

Direction de  
l'environnement et du  
développement durable

2008

# Highlights



**This document was prepared using the 2008 reports submitted by the division heads of the Direction de l'environnement et du développement durable.**

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# Message from the director

## *Taking concerted action*

With these *2008 Highlights*, I am pleased to present an overview of a very busy year at the Direction de l'environnement et du développement durable. In addition to the regular monitoring that our units carry out on a daily basis, there have been a number of new projects and accomplishments, such as the public consultations on the *Projet de Plan directeur de gestion des matières résiduelles*, the end of landfill activities at the Complexe environnemental de Saint-Michel (the site's transformation into a major urban park has begun), the drafting of a by-law on residential wood heating, the implementation of inspections of food wholesalers on Montréal's territory, and the start of green waste collection.



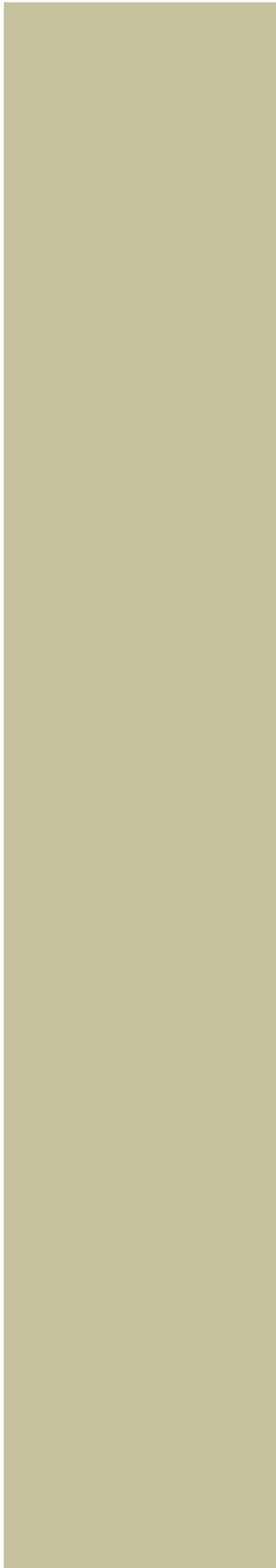
We are pleased to present new readers with an introduction to the Direction, which will help them understand the unique but complementary nature of the tasks and responsibilities of each of our eight units. Our regular readers will note that, for the first time, we have adopted a thematic approach: air, water, soil, waste... instead of presenting the highlights according to our organizational structure. By doing so, and with the current restructuring of our Website, we hope to better reflect the way that our units are working together in the field to achieve sustainable development. We chose sustainable development as the umbrella theme for the issues that the Direction is working on with our stakeholders in addition to the concerns of our Direction and partner organizations reaching out to encourage citizen involvement.

I would like to thank the division heads and all Direction employees whose commitment enabled us to undertake and carry out so many actions in 2008. The strong increase in the number of partners of the *Strategic Plan for Sustainable Development*—there are now more than 165—is an encouraging sign of increased awareness and a greater sense of responsibility among the population of Montréal. This year alone, these partners implemented 450 greening actions to reduce urban heat islands, held more than 400 events in an environmentally friendly way, and trained some 4,000 people in environmental management practices in their daily work.

I invite you to join them, by taking action in your own sphere of activity, to help make Montréal a sustainable metropolis. Enjoy this reading!

A handwritten signature in black ink that reads "Chantal I. Gagnon". The signature is fluid and cursive, with a large, stylized initial "C".

Chantal I. Gagnon, MBA  
Director  
Direction de l'environnement et du développement durable



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# The Direction de l'environnement et du développement durable

## MISSION

The mission of the Direction de l'environnement et du développement durable is to improve the quality of life and living environment of citizens of the Montréal agglomeration, by raising public awareness about environmental issues, by promoting and monitoring the quality of the physical environment, by providing responsible management of the territory's resources and residual materials, and by monitoring the quality and safety of food with respect to wholesalers, restaurants and retailers. In addition, the Direction assumes an advisory role for municipal services, boroughs, related municipalities and other

authorities in the area of sustainable development. To this end, it develops policies, programs and action plans to encourage sustainable development.

## ORGANIZATION CHART

The Direction's eight units work in close collaboration to carry out their concurrent mandates and to achieve their common objective: to help Montréal move closer and closer to becoming a sustainable metropolis. The organization chart below describes the respective mandates, number of employees (in person-years) and budgets.

### TOWARDS BETTER INTERNAL ENVIRONMENTAL MANAGEMENT

In accordance with *Montréal's Strategic Plan for Sustainable Development*, the Direction de l'environnement et du développement durable is committed to implementing an environmental management system (EMS). This kind of system, based on the dynamic and cyclical process of "planning, implementing, monitoring and reviewing," is used to incorporate environmental considerations into daily management and activities.

