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North American Environmental Law and Policy

25

Commission for Environmental Cooperation

Factual Record

Montreal Technoparc Submission (SEM-03-005)

Prepared pursuant to Article 15 of the North American Agreement on Environmental Cooperation

CEC · CCA · CCE

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Montreal Technoparc

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March 2008
Publicly released on 23 June 2008

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ISBN: 978-2-89635-088-9

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Legal Deposit - Bibliothèque et Archives nationales du Québec, 2008
Legal Deposit - Bibliothèque et Archives Canada, 2008

Disponible en français – ISBN: 978-2-89635-086-5
Disponible en español – ISBN: 978-2-89635-087-2

This publication was prepared by the Secretariat of the Commission for Environmental Cooperation of North America (CEC). The views contained herein do not necessarily reflect the views of the governments of Canada, Mexico, or the United States of America.

PROFILE

In North America, we share a rich environmental heritage that includes air, oceans and rivers, mountains and forests. Together, these elements form the basis of a complex network of ecosystems that sustains our livelihoods and well-being. If these ecosystems are to continue to be a source of life and prosperity, they must be protected. Doing so is a responsibility shared by Canada, Mexico, and the United States.

The Commission for Environmental Cooperation of North America (CEC) is an international organization created by Canada, Mexico, and the United States under the North American Agreement on Environmental Cooperation (NAAEC) to address regional environmental concerns, help prevent potential trade and environmental conflicts, and promote the effective enforcement of environmental law. The Agreement complements the environmental provisions of the North American Free Trade Agreement (NAFTA).

The CEC accomplishes its work through the combined efforts of its three principal components: the Council, the Secretariat and the Joint Public Advisory Committee (JPAC). The Council is the governing body of the CEC and is composed of the highest-level environmental authorities from each of the three countries. The Secretariat implements the annual work program and provides administrative, technical and operational support to the Council. The Joint Public Advisory Committee is composed of 15 citizens, five from each of the three countries, and advises the Council on any matter within the scope of the Agreement.

MISSION

The CEC facilitates cooperation and public participation to foster conservation, protection and enhancement of the North American environment for the benefit of present and future generations, in the context of increasing economic, trade and social links among Canada, Mexico and the United States.

NORTH AMERICAN ENVIRONMENTAL LAW AND POLICY SERIES

Produced by the CEC, the North American Environmental Law and Policy series presents some of the most salient recent trends and developments in environmental law and policy in Canada, Mexico and the United States, including official documents related to the novel citizen submission procedure empowering individuals from the NAFTA countries to allege that a Party to the agreement is failing to effectively enforce its environmental laws.

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Acronyms, Abbreviations, and Definitions

Acronyms and Abbreviations

AMF	Atelier de Montréal Facility (Montreal shops facility)
CEC	Commission for Environmental Cooperation
CEMRS/ MCEBR	Montreal Centre of Excellence in Brownfields Rehabilitation / Centre d'excellence de Montréal en réhabilitation de sites
CN	Canadian National Railways Company
DFO	Department of Fisheries and Oceans of Canada
EC	Environment Canada (Department of the Environment)
EQA	*Environment Quality Act* (Québec)
FLM	Federal Land Management (see chapter 110, below in Definitions)
INECE	International Network for Environmental Compliance and Enforcement
JCCBI	Jacques Cartier and Champlain Bridges Inc.
LRM	Legal Risk Management (see Deskbook, Part XII, below in Definitions)
MDDEP	Ministry of Sustainable Development, Environment, and Parks of Québec
MEF	Ministry of the Environment and Wildlife of Québec (see MDDEP)
MENV	Ministry of the Environment of Québec (see MDDEP)
MENVIQ	Ministry of the Environment of Québec (see MDDEP)
MOE	Ministry of the Environment of Ontario
MUC	Montréal Urban Community

NAAEC	*North American Agreement on Environmental Cooperation*
PAH	polycyclic aromatic hydrocarbons
PCB	polychlorinated biphenyls
PIZ	See ZIP
SLEI	SNC-Lavalin Environment Inc.
ZIP	Priority Intervention Zone (see Regional Assessment, below in Definitions)

Definitions

chapter 110	Treasury Board of Canada, *Administrative Policy Manual* (December 1982), c. 110, "Real Property – General", s. 2, "Federal Land Management (FLM) Principle"
charge period	1995-1997 (see Deloro)
Code	*Code of Environmental Stewardship* (Canada, 1992)
Compliance and Enforcement Policy	*Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* (Environment Canada, 2001)
Decision to Prosecute	Deskbook, Part V, "Proceedings at Trial and on Appeal," c. 15, "The Decision to Prosecute"
Deloro	*R.* v. *Ontario (Ministry of the Environment)*, [2001] O.J. No. 2581 (Ont. Ct. J.)
Deskbook	Canada, *The Federal Prosecution Service Deskbook* (Ottawa, Justice Canada, 2005)
Foratek Report	Foratek International Inc., *Étude des sites de disposition de déchets solides sur les terres fédérales au Québec* (Study of solid waste disposal sites on federal land in Québec), (Final Report – Phase II), presented to Environment Canada, Québec Region, report no. 611, Project no. FFG 83027 (March 1984)

GERLED	Québec, *Inventaire des lieux d'élimination de résidus industriels GERLED – Évolution depuis 1983 et état actuel* (GERLED index of industrial waste disposal sites – Trends since 1983 and status) (Québec: Les Publications du Québec, 1998)
Regional Assessment	Saint Lawrence Centre, *Regional Assessment – La Prairie Basins (Lachine Rapids, Greater and Lesser La Prairie Basins), Priority Intervention Zones 7 and 8* (March 1997)
Revi-sols program	Urban Contaminated Sites Rehabilitation Program
Secretariat	Secretariat of the CEC
SLEI Report	SNC-Lavalin Environnement inc., *Projet d'interception et de récupération des phases flottantes d'hydrocarbures, Technoparc, Montréal* (LNAPL containment and recovery project, Technoparc, Montreal) (Final Report – March 2002), Vol. 2 of 3, Appendix A – Site History

1. Executive Summary

Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) establish a process allowing residents of Canada, Mexico, and the United States to file submissions containing allegations to the effect that a Party to the NAAEC (Canada, Mexico or the United States) is failing to effectively enforce its environmental laws. Under the NAAEC, this process may lead to the publication of a factual record. The Secretariat of the North American Commission for Environmental Cooperation (CEC) (hereinafter, the "Secretariat") administers the process.

On 14 August 2003, Waterkeeper Alliance, Lake Ontario Waterkeeper, Société pour Vaincre la Pollution, Environmental Bureau of Investigation, and Upper St. Lawrence Riverkeeper/Save the River! filed a submission with the Secretariat pursuant to NAAEC Article 14. They allege that Canada is failing to effectively enforce section 36(3) of the *Fisheries Act* in relation to the alleged deposit of polychlorinated biphenyls (PCB), polycyclic aromatic hydrocarbons (PAH), and other pollutants into the St. Lawrence River from the Montreal Technoparc site, formerly a household and industrial waste disposal site now owned by the City of Montréal. Under section 36(3), it is prohibited to deposit a deleterious substance of any type into water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water, except as authorized by regulation.

On 20 August 2004, by means of Resolution no. 04-05, the CEC Council instructed the Secretariat to prepare a factual record on the following points raised in the submission:

- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;

- characteristics and fate of the contamination in the Montreal Technoparc sector;

- results of the oil containment and pumping system(s) in the Montreal Technoparc sector;
- facts surrounding Environment Canada's inspections, before and after the issuance of a warning in 1998;
- facts surrounding Environment Canada's 2002-2003 investigation in response to a request from members of the public;
- the ecotoxicological study carried out in 2002;
- compliance promotion efforts following the decision by Environment Canada not to seek charges, and
- information on Environment Canada's technical actions and advice and their relevance to enforcement efforts in the Montreal Technoparc sector.

During preparation of the factual record, the Secretariat gathered information in accordance with Council's instructions. The following subsections summarize the information contained in section 8 of the factual record.

1.1 Division of Ownership of the Montreal Technoparc Sector

The Montreal Technoparc sector, located between the Champlain and Victoria Bridges at Pointe-Saint-Charles, was the hub of Canada's industrialization. It is made up of lands that were built up on the bed of the St. Lawrence River, beginning in the nineteenth century, through backfilling with domestic and industrial waste as well as other materials. It is approximately 2 km long and 500 m wide; much of the area is not included in the land register. As regards the unregistered lands, the federal government claims that they form the western tip of the Port of Montreal (federal property), while the Government of Québec claims that they are still part of the riverbed, which belongs to the province (see Figure 1).

Figure 1 Aerial Photo of Pointe-Saint-Charles, 1930

Source: SLEI Report.

For a century (1860–1960), rail activities were central to this area, with the Canadian National Railway Company (CN) and its predecessors operating an immense railyard on the shore. Over time, the marshland along the shore was drained and then landfilled with garbage. During the 1960s, new lands were created (through infilling) downhill from (or "south" of, in accordance with local usage) the railyard, to provide a parking lot for Expo 67. This area (now Technoparc) was later used for a Transport Canada short-takeoff and landing airport. Since Expo 67, the Bonaventure Expressway has run along what is now the bank of the river, 500 m from the original shoreline.

By the late 1980s, government authorities knew that the lands developed south of the railyard were contaminated with light, non-aqueous phase liquid hydrocarbons (LNAPL) (oil floating on top of the groundwater), the federal and provincial governments having done environmental studies in the area when they set up their respective inventories of former landfill sites. At the time, despite the environmental risks posed by this contamination, federal and provincial authorities decided that urgent action was not needed since the contamination did not pose a high risk to human health: there were no nearby drinking water wells, and the nearest drinking water intake was several dozen kilometers downstream of the Victoria Bridge.

In 1989, the federal government and the province transferred ownership of part of the area to the City of Montréal for the latter's development of a high-technology park. Due to the uncertainty surrounding ownership of the land, the two deeds of sale refer to the same lot numbers. The City of Montréal, in addition to accepting the environmental risks and undertaking to hold the sellers harmless against those risks, waived any and all claims against the other levels of government that might arise subsequently from any defect of title. In exchange, the federal government received $1 and the province received $1 million, from which the City could deduct up to $300,000 to pay for environmental studies required by the Québec Ministry of the Environment. Under Article 65 of Québec's *Environment Quality Act*, Ministry approval is required to do construction work on a former landfill site. To obtain this approval, the City committed to take care of managing the LNAPLs and to monitor groundwater quality at Technoparc.

Technoparc was subdivided into several dozen lots, several companies having moved in since 1991 (the City retained liability for the pre-existing contamination). The federal Crown corporation VIA Rail Canada has operated a rail car maintenance center on land owned by CN, northwest of Technoparc, since 1987. A large portion of the CN railyard is in the process of being reassigned to other uses. The federal Crown corporation Jacques Cartier and Champlain Bridges Inc. (JCCBI) owns part of the land between Technoparc and the Champlain Bridge to the "west" (in accordance with local usage) and manages the Bonaventure Expressway. A small portion of the bank south of the expressway belongs to the Government of Québec. It is not known who owns the upstream and downstream portions of the bank between the Champlain and Victoria Bridges.

1.2 Characteristics and Fate of Contamination in the Technoparc Sector

The layer of waste and backfill in the Technoparc sector is 4-12 meters deep. Environmental studies conducted in the area since 1990 have yielded additional information concerning the extent and volume of the underground plumes or "ponds" of diesel fuel floating in the waste. It is estimated that the central portion of Technoparc contains 4-8 million liters of diesel fuel mixed with other substances, enough to fill about three Olympic-size swimming pools. A broken underground diesel line is apparently responsible for at least part of this contamination. The Technoparc contains an estimated 1-2 tons of PCBs. The diesel fuel, acting as a solvent, has accelerated the release of PCBs contained in the waste (e.g., old transformers) buried in this area.

Originally, effluents from the railyard were dumped directly onto the shore. As the shoreline moved away, it became necessary to build sewer pipes in order to channel CN's effluents to the St. Lawrence. These pipes were eventually sealed off. In 1997, CN installed a bioslurping system to skim the oil off the groundwater at the southern boundary of its property, along the Butler Spur (running along the northern boundary of Technoparc). According to CN, the groundwater from its property is routed into the City of Montréal's sewer system. In 1997, researchers from the federal and provincial environment departments undertook a study on PAHs and PCBs found in the effluent from the City of Montréal's water treatment plant. In 1999, they concluded that atmospheric deposition represented the principal source of PCBs in the St. Lawrence River and that the PAHs in the treatment plant effluent were different from those detected in the river's surface water upstream of the treatment plant. PAH and PCB concentrations in the St. Lawrence opposite the Technoparc met applicable water quality guidelines. PAHs and PCBs from the treatment plant outfall could be detected in the river several kilometers downstream. In 2003, CN obtained federal and provincial funding for a pilot project to treat the groundwater on its property, which had high PAH concentrations.

The groundwater in the Technoparc sector is toxic to fish. In 2006, a center set up by Canada, Québec, and the City of Montréal received funding from Canada Economic Development to commission a study designed to determine which chemical parameters cause the toxicity. In addition, the researchers sought to determine whether the presence of ammonia nitrogen, a parameter associated with leachate from landfill sites, might be hiding other sources of toxicity, such as various metals. The study is intended as the first phase in the implementation of a groundwater treatment process that would reduce to a minimum the harmful components in the groundwater before it is discharged into the river or the City of Montréal sewer system.

1.3 Facts surrounding Environment Canada's inspections, before and after the issuance of a warning

In 1990, Dessau Inc., an environmental engineering firm, submitted a report to the City of Montréal in which it concluded that the construction work and dynamic compaction required to develop Technoparc would slightly extend and thin-out the layer of hydrocarbons in the waste horizon, and that this would accelerate the biodegradation of the hydrocarbons. Also in 1990, during infrastructure work on a part of the future Technoparc site, an employee noticed oil leaking onto the shore. Environment Canada took temporary measures

to recover hydrocarbons from the river at the point of discharge. During the next six years, CN — a federal Crown corporation in the process of being privatized — and the City of Montréal shared the cost of maintaining the hydrocarbon recovery equipment (floating walls or "booms" and absorbent pads) and disposing of the oil that accumulated inside the booms. The booms were removed each fall and reinstalled in the spring. While they were in place, Environment Canada inspected them on a regular basis. Under the *Fisheries Act*, if the prosecution proves all elements of an offence beyond a reasonable doubt, a defendant can avoid conviction if it establishes on a balance of probabilities that it exercised due diligence in attempting to avoid committing the offence.

In 1991, the *Fisheries Act* was amended to allow for proceeding by way of indictment, which is not subject to the two year statute of limitations that applies to summary conviction offences. These amendments did not apply to *Fisheries Act* violations that occurred before 1991. In 1997, CN started up a bioslurping system to skim diesel fuel off the groundwater along the southern boundary of its property (see above) and stopped helping to pay for the cost of pumping oil on the shore. CN indicated that in its opinion, infrastructure development, dynamic compaction, and building construction work carried out by the City of Montreal and others on the former landfill could help to explain the upwelling of hydrocarbons on the shore.

In 1998, Environment Canada issued a warning to the City of Montréal because the City had stopped maintaining the booms and pumping the hydrocarbons on the bank. In 1998, Environment Canada engineers put forward a technical proposal for construction of a wall to contain groundwater flowing toward the river from Technoparc. There was no follow-up to this project at the time. The City resumed temporary recovery operations. In 1999, after a "value analysis exercise" attended by representatives of Environment Canada and the Québec Ministry of the Environment, the City committed to developing a system to recover oil (but not groundwater) flowing off its property toward the river along the Bonaventure Expressway.

1.4 Facts surrounding Environment Canada's Investigation and Ecotoxicological Study

In November 2001, Environment Canada published a policy concerning, among other things, enforcement of section 36(3) of the *Fisheries Act*, which gives the public a role in reporting apparent *Fisheries Act* violations. In April 2002, while the City's consultant was completing an additional assessment report and preliminary design study based on

clean-up objectives adopted pursuant to the 1999 value analysis exercise, Environment Canada received a complaint from environmental groups who were concerned about the discharges along the shore. Following up on this complaint, Environment Canada opened an investigation under *Fisheries Act* section 36(3) and called into question the City's clean-up objective, saying that it would be advisable to determine whether groundwater under Technoparc was harmful (toxic) to fish in order to decide whether groundwater quality also needed to be addressed. In November 2002, the City's consultant submitted to the City the results of an ecotoxicological study confirming that groundwater samples taken at Technoparc in the summer of 2002 were toxic.

The City of Montréal claimed to be willing to proceed with a hydrocarbon *and* groundwater recovery project (a 1500-m underground wall anchored in the bedrock along the southern boundary of its property), provided that all stakeholders in the area dealt with the contamination on their properties and contributed to funding the City's project. At the time, Environment Canada's investigator was concerned that if the City were to be served with an order from the Québec Ministry of the Environment or a court (under the *Fisheries Act*, for example), its project would no longer be eligible for funding under the Québec urban contaminated site remediation program, Revi-Sols.

In June 2002, the federal minister of the environment assured the City of Montréal that his Department's staff would urge the other stakeholders to cooperate. In 2003, CN obtained federal and provincial funding for a pilot project to treat groundwater on its property (see above). Also in 2003, VIA Rail replaced in entirety its diesel fuel supply and diesel spill containment systems.

In April 2003, Environment Canada terminated its investigation, concluding that it was impossible to lay charges against anyone under section 36(3) of the *Fisheries Act* in relation to discharges of hydrocarbons into the river opposite Technoparc, it being impossible to determine the source and pathway of the contaminants.

1.5 Compliance Promotion after Termination of Environment Canada's Investigation

During the two years following the termination of Environment Canada's investigation (2003 and 2004), the City negotiated with provincial and federal authorities, seeking agreement on clean-up objectives and the role of each of the area's stakeholders in moving the file forward.

The City and its environmental consultant asserted that Environment Canada's investigation had been inconclusive as to the identity of the party or parties responsible for the discharges. Additional groundwater samples were taken to better understand the contribution of contaminants from upstream (Technoparc, perpendicular to the bank) and from the west (JCCBI property, contaminants migrating parallel to the river in the riprap of the Bonaventure Expressway). In the summer of 2005, the City announced that it had signed a contract for the installation of more effective hydrocarbon recovery equipment than the booms, at the point where the discharges had been observed near the Victoria Bridge. This equipment was not designed to be part of a comprehensive solution.

In 2005, the province granted the City a special extension for Technoparc (until 31 December 2008) to incur eligible expenses under the Revi-Sols program. Also in 2005, Tecsult Inc. completed a study on containment of contaminants under a mandate from JCCBI. The stakeholders in the Technoparc sector hoped that JCCBI's involvement in the file would make it possible to obtain funding under a federal contaminated sites action plan announced in 2004.

Tecsult made three points in its report. First, groundwater at both the JCCBI-owned land (toxicity confirmed in 2003) and Technoparc should be addressed within a single, comprehensive project, since the contamination profile in both was similar, even though no LNAPLs had been found on JCCBI property. A comprehensive approach would ensure that no part of the bank was left "without coverage," allowing contaminated groundwater to continue to leak into the river.

Second, since JCCBI manages the Bonaventure Expressway, a promising approach might be to build a groundwater containment wall along the expressway corridor (along the bank rather than further inland on City land). This would avoid having to spend several years pumping hydrocarbons out of the river, a prospect that did not sit well with the Société du Havre de Montréal, which was thinking of relocating the expressway in order to restore public access to the waterfront.

Third, Tecsult emphasized the value of treating the groundwater before discharging it into the City of Montréal sewer system. Tecsult underscored the fact that the groundwater in the area met the City of Montréal's sewer discharge standards; that the immense volume of water flowing through the City's sewer system would dilute the effluent coming from the area; and that overall, the amount of ammonia nitrogen discharged to the river from the Technoparc sector is negligible. However, discharge of this toxic water without pre-treatment was likely to

meet with the disapproval of government authorities and the public, since the City's treatment plant is not designed to remove ammonia nitrogen and only removes a portion of the metals present in the effluent. Tecsult therefore proposed to build an on-site treatment system that would convert the ammonia nitrogen into less-toxic nitrates and remove trace metals. This recommendation was consistent with the recommendations of a new guideline published by Environment Canada in advance of the adoption of a federal regulation for the release of ammonia dissolved in water found in wastewater effluents.

Since 2005, the Montreal Centre of Excellence in Brownfields Rehabilitation (with funding from Canada Economic Development, the provincial government, and the City of Montréal) has been working on a project to identify and test innovative groundwater treatment technologies in the Technoparc sector. It is estimated that the cost of the system that will eventually be installed is in the order of C$40-60 million. In January 2006, the federal Liberal Party made a campaign promise to invest C$25 million to clean up Technoparc. In its 2007 budget, the new federal government announced the creation of an infrastructure program, Building Canada, whose purposes include co-financing large-scale wastewater treatment projects and brownfields redevelopment.

2. Summary of the Submission

The Submitters (three Canadian and two US nongovernmental organizations) allege that Canada is failing to effectively enforce section 36(3) of the *Fisheries Act* in connection with the alleged deposit of polychlorinated biphenyls (PCBs), polycyclic aromatic hydrocarbons (PAHs), and other pollutants into the St. Lawrence River from the Montreal Technoparc site, formerly a household and industrial waste disposal site which now belongs to the city of Montréal. Under section 36(3), it is prohibited to deposit a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water, except as authorized by regulation.

The Submitters assert that the Technoparc site was a domestic and industrial waste dump site until it was turned into a parking lot for the 1967 International and Universal Exposition (hereinafter, "Expo 67"), and then into an industrial park in 1988.[1] The Submitters assert that the city of Montréal has known since 1995, if not earlier, that the site is con-

1. Submission, p. 4.

taminated with PCBs and they maintain that the city is responsible for deposits of deleterious substances from the site.[2] The Submitters assert that the measures taken by the city — installation of floating barriers or "booms" (the word used by Canada in its response) to contain the contamination — are ineffective. They provide the results of sampling conducted from October 2000 to January 2002 indicating PCB concentrations up to 8.5 million times the *Canadian Water Quality Guidelines for the Protection of Aquatic Life* at the point of discharge. Inside the booms, PCB concentrations are 941,000 times the recommended value, while outside the booms they are 820 times the recommended value.[3] The Submitters append to their submission a report prepared by a biologist in April 2002 concluding that PCBs, PAHs, and other pollutants are being deposited into the St. Lawrence River from Montreal Technoparc in concentrations well in excess of provincial, federal, and international guidelines.[4] The submission contains a detailed description of the threats posed by PCBs to aquatic life and human health.[5] The Submitters assert that PCBs are "highly toxic, persistent and bioaccumulative" and that "Environment Canada identifies PCBs as a persistent toxic substance that is 'too dangerous to the ecosystem and to humans to permit their release in any quantity.'"[6]

The Submitters assert that after receiving a brief describing the alleged deposits, Environment Canada began an investigation in April 2002 of Montreal Technoparc under the *Fisheries Act*.[7] The Submitters state that in April 2003 Environment Canada sent them a letter stating that "the investigation was stopped because the source of the contamination could not be determined."[8] The Submitters maintain that their ability to bring forward a private prosecution in relation to Montreal Technoparc is in question.[9] They assert that the booms and absorbent pads used in an attempt to contain the alleged deposits are ineffective and that deleterious substances continue to be discharged into the river.[10]

The Submitters assert that the alleged failure to effectively enforce the *Fisheries Act* has caused them harm and that further study of

2. *Ibid*.
3. *Ibid*., p. 6. According to the Submitters, the guideline was established at 0.001 μg/L in 1987.
4. Submission, p. 7.
5. *Ibid*., pp. 7-11.
6. *Ibid*., pp. 7-8.
7. *Ibid*., p. 12.
8. *Ibid*.
9. *Ibid*., pp. 12-13.
10. *Ibid*., p. 13.

the issues raised in the submission would advance the goals of the NAAEC.[11] They therefore request that the CEC prepare a factual record.

3. Summary of Canada's Response

On 15 September 2003, the Secretariat found that the submission met the criteria of NAAEC Article 14(1) and warranted a response from Canada in light of the factors enumerated in section 14(2).[12] Canada responded to the submission on 14 November 2003.[13] The response is divided into three parts: 1) Enforcement of the *Fisheries Act*; 2) Description of the Sector Comprising the Technoparc Site; 3) Procedure Followed by Environment Canada.[14] In the introduction, Canada states:

> The information provided in these two chapters forms the context for the department's actions described in chapter three. These actions related to administrative procedure allow the department to ensure that fish and their habitat are protected within the shortest time possible.[15]

1) Enforcement of the *Fisheries Act*

In the section titled "Enforcement of the *Fisheries Act*," Canada describes the responsibilities of Environment Canada in relation to enforcement of section 36(3) of the *Fisheries Act*, discusses the penalties applicable to the violation of the provisions of that section, and presents the compliance promotion and law enforcement programs implemented by Canada with a view to achieving the Department's principal objective: preventing the pollution of water frequented by fish through compliance with the *Fisheries Act*.[16]

Canada explains that the Minister of the Environment is responsible for enforcement of the provisions of the *Fisheries Act* relating to pollution prevention, which includes section 36(3).[17] Canada asserts that violations of section 36(3) are punishable on conviction by a fine and/or

11. *Ibid.*, pp. 14-15.
12. SEM-03-005 (Montreal Technoparc), *Determination in accordance with Articles 14(1) and (2) of the North American Agreement for Environmental Cooperation* (15 September 2003).
13. *Deposits of Deleterious Substances in the Saint Lawrence River Opposite the Technoparc Site/Commission for Environmental Cooperation/Response to Submission SEM-03-005*, prepared by Environment Canada for the Government of Canada (November 2003) (hereinafter, the "Response").
14. Response, p. i.
15. *Ibid.*, p. 1.
16. *Ibid.*, pp. 2-4.
17. *Ibid.*, p. 2.

imprisonment, and that separate offences are counted for each day during which a violation is committed or continued. Canada specifies that proceedings under section 36(3) may be instituted by a public department or a private party.[18]

Canada asserts that Environment Canada's compliance promotion program involves many activities intended to promote compliance with section 36(3), including education and information, consultation on proposed regulations, development of guidelines, and provision of technical advice on means of achieving compliance.[19] As for the law enforcement program, it includes two main activities, inspections and investigations, with the objective of requiring compliance with the Act through recourse to administrative and legal measures of law enforcement.[20] In its response, Canada describes enforcement measures provided by the *Fisheries Act* in the case of a violation — an inspector's direction, a Minister's order, an injunction, recovery of costs as the result of prosecution, and a penalty imposed by the court on summary conviction — and specifies that the *Fisheries Act* provides for the particular situations in which each of these measures may be used.[21]

Canada states in its response: "In order to respect basic principals [sic] of fairness, predictability and consistency, the department has framed administration of the two approaches [compliance promotion and law enforcement] in a policy on compliance and enforcement of the Act."[22] Canada notes that under the *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* (hereinafter, "Compliance and Enforcement Policy"), "[t]he department also has the administrative option of issuing a warning as a law enforcement measure."[23] Canada explains that the Compliance and Enforcement Policy establishes three criteria for determining the appropriate law enforcement measure in relation to a violation: the nature of the violation, the effectiveness of the measure to oblige compliance by the alleged violator or to deter re-offending, and consistency in enforcement.[24] Canada states that "the measure chosen will be the measure that

18. *Ibid*.
19. *Ibid*., p. 3.
20. *Ibid*.
21. *Ibid*., p. 4.
22. *Ibid*., p. 3. See Environment Canada, *Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the Fisheries Act* (November 2001), online at Environment Canada <http://www.ec.gc.ca/ele-ale/462A94EB-05D4-4299-93FE-5DBDA127C606/c_and_e_fisheries_act_e.pdf>.
23. Response, p. 4.
24. *Ibid*.

will secure compliance within the shortest time possible, or if the violation has already been corrected, the measure that will best serve to deter a reoccurrence." Canada adds:

> In the light of the intended measure, the department has the responsibility of taking that measure, of making a recommendation to ministers or making a recommendation to the Department of Justice. In the latter case, the Department of Justice must also assess certain criteria before deciding to begin judicial proceedings.[25]

2) Description of the Sector Comprising the Technoparc Site

Canada proceeds to describe the history, physical characteristics, and title to the sector comprising the Technoparc site. Canada states that between 1864 and 1888, the city of Montreal acquired land with a view to establishing a dump at the south end of Ash Street in Pointe-Saint-Charles, in an area situated on the banks of the St. Lawrence River in the southeastern portion of the Island of Montreal between the Champlain and Victoria Bridges.[26] Canada states:

> In 1925, noting the southern progression of the Pointe-Saint-Charles dump, the Harbour Commission (Société du Port de Montréal) authorized the city of Montréal to dump garbage on its swampy lands and to do so up to the water limits.[27]

The response contains an aerial photo of the sector taken in 1930 with a projection of future lands that would be formed in the riverbed by the garbage backfill.[28] The response further indicates that in 1937, the city sold a part of the site located at the south end of Ash Street to Canadian National Railways (CN) for construction of a new railyard.[29] Later, large-capacity aboveground storage tanks were installed there.[30] Canada adds:

> Built on the riverbed, the dump (in its post-1937 extension) continued to be used for landfill until its closing in 1966. From four to 12 metres of household and industrial waste along with dry material had been dumped in the area.[31]

25. *Ibid*.
26. *Ibid*., p. 5.
27. *Ibid*.
28. *Ibid*. This photo is reproduced in the Executive Summary of this Factual Record.
29. *Ibid*., p. 6.
30. *Ibid*.
31. *Ibid*.

