THE PORT OF MONTREAL: A SUSTAINABLE FORCE
BACKGROUND

In 2010, the Montreal Port Authority (MPA) adopted a Sustainable Development Policy. The policy spelled out a long tradition of actions and initiatives in the environmental, economic and social fields. In October 2011, a five-year action plan covering 2011-2015 was presented to the Board.

This is the Annual Report for 2015, during which time an analysis of the Global Reporting Initiative (GRI) guidelines was begun for revising the upcoming 2016-2018 plan for sustainable development.
HIGHLIGHTS

We find that the principles of sustainable development are well applied in our current operations.

Since 2013, we have been posting achievements on the MPA website. This strengthens our leadership role in sustainable development and shows the community the MPA’s commitment to these principles.

The efforts for 2015 focused mainly on the following priorities:
• Responsible communication
• Convergence with community development
• Stakeholder engagement
• Performance monitoring
• Adaptation of business processes and practices
• Competitiveness of the service offering
• Infrastructure adaptation
• Reduction in water consumption

In the case of six of the priorities in the five-year plan for sustainable development, the following targets were achieved in 2015:
• Infrastructure adaptation
• Competitiveness of the service offering
• Reduction in water consumption
• Adaptation of management systems
• Convergence with community development
• Stakeholder engagement in general

Progress was made on all the other priorities and their targets were largely achieved, except for skills management.
• In the case of skills management, the targets set were very ambitious and, despite our efforts, could not be achieved within the five-year plan. The organizational context and the amount of changes and restructuring also contributed to slowing the pace of goal attainment.
8 PRINCIPLES
of the Port of Montreal’s sustainable development policy

1. Ensure responsible management
2. Increase positive contributions to society
3. Promote responsible communication and stakeholder engagement
4. Provide a safe and stimulating work environment
5. Reduce our environmental footprint
6. Ensure that safety and security remain core operating values
7. Aim to be an example in areas of sustainable development
8. Ensure the Port of Montreal’s economic mission
15 SUSTAINABLE DEVELOPMENT ISSUES

GOVERNANCE ISSUES
1. Adaptation of management systems
2. Adaptation of business processes and practices
3. Officers’ and directors’ mandates
4. Working conditions
5. Skills management

ENVIRONMENTAL ISSUES
6. Limitation of GHG emissions and other pollutants
7. Reduction in water consumption
8. Waste reduction
9. Infrastructure adaptation

SOCIAL ISSUES
10. Convergence with community development
11. Responsible communication
12. Improvement in the population’s quality of life

ECONOMIC ISSUES
13. Mitigation of the effects of climate change
14. Performance monitoring
15. Competitiveness of the service offering

For further information on the Port of Montreal’s economic situation, please refer to its 2015 Annual Report, available online
1. ADAPTATION OF MANAGEMENT SYSTEMS

OBJECTIVE

Adapt our management systems so as to ensure sound economic, environmental and social management of the MPA.

- Updating of the workplace hazardous materials management manual (WHMIS).
- Implementation of policies that cover “lockout” and work in confined spaces.
- Inventory and updating of confined spaces (second of seven years, approximately 350 confined spaces).

2. ADAPTATION OF BUSINESS PROCESSES AND PRACTICES

OBJECTIVES

Integrate sustainable development in business processes and practices.

Adapt the business processes and practices to ensure, at a minimum, compliance with federal law on sustainable development.

Strive for exemplary sustainable development in our processes and practices.

- Training of 15 employees in the investigation and analysis of workplace accidents.
- Training of 113 employees on the MPA’s emergency measures.
- Continuation of the executive coaching program.

3. OFFICERS’ AND DIRECTORS’ MANDATES

OBJECTIVE

Ensure that responsibilities cover all three dimensions of sustainable development: social, environmental and economic.

- Continued implementation of the Paperless Board tool. This project began in 2013.

THE PORT OF MONTREAL FINALIZED ITS ENVIRONMENTAL MANAGEMENT SYSTEM (EMS) REVISION OF PROCEDURES PROCESS BASED ON THE ISO 14001 MODEL. IT ALSO FINALIZED ITS ENVIRONMENTAL COMPLIANCE VERIFICATION GUIDE.
4. WORKING CONDITIONS

OBJECTIVES
Provide working conditions and supplementary programs that ensure the Port of Montreal’s competitiveness and sustainability while attracting and retaining the workforce talent required to provide efficient and profitable operations.

Provide a safe and stimulating work environment that fosters employee development, involvement and commitment.

