



Tools for eco-responsible practices

Simple actions to reduce our ecological footprint

Presented by:





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Information Session Plan

Tools for eco-responsible practices

- What is climate change and how does it relate to our ecological footprint?
- The principles of 4R ;
 - Reduction at the source
 - Reuse
 - Recycling
 - Recovery
- The saving of drinking water ;
- Energy saving;
- Ecological practices for lawn management;
- Examples of good practices from businesses and the City of Cowansville.



Climate change

What does this mean in essence?

The change of societies and the evolution of humanity towards industrialization, then globalization, particularly in the last century have increased exponentially the production of greenhouse gases (GHG).

The most influential gases in GHG are : Carbon Dioxide (CO²)

- Methane (CH⁴)
- Nitrous oxide (N²O)

Without these gases, including water vapor and ozone, the average temperature on Earth would be -18°C, and life would be impossible on the planet's surface.

What is the greenhouse effect



The more GHGs increase, the more heat they store, the more the Earth's surface temperature increases.



Climate change

About a hundred experts work for the Ouranos consortium, a group of internationally recognized Quebec scientists who analyze the impacts of climate change in Quebec.

Some figures :

For the region, the analysis of the average daily temperature data shows the direct effects of climate change

Emission level	1981 - 2010	2041 - 2070	2071-2100
Moderate	5,8 ⁰ C	8,2 ⁰ C	9 ⁰ C
High	5,8 ⁰ C	8,9 ⁰ C	11,5 ⁰ C

Ouranos. 2021. Moyenne annuelle des températures – Montérégie – Carte interactive. <https://www.ouranos.ca/portraits-climatiques/#/regions/27>



The direct consequences of climate change

Despite the fact that the national and regional context is more favorable than for other countries, we are feeling the effects more and more:

- Extreme rainfall events;
 - Increased risk of flooding;
 - Increase in injuries and bacteriological infections.
- Longer periods of drought in the summer and an increase in the number of consecutive days without rainfall in the summer season;
 - Increased risk of forest fires;
 - Risks and pressures on crops.
- Longer periods of heat and plant growth :
 - Longer period of seasonal allergies.
- Increase in consecutive extreme heat days (heat wave);
 - Increased mortality and health problems among vulnerable populations;
 - Risk, during low-water periods, of a decrease in water quantity and quality.



The direct consequences of climate change

- Increase in smog peaks :
 - Increased health risks related to the respiratory and cardiovascular systems.
- Increase in heat islands;
 - Increased mortality and health problems among vulnerable populations.
- Increased rainfall and decreased snowfall :
 - More flooding in the spring as the snow melts;
 - Increased winter river flows;
 - Increased risk of flooding.
- No more thawing periods and temperature fluctuations during winter;
 - More risk of ice on the ground, therefore more risk of injury;
 - More risk of road accidents;
 - Increased infrastructure failures, resulting in higher maintenance and repair costs.



The direct consequences of climate change

In summary, global warming influences climatic conditions at the global, regional and local levels:

- Human Health Effects;
- Effects on infrastructure and increased repair and maintenance costs;
- Effects on public safety;
- Effects on the environment.



Why adopt eco-friendly practices?

Essentially for two reasons :

1. To protect the environment, biodiversity, natural resources and ecosystems that are essential to us;
2. To adapt and cope with the effects of climate change that are present, unavoidable and increasing.

How to do it?

- **Reduce the production of GHG (the ecological footprint) at a societal and individual level;**
- **Implementing practices that preserve the natural environment.**

Protecting the environment and adopting eco-responsible practices can represent simple gestures, without too many changes in our daily lives, but which greatly influence our impact on climate change and environmental protection.

How can environmental protection reduce the effects of CC?

1. The preservation of biodiversity and ecosystems :



Source : Environnement Canada. (2021). Récupéré de : <https://www.canada.ca/fr/environnement-changement-climatique/services/patrimoine-naturel/activites/decouvrez-cinq-principales-menaces.html>

2. Carbon capture and storage by trees and peatlands



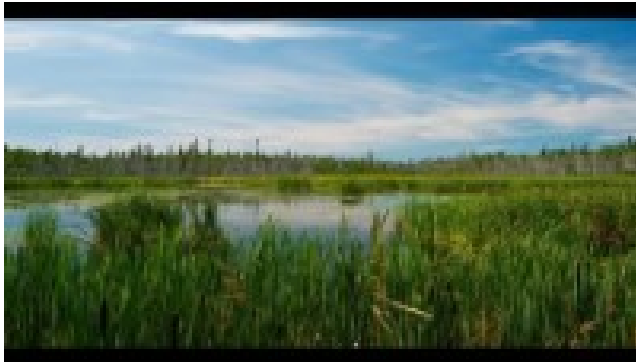
Source : Ministère de l'agriculture et de l'Alimentation de France. (2015). Récupéré de : <https://www.youtube.com/watch?v=x5qFDA6jCpI>



How can environmental protection reduce the effects of CC?

3. The maintenance of ecological services to humans :

Protection and restoration of wetlands



Source : Orbiterre. (2020). Récupéré de <https://youtu.be/EFJ22X371L4>

Respect for riparian buffers



Source : OBV Charlevoix-Montmorency. (2021). Récupéré de <https://charlevoixmontmorency.ca/une-bande-riveraine/>



The 4Rs and waste management

Quebec has the worst record in Canada

In Quebec, we are the champions of garbage! ... of residential landfill waste.

From 2002 to 2016, the total amount of waste collected in Canada increased by 3.5 million tonnes (or 11%).
Between 2002 and 2018 Quebec's population increased, but landfill per capita still increased by 53%.

Comparison with other provinces in 2018 :

Quebec: 385 kilos / person

Ontario: 279 kilos / person

Nova Scotia: 165 kilos / person



And in Brome-Missisquoi?

Specific data on waste in the Brome-Missisquoi MRC :

Year	Population	Total tons of waste landfilled	Kg of waste per capita
2015	57 694	17 400	301,94
2016	58 097	16 082	277,11
2017	59 724	17 012	285,59
2018	60 793	16 363	269,51
2019	61 624	12 356	200,57

Compostable materials collection: September 2018

Composting works!