It is also stated in the response that the land now forming the Technoparc was leveled and covered with a thin coat of gravel in 1966 to serve as a parking area for Expo 67. Canada continues, "[a]t that point, problems related to the production of gas by decomposing organic matter were encountered for the first time."[32] According to the response, it was during this same period that the Bonaventure Expressway was built along the southern edge of what is today the Technoparc site, "using large quantities of external landfill dumped directly on the riverbed, between the Victoria and Champlain Bridges."[33] Canada states that the land was unused after Expo 67 until 1976, when the federal Department of Transport decided to install a short-takeoff and landing (STOL) airport with a terminal, parking area and fuel storage tanks.[34] The site was abandoned again, around 1977, and the infrastructure was finally dismantled in 1991.[35] According to the response, in 1984 VIA Rail built a maintenance centre in the southwest part of the site that is now the Technoparc.[36] Canada adds that part of the site was used for storage of granular material and as a snow dump during the winter of 1985.[37]

Concerning the physical characteristics of the site, the response states that due to the variability of the materials making up the base, groundwater moves slowly and at varying rates in the sector.[38] The response refers to site characterization studies performed between 1990 to 2002 by Environment Canada and different landowners in the sector.[39] A report prepared in 1990 for Environment Canada and the Quebec Ministry of the Environment "shows that the soil and water of the sector are contaminated by many substances, and some of them at a significant level."[40] According to the response, CN conducted its own studies and in 1996 installed a system for recovery of floating hydrocarbons in the groundwater at the southern boundary of its land.[41] In addition, a study by SNC-Lavalin in 2002 for the city of Montréal:

> confirmed the presence of a significant concentration of PAHs and PCBs in some of the monitoring wells located near the banks of the Saint Lawrence River. The SNC-Lavalin study also established the presence of PCBs in a high number of the wells throughout the Technoparc site.[42]

32. *Ibid*.
33. *Ibid*.
34. *Ibid*.
35. *Ibid*.
36. *Ibid*.
37. *Ibid*.
38. *Ibid*.
39. *Ibid*., p. 7.
40. *Ibid*.
41. *Ibid*.
42. *Ibid*.

Canada asserts in its response that in the summer of 2002, the city of Montréal conducted an ecotoxicological study with the participation of Environment Canada. The study "concluded that an analysis of underground water samples were harmful [sic] and represent a lethal and sub-lethal effect on fish."[43]

Concerning ownership of the site, the response states that the Technoparc site has an area of 456,057 m^2 and was sold to the city of Montréal in 1989 by Her Majesty in right of Québec (Government of Québec) and the Montreal Port Corporation (legal representative of Her Majesty in right of Canada).[44] The site consists of 30 separate lots, 24 of which belong to the city.[45] From 1989 to 1999, the city sold the other 6 lots to Teleglobe Canada Inc. (1 lot), Bell Mobility Cellular Inc. (1 lot), Cité du cinéma (MEL) Inc. (3 lots), and Société immobilière Parctech Inc. (1 lot).[46] According to the response, the land immediately north of Technoparc is used by CN as a railyard, while the land immediately south of the site (towards the river), on which the Bonaventure Expressway is located, belongs in part to the Quebec Ministry of the Environment and in part to an unknown owner.[47]

Under "Deposits in the St. Lawrence River," Canada asserts that at the eastern end of the sector under study, "deposits in the river, characterized by a floating hydrocarbon phase,...are contaminated by PCBs, among others. Booms are now in place to recover the contaminated oil film to the extent possible."[48]

3) Procedure Followed by Environment Canada

The response provides a description of measures taken by Environment Canada in relation to the Technoparc site since 1991. It begins:

> Environment Canada is concerned about the deposits in the Saint Lawrence River between the Victoria and Champlain Bridges. Its main objective is protection of the environment. The department has acted and continues to take action to resolve this problem.[49]

43. *Ibid*.
44. *Ibid*.
45. *Ibid*., pp. 7-8.
46. *Ibid*., p. 8.
47. *Ibid*.
48. *Ibid*.
49. *Ibid*., p. 9.

Canada asserts that Environment Canada used law enforcement and compliance promotion measures to solve the problem of deposits into the river. Canada provides the following explanation:

> One approach consists of promotion of the Fisheries Act by acting as a technical adviser and the other approach is by law enforcement. The two approaches are mutually inclusive in achieving the objective of protecting the environment with the result that they reinforce each other.[50]

Under "Compliance promotion program," Canada states as follows:

> Since 1998, the scientific staff of Environment Canada's compliance promotion program has been increasingly concerned by deposits of substances in the Saint Lawrence River bordering on the Bonaventure Autoroute between the Victoria and Champlain Bridges.[51]

Canada explains that, in regard to compliance promotion, since 1998, Environment Canada has been in discussions with the Province of Québec and, more recently, with the city of Montréal and the owners of other sites in the contaminated sector with a view to finding a comprehensive solution to the problem.[52] In 2002 the city proposed to build a containment and recovery system for floating hydrocarbon phases at the site.[53] Canada asserts that Environment Canada expressed its concern about the capacity of the system to contain dissolved-phase contamination in the groundwater.[54] In summer 2002, Environment Canada "participated in a toxicological study of a dissolved phase of the underground water to measure the harmful and lethal and sublethal effects on fish."[55]

As to law enforcement, Canada asserts that in August 1991, Environment Canada received information from a representative of the Port of Montreal Corporation concerning an oil film on the St. Lawrence River under the Victoria Bridge.[56] According to Canada,

> Environment Canada conducted an inspection and took an open water sample. Since the source of the pollution was unknown, Environment Canada incurred the cost of installing an oil containment system in the

50. *Ibid*.
51. *Ibid*.
52. *Ibid*., pp. 9-10.
53. *Ibid*., p. 9.
54. *Ibid*.
55. *Ibid*.
56. *Ibid*., p. 10.

> river. Soon after, CN decided to take charge of the operation. Subsequently, CN and the city of Montréal agreed on cost sharing to maintain booms at locations where deposits were observed and on recovery of hydrocarbons. In 1996, CN withdrew its contribution from the operation for the purpose of working on recovery of floating hydrocarbons on the surface of underground water along the limits of its property.[57]

According to the response, in November 1998 Environment Canada sent a warning to the city of Montréal due to the "poor condition of the booms and the cessation of oil pumping."[58] Canada maintains that from October 1998 to August 2003, Environment Canada made twenty visual inspections of the booms and on three occasions asked the city of Montréal "to correct the situation."[59] It further maintains that Environment Canada makes regular inspections to ensure "that installed retaining and hydrocarbon recovery devices are operational."[60] Canada recognizes that the booms and pumping of hydrocarbons are not a permanent solution and do not solve the overall problem.[61]

Canada asserts that further to a request in April 2002 from two of the submitters, Environment Canada conducted an investigation for a violation of section 36(3) of the *Fisheries Act*.[62] According to Canada,

> The investigation consisted of an exhaustive search of the different existing studies in the department on the soil and underground water contamination of the sector making up the Technoparc site. Information was also collected on departmental actions regarding deposits in the river at that location. As part of the investigation, consultations took place with departmental personnel involved as technical advisers to various parties in the sector to whom the deposits might be attributed. Finally, a search of title documents was made in the Montréal land register of the land registry office, and in documents of the Quebec Ministry of Natural Resources to trace the history of the transfer of title documents and to identify current title owners in the sector comprising the Technoparc.[63]

According to Canada, the information collected showed that the different lands forming the study sector are contaminated by many pollutants resulting from diverse activities (household and industrial waste disposal site, installation of petroleum product tanks and of liquid waste

57. *Ibid*.
58. *Ibid*.
59. *Ibid*.
60. *Ibid*.
61. *Ibid*., p. 13.
62. *Ibid*., p. 10.
63. *Ibid*., p. 11.

lagoons, snow dumping, and dump for material of unknown origin).[64] Canada continues by stating, "[w]hile the owners of the different lots forming what was previously the dump are now known, there is not sufficient proof to attribute the fact that [sic] the contaminants deposited in the river come directly from the Technoparc site, from one of the sites of other owners or from all these sites."[65]

In the section titled "Conclusion of the investigation," Canada specifies that since the Department failed to establish sufficient proof of the offence covered by section 36(3) of the *Fisheries Act*, an overriding condition for successful pursuit of legal proceedings, the department decided to close the investigation.[66] The response states that "[f]or these reasons [and f]ollowing an assessment of the criteria of the enforcement policy for the *Fisheries Act*[67]] the department decided not to continue its investigation and instead to continue its efforts with the different parties potentially responsible for the contamination in order to find a lasting solution to this environmental problem."[68]

A three-page document titled "Environment Canada Clarification of Certain Statements by the Authors of Submission SEM-030-005"[69] is appended to Canada's response. The clarifications provided deal with the content of the Compliance and Enforcement Policy, the lack of information as to the source of the contamination in the deposits into the river, the measures taken by Environment Canada further to a telephone call from a citizen in January 2002 to report an oil spill from the Technoparc site, the purpose of the criminal investigations, and the impact of Environment Canada's decision to close the investigation on the Submitters' ability to bring forward a private prosecution under the *Fisheries Act*.[70] As regards the Submitters' assertion that "[t]he Montréal Technoparc site is one of Quebec's largest hazardous waste sites...,"[71] Canada states as follows:

> The Technoparc site is part of a sector that used to be a household and industrial waste burial site. It has been the location of and the neighbour of sites where many types of activities have also contributed to the contamination of the Technoparc soil and neighbouring land. By the nature of their foundations, underground water [sic] moves according to a complex

64. *Ibid*.
65. *Ibid*., pp. 11-12.
66. *Ibid*., p. 12.
67. *Ibid*.
68. *Ibid*., pp. 12-13.
69. *Ibid*., p. 14.
70. *Ibid*., pp. 14-16.
71. *Ibid*., p. 14; Submission, p. 4.

> hydrogeological system, with the result that information concerning the source of substances deposited in the river does not exist.[72]

In the appendix to the response, Environment Canada states that the Submitters allege that "it is the purpose of a criminal investigation to establish the identity of the accused where the evidence of an offence exists."[73] Environment Canada states:

> The purpose of a criminal investigation of an infraction of strict responsibility, such as provided for in section 36(3) of the *Fisheries Act*, is to collect sufficient evidence on each of the elements constituting an infraction, and information surrounding the infraction, where there are reasonable grounds for believing that an infraction has occurred. If the law enforcement measure being considered by the department is a criminal penalty imposed by a court, the evidence is assessed by the Attorney General of Canada who also considers the public interest in deciding whether to begin legal proceedings.[74]

4. Scope of the Factual Record

On 19 April 2004, the Secretariat concluded that Canada had not answered the principal questions raised in the submission concerning the enforcement of section 36(3) in relation to the deposit from the Technoparc site of deleterious substances into water frequented by fish. Consequently, pursuant to NAAEC Article 15(1), the Secretariat informed Council that the submission, in light of the Party's response, warranted development of a factual record.

On 20 August 2004, by Resolution no. 04-05 (Appendix 1), the Council decided unanimously to:

> INSTRUCT the Secretariat to prepare a factual record in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters* under Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* in respect of the following items arising in the context of Submission SEM-03-005 with regard to alleged failure to effectively enforce section 36(3) of the *Fisheries Act*:
>
> - facts surrounding Environment Canada's inspections, before and after, the issuance of a warning in 1998;
> - facts surrounding Environment Canada's 2002-2003 investigation, in response to a request from members of the public;

72. Response, p. 14.
73. *Ibid.*, p. 15; Submission, p. 12.
74. Response, p. 15.

- characteristics and fate of the contamination of the Montreal Technoparc sector;
- results of the oil containment and pumping system(s) at the Montreal Technoparc sector;
- the ecotoxicological study carried out in 2002;
- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;
- information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector; and
- compliance promotion efforts following the decision by Environment Canada not to seek charges.

DIRECT the Secretariat to provide the Parties with its overall work plan for gathering the relevant facts and to provide the Parties with the opportunity to comment on that plan; and

TO DIRECT the Secretariat to consider, in developing the factual record, whether the Party concerned "is failing to effectively enforce its environmental law" since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

5. Information Gathering Process

To prepare the factual record, as prescribed by Council in Council Resolution No. 04-05 (Appendix 1), the Secretariat developed a work plan and provided it to the Parties for comment on 16 September 2004 (Appendix 2). The Secretariat received no comments on the work plan.

Pursuant to NAAEC Article 15(4), in preparing a factual record, "the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information (a) that is publicly available; (b) submitted by interested non-governmental organizations or persons; (c) submitted by the Joint Public Advisory Committee; or (d) developed by the Secretariat or by independent experts." On 8 February 2005, the Secretariat published a request for information concerning the submission (Appendix 3) and sent a copy to the Parties, the Submitters, the Joint Public Advisory Committee, and the Government of Québec.

Québec responded to the request for information on 30 May 2005.

Canada provided its response on 18 August 2005.

On 8 November 2005, the Secretariat retained DDH Environnement Ltée to review the information provided by Canada and to deliver to the Secretariat a report containing the following information: description of the environmental issues relating to Technoparc; measures available for achieving compliance with section 36(3) of the *Fisheries Act*; analysis of actions taken to this end. DDH Environnement Ltée submitted its report to the Secretariat on 28 February 2006.

On 30 January 2006, the Secretariat sent Canada a request for additional information (Appendix 4). Canada responded to this request on 17 March 2006.

The Secretariat's Legal Officer met with representatives of the Environment Department (*Service de l'environnement*) of the city of Montréal in their offices on 14 March 2006. In anticipation of this meeting and subsequent to it, city employees sent the Secretariat a large number of documents from the city's file on Montreal Technoparc.

On 16 May 2006, the Secretariat's Legal Officer sent a letter to the Vice President, Environment of CN requesting a meeting as part of the information gathering process for the factual record. The Secretariat received no response to this letter. Moreover, the Secretariat did not succeed in reaching CN's environment division in Montréal. Its telephone number is confidential.

On 7 July 2006, the Secretariat's Legal Officer visited the bank of the St. Lawrence River adjacent to the Technoparc accompanied by a representative of the Submitters, where she observed an oily substance covering the ground and the rocks on the bank and a multicolored glint on the water inside the booms. She also detected a strong odor of gasoline.

On 6 and 19 September 2006, the Secretariat sent Canada requests for additional information. Canada responded to these requests on 1 November 2006 (Appendix 5). The Secretariat's Legal Officer met with Environment Canada's Québec director of the Environmental Law Enforcement Division (*Division de l'application de la loi en environnement*) and a senior advisor at their Montreal offices on 3 November 2006. On 28 November 2006, the Secretariat sent Canada a set of questions in writing, and Canada responded on 8 January 2007 (see below, sections 8.5.3 and 8.7).

The Secretariat retained the services of Guy Martin for help in preparing the factual record (see CV, Appendix 11). Mr. Martin was employed by Environment Canada for over thirty years, holding, among others, the positions of Chief, Inspections and Investigations Division, Environmental Protection Branch, Québec Region, Montreal (1988-1995), and Chief, Inspections and Investigations Division, Environmental Enforcement Branch, Environment Canada Headquarters, Gatineau (1996-2004).

6. Meaning and Scope of Section 36(3) of the *Fisheries Act*

6.1 Introduction

Under the *Constitution Act*, the Parliament has exclusive legislative power regarding "Sea Coast and Inland Fisheries."[75] The Parliament enacted the *Fisheries Act* in 1868, one year after Confederation.[76] Section 36(3) is now contained in a part of the *Fisheries Act* entitled "Fish Habitat Protection and Pollution Prevention." Section 36(3) provides:

> Subject to subsection (4), it is prohibited to deposit a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

The type of prohibition found in section 36(3) has been part of the *Fisheries Act* since its enactment in 1868.[77] This prohibition applies everywhere in Canada, on public and private land and to all types of activity, whether carried out by individuals, businesses, provinces, municipalities, or the federal government.[78] All deposits covered by section 36(3) are illegal unless they are authorized by federal regulation.

6.2 Responses to alleged violations of section 36(3) of the Fisheries Act

The *Fisheries Act* provides a range of responses to alleged violations of section 36(3), including requests for information and directions

75. Section 91(12) of the *Constitution Act, 1867* (U.K.), 30 and 31 Vict., c. 3.
76. 31 Vict., 1868, c. 60.
77. 31 Vict., 1868, c. 60, s. 14; replaced by S.C. 1969-1970, c. 63, s. 3.
78. Section 3(2) of the *Fisheries Act*: "This Act is binding on Her Majesty in right of Canada or a province." See *R.* v. *Canada (Department of National Defence)* (1993), 125 N.S.R. (2d) 208 (N.S.C.A.).

from the Minister of Fisheries and Oceans (hereinafter, the "Minister"), prosecutions, court orders upon conviction, injunctions, and civil suits to recover remediation costs. These measures are described below.

The following information is relevant to a consideration of whether Canada is failing to effectively enforce s. 36(3) of the *Fisheries Act* in connection with alleged deposits of deleterious substances in the Montreal Technoparc sector. The Secretariat expresses no opinion concerning this information and provides no analysis thereof.

6.2.1 Requests for Information and Ministerial Directives

The *Fisheries Act* gives the Minister the power to request information in relation to any work or undertaking that results or is likely to result in the deposit of a deleterious substance which constitutes a violation of the *Fisheries Act* (s. 37(1)). Specifically, the Minister may request information concerning the work or undertaking, the question of whether the work or undertaking results or is likely to result in the deposit of a deleterious substance, and the measures, if any, that would mitigate the effects thereof. Based on the information obtained and the arguments of the persons who provided it, the Minister may, with the approval of the Governor in Council, require the modification of the work or undertaking, restrict its operation, or direct its closing for a specific period.

6.2.2 Prosecution

In the event of an alleged violation of section 36(3), another alternative is prosecution of the person responsible for the alleged violation. The Crown must, however, be able to prove beyond a reasonable doubt that a person deposited or permitted the deposit of a substance into water frequented by fish or near such water.

The *Fisheries Act* specifies that a "deposit" occurs regardless of whether the act is intentional or unintentional.[79] "Water frequented by fish" means "Canadian fisheries waters," but water is not "water frequented by fish" for the purposes of the *Fisheries Act* if the defendant can

79. Section 40(5)(a) of the *Fisheries Act*.

prove that, at all times material to the proceedings, the water is not, has not been, and is not likely to be frequented by fish.[80]

The courts have also established that if a substance is "deleterious" in and of itself (e.g., an acutely lethal effluent), the Crown does not have to prove that the deposit of such a substance into water frequented by fish actually harmed fish or their habitat in order to obtain a conviction under section 36(3).[81] It only has to prove that the substance was deposited or that its deposit was authorized. In 2005, the Supreme Court of Canada denied leave to the City of Kingston to appeal an Ontario Court of Appeal decision affirming this principle in the case of a conviction for violation of section 36(3) caused by leachate runoff from a former municipal landfill into the Cataraqui River in Kingston:

> Earlier today, the Supreme Court of Canada announced that it will not hear the City of Kingston's appeal of the *Belle Park* judgment issued in May by the Ontario Court of Appeal.
>
> In May 2004, the Court of Appeal had ruled that, in order to obtain a conviction for the offence of "depositing deleterious substances into water frequented by fish," it was not necessary for the prosecution to prove that the river water became harmful to fish. The City's expert witness evidence has been that the deposit of leachate into the Cataraqui River, from the former Belle Park land fill site, did not cause any harm to aquatic life in the river. The Crown led no evidence that the water became harmful to fish in the river. As a result, the City's position throughout this case has been that where no harm has been done, it should not be convicted of a quasi-criminal offence.[82]

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80. Sections 34(1) and 40(5)(b) of the *Fisheries Act*. It has been held that even if there are no fish in the vicinity of the deposit, where the surrounding water is tidal in nature and fish-bearing, the deposit is considered to have been made to water frequented by fish; *R.* v. *Stora Forest Industries*, [1993] N.S.J. No. 330 (Prov. Ct.).
81. To establish that a substance is deleterious, it suffices to prove that its deposit would make the water harmful to fish. See e.g., *R.* v. *MacMillan Bloedel (Alberni) Limited* (1978), 42 C.C.C. (2d) 70 (B.C. Co. Ct.), at 73-74, affirmed 47 C.C.C. (2d) 118 (B.C.S.C.), leave to appeal to S.C.C. denied (1979), 47 C.C.C. (2d) 118n (S.C.C.); "the Court held that "[t]he effect of the Act is to provide that if such a substance has had a harmful effect on fish elsewhere when added to water, then it qualifies as a deleterious substance under the *Fisheries Act*." See also *R.* v. *Abitibi Consolidated* (2000), 190 Nfld. and P.E.I.R. 326; 2000 Nfld. and P.E.I.R. LEXIS 238; 576 A.P.R. 326 (Nfld. Prov. Ct.), at 51: "In determining whether the Crown has established that there was a deposit of a deleterious substance beyond a reasonable doubt, I agree with the Crown's assertion that it is not necessary to establish actual harm or damage to fish or fish habitat."
82. See *Supreme Court Will Not Hear Belle Park Appeal* (27 January 2005), online at City of Kingston <http://www.cityofkingston.ca/cityhall/press/release.asp?mode=show&id=1366> (date viewed: 30 March 2007). See also *Fletcher* v. *Kingston*, [2004] O.J.

Under section 40(2) of the *Fisheries Act*, violations of section 36(3) are offences punishable on summary conviction (carrying a maximum fine of $300,000 for a first offence and a maximum fine of $300,000 and/or imprisonment for a maximum term of six months for subsequent offences) or indictable offences (carrying a maximum fine of $1 million for a first offence and a maximum fine of $1 million and/or imprisonment for a maximum term of three years for subsequent offences). Any violation of the *Fisheries Act* that is committed or continued for more than one day constitutes a separate offence for each day (s. 78.1). The officers, directors and/or agents of a corporation who direct, authorize, assent to, acquiesce in, or participate in the commission of an offence by the corporation are parties to and guilty of the offence and are liable on conviction to the punishment provided for the offence, whether or not the corporation has been prosecuted (s. 78.2).

6.2.3 Defences against charges under section 36(3)

A violation of section 36(3) is a strict liability offence. Under the *Fisheries Act*, this means that even if the Crown proves all the elements of the offence beyond a reasonable doubt, the defendant will not be convicted for violating section 36(3) if it presents a defence and can prove, on a balance of probabilities, that the facts support this defence.[83] For example, even if the Crown proves beyond a reasonable doubt that a corporation deposited a deleterious substance into water frequented by fish, the corporation will be acquitted if it can prove, on a balance of probabilities, that it was duly diligent in attempting to prevent the deposit. "Due diligence" requirements vary depending on the facts of each case.

6.2.3.1 Due Diligence

Under the *Fisheries Act*, a defendant is acquitted if he can prove that he exercised due diligence to prevent the commission of the offence or reasonably and honestly believed in the existence of facts that, if true, would render his conduct innocent (s. 78.6). Where the alleged violation is based on the defendant's "inaction" and the defendant is accused of "permitting" the commission of an offence, the courts have ruled that "... the real issue is whether the accused had exercised due diligence."[84]

No. 1940 (Ont. C.A.), and Environmental Commissioner of Ontario, *Annual Report (2001-2002)* at p. 57: "*Fisheries Act* Enforcement in Ontario," online at <http://www.eco.on.ca/english/publicat/ar2001.pdf> (date viewed: 30 March 2007).

83. Section 78.6 of the *Fisheries Act*.
84. *R.* v. *Rivtow Straits Ltd.* (1993), 12 C.E.L.R. (N.S.) 153 (B.C.C.A.), p. 44.

Due diligence requirements relating to contaminated land were recently examined in Ontario, in a case involving the Ontario Ministry of the Environment (MOE) acting as "remediator of last resort" for the Deloro mine.[85] Relatively detailed information on this case is provided here, for it illustrates well how the courts apply section 36(3) to facts similar in many respects to those relating to Montreal Technoparc (see below, s. 8). The distinction established between the evidence required under section 35(1) (habitat protection) and that which must be provided under section 36(3) (pollution prevention) of the *Fisheries Act* is particularly relevant, as is the analysis of the due diligence obligations falling of the party who becomes responsible for a site. Relevant information regarding the Deloro case is presented below.