- The building upgrades at Cité du Havre and Section 42 incorporate a concept for an open design and personalized service. As such, they are people-oriented, friendly, professional and technologically progressive to meet the needs of the generational mix at the MPA.

- Indoor environmental quality: better air quality and lighting, and materials free of volatile organic compounds.

- Layout encouraging cooperation: creation of a conceptual design that promotes teamwork and collaboration, and that offers formal and informal spaces along with the technology needed to foster a creative culture and community spirit.

- Preparation of the new Intranet that will be rolled out in 2016. This fully modernized tool will improve communication within the organization, between management and employees and among employees.

- Training of 5 employees on how to work and procedures to follow when asbestos is present.

- Ongoing application of the risk prevention program. The number of work accidents went from 8 in 2014 to 13 in 2015. The total number of days lost due to work accidents went from 22 days in 2014 to 615 days in 2015.

- Engagement survey conducted with MPA employees. Close to 70% of employees participated in the survey.

5. SKILLS MANAGEMENT

OBJECTIVES
Ensure development and skills as needed.

Ensure personal development.

Ensure that employee profiles fit with the required skills.

- 2 new supervisors added to the Infrastructure Management team.

- Coordinators at the Control Centre trained on INNAV marine traffic software.

- The average number of training hours per employee increased from 19.90 hours in 2014 to 28.43 hours in 2015, up 43%.

- Continued training on the lockout program for maintenance employees.

- Continuation of the executive coaching program.
6. LIMITATION OF GHG EMISSIONS AND OTHER POLLUTANTS

OBJECTIVE
To prevent pollution and reduce environmental impacts related to air emissions.

- Addition of an engine block heater and cab heater on locomotives, thereby improving energy efficiency.
- 28.4% reduction in GHG emissions in CO2 equivalent per tonne of cargo handled compared to 2007. The downward trend was particularly strong in the last three years with a reduction of more than 11%. This reduction is the result of concrete and coordinated actions. These include the energy savings achieved at the Cité du Havre and Section 42 buildings, and those resulting from expanding the hybrid vehicle and GenSet locomotive fleets.
- Continuation of the project to provide shore power. This project consists of using electricity instead of fossil fuel to power cruise ships and vessels wintering at the Port. The project cost is estimated at $11 million, of which the governments of Quebec and Canada will pay $8 million.
- Installation of timers to cut engine power after a short idling period on five of the railway department’s vehicles, primarily to save fuel and minimize GHG emissions.
- Improved electrical network mobility, notably by optimizing the remote control of 4 heating switches. In addition to saving energy, this feature improves the network’s level of service and detects network failures. Its efficiency reduces the number of service vehicle trips needed for verifications and the risk of injury.
- A LNG (liquefied natural gas) bunkering project study that should be completed in 2016. The first vessels expected are two Transport Desgagnés asphalt carriers.
- Electric and/or gas heating in the new structures built at terminal operator Termont’s garage and longshoremen’s hall.
- Parking spots reserved for carpooling were retained at Shed 42 following the refurbishment of parking areas.
- Study conducted on space optimization at Shed 42.
- Environmental compliance audits carried out at the Cité du Havre building and Shed 42.
- Continuation in 2015 of the tree-planting program to plant 150 trees per year along the banks of the St. Lawrence River as a measure to offset GHG emissions on our territory.
- Renewal for a third consecutive year of Vélo-Québec booths at Cité du Havre and Shed 42. A total of 13 employees regularly use a bike as a means of transportation to get to work in the warmer months. In addition, since 2004 the MPA has taken part in the MS Bike Tour, an annual cycling challenge to raise money for research into multiple sclerosis. During the 12 times it has participated in the event, the roughly 10-member team has cycled more than 180,000 km in total and raised more than $110,000 for this cause.
7. REDUCTION OF WATER CONSUMPTION

OBJECTIVE
Reduce potable water consumption.

- The water supply rehabilitation program has reduced, to date, water consumption by 600,000 cubic metres per year.
- The optimization of flushing routes, developed in 2012 and instituted at the end of 2013, enabled a permanent annual reduction of 30,000 cubic metres of water volume in 2015.
- There was only one leak – quickly controlled – on the 8 water distribution networks. This performance is tied to maintenance practices based on best market practices, which have been in place since 2008.
- Completion of a study on the installation of water meters. This study made it possible to bring up to standard the valve chambers on our 15 water inlets.
- Rehabilitation of a 300 mm cast iron water main was carried out over 450 metres between Sections 66 and 68, along the Port road.
- Reconstruction, and upgrading to standards, of 440 metres of the storm drain system, and installation of a sediment-processing unit at the river outlet at Sections B7 and B8.
- Fixtures installed during renovations of the Cité du Havre building were chosen to reduce water consumption.