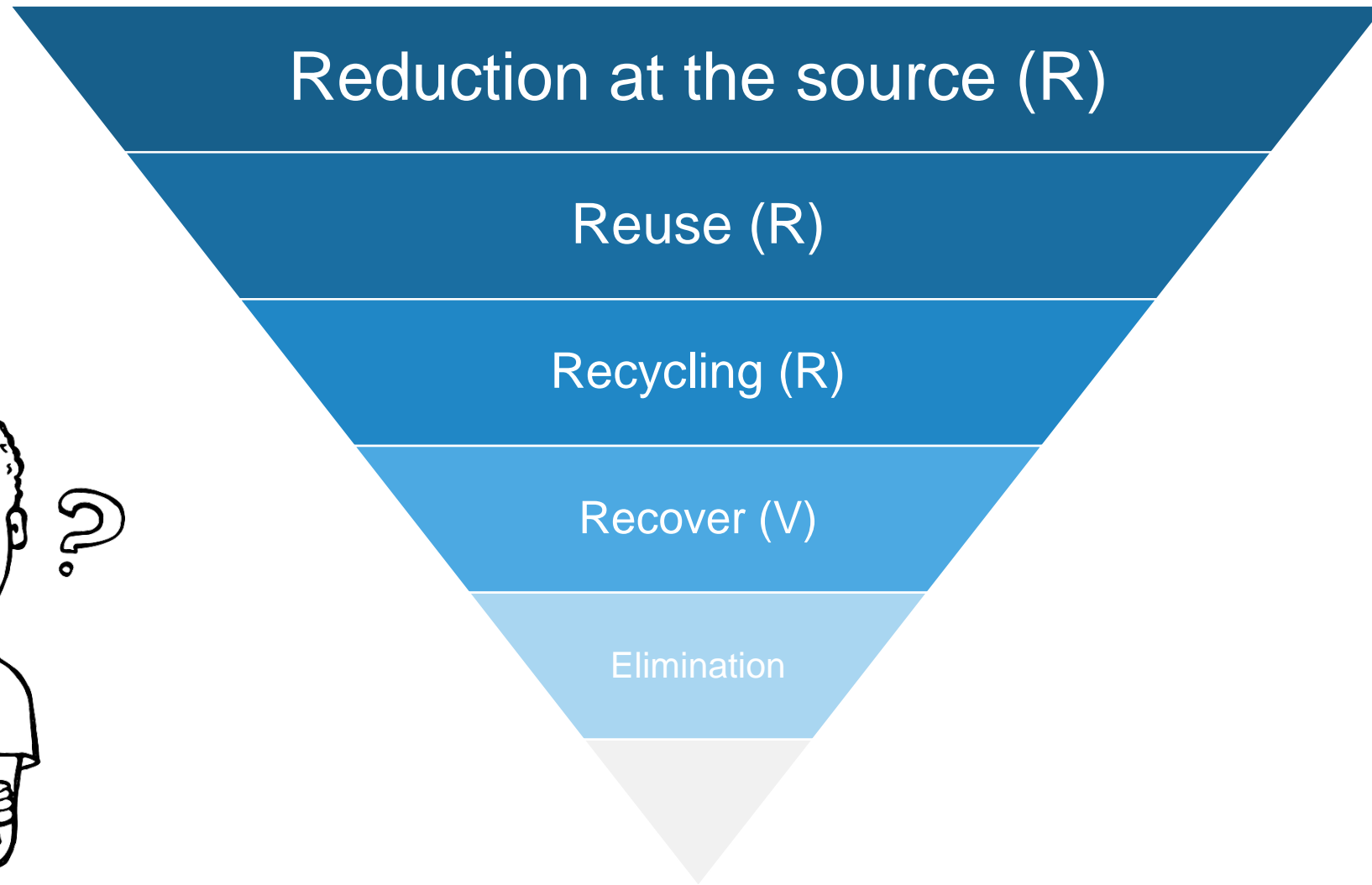
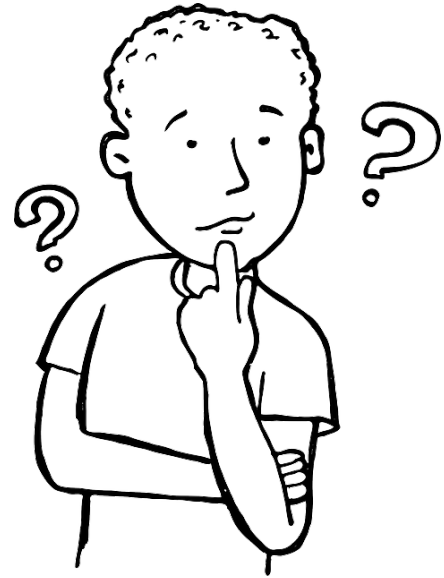
A lot of efforts have been made by the population, but we are still above other provinces.

More work to do!

Source : MELCC (2021). <https://www.environnement.gouv.qc.ca/matieres/donnees-elimination.htm>



The 3 RV-E





Reduction at the source (R)

Reducing at the source - environmentally responsible purchasing practices

The easiest waste to manage is the one you don't produce! **We buy less and we buy better !**

First of all, it is important to re-evaluate the needs and the necessary purchases.

Remember that sooner or later, what we buy will be thrown away!

Savings are generally maximized when the following actions are taken simultaneously :

1. Review the needs and consumption at home :

Do we really need it? Will we really use it?

2. Reviewing how we buy :

Where you buy and how is the product offered?



Once the needs are revisited, it's time to think about eco-responsible purchases !

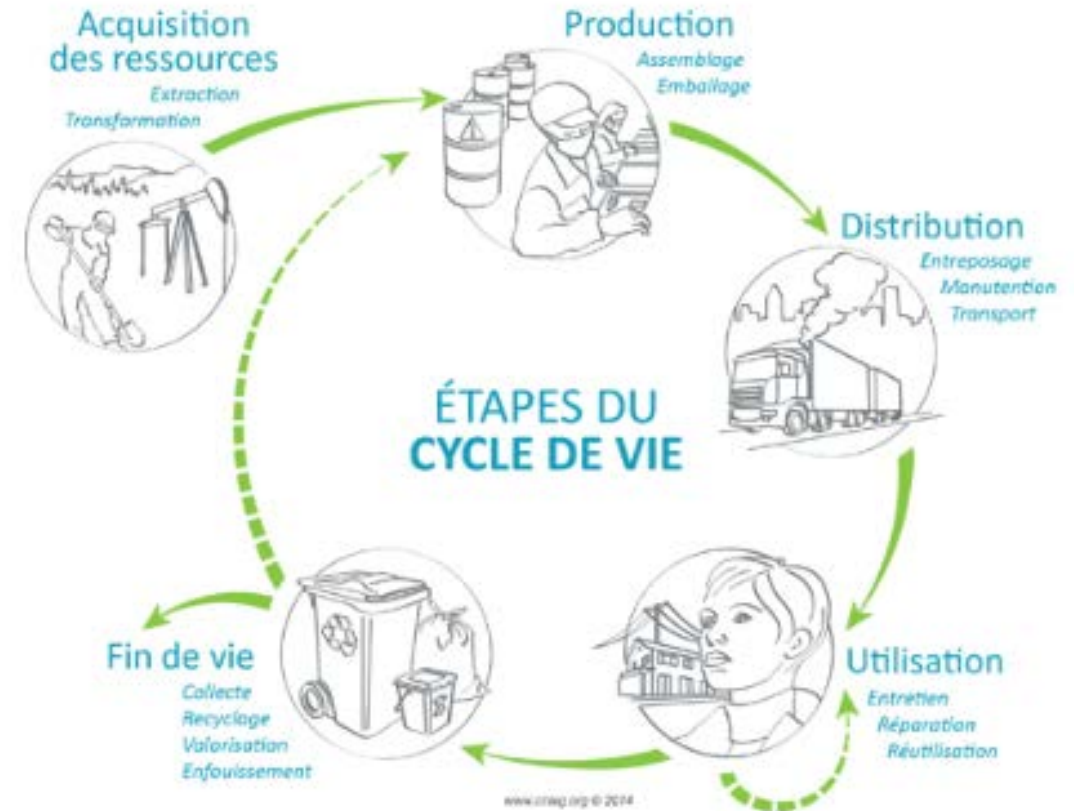
But what is an ecoresponsible purchase?

To consider a practice or product as environmentally responsible, it must be analyzed throughout its life cycle.

5 phases in the life cycle of a product :

1. Extraction and production of raw materials;
2. The production of the product;
3. The distribution;
4. The use ;
5. The end of life of the product.

A product or practice is therefore rarely waste-free, but however, it is possible to choose products with a smaller ecological footprint.



Achats écoresponsables

One wonders...

Don't buy disposable products, buy reusable ones

Check the amount of packaging for products

Is the product over-packaged?

Avoid buying non recyclable products

Is the product available in a bulk store?

Buy more durable products, sometimes more expensive, but more resistant to time

Does this product really meet the need?

Some examples:

- Washable household linens ;
- Unwrapped bar soaps or liquid soap in bulk;
- Make your own household products ;
- Biodegradable and phosphate-free products;
- Reusable and compostable food wrap;
- Washable sanitary products ;
- Food preservation bags ;
- Reducing the number of plastic products ;
- Reducing the number of single-serve products (e.g. large format yogurt) ;
- Bring back refundable containers where accepted ;
- Avoid packaged fruits and vegetables at the grocery store.

Eco-responsible purchasing

One wonders...

Is it possible to get a multifunctional property that meets several needs?

Is it possible to purchase a used good before buying a new one?

Is it possible to purchase a used good before buying a new one?

Does the product minimize the extraction of natural resources?

Is the product locally sourced?

Has the product gone through a long distribution system? (e.g. the Quebec distribution system)

Can the product be recovered at the end of its life (reused or recycled for another purpose)?

Examples:

- Look for EnergyStar or EnerGuide symbols;
- Purchase of 100% recycled paper;
- Purchase of 100% recycled sanitary paper (toilet paper, tissues, etc.);
- Search for the origin of the product;
- Ban the use of single-use plastic containers;
- PAY ATTENTION TO RECYCLING SYMBOLS!!



Plastic utensils, cups for hot and cold drinks, coffee lids, trays, insulators...

Eco-responsible purchasing

One wonders...

Is the product compostable?

Encourage the purchase of refurbished products

Prefer products without volatile organic compounds (VOC)

Prefer products without heavy metals (lead, mercury, cadmium, etc.)

Is the product certified low GHG emissions?

Is the product delivered by a low or zero emission delivery system?

Examples:

- Choose companies that buy carbon credits;
- UPS offers a carbon neutral delivery option;
- Many refurbished products can be purchased;
- Encourage the purchase of certified green companies or other green certifications.