After a century of mining and smelting activities, different types of arsenic and other wastes had accumulated on site at the Deloro mine. In the late 1950s, high concentrations of arsenic were detected in a nearby river. Subsequently, it was discovered that sediment, groundwater and surface water contamination were all contributing to pollution of the river. The mine was sold to a shell company, and that company abandoned the site after being issued an MOE remediation order, followed by a stop order. The MOE became the "remediator of last resort" under the Ontario *Environmental Protection Act* in 1979. Thereafter, remediation efforts were hampered by lack of remediation funding. Charges were laid against the MOE for violations of the Ontario *Water Resources Act* and ss. 35(1)[86] and 36(3) of the *Fisheries Act* during the 1995-97 period (hereinafter, the "charge period"). At trial, the court found that upon taking over the site, the MOE was immediately subject to liability under the habitat protection and pollution prevention provisions of the *Fisheries Act*.[87]

Under s. 35(1) of the *Fisheries Act*, the Crown had to prove that inaction by the MOE resulted in harmful alteration, destruction, or

85. *R.* v. *Ontario (Ministry of the Environment)*, [2001] O.J. No. 2581 (Ont. Ct. J.) (hereinafter, "Deloro").

86. Section 35(1): "No person shall carry on any work or undertaking that results in the harmful alteration, disruption or destruction of fish habitat." Here, the court accepted the prosecution's definition of "work" as being "the management and control of the site" (Deloro at 155).

87. "When the defendant assumes management and control over an abandoned property (or over a property still operated by an owner unwilling to act) it does so to protect the environment from further deterioration by the refusal to remediate. It must act accordingly.... The intervening entity must proceed with the remediation of the property with due diligence. The entity is indeed immediately subject to prosecution for permitting discharges which were not caused by it." Deloro at 139-40. The court also held that the status of the party was a factor to be considered in assessing due diligence.

disruption of fish habitat. The Crown was successful in proving that metal-contaminated sediments in the river were having a deleterious effect on fish. However, it was not successful in proving that MOE inaction during the charge period (1995-97) had resulted in the sediment contamination identified by the prosecution. The judge ruled that "there is little evidence before me to establish that the metal contaminants in that sediment were deposited since the defendant has taken control of the site, let alone the charge period."[88]

Contrary to section 35(1), section 36(3) does not require proof of harm to fish habitat, but only proof that a deleterious substance was deposited into water frequented by fish (see section 6.2.2, above). Consequently, in determining whether there had been a violation of s. 36(3) at Deloro, the court accepted evidence that in the scientific literature, levels of metals such as those registered in the river were stated to be harmful to fish, and pointed out that the law (s. 36(3)) does not require proof that the metals are actually causing an effect in the river.[89] The judge specifically rejected the defence's argument that the prosecution had failed to make its case because it had not conducted field studies to determine whether arsenic in the river was absorbed by fish. He stated that the law does not require such specificity, and concluded that the prosecution had established all elements beyond a reasonable doubt.[90]

The court then considered whether the MOE had been duly diligent in its management of the site between 1995 and 1997. The court specified that even though the MOE had been in charge of the site for much longer, it only needed to prove due diligence for the charge period. It also clarified that:

> [e]vidence of the defendant's actions prior to that period is relevant to the proper understanding of the efforts made during the charge period. It is obvious that if the remediation plans are suspended during the charge period as a result of unforeseen circumstances, the due diligence must be addressed in the context of the action which preceded the "event" [i.e., the 1995-97 period]. Similarly, if the solutions to the polluting act are provided and planned for prior to the "event" and not acted upon, the previous efforts at remediation will not satisfy the due diligence criteria. In other words, due diligence must be placed in context but the context cannot be determinative of the issue.[91]

88. *Ibid*. at 161.
89. *Ibid*. at 165.
90. *Ibid*. at 166-167, 171.
91. *Ibid*. at 174.

The court also cited case law defining due diligence requirements under Canadian law. Due diligence does not require superhuman efforts, but rather a high standard of awareness and decisive, prompt, and continuing action. It requires the taking of all reasonable steps, not all conceivable steps.[92]

The court considered the prosecution's argument that the MOE had failed to establish due diligence because the provincial government had failed to provide funding for the remediation effort on a timely basis. The court cited judicial precedent for the view that "the government's decision for the disbursement of public funds is not subject to judicial review."[93] It clarified that the court's "function at trial, however, is not to 'review' the decision but to assess its impact." The court went on to hold that:

> Courts should not be placed in a position where they are required to assess the respective priorities of the government of the day. It must, however, consider the economic requirements of remediation in the context of the overall income of the defendant. When a corporation seeks to claim an inability to fully remediate a site, the Courts are not required to examine the financial records to assess the appropriateness of the corporation's expenditures. It can, however, require financial context to determine the issue.
>
> I do not find it necessary to make determinations of fact with respect to funding. Whether the requests for approval were being delayed, denied or simply going through the process is not determinative. The Court must look at the end result.
>
> Although too much time had elapsed in fragmented studies of parts of the property previously, as of 1993 the defendant had a detailed and planned approach to the remediation of a complex site. The defendant proceeded

92. *Ibid*. at 175-176. The judge also cited a case that lists factors that must be weighed and balanced in assessing due diligence: 1) the nature and gravity of the adverse effect; 2) the foreseeability of the effect, including abnormal sensitivities; 3) the alternative solutions available; 4) legislative or regulatory compliance; 5) industry standards; 6) the character of the neighbourhood; 7) what efforts have been made to address the problem; 8) over what period of time, and promptness of the response; 9) matters beyond the control of the accused, including technological limitations; 10) skill level expected of the accused; 11) the complexities involved; 12) preventative systems; 13) economic considerations; and 14) actions of officials; *R.* v. *Commander Business Furniture*, [1992] O.J. No. 2904, 1992 Carswell Ont. 222 (Ont. Ct. J. (Prov. Div.)), cited in Deloro at 177.

93. *Hamilton Wentworth (Regional Municipality)* v. *Ontario (Minister of Transportation)* (1991), 2 O.R. (3d) 716 (Div. Ct.), leave to appeal to Ont. C.A. denied, [1991] O.J. No. 3201 (12 August 1991), Doc. A-48/ 91 cited in Deloro at 182.

> with minor but essential components of its plan pending the approval of funding.[94]

The court concluded that on the basis of all the factors that needed to be considered, the MOE had established on a balance of probabilities that it was duly diligent in the charge period and the defendant was acquitted.

Moreover, the courts have rejected the due diligence argument in cases where the defendant took a calculated risk in regard to the possibility of contravening section 36(3). For example, in one case a municipality commissioned a wastewater plant that had been designed — to save money — in such a way that wastewater was discharged directly into a watercourse in an emergency. An emergency occurred, wastewater was discharged into a watercourse, and the municipality was found guilty despite the fact that it had exercised due diligence in the application of emergency measures and plant maintenance.[95]

6.2.3.2 Defences Based on Actions of the Regulator

The common law affords other defences and relief; for example, "officially induced error" and "abuse of process," both of which serve to prevent a person from being convicted for action or inaction which, when it occurred, appeared (to a reasonable person) to meet with government approval. Information on this defence is provided below, along with information on the defence of abuse of process, which is also based on actions of the regulator.

A defendant must satisfy four conditions to invoke the defence of official induced error of law successfully.[96] It must have considered its legal position and sought advice about it; consulted an appropriate official; obtained erroneous advice that was reasonable in the circumstances; and relied on the advice. The Supreme Court of Canada has held that because it functions as an "excuse" and not a "justification" for wrongful behaviour — and therefore results in a stay of proceedings rather than an acquittal — "an officially induced error of law argument will only be successful in the clearest of cases."[97]

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94. Deloro at 182-184.
95. *R.* v. *North Vancouver (District)*, [1982] 3 F.P.R. 233 (B.C. Prov. Ct.), affirmed [1983] 3 F.P.R. 249 (B.C. Co. Ct.), affirmed [1984] 3 F.P.R. 491 (B.C.C.A.).
96. See *R.* v. *Jorgensen*, [1995] 4 S.C.R. 55, 129 D.L.R. (4th) 510, at 25-38.
97. *Ibid*. at 37.

Depending on the circumstances, advice from provincial officials on the requirements of a federal statute may serve as a basis for a defence of officially induced error, "... provided that a reasonable person would consider that particular government organ to be responsible for the law in question. The determination relies on common sense rather than constitutional permutations."[98]

The existence of a permit or approval is sometimes invoked as providing the basis for a defence of officially induced error. In such cases, the defendant claims that it honestly, reasonably, and mistakenly believed that by complying with the permit, it was satisfying all requirements under the law. In a 1998 report on Environment Canada's enforcement of section 36(3), the House of Commons Standing Committee on Environment and Sustainable Development cited "officially induced error" as a barrier to effective federal law enforcement. It explained:

> A further barrier to the effective enforcement of the federal legislation occurs when authorizations or permits granted by another level of government conflict with the federal environmental legislation. These permits or authorizations might allow the release of pollutants into the environment in amounts that would constitute an offence under a federal law or regulation. Offenders, however, are not always prosecuted in such cases because, by reason of the permit or authorization, they can raise the defence of "government-induced error." Since the chances of obtaining a conviction in such cases are questionable, charges may not be laid in the first place, or if they are laid, they may not be proceeded with, or again, they may result in an acquittal.[99]

The committee cited the Head of the Inspections Division for the Pacific and Yukon Region of Environment Canada, who gave the committee several examples of aborted prosecutions:

> The first example was a private individual who basically created a landfill on his property that ended up leaching into the most productive part of a salmon-bearing stream. He dealt with civic officials, who eventually brought in the provincial officials, and eventually I was called by the mayor and we initiated an investigation. We dealt with almost three months of trial and proved the offence technically, but the interference and the conflicting information given by the other officials in the junior levels of government created a situation called government-induced

98. *Ibid*. at 31.
99. Canada, House of Commons Standing Committee on Environment and Sustainable Development, *Enforcing Canada's Pollution Laws: the Public Interest Must Come First!: Third Report* (Ottawa: The Committee, 1998), at 72-73.

> error, and the judge made a decision that [the accused] had been duly diligent and that it was the confusion of the officials that related to that.[100]

The Standing Committee recommended that Environment Canada take steps to inform the regulated community of its obligations under federal laws. Regarding the defence of officially induced error, the courts have held that whether this defence will be successful depends on a consideration of all the factors that must be proved, including that the defendant was duly diligent by making appropriate inquiries.[101]

A defendant may invoke "abuse of process" as a defence in cases where entering a conviction would be unconscionable, risking bringing the administration of justice into disrepute. This would be the case, for example, if a person were charged with an offence after having been assured that no enforcement action would be taken, or after having agreed on a plan of remedial action and a timetable with the regulator and having implemented the plan in accordance with the timetable.[102] This defence is also only available in the clearest of cases, and past non-enforcement alone may not be enough, absent an express or implied promise not to prosecute, to make this defence available. The Supreme Court of Canada has stated that to amount to one of the clearest of cases, there must be "overwhelming evidence that the proceedings under scrutiny are unfair to the point that they are contrary to the interest of justice."[103]

6.2.4 Court Orders upon Conviction

The *Fisheries Act* gives the courts broad powers to issue orders upon conviction, in addition to any punishment imposed (s. 79.2). A court can order the convicted person to do or refrain from doing anything in order to prevent the continuation or repetition of the offence or to remedy harm to fish or fish habitat resulting from the commission of the offence, and it can secure compliance with this order by requiring posting of a bond or payment of an amount of money into court. It can order the convicted person to compensate the Minister of Fisheries and

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100. *Ibid* at 73.
101. See *R.* v. *Northwest Territories (Commissioner)* (1994), 15 C.E.L.R. (N.S.) 85 (N.W.T. S.C.), where the Town of Iqaluit was unsuccessful in arguing that its license under the *Northern Inland Waters Act*, which authorized it to "use waters," covered sewer discharges, since it was discharging sewage to waters not covered by the license and in any event, nothing in the license exempted the town from complying with the *Fisheries Act*.
102. *Re Abitibi Paper Co. and the Queen* (1979), 47 C.C.C. (2d) 487 (Ont. C.A.).
103. *R.* v. *Power*, [1994] 1 S.C.R. 601, 89 C.C.C. (3d) 1, at 12.

Oceans for any remedial or preventive action taken by or on behalf of the Minister as a result of the commission of the offence. Finally, it can require the convicted person to report to the court on its activities following conviction and can set any other conditions it considers appropriate to secure the person's good conduct and to prevent repetition of the offence or commission of other violations of the *Fisheries Act* by that person. Violation of such an order makes the convicted person liable to the punishment provided for the underlying offence (s. 79.6). Under the *Fisheries Act*, money owed under court orders becomes a debt due to the Crown (s. 79.4(1)).

6.2.5 Injunctions

The Attorney General can apply for an injunction to enjoin anything punishable as an offense under s. 40 of the *Fisheries Act*, whether or not a prosecution has been instituted (s. 41(4)).

6.2.6 Civil Suits to Recover Remediation Costs

Where there occurs a prohibited deposit of a deleterious substance into water frequented by fish or a serious and imminent danger of such a deposit, the *Fisheries Act* authorizes the Crown to institute a civil action against the owner of the substance or the person who caused the deposit, for recovery of all costs and expenses incurred by federal or provincial officials to prevent the deposit or to mitigate or remedy any adverse effects that resulted or may reasonably be expected to result from the deposit (s. 42(1)).

7. Enforcement and Compliance Promotion Policies for Section 36(3) of the *Fisheries Act*

As indicated in section 6.2, above, the *Fisheries Act* prescribes various responses to alleged violations of section 36(3), including requests for information or ministerial orders, prosecution, court orders upon conviction, injunctions, and civil suits to recover remediation costs.

This section of the factual record contains information gathered by the Secretariat concerning the basis for the approach taken by Environment Canada to enforce section 36(3) and promote compliance with that section in relation to Montreal Technoparc. This information, taken together with that presented in section 8, is relevant to a consideration of whether Canada is failing to effectively enforce section 36(3) in relation to Montreal Technoparc.

Sections 7.1, 7.2, and 7.3 describe the manner in which Environment Canada, the Department of Fisheries and Oceans (DFO), and the Department of Justice determine which measures should be taken in response to an alleged violation of the *Fisheries Act*, based on their policies. Under these policies, enforcement measures taken by federal authorities are among the numerous types of measures available to them in cases of noncompliance. The most appropriate measure is considered to be the one most likely to lead to compliance within the shortest time possible and without a reoccurrence of the offence. Section 7.3 addresses the issue of law enforcement when federal interests are at stake.

7.1 Fisheries Act Habitat Protection and Pollution Prevention Provisions Compliance and Enforcement Policy

Under the law, it is the minister of Fisheries and Oceans who is responsible for the administration and enforcement of the *Fisheries Act*.[104] However, in 1978, the Prime Minister of Canada delegated responsibility for the administration and enforcement of what was then section 33(2) and is now section 36(3) to the federal minister of the environment. A memorandum of understanding signed in 1985 by the DFO and Environment Canada defines the responsibilities of the two departments in regard to the administration and enforcement of the pollution prevention-related provisions of the *Fisheries Act*.[105]

In signing the memorandum of understanding, DFO and Environment Canada agreed to cooperate and communicate openly and regularly with each other on any and all matters relating to the administration of section 36(3) (clause 1). Regionally, the senior managers of the two departments are responsible for communicating with each other on matters such as major development projects, actions proposed by agents of provincial governments, identification of fishery resource or habitat information required to support protection actions, proposed regulations and amendments to existing regulations, and annual program reviews (clause 2). The two departments make joint decisions on enforcement measures (clause 4), but the DFO reserves the right to take action in circumstances where the fisheries resource is being affected by the deposit of a deleterious substance and where Environment Canada is unable or unwilling to take action (clause 8). Regional working level

104. Section 4(1)(a) of the *Department of Fisheries and Oceans Act*, R.S.C. 1985, c. F-15.
105. Memorandum of Understanding between the Department of Fisheries and Oceans and the Department of the Environment on the Subject of the Administration of Section 33 of the *Fisheries Act* signed at Ottawa, Ontario, 6 May 1985.

officials are responsible for settlement of disputes (clause 3); any issue unresolved at the regional level is referred to the assistant deputy ministers (whose sectors were known in 1985 as Pacific and Freshwater Fisheries (DFO) and Environmental Protection Service (EC); paragraph 5(a)). The assistant deputy ministers also consider proposed regulations and amendments to existing regulations, and discuss national policy issues of concern to the parties (paragraphs 5(b) et (c)).

Environment Canada officially published the Compliance and Enforcement Policy in November 2001. The Compliance and Enforcement Policy specifies that regulatory officials will enforce the fish habitat protection and pollution prevention provisions of the *Fisheries Act* through promotion and enforcement.[106] In accordance with this policy, enforcement is carried out through the following activities: inspections; investigations; issuance of warnings[107] and directions by inspectors, authorizations, and ministerial orders; and court actions, such as injunctions, prosecution, court orders upon conviction, and civil suits for recovery of costs. Compliance promotion measures consist of communication and publication of information, public education, consultation with affected parties, and technical assistance.

The Compliance and Enforcement Policy sets out the guiding principles governing the enforcement of the fish habitat protection and pollution prevention provisions of the *Fisheries Act*.[108] Pursuant to these principles, compliance with the provisions of the Act and its accompanying regulations is mandatory. Enforcement personnel will administer the provisions and regulations in a manner that is fair, predictable, and consistent, using rules, sanctions and processes securely founded in law. Enforcement personnel will administer the provisions and accompanying regulations with an emphasis on preventing harm to fish, fish habitat or human use of fish caused by physical alteration of fish habitat or pollution of waters frequented by fish. Priority for action to deal with suspected violations will be guided by: the degree of harm to fish, fish habitat or human health, or the risk of such harm, and/or whether or not the alleged offence is a repeat occurrence. Enforcement personnel will take action consistent with the Compliance and Enforcement Policy, and the public will be encouraged to report suspected violations. Compliance will be encouraged through communication with affected parties.

The section of the Compliance and Enforcement Policy titled "Responses to Alleged Violations" contains the following statement:

106. Compliance and Enforcement Policy, p. 3.
107. See above, section 3, "Summary of Canada's Response."
108. Compliance and Enforcement Policy, p. 4.

"Enforcement measures are directed towards ensuring that violators comply with the *Fisheries Act* within the shortest possible time and that violations are not repeated."[109] The Compliance and Enforcement Policy, which was in effect at the time of Environment Canada's investigation of Technoparc in 2002 (see section 8.5.1 below), further states:

> Enforcement personnel will respond to suspected violations. They will take into account the harm or risk of harm to fish, fish habitat and/or human use of fish. If they determine that there is sufficient evidence a violation has occurred, they may take enforcement action.[110]

The draft version of the Compliance and Enforcement Policy in use by Environment Canada when it issued a warning to the city of Montréal in 1998 stated: "If they determine that there is sufficient evidence a violation has occurred, they *will* take enforcement action" (emphasis added).[111]

If enforcement personnel determine that an alleged violation has occurred and there is sufficient evidence to proceed, they must decide which measures to take based on three criteria set out in the Compliance and Enforcement Policy: nature of the alleged violation, effectiveness in achieving the desired result with the alleged violator, and consistency in enforcement.[112]

In assessing the nature of the alleged violation, enforcement personnel must take the following factors into account: the seriousness of the damage to the environment; the intent of the alleged violator; whether it is a repeat occurrence, and whether there were attempts by the alleged violator to conceal information or otherwise circumvent the objectives and requirements of the habitat protection and pollution prevention provisions.[113]

As to effectiveness in achieving the desired result with the alleged violator, the Compliance and Enforcement Policy stipulates as follows:

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109. *Ibid*., p. 18.
110. *Ibid*.
111. *Response of the Government of Canada to a Submission on Enforcement Matters under Articles 14 and 15 of the North American Agreement on Environmental Cooperation, Submission No. SEM-98-004 of June 29, 1998 by the Sierra Club of British Columbia, the Environmental Mining Council of British Columbia and the Taku Wilderness Association* (BC Mining) (8 September 1999), Appendix 4.
112. Compliance and Enforcement Policy, p. 18.
113. *Ibid*.

> The desired result is compliance with the Act in the shortest possible time and with no further occurrence of violations, in order to protect fish and fish habitat and human use of fish.[114]

The following factors are considered: the alleged violator's history of compliance with the Act; the alleged violator's willingness to cooperate with enforcement personnel; the evidence and extent of corrective action already taken, and the existence of enforcement actions by other federal or provincial/territorial authorities.[115]

Under the Compliance and Enforcement Policy, enforcement personnel aim to achieve consistency in their responses to alleged violations. The Compliance and Enforcement Policy therefore specifies that enforcement personnel must consider how similar situations in Canada are being or have been handled when deciding what enforcement action to take.[116] As regards prosecutions for violations of section 36(3) arising from runoff of leachate from a former municipal landfill site, Environment Canada published the following press release in June 2006:

> MONCTON, New Brunswick, June 23, 2006 — Gemtec Ltd. and company official Robert Lutes were sentenced in Provincial Court in Moncton, New Brunswick today of violating the pollution prevention provisions of the Federal *Fisheries Act*. The charges relate to the deposit of acutely lethal landfill leachate that entered the Petitcodiac Watershed from the former Moncton Landfill Site.
>
> Both Gemtec, an environmental consulting company, and Mr. Lutes, a Gemtec principal and project manager, were convicted on April 26, 2006 by Judge Yvette Finn after a five-week trial. Judge Finn fined the company $5,000 and Robert Lutes $1,000 for their involvement in the offences. In addition to the fine, Gemtec Ltd. must contribute $10,000 to the Government of Canada's Environmental Damages Fund. Mr. Lutes must also contribute $1,000 to the Fund. The Fund, which is administered by Environment Canada, is used to restore environmental damage or to prevent environmental damage from occurring. Finally, Gemtec has been ordered to pay $10,000 to the Jonathan Creek Committee, a local environmental organization, while Mr. Lutes must pay $1,000 to the committee.
>
> This case is a landmark in environmental protection. These convictions mark the first time that an engineering consultant company has been convicted of providing advice to a client that resulted in the client violating federal environmental law. This case has demonstrated that consultants

114. *Ibid*.
115. *Ibid*.
116. *Ibid*.

who fail to incorporate environmental compliance into their advice to clients can and may be held accountable for their role in any resultant environmental offence.

Charges were laid by Environment Canada on March 12, 2002, against Gemtec Ltd., Gemtec Project Engineer Robert Lutes, the City of Moncton, and Moncton City Engineer Geoff Greenough after a year-long investigation by Environment Canada Enforcement Officers. The investigation was initiated as a result of a complaint made to Environment Canada by the Petitcodiac Riverkeepers, a local environmental organization.

Landfill leachate is a liquid substance that percolates from the ground as a result of deposited garbage mixing with rainwater and melting snow.

On September 23, 2003, the City of Moncton pleaded guilty and charges against Mr. Greenough were withdrawn by the Crown. The City paid a $35,000 fine and was ordered to take remedial measures to reduce the leachate flow from the landfill site.

Gemtec Ltd. is an engineering consulting company that was hired by the City of Moncton to provide closure options for the former Moncton landfill. Gemtec Ltd. was also contracted by the City of Moncton to implement the closure plan that it had recommended.

Environment Canada investigates alleged offences under the *Canadian Environmental Protection Act, 1999* and the *Fisheries Act*, in order to ensure that companies, government employees and the general public comply with legislation and regulations that protect Canada's environment.[117]

7.2 Decision to Prosecute

As mentioned in 6.2.2 above, under section 36(3) of the *Fisheries Act*, it is not necessary to prove that fish or their habitat were actually harmed in order to establish the elements of the offence. It is sufficient to prove that the substance deposited is harmful to fish. Under the Compliance and Enforcement Policy (see section 7.1 above), prosecution is the preferred course of action where evidence establishes that:

117. See "Sentencing in Landmark Environmental Law Case" online at Environment Canada <http://www.ec.gc.ca/default.asp?lang=En&n=714D9AAE-1&news=D9FB5515-46A6-4FD3-BFE7-90E281EFEB98> (date viewed: 2 April 2007). This decision was appealed to the Court of Queen's Bench of New Brunswick; the appeal was heard on 19 December 2006. A complaint by Sentinelles Petitcodiac Riverkeeper, based on analyses conducted by Environmental Bureau of Investigation (EBI) of Ontario, gave rise to this prosecution; see Sentinelles Petitcodiac Riverkeeper, *L'ancien lieu d'enfouissement de Moncton tue les poissons – La dilution n'enraye pas la pollution* (12 December 2000).

> the alleged violation resulted in risk of harm to fish or fish habitat; the alleged violation resulted in harmful alteration, disruption or destruction of fish habitat (not authorized by the Minister of Fisheries and Oceans); the alleged violator had previously received a warning for the activity and did not take all reasonable measures to stop or avoid the violation; the alleged violator had previously been convicted of a similar offence.[118]

As mentioned in 6.2.2 above, under section 36(3) of the *Fisheries Act*, it is not necessary to prove that fish or their habitat were actually harmed in order to establish the elements of the offence. It is sufficient to prove that the substance deposited is harmful to fish. Under the Compliance and Enforcement Policy, prosecution is therefore ruled out or at any rate unlikely in cases where a deleterious substance was deposited but no harm was or is likely to be caused to fish or their habitat.

Under the Compliance and Enforcement Policy, prosecution will always be pursued where evidence establishes that:

> the alleged violation was deliberate; the alleged violator knowingly provided false or misleading information to enforcement personnel; the alleged violator obstructed enforcement personnel in the carrying out of their duties or interfered with anything seized under the *Act*; the alleged violator concealed or attempted to conceal or destroy information or evidence after the alleged offence occurred; or the alleged violator failed to take all reasonable measures to comply with a direction or an order issued pursuant to the *Act*.[119]

Where prosecution is being considered, the Attorney General, who reports to the Department of Justice, must approve the laying of charges. He or she must consider two issues when deciding whether to prosecute. Is the evidence sufficient to justify the initiation or continuation of proceedings? And if it is, does the public interest require a prosecution to be pursued?[120] Under Department of Justice policy, it is not the rule that all offences for which there is sufficient evidence to proceed must be prosecuted. Prosecution is only pursued where the public interest so requires, "in the light of the provable facts and the whole of the surrounding circumstances."[121]

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118. Compliance and Enforcement Policy, p. 22.
119. *Ibid*.
120. Canada, *The Federal Prosecution Service Deskbook* [hereinafter, the "Deskbook"], Part V, "Proceedings at Trial and on Appeal", ch. 15, "The Decision to Prosecute" (Ottawa: Justice Canada, 2005) [hereinafter, "Decision to Prosecute"], s. 15.2, online at Department of Justice Canada <http://www.justice.gc.ca/en/dept/pub/fps/fpd/toc.html> (date viewed: 28 May 2007).
121. "Decision to Prosecute," s. 15.3.2.