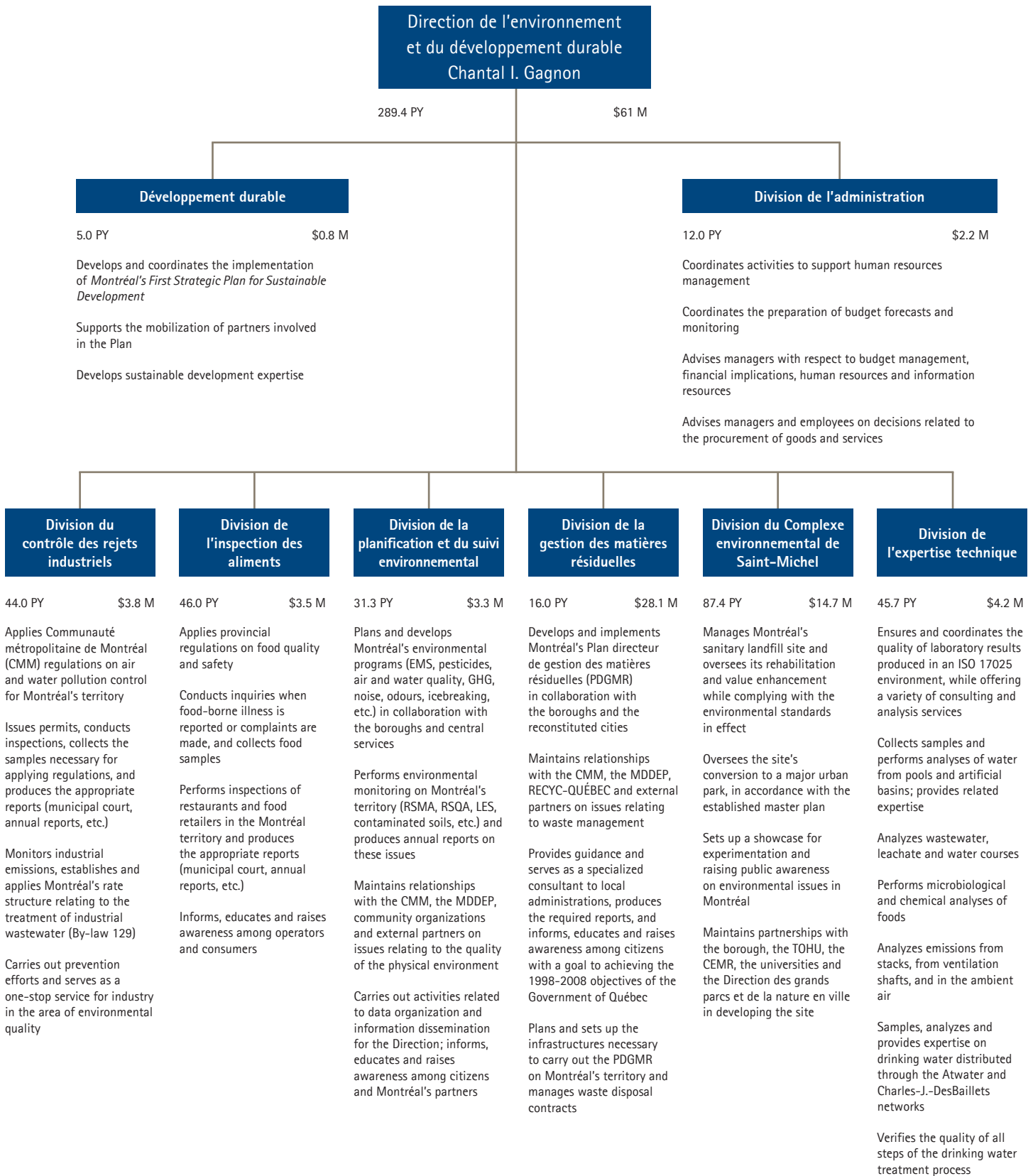
More specifically, by implementing an EMS, the Direction aims to:

- Reduce the environmental impact of its activities
- Use resources more rationally
- Improve the environmental performance of all its activities
- Integrate the various environmental concerns (waste management, energy consumption, air pollution, travelling, etc.) into the daily work of its 300 employees in a sustainable way
- Be an environmental leader

In 2008, one significant action was the development of a tool to monitor the vehicle fleet, in order to optimize its use and analyze parameters such as fuel consumption and greenhouse gas emissions. When vehicles needed to be replaced, reduced energy consumption was a key criterion. Thus, with the purchase of a new energy-efficient truck for the water-testing section, 70% of the fleet has now been renewed with energy-efficient diesel vehicles. The same concern prevailed for new heavy equipment and for vehicles needed for landfill and covering operations at the Complexe environnemental de Saint-Michel (CESM).



# 2008 Organization Chart



# Expanding the reach of SUSTAINABLE DEVELOPMENT

## MONTRÉAL'S FIRST STRATEGIC PLAN FOR SUSTAINABLE DEVELOPMENT

**PREPARING THE NEXT PHASE.** The Direction produced a first annual report as part of the 2007–2009 phase of the strategic plan and is now gearing up for the 2010–2015 phase. To this end, it is conducting exploratory studies and identifying work goals as well as participation mechanisms for partners. It has also maintained its support for the “Quartiers 21” projects and, following the RCE-Montréal's certification in 2007, participated in activities of Montréal's Regional Centre of Expertise (RCE) on Education for Sustainable Development of the United Nations University.

**MORE AND MORE PARTNERS.** Efforts made to interest Montréal organizations in the *First Strategic Plan* have borne fruit: there are now 166 partners, a 46% increase since 2007. Among the major companies and institutions that have recently joined this network are the Banque Nationale, SNC-Lavalin, the SITQ (a real estate subsidiary of the Caisse de dépôt et placement du Québec), and Ubisoft.

**AN ACTIVE EXCHANGE NETWORK.** The exchange network led by the Direction, the Conférence régionale des élus de Montréal and the Conseil régional de l'environnement de Montréal has stepped up its activities. Mobilization to reduce **heat islands** resulted in 450 greening actions. Three **thematic meetings** gave partners the opportunity to discuss issues contained in the *First Strategic Plan*. The **DOMINO electronic newsletter** was published more frequently, going from 3 to 11 issues, to keep up with the increase in news on sustainable development in Montréal. Finally, the **second edition of Gala for the Environment and Sustainable Development** was highly successful, attracting 550 participants—35% more than in 2007.

## SHARING EXPERTISE

**RECOVERING MORE AND MORE WASTE.** As planned in the *First Strategic Plan* (Action 2.17), the Direction continued to implement measures **to reduce and recover waste in industries, businesses and institutions**. Ten training sessions were offered to officials in charge of these files in the boroughs and central services, and twelve information sessions were given to employees. Begun in 2006, this program now includes some 430 municipal buildings, representing 75% of buildings targeted on the island of Montréal.

**A GUIDE ON HOW TO ORGANIZE AN ENVIRONMENTALLY RESPONSIBLE** event was developed and shared with all Montréal's employees and *First Strategic Plan* partners, and then made available to the general public online.



**MULTIPLE COLLABORATIONS WITH MUNICIPAL STAKEHOLDERS.** Working with the Direction des grands parcs et de la nature en ville and the Nature Museums, the Direction helped organize the **5th World Environmental Education Congress** (Montréal, May 2009). It participated in the analysis of several **urban projects**, including those of the Bellechasse sector, the Turcot complex and Griffintown. It helped develop and apply **sustainable development criteria** for evaluating



plans and programs of the Service de la mise en valeur du territoire et du patrimoine. It took part in the work of committees developing local or sector-based sustainable development plans, including those of Ahuntsic-Cartierville and the Service de Police and the Service sécurité-incendie de Montréal. As a member of the Bâtivert committee of the Direction des immeubles, it helped develop Montréal's policy on the sustainable development of buildings, which will be used to integrate environmental management principles into the management directives for municipal buildings.