Green Procurement - Municipal Grants

Since January 2021, the City of Cowansville has been offering a subsidy for the purchase of sustainable feminine hygiene products.

The amount can be up to \$50 per year per citizen and covers 50% of the purchase costs:.

- Be 12 years of age or older and a Cowansville, with proof resident
- Purchase made after January 1st, 2021;
- The amount of financial assistance must not exceed the purchase cost and the annual budget allocated to this program will be a maximum of \$5,000;
- The claim must be made within 3 months of the date indicated on the proof of purchase and residency;
- Accepted products: menstrual cups, washable sanitary napkins and menstrual panties.

To apply for financial assistance, please contact the partner organization for this program:
Center femmes des cantons at 450 263-1028 or info@cfcantons.org

Green Procurement - Municipal Grants

Since January 2010, the City of Cowansville offers a subsidy for the purchase of cloth diapers.

- 50% of the purchase costs are reimbursed up to a maximum of \$150 per child;
- 75% of the purchase costs are reimbursed up to a maximum of \$250 for a multiple birth:Présenter une facture du commerçant datant d'un maximum d'un an ;
 - Submit the child's birth certificate;
 - Submit a copy of the tax bill or lease as proof of residence;
 - Submit the completed application form available on the City's website:
<https://www.cowansville.ca/citoyens/environnement/subventions>

To apply for financial assistance, you must submit the form to the Maison de la Famille Cowansville, 450 815-1110

Buying locally vs. buying online

Certainly a sign of solidarity, but beware of the scale and the real local!

- Encourage products made in Quebec in 2015, the transportation of goods represented 27% of global CO2 emissions;
- Encourage the purchase at the public market and the Christmas market of Cowansville, then at the various public markets of Brome-Missisquoi;
- Encourage Quebec SMEs, depending on the region where they will be used;
- Reducing online purchases also allows to reduce the consumption of packaging, the delivered goods are more packaged than the goods bought in store ;
- For online purchases, if this is the option chosen, give preference to companies that use recycled and recyclable packaging and that reduce their use;
- For online purchases, give preference first to local, then regional businesses and to the proximity of products in order to reduce the distance traveled by the purchased good.)

Buying locally and in Brome-Missisquoi

- The Brome-Missisquoi business directory, attraction strategy
- The portal [Jachetebromemissisquoi.com](https://www.jachetebromemissisquoi.com)
- Consult the Brome-Missisquoi Local Supply Guide <https://www.brome-missisquoi.ca/wp-content/uploads/2021/09/Guide-daprovisionnement-local-de-BM.pdf>
- Brome-Missisquoi Food Directory <https://www.maturin.ca/groupe/Brome-Missisquoi>
- Acheter québécois <https://acheterquebecois.ca/>
- Signé local <https://boutique.signelocal.com/>
- Le panier bleu <https://lepanierbleu.ca/>
- Promote the use of Cowansville Dollars : <https://www.cowansville.ca/developpement-et-tourisme/achat-local/dollarscowansville>



Cowansville Dollars, what are they?



The Cowansville Dollars were put into circulation by the City of Cowansville and four distribution campaigns have taken place since. The initiative represents the sporadic sale of dollars to be spent at participating merchants in the City of Cowansville. Over 58 local businesses accept Cowansville Dollars.

Through previous campaigns, \$83,000 in Cowansville Dollars have been spent.

With the purchase of \$100 in Cowansville Dollars, buyers get \$20 in free Cowansville Dollars to spend locally. The Town and the Caisse Desjardins Brome-Missisquoi have each invested \$2,000 to enhance the certificates.

Consult the list of participating businesses on the Town of Cowansville's website to find out where you can spend your Cowansville Dollars : <https://www.cowansville.ca/developpement-et-tourisme/achat-local/dollarscowansville>

The CCB-M Dollars were put into circulation a few years ago and represent an initiative to encourage purchases from participating businesses in the Brome-Missisquoi MRC. These can be purchased online on the Brome-Missisquoi Chamber of Commerce website.



Reduction at the source - Reducing GHG emissions

The main sources of GHG emissions related to Quebec households:

1. Land transportation;
2. Air transportation;
3. Energy consumption in our homes;
4. Food: food production and transportation;
5. Overconsumption of clothing.

GHG Reduction - Transportation

The massive use of fossil fuels is the main source of GHG emissions for the citizen: more or less 50% of our individual GHG emissions come from the use of our car. Quebec has more and more vehicles on the road and the size of the vehicles is increasing.

Specifically for Cowansville, according to the City of Cowansville's 2009 greenhouse gas emissions inventory, 89.5% of the community's emissions come from transportation.

So, how can I reduce the GHGs related to the use of my car?

Encourage public transit:

- There is no bus service available in the region, but two cab transit services can be used:
 1. Taxibus Cowansville (trips within the city)
 2. Inter-municipal transportation by reservation only.

It is possible to consult the rates, the schedule and the territory served by these two services on the Brome-Missisquoi MRC website : https://mrcbm.qc.ca/fr/transp_tc.php

GHG Reduction - Transportation

- **Encourage carpooling;**

- Form a workplace carpool;
- Form a carpool for group recreational activities;
- Think about available carpooling sites when you have to travel alone :

www.covoiturage.ca

www.amigoexpress.com

www.poparide.com

- **Use the City of Cowansville's car-sharing service :**

- A car-sharing service has been set up to rent a 100% electric car for one or more days.
- The rental cost can vary from \$21 to \$31 per day, depending on the length of the rental. A vehicle disinfection protocol is also in place.
- Visit the City's website to make a reservation :

<https://turo.com/ca/fr/voiture-location/canada/cowansville-qc/mitsubishi/i-miev/843618>



GHG Reduction - Transportation

- **Encourage the use of bicycles or walking for short distance trips (active transportation);**
 - **Since September 20, 2021, the citizens of Cowansville can benefit from financial assistance for the purchase of a new, used or electric bicycle;**
 - The City will reimburse up to \$50 for the purchase of a new or used bicycle and up to \$100 for an electric bicycle;
 - The subsidy must be claimed within 3 months of purchase;
 - The bicycle must have been purchased in a business in the City of Cowansville;
 - The grant must be requested from the partner organization **Pleins rayons** : <https://pleinsrayons.ca/>
- **Use of the bus for trips in the Montreal / Sherbrooke axis via the company LIMOCAR;**
- **Encourage meetings via videoconference, when possible for work purposes, to reduce unnecessary travel.**

GHG Reduction - Transportation

- **Apply the principles of eco-driving :**

Eco-driving, also known as economic driving or eco-responsible driving, represents all the behaviors oriented towards less polluting driving as well as a more moderate use of the car.

This approach mainly involves smoother driving as well as using the car in such a way as to increase its longevity.

Plan trips. This allows you to:

- Reduce travel distance;
- Avoid rush hour traffic.
- Avoid unnecessary loads in the vehicle;

GHG Reduction - Transportation

3. Observe speed limits;
4. Drive smoothly without sudden stops and rapid acceleration;
5. Use cruise control;
6. Avoid using the air conditioner in summer and reduce the use of the heater in winter;
7. Avoid idling. Turn off the engine! A stop of more than 60 seconds justifies turning off the engine;
8. Check the condition of the vehicle and make sure it is well maintained (it will run better and use less gas):
 - Check the condition of the brakes;
 - Maintain proper tire pressure;
 - Check tire balancing;
 - Check alignment;
 - Change air filter regularly;
 - Change the oil at regular intervals and according to the manufacturer's recommendations.

GHG Reduction - Transportation

A single transatlantic flight represents an emission of 1.6 t to 2.8 t of CO₂!

Offsetting carbon emissions online is a second way to reduce your carbon footprint. It can be complementary to or independent of actions to reduce emissions from car use and air travel.

How do I choose an offset method?

There are several online offset options available and it can be difficult to make a decision. Here are the questions to ask yourself:

- Is it a reliable and certified organization? It is necessary to ensure that the impacts will be truly significant on the environment. Are the projects validated by a third party?
- Where will the projects be carried out? In Quebec, in Canada, elsewhere in the world? Where do you want to have an impact?
- Is this a significant project for environmental protection or environmental education (indirect reduction effect)?