In the case of regulatory violations, such as violations of section 36(3), Department of Justice policy is as follows:

> it is appropriate for Crown counsel to consider the views of the investigative agency in considering whether prosecution is warranted. This may be particularly important in the case of prosecutions under statutes such as the *Immigration and Refugee Protection Act*, the *Fisheries Act*, the *Competition Act* or the *Income Tax Act*, where the offence provisions serve important regulatory goals. Consideration of what the public interest requires will of necessity require consideration of how the regulatory purpose of the statute might best be achieved.[122] If, for example, the relevant regulatory authority has a mechanism for dealing with the alleged offender such as a compliance program, Crown counsel should consider whether an alternative such as this might better serve the public interest than prosecution. The need to understand the particular regulatory context underscores the obligation of Crown counsel to consult in carrying out counsel's duties under this policy.[123]

The policy lists the following irrelevant criteria:

- the race, national or ethnic origin, colour, religion, sex, sexual orientation, political associations, activities or beliefs of the accused or any other person involved in the investigation;
- Crown counsel's personal feelings about the accused or the victim;
- possible political advantage or disadvantage to the government or any political group or party; or
- the possible effect of the decision on the personal or professional circumstances of those responsible for the prosecution decision.[124]

Department of Justice policy also contains provisions concerning prosecutions against the Crown.[125] The following explanation is given:

> Many federal statutes and their accompanying regulations create offences aimed at deterring conduct that is capable of "inflicting serious harm on large segments of society". Such offences are usually referred to as "regulatory" or "public welfare" offences, and deal with such important subject-matter as workplace safety and environmental protection.

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122. The *Fisheries Act* briefly contained a section setting out its purposes, including "[...] to provide for the conservation and protection of fish and water frequented by fish," but this section was repealed as soon as it was enacted; S.C. 1985, c. 31, ss. 2.1(a), 6.
123. "Decision to Prosecute," s. 15.3.2.1.
124. *Ibid*., s. 15.4.
125. *Deskbook*, Part VI, ch. 32, "*R*. v. *R*.: Prosecutions by the Crown Against the Crown."

> On occasion, government departments, Crown corporations or their employees engage in the proscribed conduct. As a result of this, the prosecuting arm of the government (as represented by the Attorney General), may have to consider prosecuting a different arm of the government, a scenario commonly referred to as "*R.* v. *R.*"[126]

Concerning *R.* v. *R.* cases, Department of Justice policy contains a statement of purpose and describes the procedure to be followed at the investigative stage and when deciding whether to pursue prosecution of the Crown:

> **Purpose of the Policy**
>
> This policy has three objectives:
>
> - to affirm the principle that governmental offenders of regulatory legislation will be treated similarly to private individuals;
> - to manage potential conflicts of interest that may arise from the roles of departmental counsel in the provision of legal advice; and
> - to outline the procedures to be followed in commencing and conducting *R.* v. *R.* prosecutions.
>
> **The Investigative Stage**
>
> During the investigative stage, Department of Justice counsel may be called upon to advise not only the investigative agency, but also the department [the same situation may also arise with respect to Crown corporations] which is under investigation. For example, Crown counsel may be called upon by investigators prior to the obtaining of a search warrant, and legal services counsel may be contacted by the department being searched during the execution of that warrant.
>
> The Department of Justice cannot provide legal advice to both the investigating agency and the department under investigation in such circumstances. Accordingly, the role of departmental counsel advising the department under investigation will be limited to assisting that department in obtaining counsel from the private sector.
>
> **The Decision to Prosecute**
>
> Crown counsel may be called upon to assess whether a prosecution should occur in one of two ways. The investigative agency may simply lay charges, and refer the matter for prosecution; or, the investigative agency may provide a prosecution brief for pre-charge screening with a recommendation that proceedings be instituted.

126. *Ibid.*, s. 32.1.

> In both circumstances, Crown counsel will assess the proposed prosecution by applying the policy on "The Decision to Prosecute". This will be done in consultation with the Prosecution Group Head and the Senior General Counsel (Criminal Law) in Ottawa.
>
> In all such cases, an opinion will also be sought from counsel from the private bar ("outside counsel") or counsel for a provincial attorney general who will be asked to apply the "Decision to Prosecute" criteria. Once opinions from both Crown counsel and outside counsel are obtained, the matter will be forwarded to the Assistant Deputy Attorney General (Criminal Law) for a final decision. The outside counsel's opinion regarding the appropriate charges will be considered along with departmental counsel's in deciding which charges to proceed with.
>
> The Deputy Attorney General is informed immediately after the "Decision to Prosecute" exercise is complete. If charges are authorized, Crown counsel, in consultation with the Environmental Prosecutions Co-ordinator in the Criminal Law Branch, should ensure that appropriate officials in the Privy Council Office, and the legal service units for both the investigative agency and the defendant department are advised.[127]

Since 2005, Department of Justice policy contains a chapter on legal risk management (LRM).[128] It explains that cases involving significant legal risk, including cases that will have an impact on federal/provincial/territorial relations, are the LRM priority.[129] The types of cases most likely to fall into the "significant risk" category include prosecutions against the Crown ("*R.* v. *R.*").[130] The policy stipulates that the Assistant Deputy Attorney General has the following obligations concerning the implementation of LRM:

- ensuring roles and responsibilities are understood within the organization;
- keeping abreast of all significant risk cases within the [Federal Prosecution Service];
- informing and engaging senior officials, including Ministers, on significant risk cases and key LRM issues;
- identifying and analyzing government-wide trends; and
- encouraging the use of appropriate instruments, including alternative dispute resolution.[131]

127. *Ibid*.
128. *Deskbook*, Part XII, ch. 55, "Legal Risk Management."
129. *Ibid*., s. 55.3.4, "How do we assess risk?"
130. *Ibid*.
131. *Ibid*., s. 55.5.1, "Role of the [Assistant Deputy Attorney General] (Criminal Law)."

7.3 Enforcement of Section 36(3) of the Fisheries Act and Compliance Promotion Where Federal Interests are at Stake

Section 3(2) of the *Fisheries Act* provides that the Act is binding on the federal government and the provinces. In the Montreal Technoparc case, federal interests have always been at stake. Over the years, several federal Crown corporations have carried on activities on and around the Technoparc lands. It was the Montreal Port Corporation, a federal entity, which sold the lots comprising Technoparc to the city of Montreal in 1989 (see below, s. 8.2.1). In the early 1990s, Transport Canada's process to privatize CN had already begun. In 1991, Environment Canada inspectors observed hydrocarbons — suspected to be diesel fuel from the CN railyard — surfacing on the banks of the St. Lawrence.[132] Privatization was completed in 1995.[133] In these two transactions, the federal government was both the seller, limiting its environmental liability in the sale contract (see below, s. 8.2.1), and a public authority responsible for environmental law enforcement. In addition, VIA Rail Canada, a federal Crown corporation, has carried on maintenance work next to Technoparc, while another federal Crown corporation, Jacques Cartier and Champlain Bridges Incorporated (JCCBI), continues to be responsible for managing the highway (built in part on lands belonging to the Government of Québec) separating Technoparc from the St. Lawrence River.

In 1990, the federal government made public a "green plan" with a budget of $3 billion over five years.[134] In 1992, the federal government published the *Code of Environmental Stewardship*, under which it undertook to, *inter alia*, "[m]eet or exceed the letter and spirit of federal

132. It is probable that the diesel fuel coming from the properties of CN and VIA contains dissolved contaminants present in the old Montreal disposal site, including PCBs, and that these end up in the river as it passes by the properties along the Autoroute Bonaventure. Environment Canada, EPB/Montreal, Pollution Incident Report, File no. 4461-2/M; date and time of accident: 9 August 1991; source: unknown; location: ADACport; quantity: undetermined; continuous discharge.

133. John Daly, "The toughest SOBs in the business" (31 January 2003), online at <https://secure.globeadvisor.com/servlet/ArticleNews/story/LAC/20030131/RO3SOBS/TPBusiness/ROBM> (date viewed: 11 May 2007); Russell Craig and Joel Amernic, "The Deployment of Accounting-Related Rhetoric in the Prelude to a Privatization" (2004) 17 *Accounting, Auditing & Accountability Journal* 41.

134. Canada, Department of the Environment, *Canada's Green Plan: Canada's Green Plan for a Healthy Environment*, tabled 11 December 1990, sessional paper no. 342-4/34, published by Supply and Services Canada, 1990: "Canada's Green Plan offers new policies, programs and standards to clean up, protect and enhance our land, water and air, our renewable resources, the Arctic, parks and wildlife, and to reduce waste generation and energy use.
This is a fully funded plan that commits the Government of Canada to $3 billion over five years in new funding for the environment."

environmental laws and, where appropriate, to be compatible with provincial and international standards."[135]

Concerning the enforcement of section 36(3) where federal interests are at stake, in 1991, the Director of the Office of Enforcement of the Environmental Protection Service of Environment Canada announced that the Department had made the decision to enforce section 36(3) of the *Fisheries Act* using the enforcement measures provided by the Act, including as regards federal departments and Crown corporations, some of which had always had difficulty accepting that they were subject to the requirements (and penalties) found in federal environmental laws.[136] In this regard, he noted:

> You might think it strange for an enforcement and compliance policy to state, as basic principles, that compliance with the law is mandatory and that enforcement officers "will only use rules, sanctions and processes securely founded in law." They may seem to you to be "givens" or self-evident truths.
>
> But, in the past, environment Canada's approach to law enforcement had shown to regulatees that the department was flexible on compliance. Regulatees had experience with officials who were prepared to use rules and processes that were not provided for in federal Environmental laws and that were not even enforceable civil contracts. These were measures such as letters acknowledging and tolerating non-compliant behavior for specified lengths of time, or giving commitments not to enforce the law if Environmental studies were done.
>
> The negotiation of compliance and the use of tools not provided for in legislation did not work — hence, the need to stipulate as basic, general principles that "compliance with the act and its regulations is mandatory" and that only rules, sanctions and processes founded in law would be used. The government of Canada wanted to signal that its previous reliance on negotiation had ended and that it was returning to the philosophy that the law applied to everyone equally.[137]

However, until 2005, the regional structures of Environment Canada did not come under a central law enforcement authority, and this hindered the application of common solutions.[138]

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135. Online at <http://www.ns.ec.gc.ca/g7/code.html> (date viewed: 6 July 2007).
136. Paul Cuillerier, "Enforcement of Canadian Laws of Environmental Protection as Applied to Federal Facilities," paper presented in session titled "Economic Development and Ownership Issues" at Second International Conference on Environmental Enforcement, International Network for Environmental Compliance and Enforcement (INECE), Budapest, September 1992, online at <http://www.inece.org/2ndvol1/2ndTOC.htm> (date viewed: 27 March 2007).
137. *Ibid*.
138. Environment Canada, "The Changing Face of Enforcement", online at Environment Canada <http://www.atl.ec.gc.ca/enforcement/changing_face.html> (last

Moreover, during the 1990s, political pressure for constitutional reform in Canada gave rise to a reorientation of Environment Canada's Environmental Protection Service, which increasingly devolved law enforcement responsibilities to the provincial level, except in the case of federal facilities.[139] The emphasis on federal facility enforcement meant that "pressure was exerted to temper classical enforcement responses to violations with compliance promotion and other compliance assurance tools."[140]

Concerning promotion of compliance with section 36(3) of the *Fisheries Act* where federal interests are at stake, in 1996, the Auditor General of Canada made public a report in which he mentioned the following concerning Environment Canada's role in the implementation of the *Code of Environmental Stewardship* within the federal government, as well as regarding the application of the Code to federal Crown corporations:

> While the government made a commitment to implement the stewardship initiative in all departments and agencies, Environment Canada saw the process as a voluntary one. However, the only reference to such a voluntary approach in the documents we reviewed was with respect to Crown corporations, which were excluded from the initiative but were to be "encouraged" to adopt the Code in their operations.[141]

In a follow-up published in 1998, the Auditor General made the following recommendation concerning the federal government's greening process:

> As reported in 1996, Crown corporations, which constituted over 30 percent of the government organizations contacted by the Office of Federal Environmental Stewardship in 1992, remain formally excluded from the greening process under either the Code of Environmental Stewardship, or the amendments to the *Auditor General Act.* Although excluded, Crown corporations were encouraged by Environment Canada to adopt the Code of Environmental Stewardship in their operations. We suggest that the [Federal Committee on Environmental Management Systems] contact Crown corporations in an attempt to persuade them to participate in this process, and thereby achieve government-wide application of the green-

modified: 25 March 1999). Copy available from the CEC Secretariat, in the archives for the BC Mining factual record (organized chronologically).

139. *Ibid*.

140. *Ibid*.

141. Canada, *1996 Report of the Auditor General of Canada*, c. 2, "The Implementation of Federal Environmental Stewardship," s. 2.15, "Environment Canada's Interpretation of Its Role and Responsibilities."

ing process, as was the federal government's original intention under the 1990 Green Plan.[142]

Currently, federal departments are required to develop and implement sustainable development strategies under the supervision of the Commissioner of the Environment and Sustainable Development, office of the Auditor General of Canada.[143]

8. Information obtained by the Secretariat concerning enforcement of section 36(3) of the *Fisheries Act* in relation to alleged violations of this provision in the Montreal Technoparc sector

This factual record concerns the enforcement of section 36(3) of the *Fisheries Act* in relation to pollution of the St. Lawrence River caused by deleterious substances leaching from the shore in Montreal, along the Bonaventure Expressway, just upstream of the Victoria Bridge.[144]

The problem apparently surfaced in the early 1990s, shortly after the city of Montreal began dynamic compaction work and building municipal infrastructure on adjacent lots in preparation for the development of a high-technology park.[145]

142. Canada, *1998 Report of the Auditor General of Canada*, c. 28, "Follow-up of Recommendations in Previous Reports," s. 28.89, "Can the government achieve its goal to green all of its operations?"

143. See, for example, Transport Canada, *Sustainable Development Strategy 2004-2006*, online at <http://www.tc.gc.ca/programs/environment/sd/sds0406/docs/TC%20SDS_E3.pdf> (date viewed: 11 May 2007); Commissioner of the Environment and Sustainable Development, *2006 Report of the Commissioner of the Environment and Sustainable Development*, c. 4, "Sustainable Development Strategies."

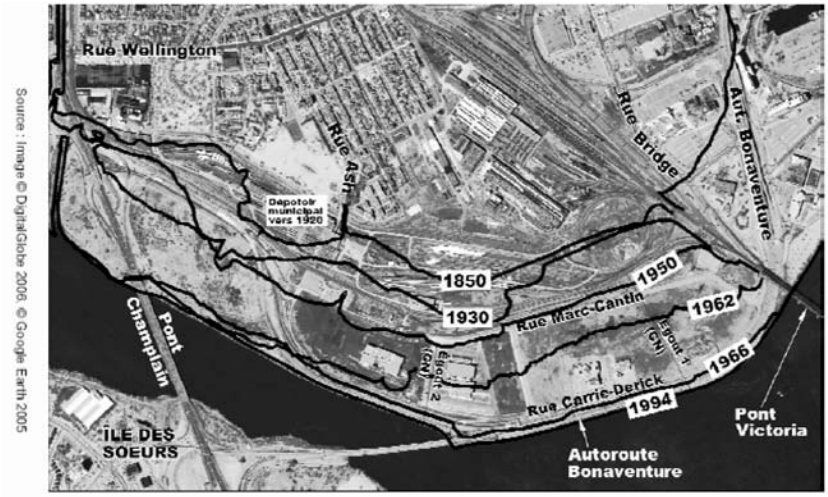
144. In Montreal, following local custom, the word "north" refers to a direction corresponding approximately to geographical west. For the purposes of this factual record, local custom is followed. Thus, unless otherwise indicated by the context, "north" means "towards downtown," "south" means "towards the river," "east" means "towards the Victoria Bridge," and "west" means "towards the Champlain Bridge."

145. Environment Canada, File 4461-2/M, Pollution Incident Report, handwritten notes (31 october 1991): "29/07/91,Tx Québec Ministry of the Environment (MENVIQ) – Patrick Dezainde – Info concerning MENVIQ action – Emergency last year during pipe installation by City Mtl. Oil leaked into river during excavation. The oil was contained by booms and removed over a period of time. The file was transferred to the industrial division, the booms were removed, and the removal measures abandoned. It appears that the oil leak persisted... Bruno L. – MENVIQ – determined that the oil was leaking from the fill over a distance of about 2000 feet", reproduced in Canada, *Environment Canada Response to CEC Request for Information for Preparation of a Factual Record in Relation to Submission SEM-03-005 (Montreal Technoparc)* [hereinafter, "Environment Canada Response to CEC Request for Information"] (11 August 2005), Appendix 58.

8.1 Background

Along the Bonaventure Expressway in Montreal, the natural shoreline of the St. Lawrence River disappeared 150 years ago. The original shoreline was located in Pointe-Saint-Charles, about 500 meters from the present-day bank (see Figure 2). It was a large marsh that was home to great numbers of geese.[146]

Figure 2 Changes in shoreline, 1850–2005[147]



In the seventeenth century, the land in Pointe-Saint-Charles was allotted to various religious congregations in large grants.[148] Farms were

146. See Ville de Montréal, "Action-gardien de Pointe-Saint-Charles/Le Village-aux-Oies", online at <http://www2.ville.montreal.qc.ca/cmsprod/fr/concertations/historiques/Saint-Charles/3;jsessionid=99E73D7FE0E3CF479B8D7A75F95D4F64?id=3&table=Saint-Charles> (date viewed: 15 January 2007). See also Canadian Centre for Architecture, "Background: The Four Lives of the Pointe," online at <http://www.cca.qc.ca/charrette/e_bg.html> (date viewed: 28 February 2007).

147. DDH Environnement ltée, *Rapport factuel d'analyse – Technoparc de Montréal, Québec, Canada* (Factual report of analysis for Montreal Technoparc), Appendix B (February 2006) [hereinafter, "DDH Report"]; SNC-Lavalin Environment, *Projet d'interception et de récupération des phases flottantes d'hydrocarbures, Technoparc, Montréal* (LNAPL containment and recovery project, Technoparc, Montreal) (final report, March 2002), Appendix A, Figures A1-A16 [hereinafter, "SLEI report"]; Québec Ministry of Natural Resources, Fauna, and Parks (2005), plans 31H05-010-3837 and 31H05-010-3737.

148. SLEI report, vol. 2 of 3, Appendix A – Site History. See also "Industrial Architecture of Montreal – Pointe-Saint-Charles", online at <http://digital.library.mcgill.ca/industrial/ptstcharles.html> (date viewed: 6 March 2007).

established there.[149] In the mid-nineteenth century, the area underwent rapid industrial development.[150] In the 1850s, construction began on the Victoria Bridge (linking the port of Montreal by rail to the all-weather port of Portland, Maine), and a large railyard was built near the new bridge.[151] Around 1860, the city of Montreal began to use the marsh south of Ash Street in Pointe-Saint-Charles as a municipal dump. Over the years the marsh was drained using dikes that extended the shoreline out into the river.[152] Railway operations dominated the area for a century. These operations ultimately covered an estimated 56 hectares (6 million square feet), much of it on land — made of waste — that encroached on the bed of the river.[153] For one hundred years, liquid waste from the railyard was dumped directly into the marsh.[154] With

149. SLEI report.

150. *Ibid*. See also "Un point de rupture déterminant ou lorsque géographie et histoire se rencontrent" (A decisive break, or when geography and history meet), online at <http://www.vieux.montreal.qc.ca/plaque/horizon/fra/ruptur.htm> (last modified: February 2003).

151. SLEI Report. See also Industry Canada, "Railway Equipment Manufacturing – Key Points About This Industry – Rail and Urban Guided Transit Equipment Sector Competitiveness Framework", section titled "Canadian Industry Snapshot," online at <http://strategis.ic.gc.ca/epic/site/remi-pmf.nsf/en/ti01008e.html> (last modified: 7 November 2003).

152. Société du Havre de Montréal, *L'autoroute Bonaventure Vision 2025/Synthèse des études du projet de réaménagement, October 2005* (Bonaventure Expressway Vision 2025/Summary of redevelopment project studies), "Technoparc", pp. 3-4, online at <http://www.havremontreal.qc.ca/fr/publications/pdf/autoroute_bonaventure/BonaventureVision2025.pdf> (date viewed: 15 January 2007).

153. Regroupement économique et social du sud-ouest (RÉSO), *Projet de révision du plan d'urbanisme, mémoire du Regroupement économique et social du sud-ouest* (Brief on draft revised urban development plan) (23 June 2004), online at <http://www2.ville.montreal.qc.ca/ocpm/pdf/41/12c.pdf> (date viewed: 18 January 2007), p. 9.

154. Dessau Inc., *Conduites d'égout du CN et phases flottantes d'hydrocarbures sur le site de l'Adacport* (CN sewer pipes and LNAPL hydrocarbons at the Adacport site; [hereinafter, "Dessau Report"]) (17 December 1990), pp. 10-11:

"2.2.2 Significant Observations

"In general, the gathering of information from former site users was rather arduous. In several cases, the officials in charge when the pipelines were installed no longer hold their positions, or there are no archives or documents about this work. We were unable to accurately reconstruct the events having affected the site since the pipelines were installed.

"The information obtained did, however, serve to establish the following facts:

– "the Adacport site, chosen for the technology center development project, was gradually built up since 1955 by a series of backfills (see Figure 1.2 of A.D.S. report, 1988). It will be recalled that encroachment on the banks of the St. Lawrence dates back to 1866;

– "according to the accounts of CN officials, wastewater was originally dumped directly [into] the river at the boundary of the CN property. From there, the [waste] water, [as it flowed toward the] river, followed natural hollows or ditches, which changed as the site itself was built up.

time, the shoreline advanced into the river because of infilling with garbage and soil from offsite, requiring installation of sewer pipes to channel effluent from the railyard to the river.[155] This effluent was known to cause long plumes of pollution on the St. Lawrence.[156]

For over a century, various activities took place on the land between the railyard and the river, adding pollutants to the diesel fuel now surfacing on the bank. For example, the landfilled area contains PCB-contaminated waste, given the absence of special rules for disposal of such waste before the 1970s. In addition, when part of this area was developed as a parking lot for Expo 67 and then, as a short-range landing strip (Adacport) in the 1970s, airplane and auto fueling equipment was located there.[157] In the 1990s, this area was developed into a high-technology park (Technoparc).

8.2 Division of Ownership of Technoparc Sector and its Relevance to Compliance Promotion Efforts

In Council Resolution No. 04-05 (French version), the Council instructed the Secretariat to gather information on the division of ownership of the Montreal Technoparc sector and its relevance to compliance promotion efforts. This information is presented below.

The spot where deleterious substances (visible to the naked eye) are leaching into water frequented by fish (on the bank of the river, where booms are located) is found on land that is not included in the land registry and to which no one claims ownership.[158] Upstream, a

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"It was apparently only in 1965 or 1966 that the two CN pipelines were installed. The pipelines are first mentioned in the plans prepared by the firm Lalonde, Valois, Lamarre, Valois et Associés for construction of the Bonaventure Expressway in 1965 (plan no. NHB-13371). On these plans, the two sewer pipelines... and the manholes are clearly indicated. They also show planned extensions from the terminal manholes running under the expressway to the river."

155. *Ibid*.

156. Guy Martin, pers. comm. (26 October 2006). Mr. Martin studied the plume during helicopter reconnaissance work while he was working for Environment Canada.

157. SNC-Lavalin, *2004 Annual Report*, online at <http://www.snclavalin.com/pdf/current/2004/rop_e.pdf> (date viewed: 25 April 2007), p. 17: "We completed cost estimates and plans to clean up Montreal's Technoparc site. **The project is complex because of the site's long and varied contamination history,** including a dump that operated between 1860 and 1966, and hydrocarbon contamination dating back to the late 1970s."

158. The Environment Canada investigator speculated that MDDEP is the owner (see Investigation Report, Appendix 9). See also: Québec Environmental Public Hearings Bureau (*Bureau des audiences publiques en environnement*–BAPE), *L'eau, ressource à protéger, à partager et à mettre en valeur* (Water: a resource to protect, share, and

small section of the bank belongs to the Ministry of Sustainable Development, Environment, and Parks of Québec (*Ministère du Développement durable, de l'Environnement et des Parcs du Québec*—MDDEP), while the rest of the bank up to the Champlain Bridge is also not included in the land registry. The management of the Bonaventure Expressway, running parallel to the bank, is the responsibility of JCCBI, a federal Crown corporation.[159] Montreal Technoparc (now Saint-Charles Industrial Park) is located on the other side of the expressway, bordered to the west by land belonging to JCCBI and the government of Quebec. North of Technoparc is the former CN railyard, while to the northwest, since 1987, VIA Rail Canada[160] has operated a 30-hectare (3.2 million sq. ft.) rail car maintenance center on land owned by CN (see Figure 3).[161]

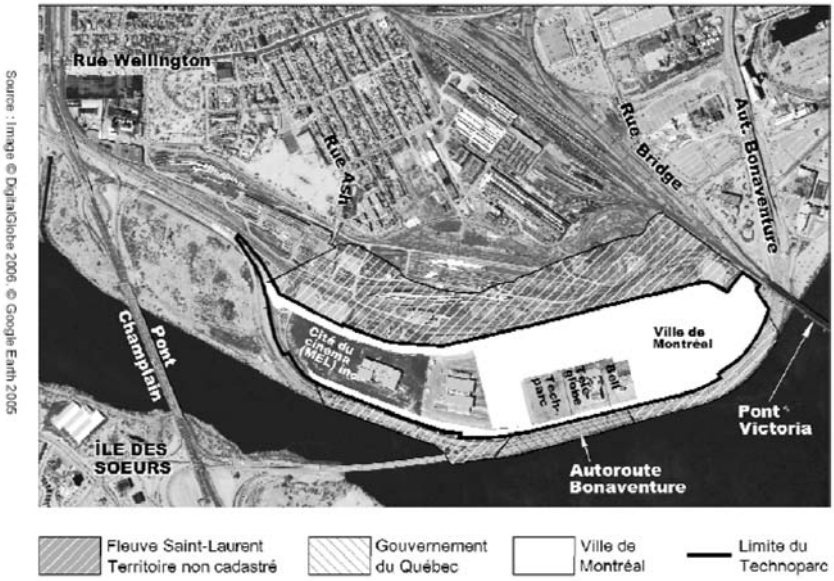
develop) (2000), c. 3, "Les besoins et les attentes des régions" (Regional needs and expectations), s. 3.6.1 "Le portrait régional" (The regional picture): "The Québec Ministry of the Environment asserts that the banks of the St. Lawrence along the Island of Montreal are the most highly disturbed of all such sites in Québec. It also mentions landfilling of nearly all the floodplains, all the original marshes, and notes numerous encroachments by parties who did not obtain authorizations or sign leases for these lands, which are owned by the Government of Québec. These encroachments are additional to some 1500 official leases signed by the Ministry, which would like to inventory these encroachments as part of the current overhaul of the land registry."

159. See online at <http://www.pjcci.ca/> (date viewed: 14 March 2007).

160. See online at <http://en.wikipedia.org/wiki/VIA_Rail> (date viewed: 7 March 2007).

161. See "VIA Rail Canada – The Montreal Maintenance Centre," online at <http://www.wcrr2006.org/PDF/wcrr-via_rail_e.pdf> (date viewed: 6 March 2007).