#### TRAINING COMMUNITY ORGANIZATIONS.

The Direction offered young people from the **Green Patrol** training on programs that can help citizens better manage their household waste, and presented recent knowledge on climate change to **organizations** involved in environmental protection, including the Éco-quartiers. As well, two half-day training sessions showed some forty employees of the Éco-quartier program **how to properly handle household hazardous waste (HHW)**.

**TRAINING THE NEXT GENERATION.** Four employees from the Division du contrôle des rejets industriels gave college-level courses on environmental

issues: water treatment, applied fluid mechanics, stationary source sampling and atmospheric contamination. Personnel from the Division de l'inspection des aliments gave about 960 students and food handlers 60 training sessions on proper handling practices and on the Division's activities.

#### RAISING PUBLIC AWARENESS

**ÉCO-QUARTIER PROGRAM.** This program, operating in 11 of Montréal's 19 boroughs with the involvement of the Direction, continued its mission to raise awareness among citizens. The **Regroupement des Éco-quartiers** also represented Montréal and met with citizens at the Great Gardening Weekend and on compost distribution days.

**PILOT PROJECT WITH YOUNG PEOPLE.** The "zero waste" challenge was successfully launched in day camps. The results and comments collected were then used to prepare an improved version for 2009.

#### PROMOTING REDUCTION AT THE SOURCE.

As part of the eighth edition of the Semaine québécoise de réduction des déchets, the Direction was one of the main partners of **Expo 3R**, presented over two days at the Montréal Science Centre—a choice location for an environmentally flavoured family activity. The **Groupe matériaux pour les arts de Montréal** led an activity on reuse.

#### WELL-ATTENDED OPEN HOUSE AT THE CESM.

As part of an agreement signed between the Tohu and the Ville de Montréal, the program of visits to the **Complexe environnemental de Saint-Michel (CESM)** was adapted to accommodate more visitors. No fewer than 12,318 people turned out—8.4% more than in 2007, setting an attendance record. Entry fees introduced in 2006 for non-citizens once again placed priority on access for Montréalers: 91% of visitors were from the agglomeration. There was also a bigger environmental component to the numerous activities offered. This experience, designed for the general public, should have a positive impact



on daily life. Lastly, access to the bicycle path was extended for a few weeks in the fall.

#### **FOSTERING RECYCLING FOR THE ARTS.**

Working with the Conférence régionale des élus de Montréal, the Direction helped put together a database to serve as a **virtual warehouse of materials that can be converted into works of art**, connecting donors and artists. In December, a dozen ecodesigners welcomed employees from the Louis-Charland building for the **second edition of the Ecodesigner Bazaar**, organized by the Direction in collaboration with the Comité des écluses.

**NEW ONLINE RESOURCES.** A new *Répertoire du réemploi* will enable citizens, with the simple click of the mouse, to find out where to go to obtain or get rid of objects. Also published and now online: the **2005 Corporate Inventory of Greenhouse Gas Emissions**. Two new videos are available as

well, one on the **ecocentres**, and the other on **air and water pollution control** in Montréal. This reference tool is intended for use in schools and trade fairs.

#### **A MORE USER-FRIENDLY WEBSITE.**

Working with the Service des communications et des relations avec les citoyens, the Direction has been redesigning its Website so that the information provided is clearer and more direct.



# Improving AIR Quality

## ENCOURAGING DATA

**AIR QUALITY IN EASTERN MONTRÉAL CONTINUES TO IMPROVE.** Benzene concentrations were down once again in this part of the island, by 27% in relation to 2007, on top of the 20% reduction recorded the previous year. These reductions are the result of an action plan developed in 2004, which will continue to be implemented in 2009.

## MORE PRECISE MONITORING

**BETTER EQUIPPED MONITORING STATIONS.** Various improvements were made to the measurement equipment at many of the 17 stations of the **Réseau de surveillance de la qualité de l'air (RSQA)**. For example, it is now possible to perform more in-depth analyses at the Rivière-des-Prairies station to determine the origins of fine particles in this residential neighbourhood which is heavily affected by pollution from residential wood heating.



## MONITORING INDUSTRIAL POLLUTANTS.

The section in charge of **stack testing** collected 145 samples from companies to verify compliance with environmental standards in effect for various pollutants; as well, 37 days were devoted to verifying the sampling methods used by consultants hired by companies to test their stacks. A **sampling**

## AT THE DIVISION DU CONTRÔLE DES REJETS INDUSTRIELS

### FEWER COMPLAINTS

- 983 complaints made by citizens regarding air quality (1,164 in 2007)
- Average verification time: 5.9 hours (95% of cases dealt with in less than 24 hours)
- 443 notices served
- 13 charges laid or to be laid before municipal court
- Eight companies convicted for a total of \$37,200 in fines

### PERMITS ISSUED

- 102 permits issued for air purification projects, representing \$48 million in investments
- Average processing time: 147 days (62% in less than 60 days)
- 353 temporary permits issued for construction and renovation projects

### ACCESS TO INFORMATION

- 1,712 document access requests processed
- 22 information access requests processed

**campaign for the sewage sludge incinerators at the Montréal's Wastewater Treatment Plant** was also carried out.

Finally, as recommended by the Direction de santé publique de Montréal, interventions were carried out in the boroughs and the reconstituted cities, along with the Régie du bâtiment du Québec and Gaz Métropolitain—among others—to **reduce the risks related to emissions from natural gas boilers that are replacing fuel oil boilers**. The low height of these boilers was considered a potential health and safety hazard, particularly for children.

