in 2012 with construction of one as part of the Mission Avenue Rebuild Project in summer 2012. The other two outfalls, one in Riel Park and one near Lions Park, will be constructed in 2013 and 2014. Erosion control works are also being designed for Forest Lawn and Grandin ravines.
- During 2012, approximately 3,000 m^3 of sand was used on the roads in St. Albert and approximately 1,500 m^3 was collected through street sweeping and the grit interceptors. That represents a 50 per cent recovery rate. This helps to protect our storm system, ultimately protecting the Sturgeon River.
- Council approved the Sturgeon River State of the Watershed Report, including eight recommendations endorsed by the Environmental Advisory Committee.

The City continues to promote environmentally friendly yard and lawn maintenance practices through the Good Growing Neighbours program (***www.stalbert.ca/good-growing-neighbours***).



Sturgeon River State of the Watershed Report summarizes the current knowledge of the Sturgeon River Watershed and provides an assessment of its ecological health. It provides a benchmark against which future activities and changes along the Sturgeon River can be assessed.

The watershed received an overall grade of Fair, and the report provides several recommendations for the protection of the watershed. The full report can be found at ***www.stalbert.ca/sturgeon-river-watershed***.



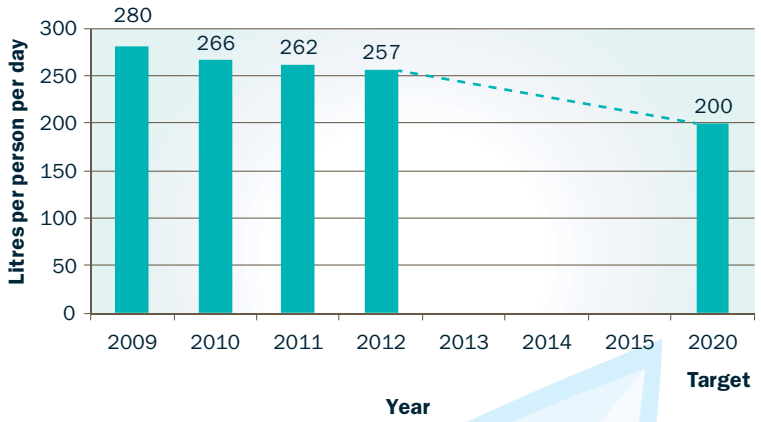
Water Conservation, Efficiency and Productivity Plan is a long-term strategic plan that links the water conservation targets from the City's Environmental Master Plan. The plan also sets short- to long-term recommendations for water conservation. The plan can be viewed at ***www.stalbert.ca/water-conservation-plan.***

GOAL: **REDUCE WATER CONSUMPTION**

Where are we now?

Water consumption continues to decrease, moving from a per-capita rate of 262 litres in 2011 to 257 litres in 2012.

PER CAPITA WATER CONSUMPTION



Where do we want to be?

- Reduce water consumption to 200 litres or less per person per day by 2020.

How are we reaching our targets?

- Council approved the Water Conservation, Efficiency, and Productivity Plan that will help guide water saving initiatives in 2013 and beyond.
- The City of St. Albert offered a $30,000 Toilet Rebate Program which provided a total of 453 rebates to residents. This equates to residents saving over four tonnes of greenhouse gases and reducing water consumption equivalent to filling almost three Olympic-sized pools.
- Continuing with the success of the rain barrel program over the past five years, the City sold 500 barrels at a reduced cost in 2012. Residents have purchased over 3,500 rain barrels since the program started in 2006.

LAND

GOAL: **PROMOTE SUSTAINABLE URBAN DEVELOPMENT**

Where are we now?

St. Albert residential development has mainly consisted of low density single housing units. The City's current residential density is approximately 18.4 dwelling units per net residential hectare and most existing neighbourhoods have an average of 20% medium density.

Where do we want to be?

- Achieve minimum density of 30 dwelling units per net residential hectare for new neighbourhoods.
- Achieve minimum of 30% for medium- or high-density residential units for new neighbourhoods.

How are we reaching our targets?