Figure 3 Current cadastral boundaries[162]



The 46-hectare (5.2 million sq. ft.) Technoparc site[163] was sold to the city of Montreal in 1989, by the federal government and the Province of Québec, with no agreement as to which of them was the real owner. According to the province, the site was still part of the riverbed, owned by the province and managed by MDDEP,[164] while according to the federal government, the site marked the western tip of the Port of Montreal (federal property).[165]

162. DDH Report; SNC-Lavalin Environment, March 2002: Appendix A, Figures A1-A16; Ministry of Natural Resources, Fauna, and Parks (2005), Cadastral maps 31H05-010-3837 and 31H05-010-3737.

163. Montreal Centre of Excellence in Brownfields Rehabilitation, "Précisions: le nom du site 'Technoparc' et le secteur régional à l'étude," (Clarification: name of 'Technoparc' site and regional sector under study), online at <http://www.cemrs.qc.ca/francais/bulletin/October/> (date viewed: 16 January 2007).

164. Québec, *Position du Québec/Propriétés dans le secteur du Technoparc de Montréal* (Québec's position: properties in the Montreal Technoparc sector), prepared by MDDEP (25 May 2005): "The backfilled portions of the river are within the purview of the Québec minister responsible for water resources. Various Québec legislative measures govern the sale by the minister of the backfilled portions of the beds of the government-owned bodies of water and watercourses."

165. See Appendix 8.

8.2.1 Canada-Montreal Sale

At the time of the Canada-Montreal sale in 1989, section 2, "Federal Land Management (FLM) Principle," of chapter 110,"Real Property — General," of the *Administrative Policy Manual* (December 1982) of the Treasury Board of Canada set out rules governing the management of federal property. The principle of federal real property management was as follows:

> Departments shall plan their acquisition, use and disposal of lands in a manner consistent with the principle that federal lands should be managed so as to combine the efficient provision of government services and the efficient use of federal real property with the achievement of wider social, economic and environmental objectives.
>
> Policies and administrative mechanisms have been established to put the principle into effect. They are identified in these chapters by the symbol FLM in the titles of the articles in which they appear.[166]

The Treasury Board Advisory Committee on Federal Land Management (TBAC/FLM), which included representatives of the Department of Environment, was at the disposal of the Treasury Board and the departments, offering them advice when they had questions regarding potential implications of a real estate transaction.[167]

Under this policy, development potential was included under the heading "Factors in Real Property Decision Making: "[*D*]*epartments should take advantage of new demands and opportunities to exploit the full development potential of federal real property.*"[168] Concerning surplus real property, the policy stipulates: "*departments should report real property surplus to departmental requirements to* [the Department of Public Works] *at the earliest opportunity.*"[169] Under "Wider Objectives," the policy provides as follows:

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166. Treasury Board of Canada, *Administrative Policy Manual*, c. 110, "Real Property – General," s. 2, "Federal Land Management (FLM) Principle," p. 5 (December 1982) (hereinafter, "chapter 110").
167. *Ibid*., p. 6. In 1997, the Pollution Prevention Bureau of Environment Canada's Quebec Region published, with the authorization of the Minister of the Environment, *Introductory Guide to Environmental Accounting – Environment and Decision-making: An Appropriate Accounting*, produced by the KPMG consulting group for the Order of Chartered Accountants of Québec (*Ordre des comptables agréés du Québec*) and Environment Canada (Montreal: Public Works and Government Services Canada, 1997).
168. Chapter 110, p. 13.
169. *Ibid*., p. 14.

Generally, these considerations reflect a large number of policies and programs of many departments of government. *Departments should consider the factors listed hereunder in their analyses of real property transactions. They should consult the department or provincial or municipal authority having responsibility and capability in the policy or program area concerned to obtain advice on current policy, plans and priorities.*

Social factors include:

- community life,
- social and cultural character and needs of the community,
- social development plans/programs of the municipality and province,
- heritage implications,
- archaeological values,
- harmony with municipal and provincial policies, plans and priorities,
- local acceptance or resistance,
- minority groups,
- native peoples,
- standard and availability of housing,
- recreation facilities, and
- traffic conditions.

Economic factors include:

- industrial and commercial character and needs of the community,
- economic development policies, plans and priorities of the municipality and province,
- implications for property values and development opportunities,
- employment benefits,
- improvements to services,
- influence on municipal tax structure,
- development of resources associated with the real property,
- agricultural productivity,
- quality and use of land,
- soil and hydrological characteristics,
- energy conservation.

Environmental factors include:

- quality of water,
- quality of air,

- noise,
- electronic emissions,
- drainage pattern,
- traffic conditions,
- hazardous material, including disposal,
- marshlands, beaches, forests, grasslands,
- waste disposal,
- building density,
- wildlife, fisheries, plant life,
- visual appeal,
- hazard lands,
- natural areas of national significance.[170]

In Appendix B, "Guidelines for Analysis," the policy provides:

> In analysis leading to real property decisions, the following considerations apply:
>
> [...]
>
> (f) *where wider social, economic or environmental factors are of major significance, departments should carry out complementary socio-economic impact analyses using social discount rates.* A real discount rate of 10 per cent should be used. For sensitivity analyses, 5 per cent and 15 per cent should be used. For further information refer to *Treasury Board, Benefit-Cost Analysis Guide, Ottawa: Minister of Supply and Services, 1978.* In many instances, socio-economic impact analyses will have already been carried out as part of the examination of a program of which the real property transaction is only a part.
>
> In presenting the results of analyses, factors involving a high degree of risk or uncertainty and estimates, weightings, assumptions and value judgments to which the results of analyses are sensitive should be highlighted. The rationale for the selection of discount rates should be provided.[171]

In the case of the site slated to house Montreal Technoparc, on 1 August 1989, the Montreal Port Corporation sold the federal property to the city of Montréal for one dollar. In return, the city undertook as follows:

170. *Ibid.*, pp. 14-15.
171. *Ibid.*, pp. 16-17.

> The city of Montréal accepts the property in its current state and expressly releases Her Majesty the Queen in right of Canada, her representatives and agents and, more particularly, the Montreal Port Corporation, its representatives and employees from all liability relating to the property and the condition of the soil and subsoil on the property and shall hold them harmless from any claims, demands, actions, proceedings, losses, fines, or expenses or any other damage resulting from title defects or arising from the condition of the soil or subsoil on the property.[172]

Thus, not only did the city waive all future claims against the federal government, but also, if the federal government became the respondent to a claim or counterclaim by the Government of Québec, CN, environmental groups, or anyone else because of contamination originating in Technoparc, the city of Montréal would be bound to hold it harmless. The Secretariat received no information concerning the application of the FLM principles in the context of this sale.

Over the years, the federal government fine-tuned the environmental aspects of its real property policy. In 1998, this policy provided as follows:

> Policy requirements
>
> [...]
>
> c) Before disposing of real property, departments must ascertain the environmental condition of the property. Departments must also determine whether or not remediation is necessary, in consultation with legal and environmental advisors.
>
> (i) In disposing of property that the department has decided needs remediation, it may be advantageous to have the party acquiring the property carry out the remediation. In this case, the department must take steps to require that the acquiring party, as part of the transaction, carry out the remediation within a reasonable length of time.[173]

172. Deed of sale between the Montreal Port Corporation and the city of Montréal (1 August 1989), Minute no. 6676 of notary Yvon Delorme, no. 4184333, Montreal Registration Division, p. 5.

173. Treasury Board of Canada Secretariat, *Treasury Board Real Property Environment Policy* (1 June 1998), online at <http://www.tbs-sct.gc.ca/pubs_pol/dcgpubs/RealProperty/dwnld/enp_e.rtf> (date viewed: 28 March 2007). On 1 November 2006, this policy was replaced by the *Directive on the Sale or Transfer of Surplus Real Property*, s. 6.9 of which stipulates: "When the real property is contaminated and the acquiring party is undertaking the required remediation, custodians shall take steps to ensure that it is carried out within a reasonable length of time."

8.2.2 Québec-Montreal Sale

Under the terms of the November 1988 order-in-council authorizing the sale of the Technoparc lands to the city of Montréal, the conditions attaching to the Québec-Montreal sale were to be as follows: the sale price would be $1 million, from which the city could withhold up to $300,000 to pay for an environmental site assessment.[174] In particular, the city undertook as follows:

> [...]
>
> 4. The city shall undertake to take measures in order that any subsequent use of this site, by the city or its successors, be carried on safely, considering the substances contained in the fill material, in accordance with Ministry of the Environment standards;
>
> 5. The city releases the Government of Québec and the Ministry of the Environment from all liability for the condition of the soil and subsoil on this site.
>
> [...][175]

However, in December 1988, the city contacted the Deputy Minister of the Environment of Québec, seeking assurances on various aspects of the transaction. The city asked the Ministry to compel CN and VIA Rail to take charge of managing any contamination found on their properties; not to require the city to treat the groundwater; and, concerning site remediation, to accept that only free-phase hydrocarbons would be removed from the site, allowing contaminated soils to remain in place. Finally, the city sought certain assurances relating to infrastructure and backfilling of the site.[176]

The Deputy Minister responded to this request in January 1989.[177] Concerning the CN and VIA Rail properties, the Deputy Minister noted:

> On this subject, the Ministry has approached VIA Rail and, in the weeks to come, plans to similarly approach Canadian National and request that

174. Government of Québec, *Décret concernant la vente et l'utilisation subséquente des terrains de l'ancien Adacport* (Order-in-council concerning the sale and subsequent use of the former Adacport lands), D. 1739-88, 23 November 1988, G.O.Q. 1998.II 5869.
175. *Ibid*.
176. Letter from the Secretary General, Ville de Montréal, to the Deputy Minister of the Environment of Québec (23 December 1988).
177. Letter from the Deputy Minister of the Environment of Québec to the Secretary General, Ville de Montréal (23 January 1989).

> these companies conduct thorough site assessments for their respective properties. In addition, the Ministry will ask for the necessary remediation measures. Moreover, it will be necessary to remove or block the sewer pipes coming from the CN property, making sure as well to block any potential source of contamination reaching the site by this pathway from upstream.[178]

Under the heading "Contamination of the river," the letter clarified:

> According to the information we have at this stage, concerning the contaminant load to the river, we see no need to adopt measures to recover and treat the groundwater. However, studies that will be carried out at a later date will allow for a better assessment of the contaminant load and a reassessment of the need for action regarding the groundwater.[179]

On 21 February 1989, the Deputy Minister of the Environment wrote to the city of Montréal again, in response to certain reservations expressed by the latter concerning the wording of the groundwater-related requirement.[180] Under the heading "Water Contamination," this letter clarified:

> According to the information we have at this stage, concerning the contaminant load to the river, we see no need to implement measures for containing and treating the groundwater.
>
> However, as recommended by ADS Consultants in the assessment carried out for the city of Montréal (chapter 6.2, recommendation 10), the latter will have to perform environmental monitoring of the part of the site bordering the river in order to reassess the need for action regarding the groundwater.
>
> The monitoring plan prepared by the city and approved by the Ministry of the Environment will basically consist of taking and analyzing groundwater samples. For the Ministry, the current location of groundwater monitoring wells may have to be adjusted as needed. Monitoring will continue during site development and will continue for several years if the data so require, so as to assess the effects of mitigation measures (removal or

178. *Ibid*.
179. *Ibid*.
180. Letter from the Deputy Minister of the Environment of Québec to the Secretary General, Ville de Montréal (21 February 1989).

> blocking of sewer pipes and recovery of LNAPLs) as well as possible mitigation measures on the CN and VIA Rail sites, upstream.
>
> Of course, no groundwater treatment will be required before completion of an assessment of the effects of mitigation measures on the site.
>
> [...]
>
> I also wish to inform you that the requirements stated in this letter and the letter of 23 January 1989 will not be modified or augmented by the Ministry of the Environment unless new facts (not identified in the site assessment) or new legislative or regulatory provisions force us to do so.[181]

The deed of sale is dated 1 August 1989.[182]

8.2.3 CN Site[183]

Redevelopment of old railyards, including management of environmental aspects,[184] is a facet of urban renewal in many cities across Canada and the United States.[185] There are companies that specialize in buying and redeveloping these properties,[186] as well as in insuring against associated environmental liability.[187] Prior to the privatization of CN in 1995, the federal government transferred certain "strategic" assets of this Crown corporation — including highly contaminated

181. *Ibid*.
182. Deed of sale between Her Majesty in Right of Québec and the city of Montréal (1 August 1989), minute no. 6675 of notary Yvon Delorme, no. 4184333, Montreal Registration Division.
183. See Figures 2, 5, 6, 7 and 8.
184. Daniel Machalaba, "Local Ties: Decades of Mishandling Hazardous Cargo Leaves Railroads a Toxic Legacy – Areas Near railyards Face Possible Health Problems," *Wall Street Journal*, 3 February 1999.
185. See, for example, SRA International, Inc., *Successful Rail Property Cleanup and Redevelopment – Lessons Learned and Guidance to Get Your Railfields Projects on Track* (prepared for U.S. Environmental Protection Agency, Office of Solid Waste and Emergency Response/Office of Brownfields Cleanup and Redevelopment) (EPA-560-F-05-231, August 2005).
186. See, for example, Cherokee Canada Inc., online at <www.cherokeecanada.com> (date viewed: 26 February 2007).
187. See, for example, AIG Environmental, "Railroads and Railyards," online at <http://www.aigenvironmental.com/environmental/public/envindustries/0,1340,63-11-335,00.html> (date viewed: 26 February 2007).

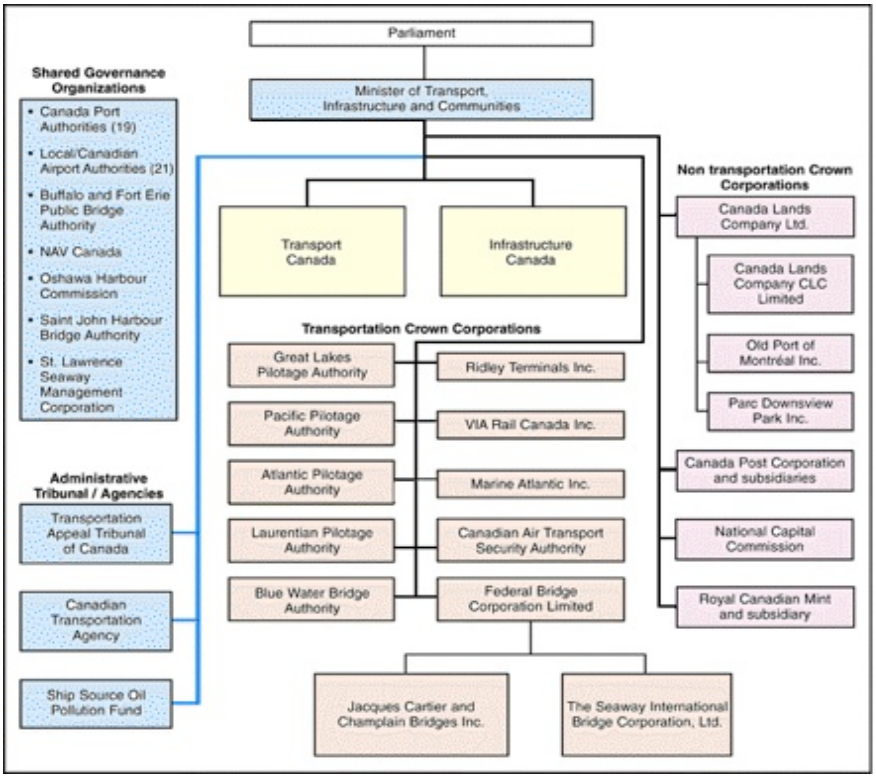
properties such as the City of Moncton's railyard[188] — to another federal Crown corporation, Canada Lands Company, whose mandate is to find new uses for such sites while generating a profit for the federal government (see Figure 4).[189] The Pointe-Saint-Charles railyard was not among the properties so transferred.[190]

188. See online at <http://www.clc.ca/en/pr/factsheets/MonctonProperties.pdf> (date viewed: 26 August 2007).

189. See *CN Commercialization Act*, S.C. 1995, c. 24 (Bill C-89), "Preliminary Transactions," s. 6: "The Minister may, at any time while CN is a Crown corporation within the meaning of section 83 of the *Financial Administration Act*, direct CN to transfer, on such terms and conditions, including consideration, if any, as the Minister considers appropriate, such property, including leases, rights, interests and benefits, of CN as the Minister considers appropriate to the Minister or to any other Minister or Crown corporation designated by the Governor in Council, and CN shall forthwith comply with the direction." See also National Roundtable on the Environment and the Economy, *supra* note 188, and Environment Canada, *Progress on the Program for Destruction of Federal Polychlorinated Biphenyls (PCBs)*, c. 5: "Some federal institutions decided not to wait for the national PCB disposal contract to be in place, and advised PWGSC that they would, for financial or technical reasons, contract separately for the disposal of their wastes. For example, Canada Lands Company Limited, which in 1995 had assumed responsibility for the disposal of approximately 2,600 tonnes of PCB-contaminated soil from the clean-up of a former Canadian National Railway property at Kempt Road in Halifax, Nova Scotia, contracted directly with Cintec Environnement Inc., a Quebec company, to treat the soil in Quebec to remove the PCBs. This soil was heavily contaminated with lead and other metals and, therefore, not suitable for incineration. About 2 tonnes of residual PCBs removed from the soil were sent to Alberta for disposal. The cost of treating that soil and disposing of the PCB waste was approximately $1.9 million"; online at Environment Canada < http://www.ec.gc.ca/wmd-dgd/default.asp?lang=En&n=FF70CABE-1> (last modified: 15 November 2006).

190. Telephone conversation with the Vice-President, Strategic Acquisitions, Public and Governmental Affairs, Canada Lands Company (5 October 2006).

Figure 4 Transport, Infrastructure and Communities portfolio[191]



191. Transport Canada, *2006-2007 Estimates – Report on Plans and Priorities*, s. 1.3. See also Old Port of Montreal Corporation Inc. (Canada Lands Company Limited), *Population Affiliation Report*: "P.C. decision 2003-2093 designates the Minister of the Environment as the appropriate Minister with respect to the Canada Lands Company Limited for the purpose of the FAA, effective December 12, 2003," online at <http://www.psagency-agencefp.gc.ca/pas-srp/remarks-observations_e.asp?id=34215> (date viewed: 9 July 2007); Order Designating the Minister of State (Infrastructure and Communities) as Appropriate Minister for the Canada Lands Company Limited for Purposes of the Act, P.C. 2004–872, 20 July 2004: "Her Excellency the Governor General in Council, on the recommendation of the Prime Minister, pursuant to paragraph (d) of the definition 'appropriate Minister' in section 2 of the *Financial Administration Act*, and pursuant to subparagraph (a)(ii) of the definition 'appropriate Minister' in section 83(1) of that Act, hereby (a) revokes Order in Council P.C. 2003-2093 of December 12, 2003 (SI/2003–235), and (b) designates the Minister of State to be styled Minister of State (Infrastructure and Communities), a member of the Queen's Privy Council for Canada, as the appropriate Minister for the Canada Lands Company Limited for the purposes of the *Financial Administration Act*, effective July 20, 2004." *Financial Administration Act*, Registration TR/2004-105.

On 6 September 2006, the CEC Secretariat sent Canada the following question (Appendix 5):

> Based on information obtained by the Secretariat, it appears that some of the contamination found at the Montreal Technoparc comes from adjacent lands, in particular, those lands hydraulically upstream from the Technoparc used by the CN (*Canadian National Railway Company*) for railway operations for many years. The Secretariat would like to know whether the federal government or a crown corporation has any obligation, either under a contract or in some other way, concerning the contamination on the sites in question that is flowing into the groundwater at the Technoparc and eventually reaching the St. Lawrence River. If so, we request that you provide details of the origins, nature and extent of this obligation, and that you provide us with a copy of any related documentation. This will help us create a complete picture of the federal government's situation vis-à-vis section 36(3) of the *Fisheries Act* with respect to deposits coming from the Montreal Technoparc.

On 1 November 2006, Canada sent the Secretariat the following response:

> The properties occupying the former riverbed that form part of the Technoparc sector are indicated in the cadastral maps submitted to the CEC. Concerning the question of establishing any obligation of the federal government or a federal Crown corporation with respect to the groundwater contamination, the sought after response falls into the category of legal opinion. Legal opinions obtained by the Government of Canada are protected by lawyer-client privilege and cannot be disclosed.[192]

Prior to its privatization, CN incorporated a wholly owned subsidiary, AMF Technotransport, Inc., and transferred to it the business of the Pointe-Saint-Charles shops.[193] In 1995, the business was again transferred, this time by CN and GEC Alsthom Canada, to AMF Technotransport Management, Inc., with an option for Alsthom to purchase the

192. Appendix 5.

193. See Greg Gormick, "A Rebuilder Reaches Out – Atelier Montreal Facility" (*Railway Age*, January 1993), online at <http://www.findarticles.com/p/articles/mi_m1215/is_n1_v194/ai_13336125> (date viewed: 6 March 2007). See also "CN's New Subsidiary: AMF Technotransport – Canadian National Incorporates Subsidiary" (*Railway Age*, October 1993), online at <http://www.findarticles.com/p/articles/mi_m1215/is_n10_v194/ai_14560775> (date viewed: 6 March 2007).

business within three years.[194] Subsequently, Alsthom, under its new name Alstom, leased the Pointe-Saint-Charles shops from CN until 2004 (see Figure 5).[195]

194. See "GEC Alsthom Canada – Creates AMF Technotransport Management Inc. with Canadian National" (*Railway Age*, September 1995), online at <http://www.findarticles.com/p/articles/mi_m1215/is_n9_v196/ai_17400885> (date viewed: 6 March 2007).

195. See "Alstom Canada is Looking at Moving to Smaller Quarters" (*Train Scan – Canadian Railway News*, August 2003), online at <http://www.trainscan.com/news/scan/s0308/index.html> (date viewed: 6 March 2007); see also Don Strack, "Locomotive Dealers and Scrappers – Companies Known to Be in the Locomotive Building, Rebuilding, Resale, and Scrapping Business":
"Atelier Montréal Facility (AMF), Montréal (Québec)
"AMF Transport
"GEC Alsthom
"Alstom
"Located in the former Canadian National Pointe St. Charles shops in Montreal. The shops were spun off as a separate corporate venture by May 1992, but still a division of CN. On September 1, 1993, the shop was changed from being a division of CN Railway, to being a subsidiary of the CN parent corporation. The name then became Atelier Montreal Facility Techno Transport, simplified to AMF Transport... During late 1996, CN sold the AMF buildings, but not the land, to GEC Alsthom Canada. GEC Alsthom Canada is a Canadian subsidiary of GEC Alsthom of Amsterdam, which itself is a joint venture between General Electric Company (GEC) of Great Britain and Alsthom of France. GEC is successor to English Electric, and is not related to General Electric of the U.S.
"GEC Alsthom changed its name to Alstom in 1998, upon being reorganized as a publicly traded company. Alstom also operates separate companies in China and Germany.
"Reporting marks are GCFX, which is registered to Alstom Canada, Inc., Transport.
"Alstom purchased the Hornell, N.Y., facility from MK Rail in 1997, upon that company's shutdown. Since then, at this location, Alstom has painted and finished at least 185 EMD locomotives built for EMD under contract by SuperSteel Schenectady (SSSI).
"The facility closed in 2004, and the remaining former SP SD45s and SD40T-2s were being scrapped or sold. *(from Greg McDonnell, July 3, 2004).*"
"Former SP's 7343 & 7353 were resold by the scrapper to NRE, as was, apparently, former SP 7368. During late June 2004, a source noted that all the rails in and out of the facility had been cut from the outside world; and that PNC 3064 was apparently the last remaining loco, in an obvious state of being cut up. *(from Bruce Mercer, July 3, 2004)*"; online at <http://utahrails.net/loconotes/dealers.php> (last modified: 10 December 2006).

Figure 5 Aerial view (towards Technoparc and St. Lawrence River) of former CN shops in Pointe-Saint-Charles[196]

In 2005, CN sold a large part of the railyard to Montréal real estate developers, including the former president of Alstom Canada inc., for one dollar.[197] The buyers planned to develop the site for mixed commercial/residential use, subject to reaching agreement with MDDEP on required site remediation work.[198] In April 2006, Société du Havre de Montréal published a comprehensive report on the status and future

196. Société du Havre de Montréal, *The Montreal Harbourfront: Final Report and Recommendations* (April 2006), p. 34, online at <http://www.havremontreal.qc.ca/en/publications/havre_rapport_final.htm> (date viewed: 3 May 2007).
197. Mary Lamey, "Developers Buy Portion of Alstom Train Yards for $1," *The Gazette*, 25 October 2005.
198. Jan Ravensbergen, "Will Wal-Mart Move In?," *The Gazette*, 15 April 2006.

of the Montreal Harbourfront.[199] The report includes the following passage:

> **Former CN Shops in Point St. Charles**
>
> The abandonment of Loto-Québec's entertainment complex project, along with the project for a world scale trade fair centre, on the site of the former CN shops in Point St. Charles, creates a difficult challenge, to say the least, in regard to the development of this huge property located in the heart of Point St. Charles.
>
> **The SHM recommends:**
>
> That the city of Montréal resume, without delay, its discussions with the designated purchaser, or with CN who is still the owner of this property, to ensure its development, respecting the rich industrial heritage of the site while giving due consideration to the need to decontaminate the soil.[200]

8.3 Characteristics and Fate of Contamination in Montreal Technoparc Sector

In Council Resolution 04-05 (Appendix 1), the Council instructed the Secretariat to prepare a factual record on the subject, *inter alia,* of the characteristics and fate of contamination in the Montreal Technoparc sector. In its investigation report, Environment Canada states that in order to be able to lay criminal charges under section 36(3) of the *Fisheries Act*, one must be able to establish the source and pathway of a substance before it enters water frequented by fish.[201] According to Environment Canada, this cannot be proved beyond a reasonable doubt in the case at hand.[202]

This section of the factual record contains information obtained by the Secretariat concerning the characteristics and fate of contamination in the Technoparc sector, including the sources and pathways of substances before they enter the river. Since according to the Compliance and Enforcement Policy, persons responsible for enforcing section 36(3) of the *Fisheries Act* must consider the degree of harm to fish and fish habitat when deciding what action to take in an instance of noncompliance, this section of the factual record also contains information concerning

199. *Ibid*.
200. *Ibid*.
201. See Investigation Report, Appendix 9.
202. *Ibid*.

measures taken by Environment Canada to prioritize its actions based on the degree of harm caused to the environment by the contaminants present in the Technoparc sector.