8. WASTE REDUCTION

OBJECTIVES
Reduce the amount of all types of waste at the MPA.
Improve waste management throughout the Port.

- A program for maximum recycling of materials was developed for Shed 42, making it possible to recycle in 2015:
  - 160 tonnes of metal
  - 13,040 litres of glycol
- The equivalent of:
  - 630 bins of paper
  - 4 barrels of batteries
  - 7 lead-acid batteries
  - 2 barrels of aerosol cans
  - 7,250 litres of waste oil
  - 16,202 litres of oily water
  - 75 tonnes of tires
  - 4 barrels of waste paint
  - 650 green bags of plastic materials
- Considerable reduction in the volume of paper in the Procurement Department due to its switch to electronic tendering.
- Continuation of the program to recycle computer equipment, which is given to the computer-donation program for schools Ordinateurs pour les écoles de Québec. Cell phones are given to Groupe Plein Emploi (workforce reintegration).
9. INFRASTRUCTURE ADAPTATION

OBJECTIFS
Integrate sustainable technologies and materials into Port infrastructure. Improve energy efficiency.

• Start of renovation work on the MPA’s Cité du Havre building. Many sustainable development measures were applied.
• Improved approaches to Berths 67 and 68. Greater water depth allows vessels to increase their carrying capacity and, in turn, helps reduce the number of voyages.
• A comprehensive study of wharf fender systems was also conducted to strengthen operational safety.
• Start of a program to replace bitumen level crossings with more durable and recyclable concrete slabs (program completion in 2016) with the implementation of new level crossing signal systems.
• Deployment of the Infrastructure Management Policy as well as a road inspection system. Training of all employees. This policy allows the MPA to ensure better management of its infrastructures and their sustainability.
• Continuation of the rehabilitation program using a structural liner (trenchless method) of 1,500 m of water mains, thereby avoiding the need to dig huge trenches. The excavation was limited to pulling pits, every 150 to 200 metres, resulting in a digging reduction of more than a 90%. This method substantially extends the life of pipes and avoids the need to dispose of large volumes of soil.
• Implementation of new inspection programs for water and sewer networks.
• Installation of two stormwater treatment units (Stormceptor) as part of the roadway reconstruction at Cast Terminal.

OVER THE PORT OF MONTREAL’S 100 km OF RAILWAY TRACK, BITUMEN LEVEL CROSSINGS ARE BEING REPLACED WITH MORE DURABLE AND RECYCLABLE CONCRETE SLABS.
10. CONVERGENCE WITH COMMUNITY DEVELOPMENT

OBJECTIVES

Improve the harmonization of City and Port development plans while respecting and promoting heritage.

Foster stakeholder involvement in the development and improvement of operating activities.

• The Good Neighbour Committee held three meetings. The committee was formed in 2014 and comprises 17 members: representatives from terminals, carriers, the environmental community, residents’ associations, local organizations and the municipalities concerned, as well as the MPA.

• Publishing of 3 issues of Logbook in electronic format for close to 3,000 Port of Montreal subscribers.

• Completion of the final monitoring, under the agreement with the Department of Fisheries and Oceans, of the project to develop wildlife habitats in the Boucherville Islands archipelago. This monitoring over five years, following the project’s completion, gave a positive assessment of the 27.7 hectares of quality habitats created between 2008 and 2010 to foster the breeding, stocking, feeding and protection of fish.

• Ongoing sponsorship of Vélopousse, which organizes guided tours of the Mercier-Hochelaga-Maisonneuve borough by pedicab. Sponsorship of other community projects including Samajam, Village Au Pied-du-Courant and ÉcoMaris.

• Sponsorship of Pointe-aux-Trembles heritage cruises, supporting the city/port relationship.

• Some 20 meetings with stakeholders and two open house evenings were held to explain the Viau Terminal project to the community.

• Consultation process regarding the MPA’s revised Land-Use Plan.

• Creation of the position of Community Relations Manager.
11. RESPONSIBLE COMMUNICATION

OBJECTIVES

Position the Port of Montreal in terms of sustainable development.
Adapt the MPA’s culture to sustainable development.
Make the Port of Montreal better known.