GHG Reduction - Transportation

Example of an online clearing option :

- School Carbon Exchange: Educational carbon credits (ECC) that ask students and their families or organizations to implement emission reduction challenges;
- CO2 Quebec Offset: financing of carbon sequestration projects through reforestation of areas located in southern Quebec. Plantations are analyzed and planned by a silvicultural prescription. A follow-up after planting is carried out.
- Boreal Carbon: Tree planting in northern Quebec. Dedicated to university research. Online GHG calculator.
- 2 types of projects:
 1. Plantations carried out on bare land in the boreal forest north of Lac-St-Jean on public land.
 2. Reforestation of uncultivable agricultural parcels.



GHG Reduction - Transportation

- Consider the purchase of an electric or hybrid vehicle :

With its Go Green program, the Government of Quebec offers a subsidy of up to \$8,000 subsidy of up to \$8,000 for the purchase of a new electric or hybrid vehicle.

For more information on the Go Green program, visit the program website :

<https://vehiculeselectriques.gouv.qc.ca/rabais/ve-neuf/programme-rabais-vehicule-neuf.asp>

The grant program can be complemented by a federal incentive offered by Transport Canada for the purchase of a new electric or hybrid vehicle of up to \$5,000

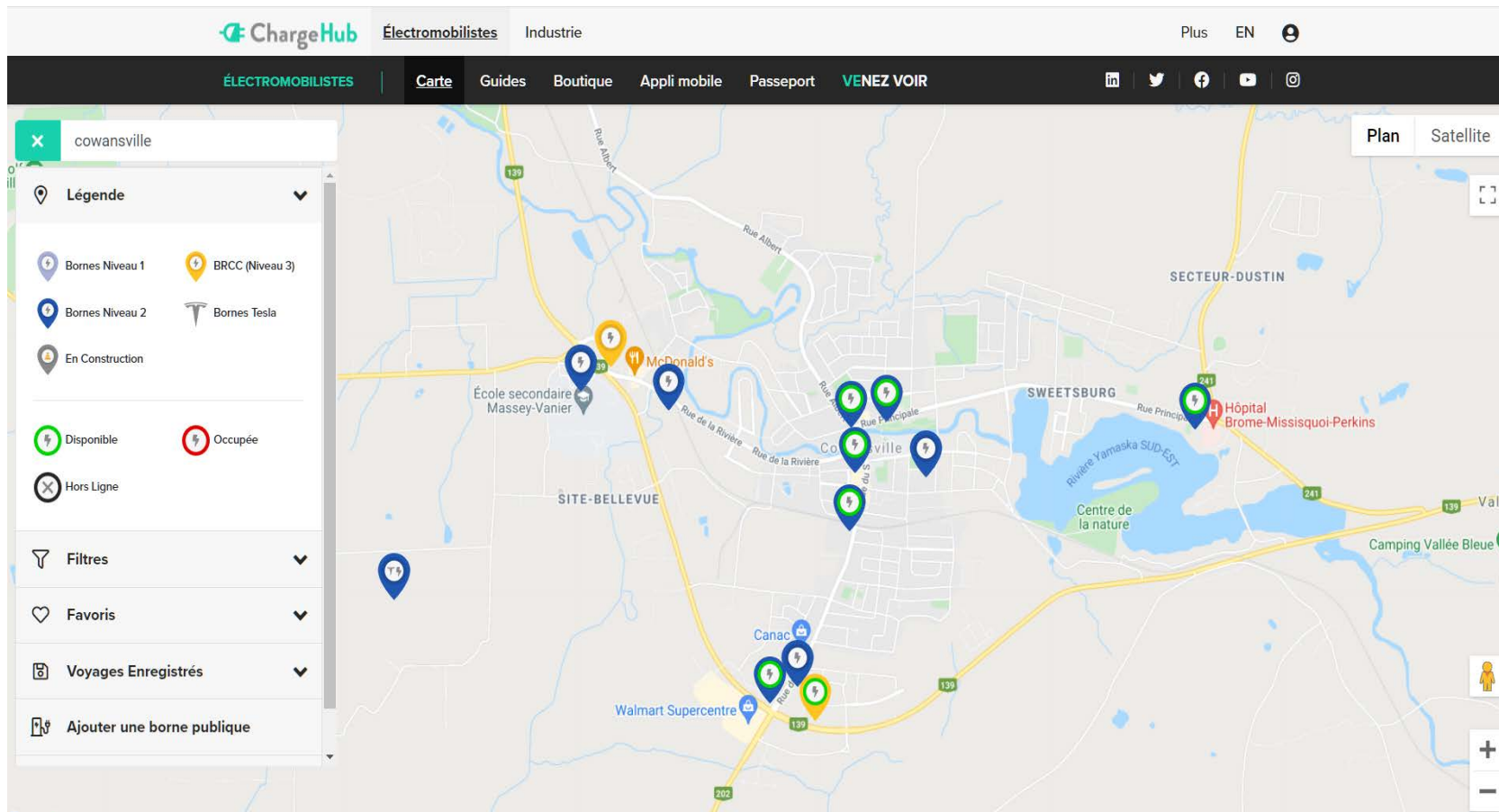
For more information on the incentives offered by Transport Canada and the list of eligible vehicles, visit the program website :

<https://tc.canada.ca/fr/transport-routier/technologies-novatrices/vehicules-zero-emission/incitatifs-achat-vehicules-zero-emission>



GHG Reduction - Transportation

A dozen charging stations for electric vehicles are available on the territory of the City of Cowansville.



For charging station locations, visit ChargeHub at <https://chargehub.com/fr/carte-borne-de-recharge.html>

Reducing GHGs - Energy saving measures in the home

Wood burning is a major source of airborne contaminants, contributing significantly to GHG emissions and smog formation.

In Quebec, the Regulation respecting wood-burning appliances, which came into effect on September 1, 2009, aims to prohibit the manufacture, sale and distribution of indoor wood-burning appliances that do not comply with the environmental standards of the Canadian Standards Association. All wood-burning fireplaces and stoves sold to date by the dealers of the company respect the certifications required by the regulation.

Reducing GHGs - Energy saving measures in the home

Smoke from combustion is present both outside and inside homes and this type of residential heating is the main source of fine particles in the air.

Measures to be implemented for health and to reduce emissions :

- Burn only clean, dry wood, never plastic, toxic materials or garbage;
- Ventilate sufficiently to keep the fire alive rather than smoking;
- Clean and maintain the stove, and have it inspected regularly to ensure optimal operation;
- Replace your wood stove with a certified model that produces fewer emissions.



Reducing GHGs - Energy saving measures in the home

Small, simple and effective gestures and practices...

- Consider installing electronic thermostats to reduce energy consumption and heating costs;
- Use voltage bars for electronic devices to reduce "phantom loads";
- Set electrical appliances to standby mode during the day and turn them off after use;
- Install LED or ENERGY STAR qualified lighting (indoor and outdoor);
- Optimize lighting (motion sensor, timer, etc.);
- Turn off lights when leaving a room;
- Wash clothes in cold water and dry clothes on a line or clothes rack (avoids overheating the house in the summer and increases humidity in the house in the winter) ;
- Install a low-flow showerhead to reduce the amount of hot water used.

Reducing GHGs - Energy saving measures in the home

- Reduce the use of air conditioning during the summer months;
- Ensure that the building is well insulated and that there is no air infiltration;
- Make sure doors and windows are well sealed;
- Make sure that the bottom of baseboards and electrical outlets on exterior walls are well sealed;
- Change the brushes on sliding windows and the weatherstripping on door bottoms when damaged;
- Replace your old appliances with ENERGY STAR qualified ones;
- Turn down the temperature when you are away. Adapt the heating according to your needs;
- Encourage the planting of outdoor vegetation to reduce the heat of the building in the summer and reduce humidity.



The impact of e-mail and computer tools

We often forget that every internet search, every document downloaded, every email opened or sent involves electricity consumption, and therefore GHGs!

The information technology (ICT) sector represented in 2018: 8% of energy consumption and 14% of the global carbon footprint in 2020.

1 MB sent would correspond to 15 grams of CO₂!

Energy consumption comes from different sources, including: Computer tools (computers, tablets, telephones, smartphones, their screens and their end of life, etc.) ;

- Data management centers (servers, storage, coolers, etc.);
- The communication network (internal networks, telecom operators, equipment, etc.).

It is necessary to think that CO₂ is not the only source of consumption and pollution; the quantity of metals, plastic and water necessary for the production of computer tools, the servers for an important part.