8.3.1 Contaminant Sources and Pathways

In the submission, the Submitters single out PAHs and PCBs among the substances that they detected in samples taken along the river. The deposit of these substances into water frequented by fish is prohibited under section 36(3) of the *Fisheries Act* because they are deleterious to fish (see above, s. 6.2.2). On 28 November 2006, the Secretariat requested a clarification from Canada for, to which Canada replied on 8 January 2007:

> Secretariat request:
>
> > The Investigation Report (22 April 2003) concludes:
> >
> > "The investigation is not able, because of its technical and scientific complexity, to demonstrate and collect the evidence necessary to allowing for the identification of the *source* of a specific deleterious substance and the *path* it has taken to discharge into the river, while at the same time eliminating *all other possible sources* of contamination, and to connect this trajectory only to the lots that make up the Technoparc.'
> >
> > The relevance of these elements, in the context of an investigation under section 36(3) of the *Fisheries Act*, is not apparent. Please explain the relevance of identifying the "source" and the "path" of a substance in proving an offence under section 36(3) of the *Fisheries Act*."
>
> Canada's response:
>
> > During an investigation related to a violation of section 36(3) of the Fisheries Act, the investigator must collect evidence for each element of the offense. In a prosecution, the Crown must then prove each of these elements beyond a reasonable doubt. Among them are the identity of the person who causes or allows the deposit, along with the location where the deposit occurs and the ability of the deleterious substance to reach water frequented by fish. For these reasons, this information is relevant to the file.

This subsection presents information gathered by the Secretariat concerning sources and pathways of PAHs and PCBs in the Technoparc sector. This information is relevant in considering whether Canada is

failing to effectively enforce s. 36(3) of the *Fisheries Act* in connection with deposits of deleterious substances in the Montreal Technoparc sector.

8.3.1.1 LNAPLs

It has been known to Environment Canada since the 1980s, if not earlier, that the sector's subsoil contains floating phase / free-phase (LNAPL) contaminants,[203] such as oils and lubricants, which do not dissolve in groundwater but float on its surface, contaminating it.[204] Since groundwater generally migrates downward, Environment Canada knew that this oily "product" — containing PCBs and PAHs[205] —

203. See Canadian Environmental Assessment Agency, Canadian Environmental Assessment Registry, Notice of Commencement of an Environmental Assessment, 5 Wing Goose Bay Remediation Project: "Prior to remediation of soil and groundwater, it is imperative that the presence of free-product [LNAPLs] be addressed. Free-product cannot be biologically degraded as it is toxic to most naturally occurring petroleum degrading bacteria, and any chemical treatment would result in increased mobility of contaminants (e.g., increase in solubility potential of hydrocarbons) and significantly increased contamination of soil and groundwater. Free-product must be recovered by passive or active means using a combination of engineered equipment and/or gravity driven directional flow. After free product removal is complete, additional remediation will be required to manage residual contamination of soil, sediment, groundwater, and/or surface water, depending on the specific site characteristics"; online at <http://www.ceaa-acee.gc.ca/050/Viewer_e.cfm?CEAR_ID=26393&ForceNOC=Y> (date viewed: 24 April 2007).

204. Foratek prepared a report for Environment Canada in 1984 that concluded, on the subject of the site's hydrogeology (p. 86): "The overall flow is observed to be eastward in the direction of the St. Lawrence River." Concerning water quality, it concluded (p. 91): "A summary of the physicochemical analysis results for water samples taken at piezometers 1 and 2 is presented on the following page (see Table 5) [not reproduced herein]. They confirm the presence of leachates (high conductivity, large quantities of dissolved matter, high hardness, etc.). This water was also observed to be contaminated by oils and other byproducts or related products. No analysis of these heavy hydrocarbons was undertaken. This contamination may derive from earlier waste and liquid disposal operations or from infiltration of these products through drainage pipes that come from the CN railyard and cross the site." Foratek International Inc., *Étude des sites de disposition de déchets solides sur les terres fédérales au Québec* (Study of solid waste disposal sites on federal land in Québec), Final report – Phase II, submitted to Environment Canada, Québec Region, Report no. 611, Project no. FFG 83027, March 1984, s. 7.0, "Adacport" [hereinafter, "Foratek Report"].

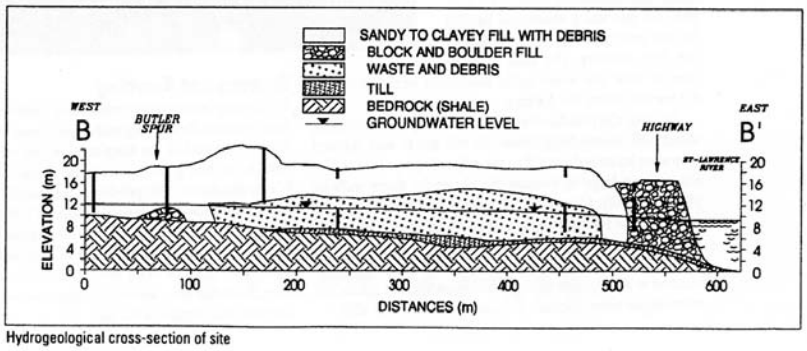
205. See, for example, *Kilder til jordforurening med tjære, herunder benzo(a)pyren i Danmark*, "Summary and conclusions": "The objective of the report is to identify and assess possible sources of PAH in soils. PAH profiles for different sources are identified and profiles in soils differentiated with respect to source as well as to temporal changes are evaluated. Furthermore, the report considers the possibility of transformations that might produce PAH and identifies other possible indicators for soils

would probably, sooner or later, move downhill and enter the river (see Figure 6).[206]

contaminated with PAH"; online at <http://www2.mst.dk/common/Udgivramme/Frame.asp?pg=http://www2.mst.dk/udgiv/publikationer/2002/87-7972-303-9/html/samfat_eng.htm> (date viewed: 24 April 2007).

206. Foratek Report, s. 7.0, "Adacport." See also ADS Associés Ltée, *Caractérisation du site et des environs de l'Adacport* (Site characterization, vicinity of Adacport), n/d 36-136, v/d 88F33A, submitted to Ville de Montréal/Public Works Department (November 1988), Part 6, "Conclusions and Recommendations," pp. 6-1–6-3: "3 – The waste unit exhibits concentrations exceeding MENVIQ (MDDEP) criterion "C" (criteria indicating contamination for an industrial use of the site) for several heavy metals, sulfur, and oils and lubricants and, sporadically, for phenols and PAH. The fill in the central and eastern portions (near Adacport and the Victoria Bridge) is generally clean except for the sulfur parameter and, at four (4) of sixteen (16) points sampled, heavy metals slightly in excess of criterion "C". Certain sources of contamination that are either external or not associated with a landfill site are suspected: slag, with which heavy metals are often associated; probable leaks in storm sewers coming from the CN railyard; notable presence of oils and lubricants as one approaches the CN property. 4 – Groundwater contamination is considerable throughout the site and largely inorganic (Pb) and organic (nitrogen, phenols, mineral oils and lubricants, PAH, and PCB). PCB contamination was observed only at sampling point FP-17. LNAPLs were also found at FP-17 as well as at FP-26. Lead was found in concentrations in excess of criterion "C" in 20 of the 30 samples [...] 6 – The water table is located at depths of 4.1-10.6 meters in the waste unit and the general direction of flow is toward the river, again suggesting upstream sources of contamination. The flow gradient of the upper water table is generally on the order of 2%. The hydraulic conductivity ranges from 10^{-2} to 10^{-4} cm/s in the waste unit; it is 10^{-3} to 10^{-6} cm/s in the less permeable rock. Estimated flow rates for the waste unit are on the order of 20 meters/year, so that the water recharging the groundwater from the northern boundary of the site will take an average of 7-8 years to traverse the site. Preferential pathways for contaminants are suspected along the storm sewers coming from the CN property. The overall groundwater flow volume for the site is on the order of 3,000 m^3/day. The deposits into the river could potentially be high in lead (120 kg/year), Cl^- (110,000 kg/year), TOC (24,000 kg/year), and oils and lubricants (900 kg/year). 7 – When these loads are compared to other point sources of effluents (St-Pierre sewer main and values for a typical petrochemical facility), lead and, to a lesser extent, phenols, exhibit relatively high loads to the river. For all the other parameters for which comparative data is available, discharge from the site is relatively low. It should be noted, however, that groundwater migration models for the site indicate point sources of contaminants (sewer on the site). Furthermore, concentrations of parameters measured in the river adjacent to the site tend to confirm greater impact from the St-Pierre sewer main than from the site itself. Only benzene concentrations could be clearly attributed to the Adacport site. In that case, a sewer outlet from the CN site is probably the source."

Figure 6 Cross-section of site between CN's Butler Spur and St. Lawrence River[207]



Hydrogeological cross-section of site

In 1990, in preparation for the development of a high-technology park on the site of the former landfill, the city of Montréal retained the services of the engineering firm Dessau Inc. to assess the condition and extent of LNAPLs in the area, study soil and water contamination around the CN's sewer pipes (see above, s. 8.1; see also Figures 7 and 8), and identify the most appropriate remediation methods.[208] Dessau Inc. reached the following conclusion:

> The environmental analysis of the CN sewer pipes and LNAPL problem in the subsoil of the Adacport has allowed for the extent of the contamination to be quantified, for its nature to be determined, for environmental impacts and risks to be identified and assessed, and for necessary and sufficient remediation measures to be developed.[209]

Dessau Inc. arrived at the following conclusions regarding the amount, nature and trajectory of the LNAPLs, and how they would be affected by compaction and infrastructure installation work necessary to develop a high-technology park:

> 4. The two LNAPL plumes are found at a depth of about 8 meters below the surface of the ground. Zone FP-17 is circular and its radius is about

207. "Recovering the diesel oil that contaminates a CN rail site in Montreal has yielded 600,000 litres for re-use so far"; "Bioslurping at CN," *Canadian Consulting Engineer*, June/July 2000, p. 35 (hereinafter, "*Bioslurping at CN*").
208. Dessau Report, *supra* note 154, cover page, letter from Executive Vice-President of Dessau Inc. to Montreal Initiative and Economic Development Commission (*Commission d'initiative et de développement économiques de Montréal*–CIDEM) (17 December 1990).
209. *Ibid.*, p. 114.

12 meters. The thickness of the oil is less than 2 cm and the volume may be estimated at about 1,600 liters. This oil was probably stored in a tank and buried during the final backfilling of the Adacport site. The PCB concentration of the oil does not exceed the standard of 50 ppm, so it could be disposed of offsite. Zone FP-26 is ellipsoid with axes of 100 m and 30 m. The thickness of the oil is less than 10 cm with an average of about 5 cm. The volume is estimated at about 11,300 liters. The PCB concentration of this oil exceeds the standard of 50 ppm, so it cannot be disposed of due to the current moratorium; if removed from the ground, it would have to be stored for an indefinite period.

5. Given that the layer of oil is relatively thin, that much time has gone by, and that there are no other sources of oil, the likelihood of LNAPL migration toward the river is very low. Despite the hydraulic gradient, it is more likely that the movement of the oil has been halted, for all practical purposes, by the water present in the capillary fringe.

   In our opinion, the LNAPLs are in a state of equilibrium in which they will break down on site. The breakdown will be slowed by the presence of high concentrations of toxic substances. The substances produced by this breakdown will be additional to those associated with the domestic and industrial waste.

   Consequently, under current conditions, the environmental impacts and risks associated with the LNAPL plumes are infinitesimal compared with those associated with the former landfill site that is now Adacport.

6. Dynamic compaction of the site will have the effect of raising the level of the oil and water within the capillary fringes and pushing them towards the periphery. Subsequently, the oil and water will stabilize with respect to the new porosity of the capillary fringe. The overall effect of compaction will therefore be to slightly extend the oil at the periphery of the plume while facilitating its absorption by the unsaturated soils. Eventually, a new equilibrium will be reached in which the oil plume will be even thinner, further reducing the likelihood of migration. Consequently, the dynamic compaction work will not disturb the LNAPLs in any major way and will have no significant impact.[210]

In 1997, CN stated:

It is not possible to determine the percentage of hydrocarbons that may have migrated from the Butler Spur towards Technoparc. A detailed historical review of the use and evolution of the Technoparc site as well as a

210. *Ibid.*, pp. 115-16.

supplementary assessment of this site and a more detailed piezometry will first be necessary. It appears that sources of hydrocarbons were present on the Technoparc site. Aerial photos dating from 1963 (Golder, July 1996) show the presence of large ponds at several points on the Technoparc site.[211]

In 1998, the city of Montréal responded:

One cannot minimize the quantity of hydrocarbons that migrated from the Butler Spur towards Technoparc based on the presence of ponds detected on aerial photos of the former landfill taken in 1963, differences in the viscosity and PCB concentration of the hydrocarbons, or the water level measured at well 91F81-3 to the north of Bell Mobility. On these points, allow us to comment and put forward several other considerations pointing, on the contrary, to a considerable leakage of hydrocarbons from your property.

[...]

One cannot use these arguments to claim that there were no other sources of hydrocarbons on the Technoparc side, but it appears more than likely that a portion of the free-phase hydrocarbons found underneath Technoparc comes from your site, especially since they are located directly downstream from the Butler Spur LNAPL plumes, in the direction of groundwater flow. In light of this information, it is disappointing, to say the least, to learn of your intention to withdraw CN from participating in any additional assessment and containment work for hydrocarbons leaking towards the river.[212]

211. Letter from Assistant Vice President, Environment, CN, to Ville de Montréal, Economic Development Department, Re: Deposit of hydrocarbons into the St. Lawrence River at Pointe St-Charles. Corrective measures – Phase 1 B. Resolution No. CE9602124 (30 September 1997). See also: Memo from Commissioner, Economic Development Department, Ville de Montréal, to Assistant Director, Economic Development Department, Ville de Montréal, Re: AMF characterization study – Comments and principal conclusions (28 October 1992): "The study plan consisted of a preliminary characterization of soil and groundwater quality adjacent to the Butler Spur situated on the eastern boundary of the CN property [...] The ultimate purpose of this study was to determine all possible pathways by which the contamination could exit the boundaries of the CN property," p. i; "Measures should be taken to curtail the progress of the pure phase from the Butler Spur to the St. Lawrence River," pp. v and vi.

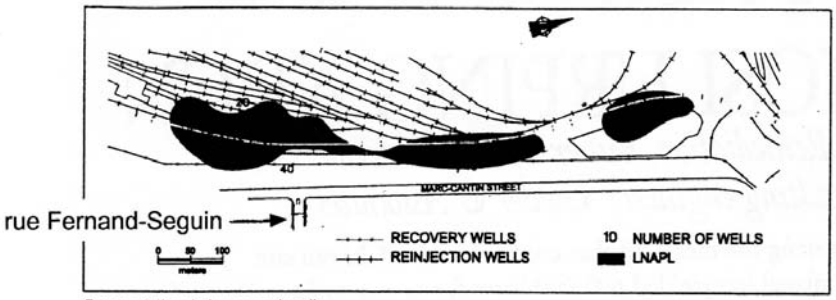
212. Letter from Senior Commissioner, Economic Development Department, Ville de Montréal, to Assistant Vice President, Environment, CN, Re: Authorization to install six observation wells along the Butler Spur, on the Technoparc site, and comments on your letter of 30 September 1997 (27 February 1998).

An article published in *Canadian Consulting Engineer* in June 2000 contains the following passages:

> Diesel must have been seeping into the ground at a Canadian National Railways site in downtown Montreal at an astonishing rate. So far, clean-up operations on the Butler Spur along the St. Lawrence River have yielded almost 600,000 litres of the black stuff. Helene Richer, ing. of Golder Associates, consulting engineer on the project, laughs ruefully about the fact that they are still sucking up the oil plume: "We thought we would be finished by now," she says, "but there is still no end in sight."
>
> The railyard was used for repairing and refuelling diesel trains for almost 30 years between the 1950s and 1980s. During that time a broken fuel pipeline was pouring diesel into the water table below. To complicate matters, the site was a municipal landfill for 100 years starting in the middle of the 19th century. The soils are permeable and the water table fluctuates between 7 and 8.5 metres below the surface.
>
> By 1991, CN had discovered three diesel plumes totalling about 780 metres long below the rail track, and realized they were leaking downhill to the edge of the property. The site was too large to contain the plume by slurry walls or piles physically. Conventional "pump and treat" methods were also not too promising as they would have involved removing immense amounts of water.
>
> CN and Golder decided to use "Bioslurping." The method is also known by the more scientific but much less picturesque term, Vacuum Enhanced Recovery, or VER.[213]

213. *Bioslurping at CN*, *supra* note 207, p. 34. In 1990, Québec adopted the *Regulation respecting petroleum products*, R.Q., c. U-1.1, r.1, pursuant to the *Act respecting the use of petroleum products*, R.S.Q., c. U-1.1 (now the *Act respecting petroleum products and equipment*, R.S.Q., c. P-29.1). MDDEP explains as follows: "In 1990, the Government of Québec adopted the *Regulation respecting petroleum products*, which is enforced by the Ministry of Natural Resources. This regulation provides, *inter alia*, for verification and replacement by all operators and users, over a ten-year period (1991-2001), of all unprotected underground steel tanks more than 15 years old containing fuels and lubricants, as well as all tanks with a capacity greater than 4,000 liters containing fuel oil. This regulation further stipulates that materials contaminated by leaks from these tanks must be characterized and decontaminated. Finally, it provides that all owners of underground or aboveground tanks who cease to use these tanks for more than two years or dismantle them must characterize the land and decontaminate it if necessary"; online at "Politique de protection des sols et de réhabilitation des terrains contaminés" (Soil protection and contaminated site remediation policy) <http://www.mddep.gouv.qc.ca/sol/terrains/politique/remplacement.htm> (date viewed: 11 April 2007). In 1997, the federal government adopted the *Registration of Storage Tank Systems for Petroleum Products and Allied Petroleum Products*

Figure 7 Extent of diesel plumes and locations of wells on CN property along Butler Spur (2000)[214]



Extent of diesel plumes and wells

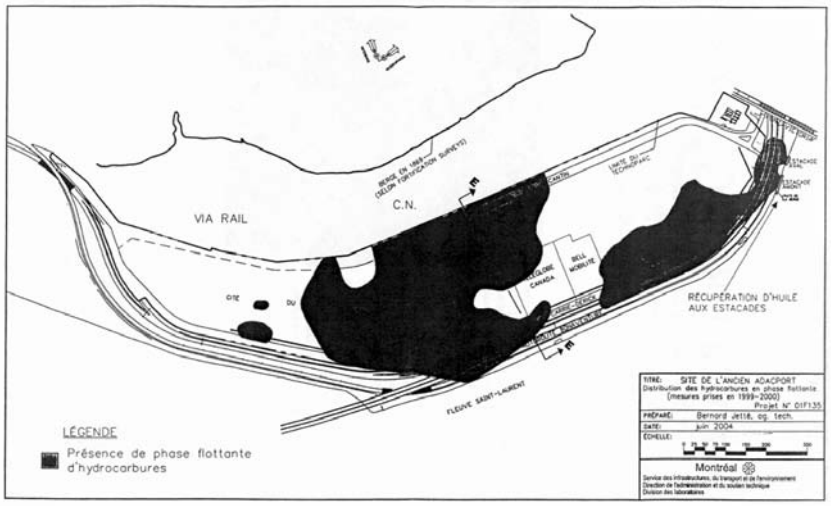
It is currently estimated that "the central portion of Technoparc contains 4-8 million liters of petroleum hydrocarbons containing 1-2 tons of PCBs."[215] For comparison purposes, the volume of an Olympic-size swimming pool (50 m long and 2 m deep) is about 2.5 million liters.

on Fe*deral Lands and Aboriginal Lands Regulations*, SOR/97-10, pursuant to the *Canadian Environmental Protection Act*, R.S.C. 1985, c. 16 (4th suppl.). Under the *Canadian Environmental Protection Act* (s. 207(1)), this regulation applies to Crown corporations as defined in section 83(1) of the *Financial Administration Act* (R.S.C. 1985, c. F-11): "'Crown corporation' means a parent Crown corporation or a wholly-owned subsidiary. "'Parent Crown corporation' means a corporation that is wholly owned directly by the Crown, but does not include a departmental corporation."

214. *Bioslurping at CN*, *supra* note 207, p. 35.

215. Montreal Centre of Excellence in Brownfields Rehabilitation, "Encadrement et assistance technique dans le choix des technologies pour le traitement des eaux souterraines du Technoparc de Montréal" (Supervision and technical assistance in the choice of technologies for groundwater treatment at Montreal Technoparc), offer of services submitted to Economic Development Canada (Montreal, September 2005), p. 2.

Figure 8 Distribution of LNAPLs on the Technoparc site (1999-2000)[216]



As implied by CN, above, it is likely that during the period when the marsh was being used as a garbage dump, liquid wastes were dumped there.[217] However, several people interviewed by the Secretariat mentioned that it would have been unlikely for the city or independent contractors to send large quantities of oil to the Pointe-Saint-Charles landfill for disposal because in those days, used oil was reused for other purposes or sold.[218] According to Environment Canada, diesel fuel is recognized as being a substance that is deleterious to fish.[219]

In the case of Technoparc, the oil that is surfacing on the shoreline is contaminated with PCBs. According to Environment Canada:

216. Ville de Montréal, "LNAPL and groundwater containment and recovery project for former Adacport – Meeting of Thursday, 26 August 2004, 1:30 p.m. – List of documents given to participants by Ville de Montréal – 2) Distribution of LNAPLs (measures taken in 1999-2000)" (Laboratories Division, June 2004).
217. Dessau Report, *supra* note 154.
218. Meeting with Ville de Montréal employees (14 March 2006). Telephone conversation with Harold Kenny, former employee of CN's eastern Canada real estate division (February 2007).
219. Cuillerier, "Enforcement of Canadian Laws," *supra* note 136.

> [...] the substance, polychlorinated biphenyls, meets all the criteria for management under Track 1 of the Toxic Substances Management Policy and it should be virtually eliminated from the environment.[220]

The Secretariat tried to obtain information on sources of PCBs in the sector. It obtained the following report, prepared by a former Duty Officer in the Emergencies Section and later Head of the Inspections and Investigations Division of Environment Canada's regional office in Montreal (now retired), in consultation with his father, a former CN employee (also retired), who worked for CN for 32 years, of which he spent 25 working at the different shops and in the railyard in Pointe-Saint-Charles. This report should not be considered proof of any offence or any failure to enforce a law. It is a historical contextualization prepared for information purposes by a respected former head of Environment Canada's law enforcement program (see Guy Martin's *résumé*, Appendix 11), based on his own and his father's first-hand knowledge of activities in the Technoparc sector during several decades.

Analysis of the use of PCB-containing products at CN's Pointe-Saint-Charles railyard, and potential contamination of yard and Technoparc

(20 February 2007)[221]

1.0 Brief comparative analysis of operational activities at CN's Pointe-Saint-Charles railyard, Montreal, Québec, with those of the Paoli Railyard, Paoli, Pennsylvania, United States, and PCB contamination at the latter covered by consent decree # 99-1479 of the United States Court of Appeals for the Third Circuit, 26 December 2000

You have found information concerning a PCB-contaminated railyard and you have asked me to comment on this information in light of the activities carried out at the CN railyard in Pointe-Saint-Charles. Comparison of the two yards points up significant differences, although the rail transportation-related activities and operations that were carried on there may be considered similar, even if different in magnitude.

220. See Environment Canada, "Toxic Substances Management Policy – Synopsis," online at <http://www.ec.gc.ca/wmd-dgd/default.asp?lang=En&n=97B21DD4-1&offset=1&toc=show> (date viewed: 20 April 2007).

221. Guy Martin, "Analyse," *supra* note 156. [n.b. Indented footnotes are from Mr. Martin's text.]

1.1 Area and type of operation

1.1.1 Paoli, Pennsylvania Yard

The document referred to above (hereafter called the "decree") states that the Paoli yard has an area of operations of 28 acres (11 hectares), including a repair shop for rolling stock that was in service from 1915 to 1995. During this period, operations at the Paoli yard consisted of periodic maintenance, repairs, and storage of cars. Considering its location, operations, and limited size, it was probably a small, secondary railway yard for a branch line serving the passenger trains of Philadelphia's northwestern suburbs. In fact, the Paoli station is located about 20 miles [32 km] from the Philadelphia station and provides service to commuters and students to this day.

From the 1950s onward, trolley cars were stored and maintained at the Paoli yard. These cars used transformers containing dielectric fluids as an insulator and heat-transfer medium for cooling purposes. The dielectric fluids used at that time were mainly composed of polychlorinated biphenyls (PCBs). These were preferred for their chemical stability, their non-corrosivity, and because they were known for being excellent thermal and insulating agents.

According to the decree, dielectric fluid containing PCBs was spilled during maintenance of the trolley car transformers and also vaporized due to overheating during operation of these cars. Operations at the Paoli yard allegedly contaminated the entire property and, with soil erosion, adjacent lots.

1.1.2 CN's Pointe-Saint-Charles Yard

By comparison, CN's Pointe-Saint-Charles yard has existed since 1853, that is, since the beginning of major railway operations in Canada. In its heyday, nearly 4,000 people worked there. The area of operations is much bigger than that of Paoli and there are many shops and offices on the premises. To name but a few, there is the main maintenance and car repair shop, the large thermal power plant, the locomotive shop, the special projects shop, and the administrative office, as well as the yards specifically adapted to railway activities such as the coach yard. In fact, CN's Pointe-Saint-Charles yard housed CN's largest and oldest railway maintenance center in Canada. It should be noted that the Pointe-Saint-Charles shop was also called on to support the war effort (1939-45). It became a tank and munitions factory, though it did not cease railway-related activities.

CN's Pointe-Saint-Charles yard witnessed the introduction of the first steam locomotives as well as the first diesel locomotives, in the early 1950s. Unfortunately, for more than 125 years, the yard engaged in and was sub-

ject to all these activities without much regard for the environment, expanding its area of operations over its own accumulated garbage. Combining utility and savings resulting from avoided disposal costs for industrial and other wastes, landfilling of the low-lying southeastern portion of the property actually expanded the operating areas, a common industrial practice until the 1970's. What distinguishes the Pointe-Saint-Charles yard from the Paoli yard is that the former's activities did not include storage and maintenance of trolley locomotives or autonomous trolley coaches.

While CN used such pantograph-operated electric trains[222] for Montreal's northern suburbs, they had to take the tunnel under Mount Royal in order to carry passengers to the downtown central station. These electric trains were maintained and stored at the Lazard yard in the Town of Mount Royal and provided service between central station and Saint-Eustache, Québec, among other destinations. A trolley locomotive maintenance shop was built at the Lazard yard around 1910 by Canadian Northern Railways, one of the companies that later merged to form CN.

1.2 Conclusion

I was given confirmation by a former CN employee at the Pointe-Saint-Charles yard that no trolley locomotives or cars were stored, restored, maintained, or repaired at the Pointe-Saint-Charles yard. CN's Pointe-Saint-Charles yard was therefore apparently never contaminated by PCBs due to the presence of trolley locomotives, as was the case at the Paoli yard.