- The Municipal Development Plan was updated in 2012 to align with the density targets set out by the Capital Region Board. These new targets will need to be supported by transit-orientated developments and more medium- and high-density units as the City grows.
- Council approved designation of 283 hectares of land in the west part of the city, north of Meadowview Drive for future light industrial development (employment lands).
- Council approved the Affordable Housing Delivery Model which will be undertaken during the next five years to help provide affordable housing options which supports the Capital Region Board Growth Plan targets.

GOAL: **PRESERVE AND MANAGE TREES, PARKS AND NATURAL AREAS**

Where are we now?

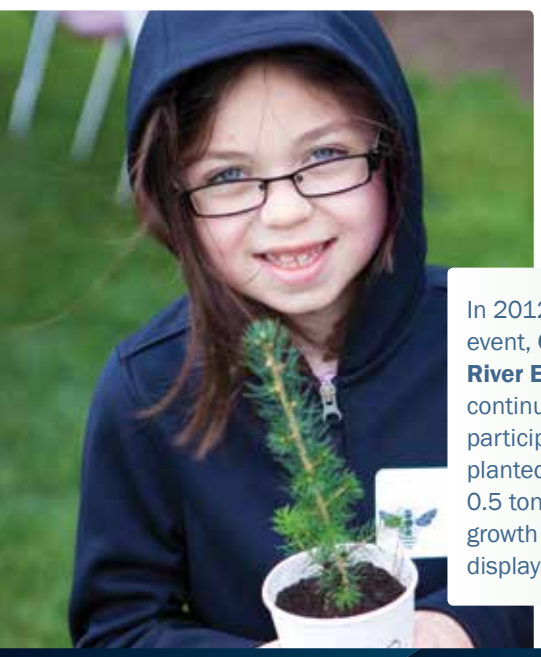
The City manages more than 900 hectares of treed boulevards, sports fields, parks, and natural areas. This represents one of the highest per-capita proportions of trees and open spaces for Canadian municipalities.

Where do we want to be?

- Complete a review of the current standards for parks and natural areas as part of the Parks and Open Spaces Management Plan and Municipal Development Plan update review process.
- Protect 100% of proposed prioritized important natural areas.

How are we reaching our targets?

- A Grey Nuns White Spruce Forest Advisory Committee was created with the goal of creating a long-term management plan for the forest.
- Northern Alberta Institute of Technology (NAIT) conducted a detailed assessment of the riparian health of Carrot Creek.
- A new fall City Wide Clean-up event, part of Spruce Up St. Albert, was started in 2012.
- Since starting the River Edge Enhancement Project in 2006, residents have volunteered to plant over 2,500 trees and shrubs along the Sturgeon River.



In 2012, the **Spruce Up St. Albert** event, **Clean Up the Sturgeon** and the **River Edge Enhancement Project**, continued to be a success with 359 participants, 98 volunteers, 452 trees planted, 120 seedlings given away, 0.5 tonnes garbage collected, and the growth of the 'environment fair' to 19 displays.

ISO REGISTERED 14001

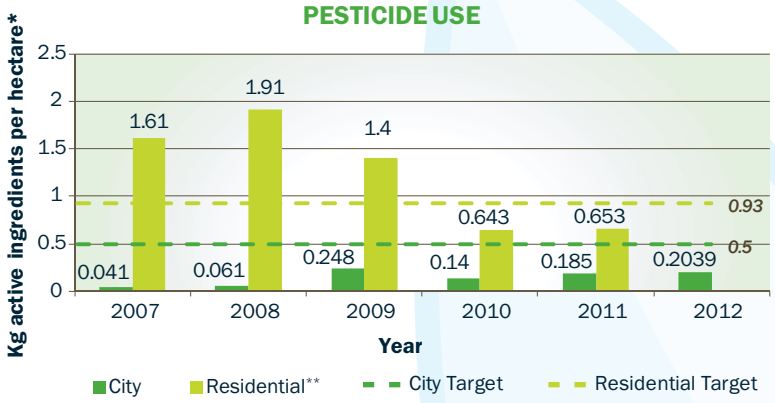
Public Works received **ISO 14001 Certification** which is an international standard for environmental excellence. This was facilitated through an Environmental Management System (EMS) which provides a systematic approach for an organization to bring environmental considerations into the decision making process.
You can find out more about Public Works and Transit's certification: ***www.stalbert.ca/management-systems***

GOAL: **REDUCE CONTAMINATION BY IMPROVING HAZARDOUS WASTE MANAGEMENT**

Where are we now?