Practices to implement

- Minimize unnecessary emails, as well as copying unnecessary recipients;
- Optimize the size of the documents you send by e-mail to reduce the weight of the message;
- Use anti-spam software or limit spam by unsubscribing from newsletters and advertisements that do not interest you;
- Empty your email trash and spam box regularly. This data is stored on servers and takes up storage space and energy;
- Favour the use of positive impact search engines: Lilo : financing of social and environmental projects ;
 - Ecosia : tree planting ;
 - Ecogine : buy back of CO2 consumed

GHG Reduction - Food-related GHGs

Food production and transportation are the largest sources of GHG emissions related to food in Quebec.

As mentioned previously, the carbon footprint of a food is calculated by considering its entire life cycle. In the case of food, it is a question of :

1. Its production at the farm ;
2. Its transformation at the factory ;
3. Its transportation to the grocery store ;
4. Its consumption;
5. Then its elimination...



GHG Reduction - Food-related GHGs

Animal products are the food products that generate the most GHGs, particularly red meat and dairy products.

Why is that? It's simple! Because these animals eat a lot in their lifetime, much more than what they ultimately produce as food. So we have to produce plant resources to feed them, and then to feed ourselves.

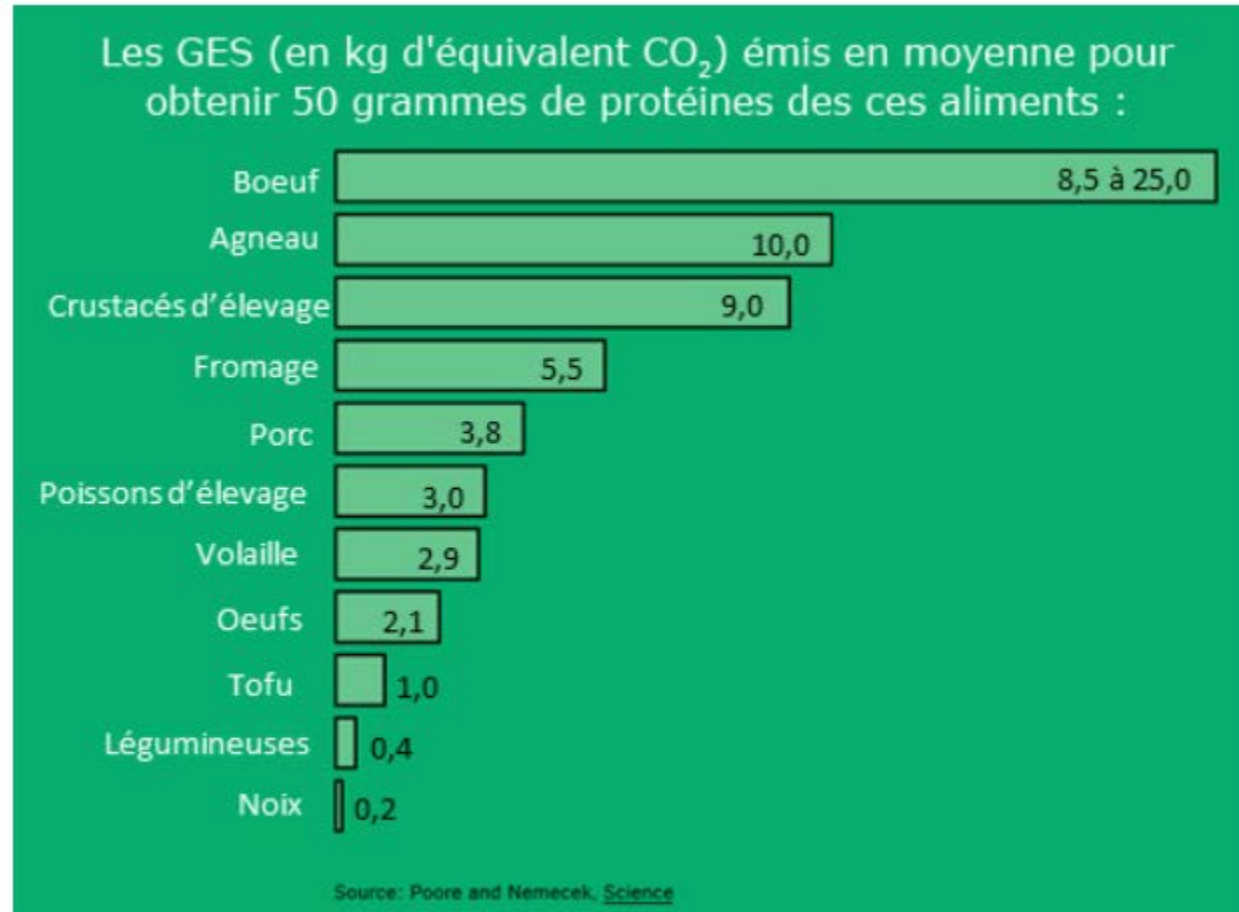
So we consume energy and emit a lot of GHGs that could simply be used to feed us directly.

More than 3 billion hectares of arable land could be used for other purposes on the surface of the Earth if we replaced animal products with plant proteins to feed us!

Ruminant digestion also causes significant GHG emissions!

GHG Reduction - Food-related GHGs

A picture is worth a thousand words!



GHG Reduction - Food-related GHGs

- Reduce meat consumption, mainly red meat, and increase the consumption of vegetable proteins;
- Reduce food waste (one third of the food produced is thrown away during production, transportation and directly at home. Half of this waste is done at home) :
 - Plan the week's menu before you go grocery shopping;
 - Check what's already in the fridge before you leave;
 - Make a grocery list of missing items;
 - Beware of specials! It is tempting to buy more than you need;
 - Reuse leftovers, eat them as lunches or cook a dinner with the leftovers;
 - Freeze leftovers before you waste them and keep track of what is in the freezer;
 - Cook the most perishable foods first;
 - Watch out for expiration dates!
 - Cook less beautiful fruits and vegetables;
 - Recover dry bread to make croutons...

GHG Reduction - Food-related GHGs

A Guide to Freezing Food :

https://naitreetgrandir.com/fr/etape/1_3_ans/alimentation/fiche.aspx?doc=congelation-aliments

Other actions to reduce food-related GHGs...

- Grow your own vegetable garden for the summer;
- Choose products from sustainable fisheries;
- Opt for organic products (without pesticides);
- Use reusable food packaging for shopping and food preservation;
- Reduce consumption of processed food products;
- Buy locally produced foods.



You have extra fruits and vegetables? Drop them off at the Green Fridge in Cowansville (closed in winter). The Green Fridge is located at 209 Sainte-Thérèse Street on the balcony of the Presbytery of Notre-Dame-de-la-Paix.

GHG Reduction - Clothing Waste

The fashion sector, in particular the "fast fashion", represents one of the most polluting industries and has a major impact on climate change.

It is necessary to fight against the overconsumption of clothing and its consequences on the environment (not to mention the social consequences...).

Moreover, the manufacturing of textiles requires an excessive use of water and represents an important source of water pollution. 60% more clothes are produced than 15 years ago... not to mention the GHGs emitted during transportation.

80% of the clothing purchased ends up in landfills.

Measures to be adopted :

- Promote clothing made in Quebec from sustainable textiles;
- Avoid the purchase of synthetic textiles made from petroleum (polyester represents 31% of the plastic pollution of the oceans);

GHG Reduction - Clothing Waste

- Buy less and buy better!
- Buy clothes made of recycled or reused textiles;
- Buy used clothing;
- Opt for biodegradable materials;
- Buy more sober and easy to match clothes that will go out of style less quickly;
- Opt for clothes made in countries known for their environmental standards;
- Choose clothes that can be adjusted and transformed;
- Think about renting clothes, examples of rental stores.

GHG Reduction - Clothing Waste

- To reduce energy costs and ensure the longevity of your clothes, wear them several times before washing them;
- To take care of our clothes :
 - Wash in cold water;
 - Hand wash delicate items;
 - Air dry;
 - When clothes are not dirty, but smell of campfire, food or other, lay them outside for a few hours in the wind to air them out;
 - Iron clothes only when necessary.
- Avoid dry cleaning to reduce the use of chemicals;
- Store garments in a dry place out of the sun.

Équiterre presents the Responsible Clothing Guide to be downloaded for free here :

https://www.equiterre.org/sites/fichiers/divers/guide_vetement_responsable_2008.pdf





Beware of "Greenwashing"!!