• Port in the City Day was held again in 2015. More than 2,700 people, mainly neighbours of the Port, were able to tour Port facilities aboard AML’s Cavalier Maxim cruise ship.
• Organization of 21 visits or events in the Dominic J. Taddeo Room. These visits and events showcase the scale model, the Port of Montreal’s operations and part of our maritime heritage. Despite major renovations that closed the room for a period of time, a total of 410 people were still able to visit the scale model.
• Organization of a Port visit for Montreal’s business community.
• Publishing of 3 issues of the PortInfo e-magazine and 7 PortInfo Express press releases. These publications reach close to 3,000 subscribers.
• Growing presence on social media: more than 10,000 subscribers registered on one or more of the Port of Montreal’s social platforms.
• Publication on the website of the Summary Report of the Port of Montreal’s Achievements in Sustainable Development for 2014. In addition, a brochure on the Port of Montreal’s Achievements in Sustainable Development was inserted in its 2014 Annual Report.
• Participation by the MPA in the Mariners’ Workshop conference for the purpose of discussing best practices regarding the use of the available water column. The aim is to promote the optimal use of maritime transportation.
12. IMPROVEMENT IN THE POPULATION’S QUALITY OF LIFE

OBJECTIVES

Improve community involvement on the part of the MPA and its employees.
Improve the urban integration of port activities in the community.
Support local community efforts to improve conditions for the population (education, school retention, job skills, health, security, fight against poverty, access to leisure activities and housing).

- Investing in donations and sponsorships to organizations, in compliance with our Community Investment Policy adopted in 2014.
- 52% participation rate in the Government of Canada Workplace Charitable Campaign (GCWCC), the same percentage as in 2014.
- Handling of 29 complaints on Port of Montreal territory. In 2014, 35 complaints were filed. The MPA was proactive in its timely processing of complaints through its Environmental Management System, based on the ISO 14001 standard, and by working closely with the terminal operators.
- Participation by the MPA, as a member, on the strategic advisory board of the Regional Round Table for the Upper St. Lawrence and Greater Montreal Area. This organization’s objective is to establish meaningful dialogue about the respectful use and greater protection of the St. Lawrence River’s water resources.
- Involvement of 23 employees in various organizations. Altogether, their involvement extends the Port’s reach to 70 organizations.
- Use of an innovative approach to dynamic compaction (Rapid Impact Compaction) adopted during work at Viau Terminal. This method reduces noise and vibrations.
- Member of Initiatives for the Future of Great Rivers. This initiative, created by France’s leading producer of renewable energy, Compagnie nationale du Rhône (CNR), aims to be a focal point of original, high-calibre exchanges between river managers, institutional representatives and international experts on the role of rivers in tomorrow’s world.
13. MITIGATION OF THE EFFECTS OF CLIMATE CHANGE

OBJECTIVE
Ensure the sustainability and growth of port activities by providing for the impacts of climate change and adapting operations accordingly.

• Establishment of a weather monitoring procedure at the Control Centre to warn about high-risk weather events (lightning, tornadoes, waterspouts and strong winds). This project will be finalized in 2016 with the installation of a dedicated monitoring station in the control room.
• Participation in the development of Oceanus Web, which enables observation of variations in water levels on the St. Lawrence in real time.
• Study conducted on the management of waste snow, as well as a program to optimize de-icing and the development of a snow removal plan adapted to climate change.
• Use of biodegradable oil in heavy machinery by contractors working on MPA sites close to the river. The goal of this new requirement is to minimize impacts in the event of a spill.

14. PERFORMANCE MONITORING

OBJECTIVES
Monitor the application of the MPA’s plan for sustainable development.

Report on the performance of the application of the MPA’s plan for sustainable development.

• Implementation of real estate performance indicators. This project was completed in 2015.
• Publication of a quarterly performance report based on performance indicators affecting the various sectors of the Port. This report is presented to the Board of Directors.
• Ongoing posting on our website of achievements related to our sustainable development action plan in the form of a summary report.
15. COMPETITIVENESS OF THE SERVICE OFFERING

OBJECTIVES
Adapt our fees and services for a sustainable Port of Montreal.
Ensure the quality of services provided by employees and partners.
Innovate, improve and diversify our service offering.

• Addition of a shore power station for wintering vessels at Berth M.
• Continuation of more restrictive measures on vessels destined for the scrapyard wanting to stay at the Port (Katryn Spirit, American Fortitude, John T): We increased the trust guarantees required of vessel owners. This allowed us to increase the availability of financial resources in the event of environmental damage.
• Study conducted on intermodal costs between East Coast ports and the Midwest.