**LANDFILL GAS CAPTURE AT THE CESM.** A total of 111 million cubic metres of biogas were extracted from the mass of waste at the CESM, corresponding to the complete decomposition of 78,177 tonnes of organic carbon. Despite this increase in the volume

captured, when converted into its energy value, 4.8% less energy was recovered. The **refection of the landfill gas collection system** continued at the same pace as in previous years, with the construction of a new surface collection pipes network in Zone 2 and the abandonment of nine wells. As well, significant improvements were made to the valves chamber and to the mist eliminator, and new tools were developed to quantify diffused landfill gas emissions to the atmosphere and by lateral migration, which should provide effective solutions to this problem.

### REDUCING GREENHOUSE GASES (GHG)

**INITIAL IMPACT OF MONTRÉAL'S CLIMATE PROTECTION CORPORATE ACTION PLAN:** the **Energy Fund** and its **Intranet portal** have been established. The money invested—more than \$1 million in six months of operation—will be used to improve the energy efficiency of municipal buildings. This alone will lead to a 900-tonne reduction in GHG emissions, which is 90% of the annual corporate objective (1,000 tonnes).

**PARTICIPATION IN THE WORK OF THE ALLIANCE FOR RESILIENT CITIES.** Research on adapting to climate change and on the GHG emissions of former landfill sites on the island of Montréal have added to our knowledge on Montréal emission sources of these gases.

### COUNTERING POLLUTION FROM WOOD HEATING

On March 31, 2008, the municipal council adopted an action plan, developed under the coordination of the Direction, aiming to counter pollution caused by wood heating. This plan, which asks the governments of Québec and Canada and the Direction de santé publique de Montréal to become involved, calls for an awareness campaign in 2009 and the adoption of new regulations. Significant efforts have already led to a **draft by-law on solid-fuel-burning equipment**.

### JOINT PLANNING

The Direction has written and submitted to the authorities concerned a brief on volatile organic compounds resulting from architectural finishes. It also participated in the work of the Air Management Committee of the Canadian Council of Ministers of the Environment, working on a strategy to reduce acid rain and reviewing Canadian standards for mercury, benzene, dioxins and furans.

### ANALYSES CARRIED OUT BY THE DIVISION DE L'EXPERTISE TECHNIQUE

- More than 7,500 results sent to the RSQA
- 750 analyses related to industrial air emissions, including regulation samples in cryogenics

# Improving WATER Quality

## RÉSEAU DE SUIVI DU MILIEU AQUATIQUE (RSMA)

The RSMA continued to monitor the quality of water on and around the island of Montréal.



- Each week during the summer, samples were taken at 115 QUALO points to verify the bacteriological quality of **shoreline water**.
- Samples were taken at more than 50 RUISSO points (analysis of 26 physic-chemical parameters) were used to study the water quality of **26 streams and interior lakes**.
- **Maps of water quality** on and around the island were posted online each week, and highly appreciated by the general public.
- The PLUVIO program, which monitors **water from the storm sewer system**, was used to validate the results of the first profile (2007) on the state of contamination of storm drains around the island and to begin the diagnosis of some fifteen sectors affected by reversed connections. Results from studies on contaminated watersheds will be used to plan corrective actions in several sectors, and to help improve the bacteriological quality of stormwater that is discharged directly into the rivers surrounding the island.

## WASTEWATER

**A BY-LAW** upholding the requirement to hold a permit to discharge wastewater into the treatment works was drafted to complement an amendment to the CMM by-law on wastewater disposal, and was adopted by Montréal's municipal authorities.

### AT THE DIVISION DU CONTRÔLE DES REJETS INDUSTRIELS

#### A STABLE NUMBER OF COMPLAINTS

- 115 complaints made by citizens regarding water quality (107 in 2007)
- Average verification time: 6.2 hours (96% of cases dealt with in less than 24 hours)
- 197 notices served
- Nine charges laid or to be laid before municipal court against companies that had not corrected the situation following a first notice
- Four companies convicted for a total of \$60,000 in fines

#### PERMITS ISSUED

- About fifteen permits (to as many companies) authorizing the discharge of liquid effluents into the sewers, according to established standards
- 80 approvals for water purification projects, representing \$1.6 million in investments
- Average processing time: 89 days (76% of approvals issued in less than 60 days)
- Recommendations made to the Ministère du Développement durable, de l'Environnement et des Parcs (MDDEP) to authorize 53 municipal projects for building or replacing sewer pipes
- Revenue generated by wastewater tariff rate structure: \$6.24 million
- Revenue from industrial wastewater characterization fees: close to \$0.3 million

**CESM LEACHATE.** More than 763,494 m<sup>3</sup> of leachate (water that comes from waste) were treated and then discharged into the sewer system in accordance with regulations—40% more than in 2007. The air injection treatment process brought the average concentration of sulphur compounds from 18 mg/l at the bottom of the landfill to just 0.29 mg/l at the sewer drain (standard: 5 mg/l).

**THE DIRECTION'S LABORATORY** acquired a recorder to measure the pH of discharges from its facilities. This will be used to ensure continuous compliance with prescribed standards.

## SWIMMING WATER

**RECREATIONAL POOLS.** The Division de l'expertise technique assisted the other members of the Table des responsables aquatiques of the 19 boroughs in **defining guidelines** for maintaining and improving water quality in swimming pools and wading pools. It also **synthesized** the analysis results of all the boroughs, leading to the publication of a press release every two weeks during the summer season and once a month during the rest of the year.



## ADVANCING REFLECTIONS

A **brief** on the Canada-wide Strategy for the Management of Municipal Wastewater Effluent was written and submitted to the authorities concerned. As well, the Direction took action on the **regional** (Forum des maires du Saint-Laurent, regional water strategy of the Conférence régionale des élus de Montréal), **provincial** (briefs) and **international** levels (International Joint Commission, Great Lakes and St. Lawrence Cities Initiative) to express Montréal's concerns about the quality and quantity of waters flowing into the rivers surrounding the island of Montréal.