The City uses Environmental Management Systems (EMS) to identify and address environmental impacts from its day-to-day operations. EMS programs help identify hazardous materials such as pesticides to address restricted weeds or salt use for ice control on roads and enable the City to minimize their use and ensure their proper storage and disposal.

PESTICIDE USE



**Active ingredient (ai) per hectare is a measure of the amount of kilograms of active pesticide substance used over a certain area*
*** Pesticide use is based on domestic sales of herbicides, therefore data is reported a year behind*

Where do we want to be?

- Reduce municipal pesticide use to 0.5 kg of active ingredient (ai) per hectare or lower by 2020.
- Reduce residential herbicide use (2-4D, Mecoprop, Dicamba) by 25% by 2020.
- Complete environmental management plan for the former landfill and the former Public Works yard by 2012.

How are we reaching our targets?

- Both residential and City use of pesticides are below the targets set out in 2009.
- Remediation work continues on the former landfill at Riel Park with the redevelopment of the soccer and rugby fields. A clay landfill cover was placed on the fields in the fall of 2012 and they will be rebuilt including new irrigation systems and additional topsoil in 2013.
- The City completed a report on the site management alternatives for addressing the salt contamination at the former Public Works yard and Council approved $800,000 for future remediation.



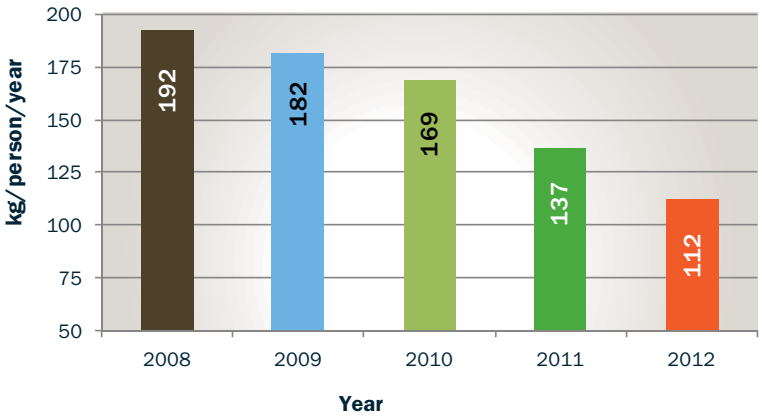
WASTE

GOAL: **REDUCE SOLID WASTE GENERATION**

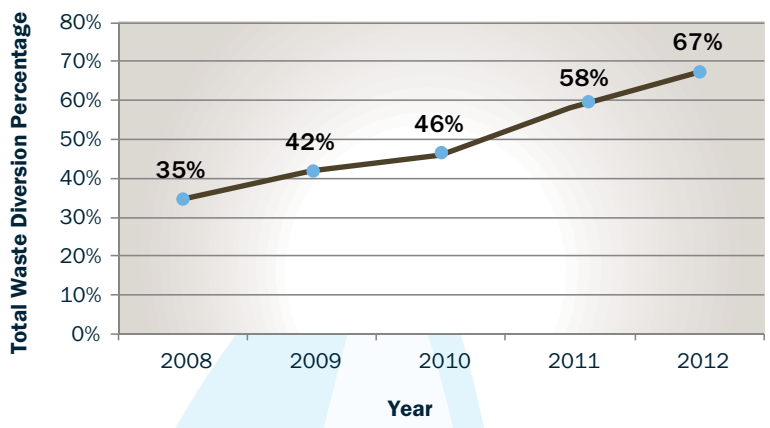
Where are we now?

St. Albert's solid waste generation is at 112 kg annually per person, which continues to be much lower than the provincial average of 267 kg annually per person. The amount of waste diverted from the landfill has increased from 58% in 2011 to 67% in 2012.

ST. ALBERT RESIDENTAL PER CAPITA WASTE PRODUCTION (KG/PERSON/YEAR)



WASTE DIVERSION BY YEAR



Where do we want to be?

- Reduce solid waste generation to 125 kg per person per year by 2020.
- Increase solid waste diversion rate to 65% by 2020.