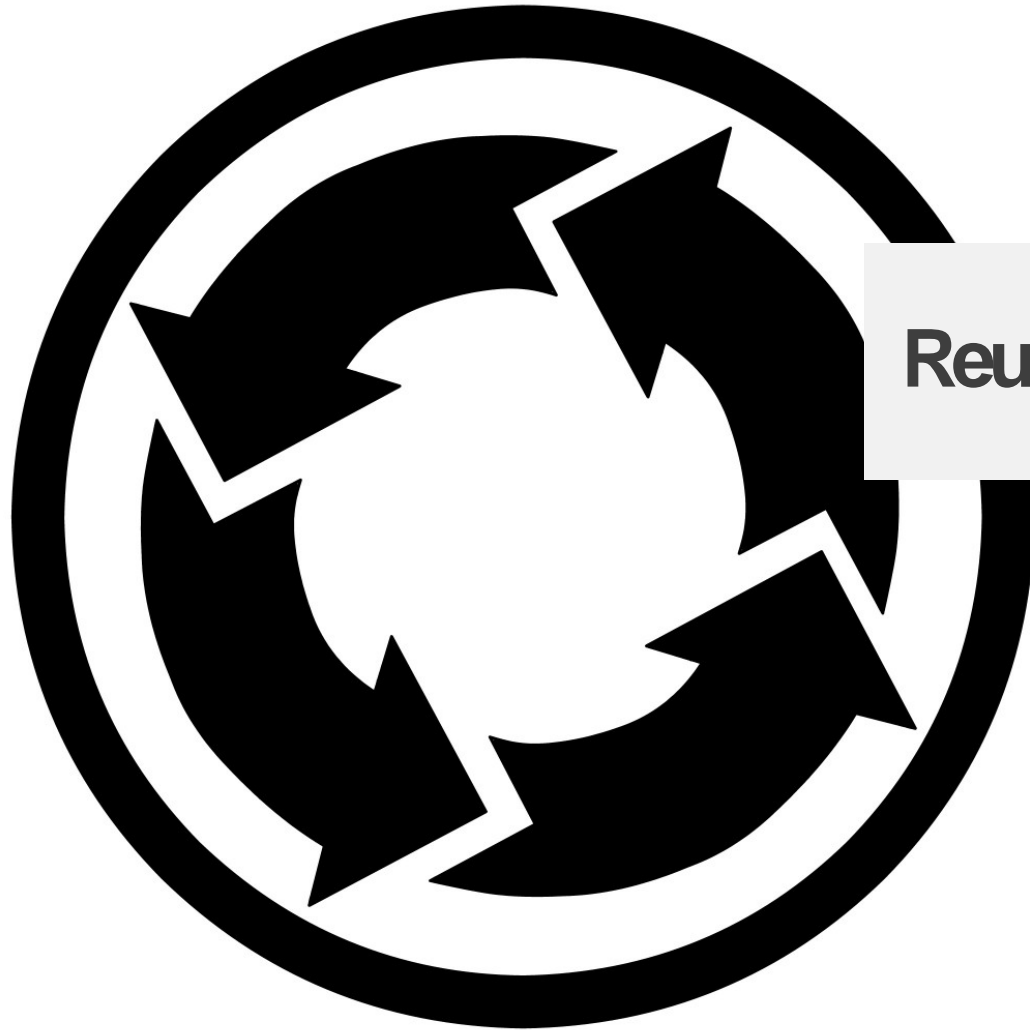
What is Greenwashing?

It is a marketing tool sometimes used to promote a product to the public that is said to be "ecological" or "eco-responsible", but which in fact is not, and by which companies try to make people forget their important impacts on the environment.

E.g.: a company that has social commitments, but does not respect the principles of environmental preservation and pollutes in a significant way.

Use images, logos, branding and colors on products and packaging that suggest ecological or ecoresponsible practices. Hence the importance of recognizing the "real" certifications and ecolabels.

To find eco-responsible companies: the **pages vertes.ca** <https://lespagesvertes.ca/>



Reuse (R)

Reuse

The use of second-hand products and the repair of goods are then recommended to reduce the amount of waste and at the same time, make savings!

Practices to be evaluated :

- Trade or buy second-hand goods through sites (Facebook Marketplace, Kijiji, etc.);
- Repair goods before disposing of them and buying replacements;
- Offer your used goods to donation organizations such as Les filles d'Isabelle;
- Shop at thrift stores (in Cowansville);
- Think about exchanging our clothes :
 - **Club Garde – Robe** <https://www.clublegarderobe.com/>
 - **Empire de l'échange** <https://empiremtl.com/echange>
 - **Shwapclub** <https://www.shwapclub.com/>
- Create a clothing exchange group between friends;
- Repairing our clothes or transforming them for other uses (rags, scarves, headbands) or keeping them to do dirty work.
- Organize a garage sale.

Reuse - Building materials

During renovations :

- Evaluate whether materials can be reused in other rooms and for other purposes;
- Evaluate the possibility of using second-hand or new materials through private sales sites (Facebook Marketplace, Kijiji, etc.);

List of materials that lend themselves well to reuse in home renovation :

- Tiling;
- Ventilation, plumbing and heating materials;
- Tiles, bricks and stones;
- Woodwork;
- Doors and windows.

Consult RECYC-QUÉBEC's Fact Sheet on Reuse here :

<https://www.recyc-quebec.gouv.qc.ca/sites/default/files/documents/Fiche-info-reemploi.pdf>



Recycling (R)

Residual materials management

Residual materials... what do we do with them?

Once we have reduced our consumption, once we have reused goods in an optimal way, there are still goods that are too damaged and unusable to be disposed of.

Compost, recycling and waste data for Cowansville

Année	Compost	Recyclage	Déchets
2018	-	1 769,96 tonnes	4 250,88 tonnes
2019	933,1 tonnes	1 682,49 tonnes	3 306,97 tonnes
2020	1 167,78 tonnes	1 726,79 tonnes	3 368,69 tonnes



The recycling bin

Warning !!

It is much better to deposit your glass containers in the glass recycling containers located in the Super C parking lot and the Massey-Vanier High School parking lot to ensure that the glass is fully recycled.



Applications :

- Bottles and containers
- Insulation products
- Aggregate in concrete manufacturing
- Filtration equipment
- Abrasive





Valuation (V)



The compost

Home composting



-  Meat or bones
-  Fish
-  Fatty or sweet products
-  Soiled cardboard
-  Herbaceous seeds

Municipal collection



A necessary addition, because we can put in these organic materials.

However, the collection generates CO₂ emissions.

Did you know that between 40% and 50% of our personal waste is composed of organic material?

The compost

Reminder of what goes in the municipal compost bin:

- Any cooked, raw or spoiled table scraps or pet food. Questions to ask yourself :
Can it be eaten?
- Any paper or cardboard soiled by food, not waxed, not glazed, not laminated and without staples;
- Any garden residue up to small branches less than 4 cm in diameter and less than 60 cm in length.
WARNING: Never put in residues of invasive exotic plants! This could greatly increase their propagation. If in doubt, do not put them in the brown bin;
- Other compostable materials also accepted
 - Natural corks (synthetic plastic corks excluded)
 - Cold ashes (cooled at least 72 hours)
 - BULK or paper bagged animal bedding
 - Chicken or horse manure
 - Sawdust
 - Frozen treat sticks, toothpicks and wooden skewers
 - Hair, fur and feathers

Attention, all recyclable materials must go in the blue bin first!

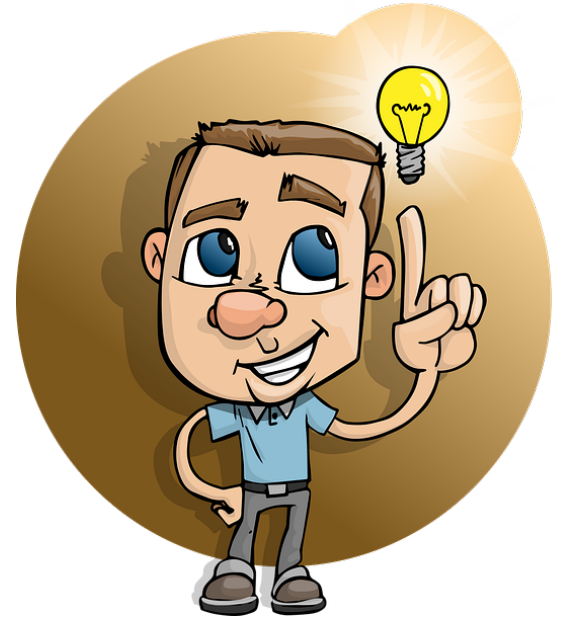
Attention, no plastic bags are accepted, even biodegradable and compostable bags!