## ANALYSES CARRIED OUT BY THE DIVISION DE L'EXPERTISE TECHNIQUE

### FOR THE RÉSEAU DE SUIVI DU MILIEU AQUATIQUE

- More than 35,000 analysis results as part of the QUALO, RUISSO and PLUVIO programs

### DRINKING WATER

- Some 34,000 chemical analyses (inorganic and organic) and 31,000 microbiological analyses to monitor the quality of water from the Atwater and Charles-J.-Des Baillelets treatment plants and the drinking water distribution system (100 sampling sites each week)
- 38 homes visited in the summer as part of the Ville de Montréal's sampling campaign to monitor the presence of lead in the water
- Each work day, verification of the water issuing from the drinking water reservoirs that underwent rehabilitation (including Vincent D'Indy and Châteaufort). Compliance with standards confirmed.
- Close to 400 sampling visits (18 parameters targeted, nearly 5,200 analyses) as part of a project to divide the Montréal aqueduct system into 185 zones—with trial implementations in two zones (Pierrefonds and Saint-Laurent boroughs)

### WASTEWATER

- Close to 15,000 analysis results, including a report on toxic materials (including the analysis of cakes and ashes produced by the treatment of wastewater) as part of the regular physico-chemical characterization program of the Wastewater Treatment Plant and its tributaries and effluents, as well as the Treatment Plant on Île Notre-Dame
- More than 15,000 analysis results as part of the application of CMM By-law 2001-9 on the control of wastewater disposal
- More than 8,000 analysis results as part of the application of By-law 129 on the rate structure relating to the treatment of industrial wastewater

### SWIMMING WATER

- More than 1,000 analyses in more than 200 facilities, as part of the *Regulation respecting water quality in swimming pools and other artificial pools* adopted in 2007 by the Government of Québec
- Analysis of about one hundred samples from Cap-Saint-Jacques



## Improving SOIL quality

### REDUCING CONTAMINATION

**THE SOIL OF COMMUNITY GARDENS.** Contamination levels are now known for 95 of the 98 community gardens. Because the Direction is also involved in the working committee on gardens in collaboration with the boroughs concerned, it helped develop an **environmental rehabilitation approach** for existing gardens and for new gardens that complies with the requirements of the MDDEP and the Direction de santé publique de Montréal.

**CLIMATSol.** This \$25 million provincial program, launched in 2008 by the MDDEP and administered in collaboration with the Service de la mise en valeur du territoire et du patrimoine, aims to rehabilitate contaminated sites while maintaining or creating plant surfaces and integrating green building technologies into construction projects. From October 2007 to December 2008, 13 Montréal projects were accepted into the ClimatSol program, for a total financial commitment of \$3.9 million.

**At the PEPSC.** The Ville de Montréal has entrusted the Montréal Centre of Excellence in Brownfields Rehabilitation (MCEBR)—a non-profit organization which it founded along with the governments of Québec and Canada—the mandate of recommending technologies for collecting and treating groundwater and floating-phase hydrocarbons in the Parc d'entreprises de la **Pointe-Saint-Charles** (PEPSC, formerly Adacport). This land, located between the Champlain and Victoria bridges, forms the heart of the 2025 Harbourfront Vision of the Société du Havre de Montréal, which aims to reunite the city with its river. Thanks to a budget of \$1.5 million, the MCEBR launched a call for technology proposals and has already carried out some pilot projects.



**MORE ACCESSIBLE DATA.** Working in concert with the Direction de la réalisation des travaux, the Direction continued to develop a map for its Intranet that will integrate geological data with data on soil contamination that has been collected for over the last twenty years on the territory.

**PROVIDING EXPERTISE.** The contaminated soils team responded to more than 200 requests from central services and boroughs, providing **technical support** for various projects.



# Minimizing PESTICIDE use

## A PESTICIDE-FREE MONTRÉAL AND INTEGRATED PEST MANAGEMENT

**COORDINATING.** Working in collaboration with the boroughs, the Direction des grands parcs et de la nature en ville, the Botanical Gardens and the Direction du contentieux, the Direction coordinated the implementation of the by-law on pesticide use. As well, using the boroughs' annual reports, the Direction identified points that will require more rigorous follow-up with respect to pesticide management.

**PROVIDING INFORMATION.** The Direction invested considerable effort in educating the various administrative units about the **Montréal's responsibilities and obligations** stipulated by the provincial laws (keeping registers, buying pesticides, etc.) and the practical requirements of pesticide management. Three **plant-care warning bulletins** describing problems with commonly occurring harmful organisms were also sent to boroughs parks management personnel, and **eight articles raising awareness** about common plant-care problems were published in local newspapers and on Websites.

**ADVANCING KNOWLEDGE.** Four research projects on **integrated pest management** led to the development of new pest control solutions that are safe for human health and the environment. Three of the projects examined timeframes likely to maximize the effectiveness of interventions to control sand wasps, hackberry psyllid, and linden aphids. The fourth successfully tested a method to control ash borers (dormant oil).



# Improving WASTE management

## WORKING TOGETHER

**PRESENTATION OF THE *PROJET DE PLAN DIRECTEUR DE LA GESTION DES MATIÈRES RÉSIDUELLES (PDGMR) CONTINUES.*** In May, the Direction revealed its PDGMR draft to more than 240 people at five public meetings held by the Commission permanente du conseil d'agglomération sur l'environnement, le transport et les infrastructures. In October, the Commission unanimously approved 33 recommendations stemming from the 30 briefs presented by community and business organizations, boroughs and related municipalities, environmental groups and other organizations, including the Regroupement des Éco-quartiers. Fifteen of these recommendations did not involve any changes to the draft, twelve required some changes but had no impact on the budget, and six others led to a \$30.8 million reduction in expected costs. The total cost of the PDGMR is now \$240 million. The consultation report was submitted to the agglomeration council in November.



## QUÉBEC WASTE MANAGEMENT HEARINGS.

In February, a brief was presented to the National Assembly's Committee on Transportation and the Environment explaining the Montréal agglomeration's position on waste management. A complement to the CMM's brief, this document addressed the six themes contained in the consultation document: source reduction, reuse,

recycling and enhancing the value of waste; deposit programs and extended producer responsibility; household hazardous waste (HHW); industries, businesses and institutions; construction, renovation and demolition (CRD); and disposal. The conclusion is that accomplishing the objectives set by the *Québec Residual Materials Management Policy, 1998-2008* and its subsequent policies will necessarily involve greater producer responsibility, municipal offers of service that are in line with the financial frameworks, the implementation of collection tools adapted to the various types of waste and to the government objectives, the construction of appropriate treatment facilities (reuse, organic waste, CRD) and, finally, an increase in financial resources.