• Study conducted on communication technologies used by the trucking industry in Greater Montreal. This study allows for the development of a strategy to communicate traffic congestion conditions with trucking stakeholders at the Port.
• In conjunction with the above study, a second phase consisted of identifying the various modes of communication used by the top 10 ports in North America to inform the trucking industry about traffic congestion.


In 2014 (results published in 2015), the MPA had the second best result among the North American member ports of Green Marine. Here is its report card, with 5 being the highest rating:

- GREENHOUSE GASES 4
- CONFLICTS OF USE 5
- WATER AND LAND POLLUTION PREVENTION 4
- ENVIRONMENTAL LEADERSHIP 5
CanEST TRANSIT
• In December, CanEst Transit received Ecocert Canada organic certification for its facilities used for receiving, storing and shipping organic products. The company stores organic wheat and organic corn as well as non-genetically modified soybeans.

LOGISTEC
• Logistec covered all its conveyors at Contrecoeur, from the unloading area to the facilities of its client Yara, eliminating dust dispersion from bulk cargo during conveying.
• Still at Contrecoeur, Logistec replaced its two cranes with a single electric crane, and also replaced its hopper, substantially reducing its environmental footprint.
• Furthermore, Logistec has instituted an environmental audit process of its facilities and incorporated the “green” component in all its daily pre-op meetings, a practice that is achieving results.

NORCAN
• Norcan conducts a hydrostatic test on its two pipelines, one for diesel and the other for ethanol-blended gasoline, four times a year to verify pipeline integrity.
• In 2015, Norcan added another test to its sustainable management arsenal by conducting an inspection inside pipes using a smart sensor. One of the challenges of this test, which is expensive and required major modifications to its facilities, was to carry it out without disrupting terminal operations and tanker deliveries. This complex operation, which will be repeated every five years, was successful and demonstrated pipeline integrity.

MONTREAL GATEWAY TERMINALS PARTNERSHIP (MGTP)
• MGTP prepared and circulated an awareness-raising guide for truckers and suppliers on environmental issues and emergency measures.
• MGTP also included the theme of environmental management in its corporate mission: “Mindful of the environment, MGTP contributes to the well-being of society by implementing innovative approaches for environmental protection.”
• In addition, the company’s ISO 14001 Environmental Management System certification was renewed for three years.
• Furthermore, it earned a Level 5, the highest possible rating, for how it addresses “Conflicts of Use” under the Green Marine program.

MONTREAL EAST TERMINAL (SUNCOR)
• At its Montreal East Terminal (MET), at Sections 95, 96 and 97, Suncor completed the modernization of three asphalt unloading ramps, making them safer.
• The company also completed major maintenance works to improve its drainage system and stormwater management in its work area.
TERMONT

• Termont took into account the comments and concerns expressed by residents at the open houses held for the Viau Terminal project. Accordingly, it opted for a neutral colour for its gantry cranes that will be installed in 2016, in order to minimize the visual impact, as red is the colour of Termont’s brand image. Stakeholders greatly appreciated this corporate decision, and it was reiterated at the Port of Montreal’s Good Neighbour Committee.

• Termont went further, and well beyond regulation, by equipping most of its new vehicles, in particular five of its rubber-tired gantry (RTG) cranes, with diesel engines that meet Tier 4 standards. These engines reduce emissions of nitrogen oxides by 90% and fine particles by 45% compared to engines in the Tier 3 group, whose use is allowed until the end of December 2017.

VALERO

• Valero created the new position of Port Coordinator, tasked with ensuring strict monitoring of operations and continuous improvement plans for procedures.

• In addition, Valero conducted a full marine emergency exercise at Sections 105 and 106, deploying the Eastern Canada Response Corporation (ECRC) to test its emergency response plan.

VITERRA

• In 2014 and 2015, Viterra spent more than $10 million to improve its dust suppression equipment at the grain terminal. The benefits already are significant.

• By the end of 2019, when all of the equipment will be in place, Viterra will have invested a total of $24 million in its facilities to improve air quality.

It is also noteworthy that, like the Port of Montreal, energy companies Valero, Suncor and Norcan were cited for their “best practices” operational procedures in the report by the Center for Interuniversity Research and Analysis of Organizations (CIRANO), a firm of experts mandated by the Quebec Ministry of Energy and Natural Resources to address the issues related to multimodal platforms and the transshipment of petroleum products in Quebec.