Small reminder!

The collection of residual materials (our three bins!) generates GHG emissions. Although the City of Cowansville offsets the emissions emitted during the collection of organic materials, we can do our part to reduce these emissions.

Each stop of the collection truck, even if it is only for a few seconds, creates additional emissions.

So it's important to put the bins out on the road only when they are full (or as full as possible)!



But the smells!!!

Tips for managing compost bin odors :

- Add dry materials (dead leaves and plants, coffee grounds);
- Alternate layers of wet materials (food waste) and dry materials (green waste, paper, etc.);
- Store the bin in the shade;
- Wash the bin regularly;
- Put meat, fish and seafood in the freezer and put them in your brown bin the day before collection;
- Add vinegar or baking soda to the bin to prevent worms from developing.

The Ecocenter

The ecocenter is now open Monday to Friday from 7:30 a.m. to 12:00 p.m. and from 1:00 p.m. to 4:30 p.m., as well as every Saturday. Access is free for residents of the Brome-Missisquoi MRC with a proof of residence.

Accepted materials :

- Recyclable materials;
- Electronic devices;
- Aggregates (brick, concrete);
- Household hazardous waste (paints, batteries, cleaning products, computer and electronic equipment, etc.);
- Wood and metal;
- Construction waste and old furniture, except shingles;
- Bags of dead leaves (in the spring and fall brought in paper bags).

Used tires can be taken back by various companies in the region.

Consult the City of Cowansville's website, tab "collection and residual materials" for more details
<https://www.cowansville.ca/citoyens/environnement/collectes-et-matieres-residuelles>

Other services



Directory of businesses offering a domestic hazardous waste (HHW) recovery service

The application « **Ça va où?** » of RECYC-QUÉBEC allows you to efficiently determine what to do with more than 800 products in just a few clicks!



**TÉLÉCHARGEZ
L'APPLI MOBILE**



List of useful links

Ça va où – RECYC-QUÉBEC

<https://www.recyc-quebec.gouv.qc.ca/points-de-recuperation>

Directory of Environmentally Responsible Products and Services - Acquisitions Branch

http://gestion.approvisionnement-quebec.gouv.qc.ca/portail/Acheteur/DocPDF/R%C3%A9pertoireVert_DGACQ.pdf

We take care of it - look for drop-off points– RECYC-QUÉBEC

<http://onenprendsoin.recyc-quebec.gouv.qc.ca/>

Practical guide to household recycling - 2nd edition - Brome-Missisquoi MRC

<https://www.cowansville.ca/storage/app/media/citoyens/environnement/collectes-et-matieres-residuelles/GuidepratiquedelarecuperationdomestiqueMRCBM.pdf>



Saving drinking water

Drinking water conservation - Stratégie québécoise d'économie d'eau potable

Sadly, Quebecers are among the highest consumers of water in the world, with a disastrous record of using an average of 260 litres of water per day and up to 400 litres for a total average of 40 litres of water per day for the world population.

IMPORTANT FACT!

Reducing consumption can also reduce the amount of wastewater discharged; poor wastewater management increases water management costs for municipalities, and therefore for the community as a whole.



Saving drinking water - Simple actions



- Install equipment that uses less water;
 - Installing a low-flow faucet or toilet saves 11,000 litres of water;
 - Install a volume-reducing bottle or bag in your toilet tank saving 13,000 litres of water;
 - Installing WaterSense certified equipment to ensure product reliability;
- Treating and reusing grey water (the possibility of using grey water to supply certain sanitary equipment or to water gardens, flowerbeds and lawns);
- Use biodegradable cleaning and maintenance products (protection of water quality and reduction of treatment costs);
- Obtain your free drinking water savings kit offered by the City of Cowansville.

With proof of residency, come to the filtration plant at 120 Desourdy Blvd. during business hours.



Saving drinking water - Simple actions

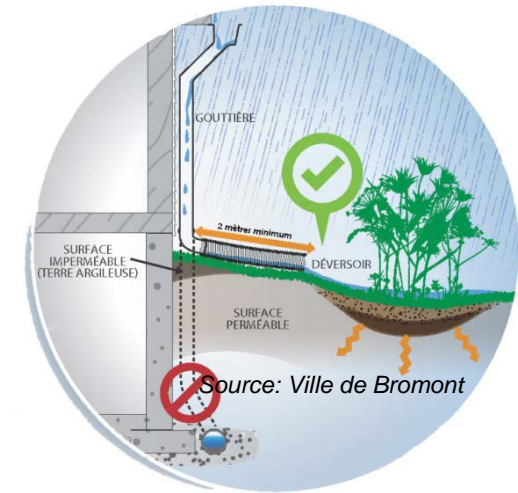
- Fixing a leaky toilet after flushing saves 245,000 litres of water;
- Fix leaky faucets. A broken faucet can waste 140 to 680 liters of water per day, saving 7,000 to 100,000 litres of water;
- Water flower beds and lawns in the morning or evening, depending on the method and hours of watering allowed, to avoid evaporation of 40% of the water used;
- Cover the pool when not in use to avoid evaporation;
- Wash the car with a bucket and a nozzle to save 3,000 l of water;
- Use a broom instead of a hose to clean sidewalks and driveways saving 10,000 litres of water;
- Collect rainwater to water outdoor plantings - one rain barrel can collect up to 120,000 litres of water per year.

Saving drinking water - Simple actions

- Ensure that gutters are not connected to the foundation drain and that they are directed to permeable surfaces;

The City of Cowansville has revised its water management by-law and it no longer allows the connection of eavestroughs and roofs to foundation drains. Residential visits will be made in 2022 to inform citizens.

- For flowerbeds, plant native and perennial flowers in your landscaping as they are more resistant to drought;
- Avoid letting the water run when washing dishes;
- Keep a pitcher of water in the refrigerator to avoid letting the tap water run;
- When waiting for hot water from the tap, collect water in a watering can for watering indoor plants;
- Take showers of no more than 5 minutes;
- Set the washing machine and dishwasher to the shortest cycle;
- Set the water level in the washing machine according to the volume of clothes;
- Defrost food by bathing it in a bowl of water or putting it in the refrigerator rather than letting the water run.



The image shows a vibrant green lawn with a mix of grass types, some with white seed heads. A white rectangular box on the left contains the title text. Below this box is a solid dark blue horizontal bar. The background is a close-up, slightly blurred view of the grass.

Green lawn care practices and watering times

Authorized watering periods

Watering the lawn is one of the most water-wasting activities. A lawn normally gets enough water in a week to stay healthy, the more you water, the more fussy the grass will become and the more water it will need.

Tip : Place two empty bins in the yard and observe the water level at the end of the week. If the bins have a level of 2 cm to 3 cm, there is no need to water the lawn.

In order to counteract the waste of drinking water and to reduce the consumption of drinking water, outdoor watering is permitted on the city's territory by following the following procedure:

According to the following watering days :

- Areas A and C: Wednesday and Friday
- Sectors B and D: Tuesday and Thursday

In one of two ways :

- Turnstiles or other devices between 7:30 p.m. and 9:00 p.m.
- By means of an automatic watering system between 5:00 a.m. and 6:30 a.m.

Authorized watering periods

The watering schedule was first set up to counter the effects of summer heat, which is more intense in the middle of the day: up to 50% of the water evaporates before penetrating the soil.

This is why the watering hours were determined either in the morning or in the evening, depending on the mechanism used, so that the soil would be well moistened in depth, thus reducing the necessary water consumption.

- The watering of flowers, vegetable gardens and shrubs is authorized provided that it is done by hand (with a watering can) without a hose;
- It is permitted to fill up the pool **once a year** without restriction during the day and between 8 p.m. and 6 a.m;



Authorized watering periods

- Spa filling is permitted daily between 8:00 p.m. and 6:00 a.m;
- A property owner who installs or has a new lawn, hedge or landscaping installed, may, upon obtaining a permit (cost \$15.00), water between the hours of 7:30 p.m. and 9:30 p.m. for a period of fourteen (14) consecutive days from the date indicated on the permit
- Washing of cars and exterior walls is permitted at any time provided that a self-closing hose is used and that only water strictly necessary for this purpose is used.
- No person shall wash driveways or parking areas except for new asphalt or new coating with water from the municipal water supply.