**A NEW PLACE FOR COOPERATION.** The Direction is now represented at the **CMM's new Table d'échange technique sur la gestion des matières résiduelles**. This discussion table on waste management will enable representatives from the agglomerations of Montréal and Longueuil, the Ville de Laval and the municipalities and MRC's of the northern and southern ring to keep up to date on the progress of their respective projects and to comment on those put forth by the CMM.

**NEW PORTAL IN THE MAKING.** A sum of \$75,000 has been allocated to develop a portal for managing waste management databases (specific reports for each type of material), to be accessible to all boroughs and reconstituted cities, and to set up **an electronic network** that will make management data from the ecocentres (tonnage, customer traffic, etc.) available online.

## RECOVERY

### RECYCLABLE MATERIALS

**RECYCLING COLLECTION** in buildings with nine units or more, initiated in 2006, is now available for 94% of the 78,000 units concerned: citizens in the boroughs of Île-Bizard–Sainte-Geneviève, Saint-Laurent, Lachine, Montréal-Nord and Pierrefonds-Roxboro and those of the cities of Dorval and Montréal-Ouest now also have access to this service.



#### A NEW TOOL FOR RECYCLING COLLECTION IN MONTRÉAL.

The design of the prototype in question was completed by the firm Claude Mauffette Design Industriel, winner of the design competition held for this purpose. The tool provides the desired improvements in terms of ergonomics, capacity (70 litres) and handling for both citizens and collectors, and will help keep the streets cleaner. Some 3,000 prototypes

will be produced and piloted in 2009 in the boroughs of Plateau-Mont-Royal, Verdun and Côte-des-Neiges–Notre-Dame-de-Grâce. Montréal has filed a permanent patent application in order to formalize its ownership of the new concept.

**RECYCLING ICT DEVICES.** Several Canadian provinces regulate the recycling of information and communication technology (ICT) devices—computers, CRT displays, VHS or DVD players, etc.—as they contain materials that are hazardous for human health and the environment. While waiting for

such a law to be passed in Québec, Montréal wants the devices brought by citizens to ecocentres and the agglomeration's shop yards to be managed in a way that respects the environment. While there is little potential to reuse most of these devices, they will be taken apart and their parts and components will be recycled or recovered in accordance with the Electronics Product Stewardship Canada (EPSC) standards, one of the requirements of the call for tenders.

### HOUSEHOLD HAZARDOUS WASTE (HHW).

**A NEW STRATEGY CALLS FOR TENDERS FOR MOBILE HHW COLLECTION.** For the first time, the 52 days of mobile HHW collection were separated into two contracts and the calls for tenders launched consecutively rather than simultaneously. This led to a greater number of entrepreneurs bidding for the contract and to lower prices for Montréal, as companies could adjust their prices after the first call for tenders. Thus, two companies will share the Montréal agglomeration territory for this contract that goes from 2009 to 2011. As well, a call for tenders was made for the collection of HHW in the ecocentres, and another—in collaboration with the Direction de l'approvisionnement—for the collection and recycling of **lamps and electric parts** thrown out by municipal services, boroughs and related municipalities, or received at the ecocentres. These HHW will be processed at a lower cost than previously with a significant volume reduction effect.

**MORE HHW IS BEING COLLECTED.** There has been an 8.2% increase in the volume of HHW collected since 2007. Of the 1,450 tonnes of HHW recovered and processed—including 641 tonnes of paint recovered by Éco-peinture (at no cost thanks to regulations on Extended Producer Responsibility)—73% (1,058 tonnes) came from the six eco-centres and 1% (20 tonnes) from shop yards, while 26% (372 tonnes) were brought to the mobile collections by 15,113 of the agglomeration's citizens.

## ECOCENTRES

**IN THE SIX CURRENT ECOCENTRES**, the Direction has begun **automating the weighing of containers** used to transport the materials collected in order to ensure more reliable data, to avoid human error and to reduce carrier waiting time. A **pilot signage project**, implemented at the Petite Patrie ecocentre, was used to validate the visual identity and signage concept developed by Atelier Louis-Charles Lasnier. It will now be easier for people to go to an ecocentre, to find their way around and to obtain the information they need. Gatehouse have been installed and signage added. A **major study on health and safety** is also underway to verify the compliance of health and safety at work and HHW management standards. In 2008, audits were performed at the Eadie and Petite Patrie ecocentres. Finally, six contracts for the transportation of containers (one per ecocentre) were granted for a period of 13 months, ending in December 2009.

**IMPROVING WAREHOUSE ORGANIZATION.** In order to improve the functioning of the ecocentres' reuse



warehouses, the Direction proceeded to assess the value of stored items and to identify solutions to increase the turnover rate. Management methods likely to optimize the offer of services to citizens were also studied.

**TWO NEW ECOCENTRES PLANNED.** Following numerous consultations, plans for the **LaSalle ecocentre** were finalized at the end of the year. Planners drew on the experience of the six existing ecocentres to adapt the facility to today's needs. In addition, negotiations for the purchase of the **land that will accommodate the Saint-Laurent ecocentre**—on Sartelon Street, next to the snow depot of the same name—led to the acceptance of Montréal's purchase offer at the end of the year.

## ENHANCING THE VALUE OF WASTE

**THREE-WAY COLLECTION EXTENDED.** Three related municipalities—Côte-Saint-Luc, Pointe-Claire and Westmount—started to offer their citizens **food waste collection**, in addition to household waste collection and recycling collection. In total, 10,550 residences were served by this additional collection, and 1,138 tonnes of food waste were recovered.

**CONSTRUCTION, RENOVATION AND DEMOLITION (CRD) WASTE.** A contract was granted to begin sorting and marketing CRD waste buried at the CESH—the Direction wanted to make sure to enhance the value of this waste before the site is closed at the beginning of 2009. Taking into account the obligation outlined in the specifications to enhance the value of at least 40% of CRD waste (about 48,000 tonnes per year), the costs will be \$31 per tonne for recyclable materials and \$62 per tonne for materials requiring disposal. A second life will therefore be offered to more than 40% of the some 120,000 tonnes collected each year.