How we are reaching our targets?

- Now that we have achieved both our targets, the program will be reviewed and new waste reduction targets will be created through consultation with residents, the Environmental Advisory Committee, Council, and Regional Waste Reduction Advisory Committees.



St. Albert offers a Christmas tree curbside collection program. In 2012, 1,823 trees were collected, chipped and taken to the Dapp Biomass Energy Plant in Westlock County to be used as a fuel source.



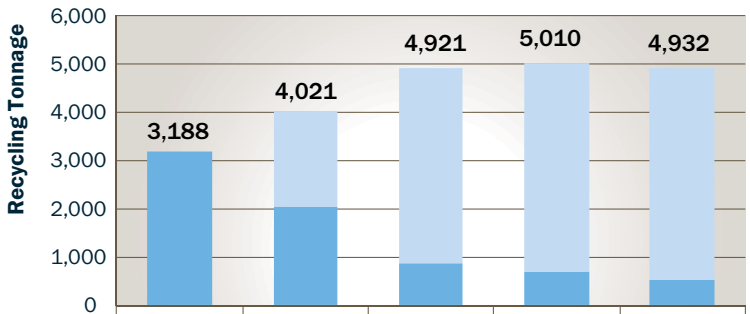
Automated curbside waste collection has reduced WCB claims.

2012 ACHIEVEMENTS

In 2012, the City of St. Albert surpassed both environment goals for waste reduction as set in the Environmental Master Plan. The waste diversion goal was 65% (reached 67% in 2012) and the per capita waste production was 125 kg/person/year (reached 112.1 kg per person per year).

- The City of St. Albert won the 2012 Municipal R's of Excellence award from the Recycling Council of Alberta in recognition of an innovative and successful waste reduction program. The provincial award is handed out to one municipality per year. Visit ***www.recycle.ab.ca*** for more information about this program.

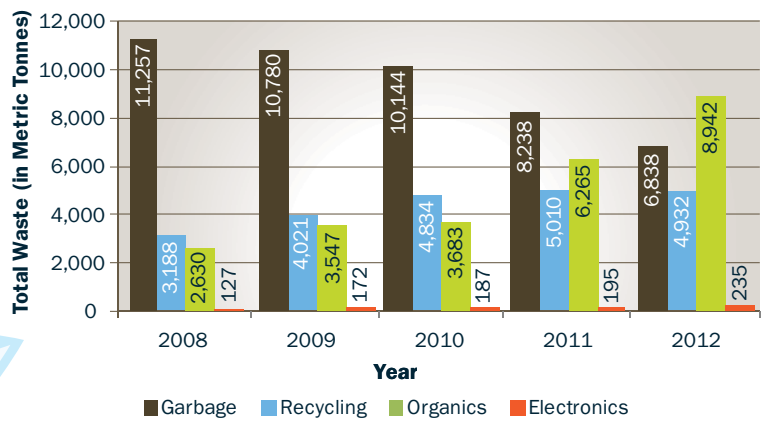
RECYCLING TONNAGE - DEPOT AND CURBSIDE



	2008	2009	2010	2011	2012
Curbside	0	1,970	4,058	4,304	4,392
Depot	3,188	2,051	863	706	540

- The City introduced blue bag recycling services in all City-owned buildings for both employee and resident use.
- From 2010 to 2012, the City of St. Albert has recorded a 17% reduction in serious lost time WCB claims in the Solid Waste department since the introduction of automated curbside waste collection 2011.
- The City of St. Albert recorded a low 6,838 metric tonnes of landfill waste in 2012. In comparison, in 1978, the City recorded 7,239 metric tonnes of waste with less then half of the population! (27,408 residents 1978 census vs. 60,994 residents 2012 census.)