Green lawn care practices

The use of pesticides can have significant adverse effects on the environment and our health :

- Contamination of nearby water bodies and streams;
- Contamination of the water table;
- Contamination of water, air and soil, thus harmful to human health, fauna, flora and insects;
- Moreover, the investment in these chemical products can become expensive and their frequent use will make your lawn dependent!

There are a variety of alternatives to pesticides, but the source of the problem must be determined before any action is taken.

Use physical, mechanical and biological control of unwanted pests. These methods of controlling unwanted pests cause less harm to organisms that are beneficial to the environment and our health.

Green lawn care practices

Greener practices to be applied :

- Overseed sparse areas with grass mixtures suited to your soil, use conditions and sunlight level. Add mature compost and avoid monocultures. This reduces the appearance of unwanted grasses;
- Aerate the lawn with a mechanical aerator in the spring;
- Keep the lawn a little taller at the beginning of the season (6 - 8 cm high) so that the grass can develop deep roots and better resist drought;
- To avoid weakening our lawn, mow it as little as possible and avoid mowing during hot weather, as well as keeping mower blades sharp;
- If the lawn is not diseased, do not pick up the mowed grass, let it decompose on the spot;
- Enrich with compost and ecological fertilizer;
- Pull unwanted grass early in the season to prevent it from spreading.

Green lawn care practices

Control of insect pests

Ex.: White grubs / beetle larvae / Japanese beetles

Prevention :

- Perform proper lawn care;
- Leave the lawn at a height of 8 cm: cockchafer prefer short grass;
- Attract birds: they feed on the larvae;
- Sow clover, which is less attractive to these species;
- Avoid unnecessary watering;
- Turn off outdoor lights at night to avoid attracting these species near the house.

Alternatives to pesticides :

- Apply nematodes: they parasitize grubs.
- Place pheromone traps: they attract Japanese beetle adults.

For more details, visit the following MELCC page :

<https://www.environnement.gouv.qc.ca/pesticides/jardinier/pelouses.htm#insectes>



What are the City of Cowansville and local businesses doing?

Essor Environnement

What are our companies doing?

Industrial symbiosis



Oriana Familiar

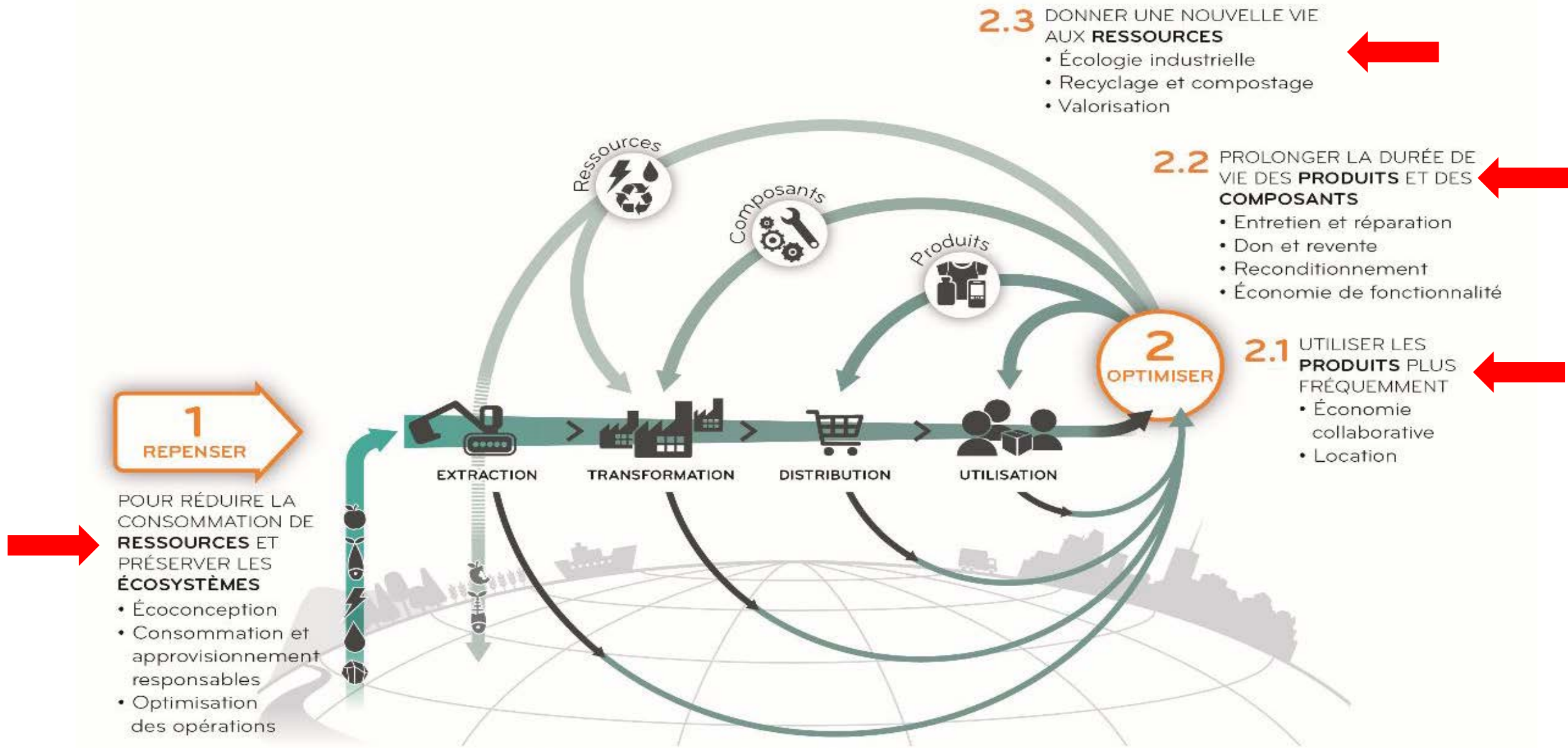
M. SC. Environnement

Coordonnatrice et conseillère en
développement durable

Ofamiliar@cldbmqc.ca

tél.: (450) 266-4928, poste 254





The circular economy

Industrial symbiosis

In numbers (2014 - 2019) :

- 8,700 tons of waste recovered ;
- 370 participating companies;
- Over 900 exchanges;
- Economic gains of \$1,702,524;
- 10,600 tons of CO₂e avoided;
- Over 400 employees received ongoing training.



LA MICROÉLECTRONIQUE
ET LE PARC SCIENTIFIQUE
DE BROMONT



L'EXPLOITATION DU
CALCAIRE DANS BEDFORD
ET LES ENVIRONS



LES PLASTIQUES À
COWANSVILLE, EAST
FARNHAM ET FARNHAM



L'AGROALIMENTAIRE, UN
CRÉNEAU INNOVATEUR ET
PROSPÈRE

A city involved!

Some examples :

- 2009, realization of an inventory of greenhouse gas emissions;
- Citizen awareness actions for the protection of Davignon Lake and support of the CSBVLD for several years;
- 2010 - present, subsidy for the purchase of cloth diapers;
- Free distribution of water saving kits;
- City participation in the Drinking Water Savings Program;
- 2018, Shoreline Inspection and Outreach;
- 2018 to present, Davignon Lake Sedimentation Reduction Project;
- 2019, launch of the 2019-2023 Strategic Sustainability Plan;
- Shoreline revegetation work on municipal land and installation of awareness poster;
- 2019, installation of drop-off points for glass recycling;
- 2020, completion of a carbon footprint on organics collection and local planting to offset GHG emissions;

A city involved!

- 2020, installation of electric vehicle charging stations;
- 2021, emerald ash borer control work;
- 2021, launch of an electric vehicle car-sharing service for citizens and organizations; and
- 2021, purchase of a watercraft wash station at the Nature Center;
- 2021, installation of awareness posters at Désourdy Landing and the Nature Centre to raise awareness of the presence of Eurasian water milfoil and ways to prevent its spread;
- 2021, launch of monthly Eco-challenges.
- 2021, grant to purchase sustainable feminine hygiene products;
- 2021, grant for the purchase of a bicycle;
- 2021, municipal participation in the Municipal Biodiversity Fund;
- 2021, Expansion of Jacques Bonnette Nature Park for conservation (acquisition of 7.49 ha).



Cowansville

GRANDIR - RAYONNER - PROSPÉRER

In collaboration with

ESSOR
ENVIRONNEMENT

Geneviève Mongeau



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