**ORGANIC MATERIALS.** A new **green waste collection and treatment service** is being offered in Montréal: organic waste from horticultural work or gardening is now recovered and composted. Since September, Montreal's 19 boroughs as well as the cities of Mont-Royal and Pointe-Claire have been offering this collection service. In total, 21,000 tonnes have been composted, including dead leaves.

At the CESM itself, roughly 8,000 tonnes of **compost** were produced from leaves collected in 2007. A new sifting step has improved the quality of the compost. The conventional distributions to citizens took place on the site over two weekends, in the spring and in the fall. In total, 4,899 participants (3,266 vehicles) took advantage of this free offer. Thirteen boroughs or related municipalities also organized spring distributions, bringing the service closer to citizens. Compost will also be used for the final covering of the CESM site and for local horticultural work. In the fall, 18,733 tonnes of leaves, including 75% collected in bulk, were brought to the CESM this time—an increase of 28% over 2007.



Also at the CESM, 39,660 tonnes of wood waste (11.9% more than in 2007) were processed and used to generate energy. Nearly 63.5% of this total, or 25,180 tonnes, came from ecocentres as

well as natural Christmas trees and tree-pruning residues (from operations on public land) collected by Montréal.

## DISPOSAL

**CONTRACTS IN EFFECT.** A **household waste disposal** contract was granted at a cost of \$44.50 per tonne for five years (2009-2013). This contract should cover the disposal of 35% of the agglomeration's household waste, equivalent to roughly 224,000 tonnes per year. The remaining 65% are currently treated by two other companies at a cost of \$46.68 per tonne and \$49.68 per tonne; these will continue until the end of 2010.

**AGREEMENT ON THE REDISTRIBUTION OF DISPOSAL FEES.** Montréal accepted an agreement proposal by the MDDEP: amounts owed under the Program of Redistribution to Municipalities of Charges Payable for the Disposal of Residual Materials—which stems from the *Regulation respecting the charges payable for the disposal of residual materials* (Bill 130)—will be entirely redistributed to the 16 related municipalities.

**A MECHANOBIOLOGICAL TREATMENT EXPERIMENT.** As part of a study funded by the agglomeration and the CMM, the Centre de recherche industrielle du Québec (CRIQ) has begun evaluating the feasibility of producing refuse-derived fuel (RDF) from final waste products. The sampling phase has been completed.

## REHABILITATION OF THE COMPLEXE ENVIRONNEMENTAL DE SAINT-MICHEL (CESM)

**COVERING CONTINUES.** The final covering and rehabilitation of the landfill zone as part of the site's transformation into an urban park continue to progress: 3.8 more hectares have been developed using 92,300 tonnes of earth and sand. This is in addition to the 21.5 completed hectares, for a total of 25.3 out of 72 hectares, representing 35% of the area to be covered by 2013. A **new composition of final covering**, characterized by the use of concrete and rock, requiring less sand for drainage, and the spreading of sand with a **spreader** rather than a bulldozer, have considerably lowered the cost of materials. In fact, with the reuse of more than 183,716 tonnes of concrete and rock and the reduction of the average thickness of sand from 23 to 10 centimetres, the net cost of covering per hectare has dropped from \$56,700 in 2007 to \$19,260 in 2008, representing a 66% savings.

**FOR BETTER DRAINAGE.** Among the projects carried out in partnership with the Direction des grands parcs et de la nature en ville is the granting of a contract to conduct a study on work related to the **site's drainage and the stabilization of the cliff walls**—of key importance to the site's rehabilitation. An **underground drain** intended to channel the water from a pipe on the south cliff, in the three lake sector, was also installed on the rainwater collection network of the west slope.

**ENVIRONMENTAL MONITORING.** A full review of the **monitoring program and the CESM operations manual** was carried out in order to record the expertise of employees before the site is closed. An **asset management program (MAXIMO)** was set up to organize and document the maintenance, operations and environmental monitoring activities independent of staff movement. As well, the **compilation of all environmental monitoring data** acquired since the end of the 1980s, a prerequisite to carrying out analyses that will confirm the future safety of the park for the public, has begun. Finally, an **automatic weather station** was set up to ensure that parameters are sent directly to the control station, where they will be compiled to help operators regulate the LFG collection system, particularly with respect to barometric variations.

### ANALYSES CARRIED OUT BY THE DIVISION DE L'EXPERTISE TECHNIQUE

The laboratory participated in the environmental monitoring of the Demix and CESM landfill sites by providing some 2,000 analysis results.

## AT THE CESM: LAST YEAR OF LANDFILL ACTIVITIES

In 2008, the CESM received 1,033,445 tonnes of residual materials: 487,367 tonnes of excavation materials, 330,634 tonnes of solid waste, 183,716 tonnes of concrete rock and asphalt, 13,615 tonnes of levelling materials and 18,113 tonnes of leaves and green waste. The completion of projects next to the site (highway 25, STM project, etc.) heavily increased the amounts of earth. Most of these residual materials were recovered: only the solid waste and part of the excavation materials were landfilled.



# Managing FOOD inspection

## IMPORTANT AGREEMENT WITH THE MAPAQ

At the start of 2008, the Ministère de l'Agriculture, des Pêcheries et de l'Alimentation du Québec (MAPAQ) and the Ville de Montréal signed **an agreement for 2007–2009** (the previous agreement having ended December 31, 2006) on the maintenance and self-financing of the Montréal's food inspection programs, thanks to a \$3.68 million payment. Montréal is pleased that it has been able to fulfill its expectations of reaching a longer term agreement.

## HARMONIZED ACTIVITIES AND AN EXTENDED MANDATE

This agreement also reflects the will of the parties to better coordinate their activities: a plan to standardize the Montréal's inspection activities and those of the MAPAQ was added, stipulating the actions to be carried out by Montréal to achieve this standardization in 2008 and 2009. It should be remembered that this plan is one of the means put forward as the result of recommendations made to the MAPAQ by Québec's Auditor General in his 2006 report on food inspection.