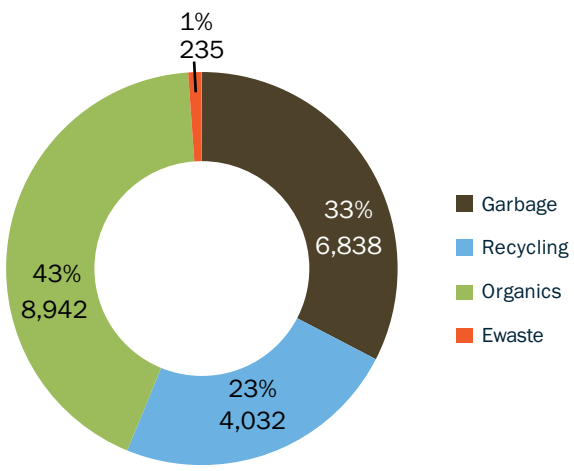
ST. ALBERT 5-YEAR RESIDENTIAL WASTE COMPOSITION



WASTE

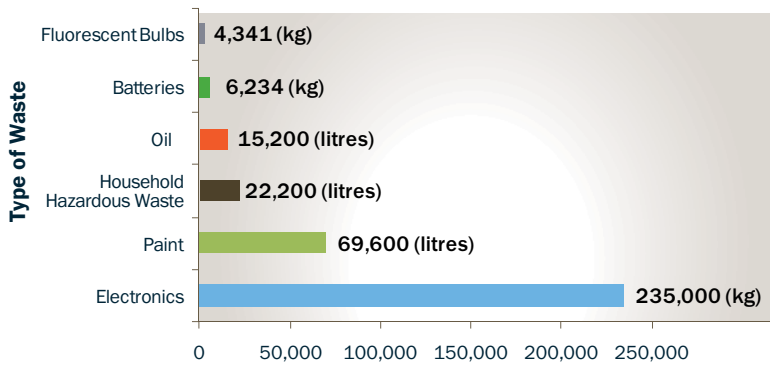
- The City of St. Albert reached an agreement with the City of Edmonton to accept, debag and compost all leaf material collected by the City of St. Albert as part of its special fall leaf collection program. In 2012, the City of St. Albert collected and composted over 140 metric tonnes of leaves that otherwise would have ended up in the landfill.

2012 WASTE STREAM COMPOSITION - PERCENTAGE AND TONNAGE



- The City held two "Large Item Events" for residents (July 28th and October 13th) which were well received, attracting over 500 vehicles and disposing of roughly 40 metric tonnes of white goods (sofas, mattresses and other large household items) and 20 tonnes of scrap metal/appliances.
- The 19th annual "Take it or Leave it" event drew over 500 vehicles and thousands of participants who left gently used items they didn't need or took items they were looking for.

HAZARDOUS WASTE COLLECTED - RECYCLING DEPOT 2012



WASTE TIPS

- Purchase products with minimal packaging or recyclable/reusable packaging.
- Use reusable shopping bags.
- Use reusable water bottles rather then purchasing single use containers.
- Donate useful items (such as clothing and furniture) rather then sending them to the land fill.
- Use the City's "A-Z" Sorting Guide to ensure you are diverting as much household waste as possible. (*www.stalbert.ca/waste*)



HOW YOU CAN GET INVOLVED - 2013

Shred-it Day | April 27
www.stalbert.ca/shred-it

Rain Barrel Purchasing | May 1 to 31
www.stalbert.ca/rain-barrel-program

Compost Giveaway | May 11
www.stalbert.ca/compost-giveaway

REEP/Clean & Green Riverfest | May 12 (formerly Clean Up the Sturgeon)
www.stalbert.ca/REEP
www.stalbert.ca/cleanup

Arbor Day | May 22
www.stalbert.ca/pweventsprograms

Take it or Leave it | June 1
www.stalbert.ca/tioli

Water Conservation Summer Program July 1 – August 31
www.stalbert.ca/water-conservation-plan

Good Growing Neighbours Summer and Fall programming
www.stalbert.ca/good-growing-neighbours

Large Item Drop Off | July 27
www.stalbert.ca/junkevent

City Wide Cleanup | Sept 21-22
www.stalbert.ca/city-wide-clean-up

Apply for an Environmental Initiatives Grant October 9 Application Deadline
www.stalbert.ca/environmental-initiatives-grant-program


Volunteers helping plant trees in the rivervalley, REEP 2012

WE NEED YOUR INPUT!

The City of St. Albert is reviewing the Environmental Master Plan and setting new targets. We need to know what you think is important about the environment! Your opinion matters. For more information or to provide feedback, please contact:

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