2.0 Considerations on the use of PCB-containing products at CN's Pointe-Saint-Charles yard and its potential contamination

2.1 Historical Data

Consideration of the electrical power needed to operate a large railway maintenance centre of the size of CN's Pointe-Saint-Charles yard, in light of its age, its development over time, and the power of the motors necessary for it to operate suggests installed power of 12,000 volts AC in the 1910s and about 25,000 volts AC in the 1970s, when Hydro-Québec increased power distribution over its Montreal grid.

It is important to note here that PCBs were introduced into the industry in the 1930s. They found numerous applications:[223]

waxes*	certain lubricants*
glues*	printing inks

222. A pantograph is a device that collects electric current from overhead lines for electric trains or trams. The term derives from the resemblance to pantograph devices for copying writing and drawings.
223. *: High likelihood of their being present at the Pointe-Saint-Charles yard.

coolants*
vacuum pumps (oil)*
paints*
dust control agents*
plasticizers
fluorescent light ballasts
pesticides*
cutting oil*
carbonless paper*
caulking compound*
sealants

not to mention electric transformers,* capacitors,* switching devices,* electromagnets,* etc.

2.2 Installed power and operations

Since this installed power needed to be transformed and regularized, transformers were required to bring the voltage to 550-600 volts in order to power the power plant, air compressor batteries, pumps, fans, welders, overhead cranes, electromagnets, and the whole set of machine tools used to shape metals for building, repairing, or maintaining various locomotives and cars. Large transformers were needed to lower the voltage while raising the current to a useful level, along with switches and a large number of capacitors. These enable each of the motors to operate by eliminating electric current fluctuations in the circuits.

Considering the time frame and history of the implementation of PCB-containing equipment, it is certain that transformers, switches, capacitors, and electromagnets were being used in the shops. As elsewhere in industrial society, during the years when the toxicity of PCBs was unknown, no safety measures or special concerns were taken or raised when carrying out maintenance procedures or managing dielectric fluid or fluid-containing equipment waste. Lubricating oils and others were all mixed together, regardless of their nature, source, secondary use, or eventual disposal.

Only the commercially publicized advantages were widely known. For many years, reports on the toxic effects of PCBs, published here and there in occupational medical journals, were of hardly any interest, much like workplace health and safety. Some people whose job involved maintenance of electrical equipment even used PCB-containing dielectric fluid as an arthritis liniment.

It is also important to note that railroad ties and ballast[224] were continuously soiled by the lubricants used in the engines and other moving parts. Before the advent of ball bearings, now used on all moving axles including the axles of modern railway cars, the cast metal axles moved on metal friction bearings composed of an alloy of malleable metals kept lubricated by oil-saturated wool waste. A box containing the wool was attached to the outer face of the wheels, and the wool was lubricated manually at every

224. Ballast is crushed stone used in a railway bed to support the ties, hold the track in line, and help drainage.

yard on the route. The friction bearings leaked constantly, all along the track and in the yards. Over the years, considerable quantities of oil built up in the ground. According to the information gathered, this lubrication oil would have been new, not recycled.

2.3 Waste management in the era of environmental unconsciousness

What with the relative absence of environmental concern in the years before 1970, dielectric fluids were treated similarly to other lubricating oils from internal combustion engines (locomotives and others) and were disposed of with them or in a manner similar to them. In small businesses and in industry, it was common and totally accepted to dispose of oils and other residues by dumping them on the ground near the shop where one was working.

The same was true for obsolete or irreparable equipment, which was very often buried on the property or thrown in the trash and sent to the closest landfill, or sent to the local scrapyard for metal recycling in the case of transformers and switches. In the case of waste capacitors, due to their bulk, the most likely means of disposal was burial on site or in the landfill.

Since few railyards had ground covering of any kind, dust control oils were often sprayed on the dirt paths, cutting down on the number of complaints from employees and neighbors.

In addition, all the buried PCB-containing metal containers (such as transformers, capacitors, and barrels) eventually corroded and leaked their liquid contents into the ground. In the case of capacitors, which contained a more viscous type of PCB, corrosion made their contents available to be dissolved by organic solvents or other hydrocarbons present in the groundwater.

2.4 Inventory of PCB-containing equipment

Around 1977, Environment Canada (EC) embarked on creating a voluntary national inventory of PCB-containing equipment. A majority of legally registered companies received a questionnaire covering basic corporate data, the identity of the persons responsible for PCB-containing equipment, the nature of that equipment, and the nameplate data. Since this was a voluntary program, one cannot be certain of the value or accuracy of the resulting inventory. The more optimistic EC employees believed that the inventory's correspondence to reality was 90%, while others estimated it at 60-75%.

Subsequently, the inventoried equipment was subject to annual inspection. Only equipment that was demonstrated to have been destroyed was deleted from the inventory. However, the human resources available

were insufficient to perform the number of annual inspections required to ensure minimum control of the inventoried equipment.

On several occasions, anonymous information concerning illegal burial of transformers was received at EC regional offices. In most cases this information was incomplete and did not result in an investigation. The respondents obviously wished to remain anonymous so as to avoid reprisals. Since no equipment was ever reported as missing from the inventory, one is led to believe that its accuracy was fair but far from perfect.

The inventory data for CN's Pointe-Saint-Charles yard is perhaps still available at EC's Montreal regional office. Such data was always considered confidential and was shared only with the local fire department upon request.

2.5 Conclusion

Given the very large quantity of diesel fuel that was spilled on the ground through the innumerable leaks that occurred over the years, as well as other oils dumped on the ground, one may assume that the subsoil of CN's Pointe-Saint-Charles yard contained solvents that solubilized the captive viscous PCBs and liquid PCBs and allowed them to be transported or to migrate through the LNAPLs and/or dissolved phases of the water table. Unfortunately, lab results are unavailable for samples of liquid taken at the groundwater monitoring wells installed by CN on the southeastern border of the yard, which would be necessary to determine whether PCBs migrated from the property in question to the dump that became Technoparc and from there into the St. Lawrence River.

3.0 Leakage of PCBs into the St. Lawrence River from Technoparc

3.1 Operation and management of the Pointe-Saint-Charles dump by the city of Montréal

Along the same lines, management of the dump under study also lacked guidelines and operational standards for many years. All manner of residential, commercial, and industrial waste was mixed and dumped there without limitation. Often, fires were burning all over the dump while scrap dealers scavenged for metal, oblivious to the risks, the traffic of trucks carrying the trash, and the heavy machinery compacting and grading the garbage. All the garbage dumps of the modern world used to operate (and some of them still do) under similar, unenvironmental conditions.

All imaginable types of waste produced in the city of Montréal were brought there. This obviously included residential waste, demolition debris, biomedical waste from hospitals and clinics, organic and inorganic commercial and industrial waste, meaning the various PCBs in all their forms and concentrations and for all the applications mentioned above in

> 2.1, as well as others as bizarre as Askarel[225]-containing domestic space heaters and even kitchen stoves, such as those manufactured by De Longhi. Also to be found are pre-1970s fabric-coated electric wires on which the insulator is made of PCB-soaked paper. It should also be remembered that there was no curbside recycling at the time, and so there is no doubt that paints, bases, acids, oxidizing agents, corrosive agents, flammable liquids, organic peroxides, and other toxic substances ended up in garbage dumps.
>
> To put it succinctly, PCBs were everywhere. They were an integral part of everyday life and, unfortunately, were among the waste delivered to North America's garbage dumps day in and day out.
>
> Following the reasoning in part 2.0 of this report, all PCB-containing containers, equipment, and products buried in the dump under study were subject to corrosion and the influence of fluctuations in the water table. The water table in the part of the dump located on the floodplain was also subject to changes in water levels in the river. The environment was conducive to accelerated corrosion and these containers and products unquestionably leaked their contents at some point.
>
> 3.2 Conclusion
>
> Considering the porous mass of waste and the fluctuating level of the LNAPL plume containing solvents such as diesel fuel which very likely migrated from the CN property over the years, and considering the action of time on both the corrosion of containers and the dissolution of various PCBs by the solvents, it is not surprising to find PCBs in the samples taken from the St. Lawrence River along the Bonaventure Expressway at the foot of the Victoria Bridge.

An Environment Canada emergency operations officer suggested the following hypothesis in a pollution incident report of 31 October 1991, shortly after hydrocarbons were noticed on the bank of the St. Lawrence River:

> It is possible that diesel fuel from the CN and VIA properties is solubilizing various contaminants found in Montreal's former sanitary landfill site, including PCBs, and ending up in the river after passing through the Bonaventure Expressway lands.[226]

225. Askarel is the brand name of a PCB often used as dielectric fluid, used here as a heat-transfer medium. Most Askarels used in transformers are a mixture containing 60-70% PCBs and 30-40% chlorinated benzenes (mainly tri- and tetrachlorobenzenes).

226. Environment Canada, EPS/Montréal, Pollution Incident Report, File: 4461-2/M, date and time of the accident: 9 August 1991; source: unknown; location: ADACport; quantity: undetermined; ongoing seepage.

8.3.1.2 Groundwater

Groundwater in the Technoparc sector has been polluted by contact with petroleum hydrocarbons, contaminated soil, and residential and industrial waste.[227] According to section 36(3) of the *Fisheries Act*, a substance (in this case groundwater) is a deleterious substance if it is toxic to fish.[228] The Secretariat has gathered information concerning the sector's groundwater.

The *Fisheries Act* gives inspectors the power to take samples and conduct tests on substances where they have reasonable grounds to believe that the operation of an enterprise is likely to result in the deposit of a deleterious substance in water frequented by fish, or in any other place if there is a risk that the deleterious substance in question or any other deleterious substance that results from its deposit will enter the waters (s. 38(3)).

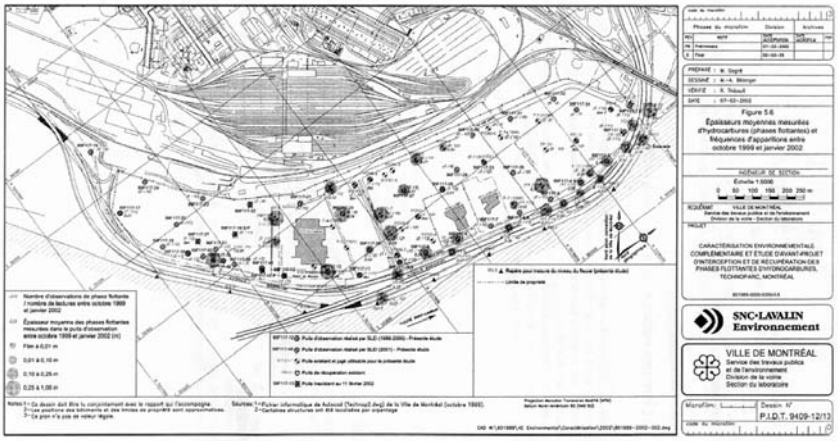
In the case of the hydrocarbons resurfacing near Technoparc, in 1991, Environment Canada took LNAPL samples on the banks, on the Technoparc and VIA Rail lands, and at the CN shops.[229] The oil was analyzed for its PCB and metals content.[230] At each site the oil was found to be diesel.[231] The groundwater was not analyzed, nor were biological tests conducted to establish its toxic potential.[232]

Regarding groundwater at the Technoparc, the City of Montréal stated in 1999:

> Approximately 23 environmental studies on groundwater contamination at Technoparc have been carried out since 1988. The studies have provided information primarily on the geological and hydrogeological environment, the behavior and characteristics of the LNAPLs, and the quality of the groundwater. About 300 samples (test trenches and boreholes) were taken on the Technoparc site, the Bonaventure Expressway, and the banks of the St. Lawrence River. Approximately 70 wells were drilled, 37 of which are still in operation. In addition, several hundred chemical analyses were conducted on groundwater, river water, and LNAPL samples.[233]

227. See Memorandum, Appendix 8.
228. See Canadian Water and Wastewater Association, "Provincial/Territorial Regulatory Instruments and the *Fisheries Act* of Canada" (26 May 2003), online at <http://www.cwwa.ca/pdf_files/position_ccme.PDF> (date viewed: 24 April 2007).
229. Environment Canada Response to CEC Request for Information, Appendix 59.
230. *Ibid*.
231. *Ibid*., Appendix 58.
232. *Ibid*., Appendix 59.
233. Québec, *Programme de réhabilitation des terrains contaminés* (Urban contaminated sites rehabilitation program), Financial aid eligibility form: general information (29 October 1999, revised 16 November 1999).

Figure 9 Groundwater sampling wells installed at the Technoparc site, 1999[234]



Environment Canada stated that the Ministry learned of the potential toxicity of the groundwater at Technoparc in March 2002.[235] The toxicity of the groundwater was confirmed in November 2002,[236] based on samples taken by the City of Montreal and provided to Environment Canada on a voluntary basis for testing.[237]

234. Ville de Montréal, "LNAPL and groundwater containment and recovery project for former Adacport – Meeting of Thursday, 26 August 2004, 1:30 p.m. – List of documents given to participants by Ville de Montréal – 1) Average thickness of hydrocarbons (LNAPL plumes) and frequency of appearance between October 1999 and January 2002; Figure 5.6 from SNC-Lavalin Environment Inc., *Caractérisation environnementale complémentaire (volets 1, 2 et 3)* (Complementary Environmental Assessment (phases 1, 2 and 3)), SLEI Report. It should be noted that these monitoring wells can also be used to take groundwater samples; see Environment Canada Response to CEC Request for Information, Appendix 30, p. 3.
235. See section 8.7 below, where it is indicated in the response to question 7.5 that "Environment Canada only learned of the potential toxicity of the groundwater in March 2002. The sampling campaign conducted by the City of Montréal in the summer of 2002 and the results obtained from the bioassays confirmed that the groundwater was toxic."
236. *Ibid*.
237. On 28 November 2006, the Secretariat asked Canada the following question: "The memorandum [Appendix 8 of the factual record] refers to the results of analyses submitted to Environment Canada by the complainants in April 2002, while the investigation chronology mentions a sampling campaign led by Environment Canada in the summer of 2002, the latter of which detected the presence of toxic groundwater near the shore of the St. Lawrence River. Reading section 36(3) of the *Fisheries Act* (and the definitions that appear in section 34 of the Act), it would appear that the evidence of the flow of toxic groundwater towards the river allows for laying charges against the owner of the land from which this groundwater flows, if the

In 1997, CN completed installation of a system to recover LNAPLs along the southern boundary of its property (Butler Spur). The new system skimmed off the LNAPLs for offsite disposal. PAH-contaminated groundwater from the property is channeled to the City of Montréal's sewer system.[238]

In 1998, Environment Canada proposed a "biobarrier" project to contain the free- and dissolved-phase contaminants (LNAPLs and groundwater) leaking out of Technoparc toward the St. Lawrence River.[239] There was no follow-up to this proposal at the time.[240] The *Fish-*

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owner allows the discharge to continue. Is this correct?" On 8 January 2007, Canada responded: "First, the sampling campaign mentioned in the previous paragraph was carried out by the City of Montréal and not by Environment Canada. Environment Canada only carried out the toxicity analyses of the samples.

"To respond to the question, the recommendation of Environment Canada to the Attorney General of Canada to prosecute an alleged violator depends on several facts that must be proved beyond a reasonable doubt. The decision to recommend prosecution also depends on the criteria set out in the 'Compliance and Enforcement Policy.' Finally, the decision to prosecute falls to the Attorney General of Canada, who bases that decision on two principal criteria: sufficiency of the evidence, and public interest." See also Ville de Montréal, Meeting of Technoparc technical committee (Environment Canada/Québec Ministry of the Environment (MENV)/ Ville de Montréal) to clarify groundwater toxicity assessment protocol (13 June 2002).

238. Letter from Assistant Vice-President, Environment, CN, to Ville de Montréal, Economic Development Department, Re: Deposit of hydrocarbons into the St. Lawrence River at Pointe St-Charles. Corrective measures – Phase 1 B. Resolution No. CE9602124 (30 September 1997): "The *Règlement sur le rejet des eaux usées dans les ouvrages d'assainissement et dans les cours d'eau et sur la délégation de son application* [By-law respecting discharge of wastewater into sanitation works and waterways and respecting delegation of its enforcement], adopted by the Communauté métropolitaine de Montréal (2001-09, in force 1 January 2002), applicable on the territory of Ville de Montréal, includes groundwater, stormwater, and surface water in its definition of wastewater (Article 1(e)) and provides (Article 6) that wastewater not collected in the sewer system of the Communauté must be directed to and treated in a wastewater treatment plant whose effluent complies with the discharge standards set by the by-law for a stormwater system (set out in Article 11). This bylaw does not set discharge standards for PAHs." See also Appendix 6.

239. See Appendix 9, "Investigation Report": "On 26 February 1998, [name withheld], engineer, and [name withheld], principal consultant of the Intervention and Restoration section of Environment Canada's Quebec Region Technology and Restoration division, submitted a report on the use of "biobarriers" to biodegrade hydrocarbons and recalcitrant organochlorines contaminating the aquifer at the ADACport. The project planned for representative samples at strategic locations along the Technoparc waterfront to determine the amount of contamination from floating and dissolved phases, with a view to making recommendations concerning the installation of a watertight barrier as well as the recovery and treatment of the hydrocarbons. There was no follow-up to this project at the time."

240. *Ibid*.

eries Act provides that inspectors may take corrective measures or require them to be taken by the owner or the person who caused or contributed to the causation of the deposit of a substance into water frequented by fish [s. 38(6)], under certain conditions.[241] No such direction was issued in the case of Technoparc.[242]

The Compliance and Enforcement Policy states: "Enforcement personnel aim to achieve consistency in their responses to alleged violations. Accordingly, they will consider how similar situations in Canada are being or have been handled when deciding what enforcement action to take." Montreal's wastewater treatment plant is located downstream from the Technoparc, on the eastern tip of the Island of Montreal. Effluent from the treatment plant contains PCBs and PAHs, the parameters of concern in the Technoparc submission. Both locations are significant sources of deposits of deleterious substances to the river. In 1999, two St. Lawrence Centre (Environment Canada) employees and two MDDEP employees published the results of a study titled *Composition of PCBs and PAHs in the Montréal Urban Community Wastewater and in the Surface Water of the St. Lawrence River (Canada)*.[243] The paper indicates that the PCB and PAH concentrations found in the river water upstream of the City of Montréal's wastewater treatment plant were lower than those found in the effluent of the wastewater treatment plant after treatment.[244] The authors conclude that atmospheric deposition represents

241. Section 38(9)(*b)* of the *Fisheries Act* allows the government to make regulations governing the exercise of this power. No such regulations have been adopted.
242. Environment Canada Response to CEC Request for Information, p. 5.
243. Thanh-Thao Pham, Suzie Proulx, Charles Brochu and Serge Moore, "Composition of PCBs and PAHs in the Montréal Urban Community Wastewater and in the Surface Water of the St. Lawrence River (Canada)" (1999) 111 *Water, Air, and Soil Pollution* 251-70 (hereinafter, "Thanh-Thao Pham et al."). See also Bernard Daboval et al., "Évaluation de la toxicité des effluents des stations d'épuration municipales du Québec" (Toxicity assessment of effluent from Québec municipal wastewater treatment plants), Progress Report, Ministry of the Environment and Wildlife (*Ministère de l'Environnement et de la Faune*) and Environment Canada (July 1998).
244. Thanh-Thao Pham et al., p. 256. See also Montreal Regional Environment Council (*Conseil régional de l'environnement de Montréal*), Brief on water management in Montreal and Québec (9 November 1999), s. 2, "La contamination de l'eau" (Water pollution), "Le traitement des eaux usées" (Wastewater treatment), p. 11: "To date, effluents from Quebec wastewater treatment plants do not have to meet any standards because the Ministry of the Environment and Wildlife has yet to adopt the regulations regarding the use of municipal sanitation works (R-200). Municipalities are therefore not obliged to comply with environmental discharge objectives." See also Canadian Council of Ministers of the Environment, Review of Existing Municipal Wastewater Effluent (MWWE) Regulatory Structures in Canada (Marbek Resource Consultants, May 2005), Executive Summary, p. vi: "The federal government has significant regulatory involvement with respect to release of water to the environment through the FA [*Fisheries Act*]. The FA does not have a regulation

the principal source of PCBs in the river's surface water;[245] and that the PAH profile in the effluent from the wastewater treatment plant is different from that observed in the surface water of the river upstream of the effluent outfall.

The Compliance and Enforcement Policy states that the seriousness of the damage or potential damage to fish habitat, the fishery resource, or the risks associated with the human use of fish is among the factors to be considered in assessing the nature of an alleged violation. The study authors conclude that the PCB and PAH concentrations in the effluent plume from the city's wastewater treatment plant become similar to background levels at distances of 8.5 and 4 km, respectively, downstream of the plant, while the plume does not become completely diluted by the river water until 11 km downstream of the plant.[246] Regarding the river water adjacent to Technoparc, the Environment Canada investigator noted in 2003:

> The characterization of the river water opposite the Technoparc showed that concentrations were below applicable surface water quality criteria and detection limits, and that there was no detectible increase compared with the control stations upstream from the Technoparc.[247]

This information is relevant to considering whether Canada is failing to effectively enforce s. 36(3) of the *Fisheries Act* in regard to alleged deposits of deleterious substances in the Montreal Technoparc sector.

In 2004, CN published a notice of contamination (Appendix 6) in the land registry, as required by Québec's *Environment Quality Act*. The notice states that the St. Lawrence River is not a potential receptor of groundwater from the railyard because this water is discharged into the City of Montréal sewer. The MDDEP inventory of contaminated sites[248] has no information concerning groundwater at the railyard.[249] How-

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defining acceptable discharges for the municipal wastewater sector and so the broad restrictions on release of deleterious substances apply to wastewater discharges. This is a significant issue for the sector since the FA provisions are not necessarily satisfied by conditions for effluent release as identified in the facility permit from the province or Water Board. Provinces and Yukon Territory implicitly or explicitly incorporate the concept of mixing zones (also called initial dilution areas) into their release policy and/or permits."

245. Thanh-Thao Pham et al., p. 267.
246. *Ibid*., p. 269.
247. Appendix 9, "Investigation Report," section 3.0, "Analysis."
248. See online at <http://www.mddep.gouv.qc.ca/sol/terrains/terrains-contamines/resultats.asp> (File name: Alstom; Municipality: Montreal. Information was current on 30 October 2006).
249. *Ibid*.

ever, the relevant column of the inventory refers to a note indicating that information regarding this land is subject to protection under the *Act Respecting Access to Documents Held by Public Bodies and the Protection of Personal Information*.[250]

In 2004, City of Montréal consultants prepared invitations to tender for a system that would include the following: construction of a 1.5 km-long bentonite-cement wall, to be anchored in the bedrock along the southern boundary of Technoparc; collection of groundwater upstream of the wall and treatment thereof by an oil separator; offsite disposal of the recovered oil in accordance with hazardous waste disposal standards; discharge of the toxic groundwater into the City of Montréal sewer without additional pre-treatment.[251]

In 2005, Tecsult Inc. submitted a report to JCCBI containing information and recommendations concerning groundwater in three sectors: the land owned by JCCBI west of Technoparc (A), the Bonaventure Expressway, south of Technoparc (B), and Technoparc itself (C).[252] According to Tecsult, it is noteworthy that the groundwater in sector A is similar to that in sector C, though sector A does not contain LNAPLs. In both sectors, ammonia nitrogen contributes significantly to making the groundwater toxic.[253]

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250. *Ibid*. See, for example, *Canadian National Railway Co.* v. *Canada (Attorney General)*, 2002 FCT 974, at 16: "To summarize, each year the plaintiff prepares a list of non-railway assets which it has sold during the preceding year and submits it to Transport Canada. The duty to prepare and forward such a list was imposed on the plaintiff under an agreement made at the time the plaintiff was privatized. Transport Canada received an application for disclosure of this list for 1996 and 1997, and denied that application when the plaintiff intervened. The originator of the application filed a complaint with the Information Commissioner, who in turn contacted Transport Canada. Transport Canada subsequently said it was prepared to disclose the content of the list for the years in question. The reasons for this decision included the fact that an employee of the plaintiff had previously agreed to disclosure of the information, as well as the fact that the information sought was available to the public as it was listed in the registry offices of the various provinces. The parties agreed that the issue concerned the application of the exemptions set out in section 19 and sections 20(1)(b), (c) and (d) of the [Access to Information] Act."
251. SLEI, "Projet d'interception et de récupération des hydrocarbures au site de l'ancien Adacport (Hydrocarbon containment and recovery project for former Adacport site), Tendering document, Ville de Montréal/file 9911," cited in Tecsult Inc., "Pont Champlain et Autoroute Bonaventure – Étude de faisabilité – Confinement des contaminants – Terrains des sections 2, 11 et 12 (2005) – Contrat 60621" (Champlain Bridge and Bonaventure Expressway – Feasibility study – Containment of contaminants – Lots in sections 2, 11, and 12 (2005) – Contract 60621), report prepared for JCCBI (July 2005) (hereinafter, "Tecsult Report"), p. 10-1.
252. Tecsult Report.
253. *Ibid*., pp. 8-4, 10-4.

In its report, Tecsult commented as follows. Even if technically, the groundwater in sectors A and C meets the City's sewer discharge standards (as they don't contain a standard for ammonia nitrogen), the City's treatment system is nonetheless not designed to remove ammonia nitrogen from effluent.[254] Therefore, unless the groundwater is treated on-site, the ammonia nitrogen will still be released into the river, only at a different location and in much less toxic concentrations,[255] given the large dilution factor attributable to the immense volume of water flowing through the City's sewer system.[256] Furthermore, even if the overall quantity of ammonia nitrogen discharged to the river from the Technoparc sector is negligible,[257] a decision to channel the sector's groundwater to the city sewer system without pre-treatment could meet with the disapproval of government authorities and the public.[258] Finally, although the City's wastewater treatment plant is not designed to remove heavy metals such as zinc from the groundwater of the sectors under study,[259] a large part of these would be removed with the decantation sludge, since the metals in the groundwater are in particulate form.[260]

Tecsult's recommendation to JCCBI was therefore to pre-treat the groundwater from sector A by means of a biological process that transforms ammonia nitrogen into less-toxic nitrates, while removing the zinc, lead, and other trace metals before discharge into the sewer.[261] Tecsult also noted the benefits of mounting a comprehensive project covering all three sectors (A, B and C), to take advantage of economies of scale and avoid sections of the shore being left "uncovered", leaking contaminated groundwater into the river.[262] Finally, Tecsult noted that it would make sense to work as close as possible to the shore in order to minimize the amount of contaminated groundwater discharging to the river.[263] However, this would be difficult as regards traffic on the Bonaventure Expressway, since several lanes would need to be closed for a prolonged period.[264]

In 2006, studies were carried out as part of a Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR) project to determine

254. *Ibid*., p. 7-7.
255. *Ibid*., p. 8-4.
256. *Ibid*.
257. *Ibid*.
258. *Ibid*., p. 7-7.
259. *Ibid*., p. 8-4.
260. *Ibid*.
261. *Ibid*., p. 8-7.
262. *Ibid*., p. 12-9.
263. *Ibid*., p. 10-4.
264. *Ibid*.

the principal cause or causes of groundwater toxicity in the Technoparc sector. Methods approved for the purpose of enforcing s. 36(3) of the *Fisheries Act* (rainbow trout tests) were used.[265] This approach is consistent with recommendations contained in Environment Canada's *Guideline for the Release of Ammonia Dissolved in Water Found in Wastewater Effluents*, which notifies owners of wastewater systems releasing 5,000 m^3 or more per day of effluent into surface water, based on an annual average, that the federal government intends to regulate dissolved ammonia deposits under the *Fisheries Act*. This guideline directs system owners to consider the following factors, among others:

> To ensure that the overall risk to the environment or human health is reduced, owners of wastewater systems should consider actions that reduce or eliminate risks posed by other substances that may be found in municipal wastewater effluent, in particular the following substances which are specified in Schedule 1 of the Act:
>
> (a) nonylphenol and its ethoxylates,
>
> (b) effluents from textile mills that use wet processing,
>
> (c) mercury,
>
> (d) lead,
>
> (e) hexavalent chromium compounds,
>
> (f) inorganic cadmium compounds,
>
> (g) inorganic arsenic compounds,
>
> (h) inorganic chloramines,
>
> (i) chlorinated wastewater effluents.