### A NEW CATEGORY OF CLIENTS: WHOLESALERS

The agreement foresees the transfer from the MAPAQ to Montréal of some 850 wholesalers in the food processing, distribution and storage sector located on the Montréal agglomeration. To accommodate these new clients, **inspectors** at the Division de l'inspection des aliments received training on the regulations and procedures for the permits concerned. Personnel from the Direction and the MAPAQ also worked on integrating the data from these new inspections into the Division's electronic database. Among other things, the Division modified its procedures so that client files can be managed not just by business premise but also **by operator**, as is the case at the MAPAQ.

## ANALYSES PERFORMED BY THE DIVISION DE L'EXPERTISE TECHNIQUE

More than 28,000 analyses a large part of which were carried out in the fall during the *Listeria crisis*—were performed on some 6,000 food samples collected by the Division de l'inspection des aliments. The laboratory also acquired a PCR analysis system, which will help reduce waiting time for results.

### HIGH-RISK FOOD SAFETY MANAGEMENT PROGRAM.

The main steps of the Division work plan for this program, which aims to make businesses more accountable, was completed. It developed new inspection procedures: for example, a follow-up inspection will be carried out in cases where actions by the inspector are required to improve risk-management within a very short period of time. It also provided inspector training and developed targeted computer tools. As well, it completed periodic follow-up reports to ensure that all establishments were inspected in the required time frame.

**TOWARDS COMPUTERIZED MANAGEMENT.** In collaboration with the Direction des systèmes d'information, the Division continued work begun in 2005 to equip itself with a computerized system for managing its inspection activities. The functional analysis phase has been completed and the development phase initiated. It should be remembered that the goal of this project is to secure the data currently managed on Dataflex, a system dating from 1992, and to improve the quality of services offered to citizens as well as to the 13,000 operators of food establishments.



## INSPECTIONS CARRIED OUT

**A YEAR MARKED BY TWO LISTERIOSIS OUTBREAKS.** Major efforts were deployed to ensure that products that had been identified by the Canadian Food Inspection Agency (CFIA) and the MAPAQ as possible sources of *Listeria* contamination were withdrawn from the market or destroyed. Some 1,300 inspections were carried out in establishments and many telephone verifications made. Personnel also took more than 230 swabs of surfaces and food samples.



## INSPECTIONS AND INVESTIGATIONS PERFORMED BY THE DIVISION DE L'INSPECTION DES ALIMENTS

- 18,413 inspections in some 13,000 establishments in the food processing, distribution, storage, service and retail sectors on Montréal agglomeration territory
- 3,763 infractions observed and 1,686 notices of infraction issued calling for immediate corrective action to be taken
- 184 legal proceedings instated before Municipal Court for refusal to comply
- Fines generated by cases resolved: \$271,650
- Ceasing of operations (five days at most) in 11 establishments where there was an imminent threat to consumer health
- 1,553 complaints addressed, coming mostly from citizens
- Average intervention time: 32 hours. In more than 95% of cases, follow-up was begun in the allotted time (less than 24 hours for complaints directly related to health and less than 48 hours for complaints related to hygiene or cleanliness)
- Investigations carried out following 204 reports of food-borne illness or allergies, involving 857 people
- 419 inspections and telephone calls to verify that food that had been recalled had indeed been withdrawn from points of sale
- As part of an agreement with the MAPAQ and the CFIA, 113 inspections in retail businesses or restaurants conducted to verify compliance of labelling on food packaged by retailers and of documentation given to the public
- As part of food safety and quality verification or investigations of complaints and food-borne illnesses, 6,418 food samples and swabs taken

# Administration

## EVOLVING HUMAN RESOURCES

In 2008, the Direction had a workforce of 289.4 person-years, that is: 21 managers, 3 unionized foremen, 29.5 general professionals, 24 scientific professionals, 154 white-collar workers and 56.9 blue-collar workers.

**DEPARTURES AND NEW HIRES.** Ten people left for retirement: one engineer, one planning consultant, three environment technicians, one budget officer, one weighing clerk, one driver-operator and two operators. With respect to **staffing**, competitions were held to fill 33 permanent positions; 60% of people thus hired belong to groups targeted by the Programme d'accès à l'égalité en emploi. As part of the **transition in the CESM's activities**, the Division de l'administration supported managers in the area of human resources, and provided personalized support to each of the employees affected. Negotiations also took place with the various unions on work schedules, and letters of agreement were signed.

The **Division de l'inspection des aliments** hired and trained two assistant inspectors and temporarily named three supervisors. Note that if all personnel departures since 2005 are considered (the majority for retirement), then 42% of inspectors have had to be replaced. Personnel in place will have to continue the efforts made these last four years to ensure appropriate training of all newcomers and the maintenance of the expertise required for the smooth running of operations. In 2008, each inspector received an average of 52 hours of training.

Meanwhile, in order to minimize the effects of the numerous movements of personnel caused by retirements, promotions and transfers, the **Division du contrôle des rejets industriels** continued to review its work procedures, as it did for inspectors in 2007. About twenty new task descriptions were

written by engineers, technicians, office clerks, secretaries, communications staff and the stack sampling team.

**FOLLOWING THE ADOPTION OF THE POLITIQUE EN SANTÉ ET SÉCURITÉ DU TRAVAIL** by the executive committee, an **action plan for the implementation and maintenance of an occupational health and safety management system** was developed. Among the chosen actions, an organizational diagnostic aiming to identify priorities for intervention in each of the units was carried out, and a padlock procedure was instituted at the CESM. Training activities were also given to personnel concerned.

**WITH RESPECT TO WORK RELATIONS**, the Division de l'administration developed a procedure for **addressing grievances**, intended for human resources personnel, in order to standardize practices and optimize management of human capital.

## FOR EFFECTIVE FINANCIAL MANAGEMENT

The operating budget was close to \$61 million—an increase of 36% over 2007. The \$3.5 million capital budget was divided into five categories: \$150,000 for the protection and repairing of buildings; \$1,425,000 for the construction and repairing of ecocentres; \$384,000 for equipment acquisitions; \$956,000 for the construction and installation of facilities and equipment on the CESM site; and \$615,000 for the replacement of vehicles.

Finally, the Division de l'administration, in addition to its tasks of organization, coordination and reconciliation of administrative activities within the Direction, contributed to the financial preparation of 74 decision-making briefs intended for the superior authorities.