265. MCEBR, "Secteur régional du Technoparc de Montréal – Développement et adaptation de technologies de traitement des eaux souterraines" (Montreal Technoparc regional sector – Development and adaptation of groundwater treatment technologies) (2006), 1 *Le Défricheur* nº 6: "Ecotoxicology experts helping out – With a $1.56 million grant from Canada Economic Development (CED), the Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR) is identifying the best technological solutions for treating toxic groundwater in the Technoparc sector. MCEBR mandated the Canadian firm Stantec, from Guelph, Ontario to conduct ecotoxicological analyses of groundwater samples taken from the three zones under study." See also Decisioneering: "For Environment Canada, Crystal Ball is a Crucial Tool for Chemical Risk Assessment. APPLICATION: Environmental risk assessment of chemicals. SUMMARY: Environment Canada applied Crystal Ball in an investigation of the effects of ammonia in aquatic environments. Crystal Ball was used to generate distributions for the raw hydrological and effluent data and to combine these distributions to generate a set of hypothetical river conditions for a plume model.

8.3.2 Setting Priorities Based on Degree of Harm to the Environment

Under the Compliance and Enforcement Policy, when determining the appropriate action to take in respect of an alleged violation of section 36(3) of the *Fisheries Act*, one must consider the nature of the violation, including any harm to fish and fish habitat.[266] The Technoparc site has been studied and classified in the context of federal and provincial programs for the remediation of former industrial landfills. This site was also inventoried as part of a joint federal-provincial initiative seeking to identify and address the main sources of pollution on the St. Lawrence River. Priorities for action were determined on the basis of impacts on flora and fauna, but also as a function of loss of uses associated with the receiving environment (drinking water, fishing, leisure activities, etc.).[267]

This section of the factual record presents information gathered by the Secretariat concerning steps taken by Canada to establish priorities for action in regard to the Technoparc sector as a function of the relative risk posed by the properties in the sector to human health and the local environment, as compared to risks posed by other former garbage dumps on federal land in Quebec and other contaminated sites along this section of the St. Lawrence river. The information presented below is relevant to considering whether Canada has failed to effectively enforce s. 36(3) of the *Fisheries Act* in connection with deposits of deleterious substances in the Montreal Technoparc sector.

8.3.2.1 Contaminated Sites Management

In the 1980s, when the effects of contamination in Love Canal (a residential development in Buffalo, New York built on a former chemical industry landfill) were making world news,[268] the Government of

RESULTS: With the aid of Crystal Ball, Environment Canada has determined that ammonia released in large quantities under some river conditions is toxic to aquatic life. A risk management process will be developed to discuss reduction strategies with Canadian municipalities." Online at <http://www.decisioneering.com/stories/env-canada.html> (date viewed: 11 April 2007). See also Ville de Montréal, Ninth meeting of technical committee (8 September 2005), Minutes, p. 2: "Point 5 – Study on the relationship between groundwater toxicity and various physicochemical parameters (Environment Canada)."

266. Compliance and Enforcement Policy, p. 18.

267. See Environment Canada, "Canadian Water Quality Guidelines," online at Environment Canada <http://www.ec.gc.ca/ceqg-rcqe/English/Ceqg/Water/default.cfm> (last modified: 1 March 2004).

268. See Love Canal – Documents, online at <http://www.epa.gov/history/topics/lovecanal/index.htm> (date viewed: 9 March 2007). See also Sophie Lavallée, *La réhabilitation des terrains contaminés et le droit québécois: un droit négocié* (Brownfields

Canada and the Government of Québec both included the "Adacport" site, i.e., Technoparc, in their respective inventories of former landfills. In 1983, Québec created the Group for the Study and Remediation of Hazardous Waste Disposal Sites (*Groupe d'étude et de restauration des lieux d'élimination de déchets dangereux*—GERLED) and mandated it to inventory and assess all sites in the province of Québec that had definitely or probably received industrial wastes.[269] GERLED opened its Adacport file (no. 09-9-62) in 1988,[270] the same year Québec published its new contaminated sites remediation policy.[271] The Adacport site was listed as a class II site, defined as:

> A site posing a moderate risk to the environment or a low potential risk to public health. The site must have received a score of between 50 and 69 points under the National Classification System for Contaminated Sites (NCSCS). The NCSCS standard was developed by the Canadian Council of Ministers of the Environment (CCME).[272]

The GERLED inventory contains the following information (dated March 1991) concerning the site:

> The water table is located at a depth of over four meters and flows towards the St. Lawrence River. The presence of contaminants in the groundwater

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remediation and Québec law: a negotiated law) (Cowansville: Yvon Blais, 2004), p. 208. Thomas H. Fletcher, *From Love Canal to Environmental Justice – The Politics of Hazardous Waste on the Canada-U.S. Border* (Peterborough, ON: Broadview Press, 2003); Sierra Club of Canada & MiningWatch Canada, "TOXICanada: 13 Good Reasons to Establish a Clean Canada Fund" (2001); and Pollution Probe, "Niagara, A River To Save" (1999).

269. Québec, *Inventaire des lieux d'élimination de résidus industriels GERLED – Évolution depuis 1983 et état actuel* (GERLED index of industrial waste disposal sites – Developments since 1983 and current status) (Québec City: Les Publications du Québec, 1998) (hereinafter, "GERLED inventory"), p. 1: "It was at the end of the 1970s that the twin problems of disposal of industrial wastes (then referred to as hazardous wastes) and contaminated soils came to the fore via two spectacular cases: Love Canal in the United States and Lekkerkerk in the Netherlands [...] In Québec, the massive spills of oily wastes at LaSalle Coke and in the settling lagoons at Ville Mercier had a trigger effect in the early 1980s."

270. The Technoparc site (i.e., the former Adacport site) is now indexed in MDDEP's inventory of soil and industrial waste dumps under file no. 7610-06-01-0191200.

271. Cases such as the construction of housing on a former landfill in the City of LaSalle made the adoption of this policy necessary in that they underlined the need for guidelines on the enforcement of the *Act*; see Sophie Lavallée, "Petite histoire de la Politique de 1998" (Brief history of the 1998 policy), in *La réhabilitation des terrains contaminés et le droit québécois: un droit négocié* (Cowansville: Yvon Blais, 2004), pp. 208 et seq.

272. MDDEP, *Répertoire des dépôts de sols et de résidus industriels* (Directory of soil deposits and industrial wastes), file no. 7610-06-01-0191200 (former Adacport site/Technoparc). See also GERLED inventory, p. 17.

> represents a threat to the quality of the river water and sediments, which are in close proximity. Public health in the vicinity of the site is not threatened by groundwater contamination, as the groundwater is not utilized locally for human consumption. The nearest downstream intake of drinking water from the St. Lawrence is in Lavaltrie, several dozen kilometers from the Adacport site. Consequently, the former Adacport site is a class II site.

In 1984, the federal government conducted a preliminary study of solid waste disposal sites on federal lands in Québec, including the Adacport site.[273] Regarding the Adacport site, the consultant's report concluded that a more detailed study was required "in order to define precisely the nature and degree of impacts [...] on the environment."[274] It also made the following recommendations:

> Based on the results obtained and the intended future use of the site, a site management regime should be envisaged, which would include a program to monitor the parameters influencing the quality of the environment (water, gas, subsidence...) and, if necessary, containment or mitigation measures. [...]
>
> Finally, we recommend avoiding any works or construction likely to modify present conditions of activity on the site—such as additional backfilling in the northern part of the site, which contributes significantly to making the site impermeable—pending the implementation of such a site management regime.[275]

In 1990, under a federal-provincial program for the cleanup of orphan, high-risk contaminated sites,[276] the two levels of government created, on a 50/50 basis, a special C$51 million fund for the remediation of "those class I GERLED sites of greatest concern whose liable parties were legally unidentifiable or whose owners could not or would not pay for assessment or remediation costs."[277] Initially planned as a five-year program, this initiative was extended to 1996.[278] The Adacport site was not eligible for funding under this program, the City of Montréal having

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273. Foratek Report. A federal solid waste landfills inventory has been in existence since 2000; see "Federal Contaminated Sites Inventory," online at <http://www.tbs-sct.gc.ca/fcsi-rscf/home-accueil.aspx?Language=EN&sid=wu529152325823> (last modified: 25 January 2004).
274. Foratek Report, p. 97.
275. *Ibid.*, pp. 97-98.
276. See *Report of the Auditor General of Canada (1995)*, c. 2, "Environment Canada: Managing the Legacy of Hazardous Wastes," online at <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/9502ce.html> (date viewed: 16 March 2007).
277. GERLED inventory, p. 14.
278. *Ibid*.

— by contract signed with the federal and provincial governments — taken over environmental responsibility for the site (see above, s. 8.2.2), not to mention that the site had been indexed as a class II site.

8.3.2.2 Cleanup of the St. Lawrence River

In 1997, as part of a federal-provincial action program for cleanup of the St. Lawrence River (St. Lawrence Vision 2000), a state of the environment report was published for the section of the St. Lawrence where the Technoparc site is located.[279] The report contains the following abstract:

> The La Prairie Basins study area (ZIPs[280] 7 and 8) includes the section of the St. Lawrence River that extends from LaSalle to the Southwest district of Montreal on the north shore and from Sainte-Catherine to Saint-Lambert on the south shore. The river's discharge—consisting mainly of waters from the Great Lakes and, to a lesser extent, some of the waters of the Ottawa River—flows first through the Lachine Rapids and then into the Greater La Prairie Basin. Two artificial bodies of water, both created to allow ships to avoid the rapids, are connected here. The Lachine Canal, built in the 1820s, attracted a large number of industrial plants to its banks, making it for more than a century the center of industrial development on Montreal Island. Today, the bed of the canal and neighboring properties are contaminated, limiting their development. The Lesser La Prairie Basin is a portion of the river that, since the 1950s, has been isolated from the river's main stem by the St. Lawrence Seaway, where the water level is controlled.
>
> Here, the St. Lawrence passes through the most densely urbanized area between Lake Ontario and the sea. Except for a few sites on the islands, practically no natural riverbanks remain. Nevertheless, the aquatic environment has escaped much of the disturbance and on certain islands, protected by difficult access, terrestrial habitats have persisted in near-original condition.
>
> Most of the contaminants come from upstream, that is to say the Great Lakes, the international section of the St. Lawrence and Québec

279. Saint Lawrence Centre, *Regional Assessment – La Prairie Basins (Lachine Rapids, Greater and Lesser La Prairie Basins), Priority Intervention Zones 7 and 8,* (March 1997) (hereinafter, "Regional Assessment"), online at <http://www.slv2000.qc.ca/zip/bilans_pdf/Bilanzip7_8_a.pdf> (date viewed: 30 March 2007).

280. *Zone d'intervention prioritaire* (Priority intervention zone); see Canada, *Report of the Commissioner of the Environment and Sustainable Development (2001)*, c. 1, "A Legacy Worth Protecting: Charting a Sustainable Course in the Great Lakes and St. Lawrence River Basin," s. 7, "Ecosystem Initiatives," online at <http://www.oag-bvg.gc.ca/domino/reports.nsf/html/c101sec7e.html> (date viewed: 2 April 2007).

sections located upstream. Still, water quality in the rapids and the Greater La Prairie Basin is generally good. The relatively rapid flow prevents contaminated sediments from accumulating in the area. The diversion of municipal wastewater to treatment plants between 1988 and 1995, coupled with industrial cleanup programs, have helped improve the quality of the aquatic environment. This trend should continue and allow for the pursuit of some recreational activities.

The slow-flowing waters of the lesser basin and the presence of three small tributaries into which flow a large number of non-point pollution sources (agricultural, urban and industrial) may delay the return of conditions conducive to aquatic organisms and hinder some recreational uses of this body of water.

The La Prairie Basins area is of great interest from a biodiversity perspective. The Lachine Rapids has the last genuine stretch of whitewater in the St. Lawrence and is home to unique aquatic habitats. Fish that migrate over long distances must use this section to complete their life cycle. In addition, the islands are home to diverse animal and plant communities.

The last few years have seen an increase in recreational activities, particularly in the Lachine Rapids. It is important to attempt to reconcile the development of certain recreational activities with the protection of these significant natural assets.[281]

The report contains the following "Management Perspective":

The Priority Intervention Zones program (known as the ZIP program) is a joint initiative of the federal and provincial governments involving riparian communities in the implementation of rehabilitation measures for the St. Lawrence River and the Saguenay River. The program has three phases: production of a local-level assessment report on the St. Lawrence, consultations with riparian partners and identification of intervention priorities, and development of an ecological rehabilitation action plan or ERAP.

The regional assessment report is a synthesis of four technical reports on the biological, physico-chemical, socio-economic and human health aspects of the study area. These reports are prepared by the federal and provincial partners of the St. Lawrence Vision 2000 action plan, as part of its Community Involvement component.

281. Regional Assessment, pp. xi-xii; see also Mathieu-Robert Sauvé, "PCB, hydrocarbures, eaux d'égouts... Habitat 67 – Surfer sur une vague de pollution" (PCB, hydrocarbons, sewage... Habitat 67, surfing on a wave of pollution), *Espaces* (March 2006), pp. 41-43.

> This process of gathering and analysing data on a local scale is a first for the St. Lawrence and Saguenay system. The technical reports go a step further, assessing our knowledge of the current state of a given area based on known quality criteria.
>
> The challenge, then, is to venture a scientific opinion based on available information. The pitfalls are numerous: the data were collected for other purposes, the geographic and temporal coverage is less than ideal, and the chemical analysis methods are not standardized, to name but a few.
>
> The ZIP work team remains nonetheless convinced that one can take a careful, candid look at each study area without further delay. This initial assessment is a starting point and backgrounder intended for the riparian partners in each study area.[282]

The Regional Assessment includes the following inventory (Table 1) of the main contaminated sites in the La Prairie Basins area:[283]

282. Regional Assessment, p. ix.
283. *Ibid.*, c. 4, "Main Effects of Human Activities on the Environment," s. 4.2, "Contamination," s. 4.2.1, "Sources of Contamination," s. 4.2.1.2, "Industries," p. 36, Table 5, "Contaminated sites in the La Prairie Basins area."

Table 1 Contaminated sites in the La Prairie Basins area (St. Lawrence Centre, 1997)

Location/Jurisdiction	*Owner*	*Main contaminants*	*Classification by potential risk**
A. MINISTÈRE DE L'ENVIRONNEMENT ET DE LA FAUNE DU QUÉBEC (GERLED sites)			
North shore			
Southern tip and southwest part of Île des Sœurs	Several private owners	Heavy metals, phenols, PAHs	III
Former Adacport site	City of Montreal	Heavy metals, oils and greases	II
Contaminated soils landfill in LaSalle	Cintec Environnement inc.	Heavy metals, PAHs, and oils and greases	III
South Shore			
Site of former sanitary landfill in Delson	City of Delson	Phenols, iron, lead, zinc	II
Domtar Inc. Site in Delson	Domtar Inc.	Pentachlorophenol, creosote, arsenic, copper and chromium	II
B. FEDERAL GOVERNMENT			
North Shore			
Bed of Lachine Canal	Heritage Canada	Heavy metals and PCBs	Not classified
Banks Lachine Canal**	Heritage Canada	Heavy metals	Not classified
VIA Rail — Montreal Maintenance Centre	Canadian National	Heavy metals, oils and greases, hydrocarbons	Priority 1
VIA Rail — Pointe-Saint-Charles Yards	Canadian National	Hydrocarbons, heavy metals	Priority 1
Naval Technology Testing Centre, LaSalle	National Defence	Hydrocarbons	Priority 2
South Shore			
Saint-Lambert Marshalling Yard	Canadian National	Hydrocarbons	Priority 2
Patton landfill site	Northern and Indian Affairs	Mercury, cyanide, phenols, PAHs and PCBs	Priority 2

* The classification of each site in terms of environmental risks (right column) was determined by the agency with jurisdiction.

** This installation was not classified in the inventory carried out by D'Aragon, Desbiens, Halde et Associés. Rather, the Lachine Canal was the subject of a characterization study of its banks (soils and groundwater) conducted by Environcorp in 1990 and Areco Canada inc. in 1993.

Thus, whereas the federal government classified the VIA Rail and CN sites as "priority 1" sites, the Adacport site was a class II site under the GERLED program.

8.4 Facts surrounding Environment Canada's inspections, before and after the issuance of a warning in 1998

In Resolution 04-05, the Council instructed the Secretariat to prepare a factual record in respect of the facts surrounding Environment Canada's inspections, before and after the issuance of a warning in 1998. This section of the factual record presents the facts that occurred prior to Environment Canada's issuance of a warning to the City of Montréal, in 1998, as well as those occurring at the time the warning was issued and afterwards.

8.4.1 Facts Preceding the Warning

In 1991, upon receipt of a complaint that an oily substance was leaking from the banks of the St. Lawrence, upstream of the Victoria Bridge, Environment Canada was the first agency to act, installing absorbent pads around the hydrocarbons floating on the surface of the river, near the point of discharge.[284] At a meeting organized by Environment Canada, with representatives from CN, VIA Rail, the City of Montréal, Dessau Environnement Ltée, ADS Associés Ltée, and MDDEP in attendance, the two governmental agencies presented their respective positions:

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284. Environment Canada, "Adacport meeting, minutes," 15 October 1991, p. 2:
"Point 2. Environment Canada's role and position
"On 9 August 1991, Environment Canada instituted oil containment and recovery measures.
"On 9 September 1991, CN initiated containment measures as a good corporate citizen. It agreed to take charge of the operations and the costs incurred by Environment Canada since 9 August 1991 ($31,000), without accepting responsibility for the leak.
"[Name withheld] specified Environment Canada's goals:
- find the source(s) in order to contain them or to recover the discharges; and
- foster a consensus among all partners to ensure that they resolve the problem together on a permanent basis;

"The same EC representative also specified Environment Canada's two approaches: emergency mode (contain the source) and technical adviser mode.
"In its emergency mode, Environment Canada must try to find the person responsible for the spill so that he pays the costs. If the offender is identified but refuses to pay, Environment Canada will attempt to recover costs through legal action. Whenever EC incurs expenses, it lets the taxpayers know through a press conference."

> [Environment Canada representative] explained that it is not Environment Canada's role to gather together all the studies and assign liability. The purpose of this meeting is to find acceptable solutions for the environment.
>
> In response to a MENVIQ question, [Environment Canada representative] says that, based on a visual assessment, the LNAPL seepage rate is about 15 liters per hour. Analyses have been done but the results are not yet available. [EC representative] undertakes to provide the results in order to move the file forward, if possible. There may be PCBs, which would complicate matters. Disposal of the recovered oil would have to be done in compliance with the applicable regulations. Environment Canada says that the parties should come to an agreement on sharing the costs of recovery. Dialogue is necessary and the entities concerned have an interest in working together. MENVIQ's position is that each party is responsible for the contamination on its site. MENVIQ suggests that each party isolate and recover LNAPLs on their property.[285]

At the meeting, it was asked that requirements be communicated to decision makers in each organization:

> The CN, VIA Rail and Ville de Montréal representatives do not have authority to commit their organizations to participate in cleanup work or pay for costs that might be incurred. They therefore request that Environment Canada advise, in writing, their respective directors of the situation and of the need to act in a coordinated fashion. [EC representative] offers to write a letter, for signature by the Director, to inform the directors of all the organizations involved.
>
> [MENVIQ representative] reads aloud a March 1989 letter addressed to [Environment Canada's Regional Director General for Conservation and Environmental Protection] in which the position of Environnement Québec's is spelled out.[286]

Under the *Fisheries Act*, a defendant who is proven beyond a reasonable doubt to have committed an offence can avoid a guilty verdict if it can establish, on a balance of probabilities, that it was duly diligent in trying to avoid committing the offence. Beginning in 1991, the City of Montréal and CN shared the cost of ensuring that the booms were in good working order, including replacing the absorbent pads (see Figure 10).[287] The

285. *Ibid.*, p. 3.
286. *Ibid.* The Secretariat did not obtain copies of these letters.
287. See Report on a telephone conversation between an inspector from the Pollution Prevention and Toxic Substances Control Division of Environment Canada's Environmental Protection Branch, Québec Region, and an employee of Ville de Montréal, File no. LP363-0017, Re: Removal of booms during the winter (1 November 2000).

booms were removed during the winter.[288] During the years that followed, Environment Canada inspected the booms on a regular basis.[289]

Figure 10 Hydrocarbon discharges into the river, booms, and absorbent pads[290]

288. *Ibid*.
289. Environment Canada Response to CEC Request for Information, Appendices 1-21 and 58.
290. Submission, p. 6: "Biologist David Dillenbeck visited the site on February 20, 2002. Mr. Dillenbeck was an Ontario Ministry of Environment Regional Biologist for more than 20 years and has conducted numerous scientific investigations and testified in many trials as an expert witness, including cases in Deloro, Kingston and Hamilton, Ontario and Moncton, New Brunswick. Mr. Dillenbeck prepared a report dated April 4, 2002 based on his visit to the site and the sample analyses, photos, videos and notes. [Please see entire report included in brief.]" See also Environ-

Having installed a system to recover LNAPLs at the southern boundary of its property, in 1997, CN stopped sharing in the cost of assessing and managing discharges of deleterious substances into the St. Lawrence.[291] In 1997, the statute of limitations had run out for prosecuting violations of s. 36(3) that occurred prior to 1991.[292] CN suggested that in its opinion, construction work on the former landfill[293] – carried out, in part, by the City of Montréal, with the authorization of MDDEP – could help to explain the deposits into the St. Lawrence (see above, s. 8.2.2). Legal action under the *Fisheries Act* does not rule out actions in warranty or counterclaims.[294]

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mental Bureau of Investigation, *Montreal Technoparc Report* (April 11, 2002): "These images were taken at Montreal's Technoparc site between October 3, 2000 and February 20, 2002."

291. Letter from the Assistant Vice-President, Environment, CN, to the Economic Development Department, Ville de Montréal, Re: Leakage of hydrocarbons into the St. Lawrence River in Pointe-St-Charles, Corrective Measures – Phase 1 B, Resolution No. CE9602124 (30 September 1997), p. 2.

292. See S.C. 1991, c. 1, s. 10. See also "Canada's Comments on the Draft Factual Record for SEM-98-004 (BC Mining), 14 May 2003," in Commission for Environmental Cooperation, *Factual Record – BC Mining Submission (SEM-98-004)* (Montreal: Yvon Blais, 2003), p. 245: "As a result of a substantive amendment to the *Fisheries Act* in 1991, a violation of section 36(3) became a hybrid offence which could be prosecuted by summary conviction (misdemeanour) or by way of indictment (felony), and the two-year limitation period for prosecuting offences was dropped. This amendment, however, did not have retrospective application. This means that no person could be prosecuted after 1991 for a violation of s. 36(3) which occurred before 1991."

293. Letter from Deputy Vice-President, Environment, CN to Director, Environment Department, Ville de Montréal, Re: Technoparc – Deposits into the river (17 February 2003): "Dear Sir, I have reviewed your information request concerning the recovery system that Canadian National has been operating on the Butler Spur since 1997. The system consists of three pumping units which control a total of 122 recovery wells and 14 injection wells, 22 of which are in the northern sector, 40 in the centre, and 60 in the southern sector. The system has been in operation since 1997 and, except for a few stoppages for routine maintenance, the hydraulic barrier has been maintained on a permanent basis. The barrier has a 15-metre catchment area. We are in the process of preparing a monitoring report for the year 2002 that should be ready by mid-March. Upon its completion, we will be happy to provide you with a summary. As for explaining the sudden increase of upwellings in the river, I do not think that they can be attributed to the brief maintenance stoppages. The piezometric readings taken by our consultants have shown no anomalies since the containment system was put into operation. However, it has been brought to our attention that sewer lines have been built along the Bonaventure Expressway and that much soil compacting has been done at Technoparc. Either or both of these activities may partially explain the increase in hydrocarbon deposits into the river. Best regards."

294. See section 42(5) of the *Fisheries Act*.

8.4.2 Issuance of a Warning to City of Montreal

Under the Compliance and Enforcement Policy, enforcement personnel may issue warnings:

- when they have reasonable grounds to believe that a violation of the *Fisheries Act* has occurred;
- where the degree of harm or potential harm to the fishery resource, its supporting habitat or to human use of fish appears to be minimal; and
- where the alleged violator has made reasonable efforts to remedy or mitigate the negative impact of the alleged offences on the fishery resource and its habitat.[295]

On 12 November 1998, Environment Canada issued a warning to the City of Montréal, as the latter had ceased pumping recovered oils and maintaining the booms.[296] The warning described the facts of the case as follows:

> Upon inspection, I found reasonable grounds to believe that you are in contravention of the *Act* for having permitted, on 19 October 1998, the deposit of deleterious substances (i.e., PCB-contaminated hydrocarbons) into water frequented by fish, through the cessation of pumping and recovery activities in the St. Lawrence River.[297]

As for the enforcement of s. 36(3) of the *Fisheries Act*, Canada has previously observed that:

> The two most common defences are officially induced error and due diligence. Although the evidentiary onus is on the accused to prove such a defence, the investigating law enforcement agency or department investigates both these components of the case before the Crown prosecutor approves the laying of charges.[298]

In the concluding section of its warning, Environment Canada addressed the defense of due diligence in describing the shortcomings attributed to the City of Montréal:

> This warning alleges a lack of due diligence on your part regarding compliance with the *Act* as seen in your failure to meet its requirements. Should you fail to comply with this warning before our next inspection, other enforcement measures will be taken.

295. Compliance and Enforcement Policy, p. 19.
296. Environment Canada Response to CEC Request for Information, Appendix 22.
297. *Ibid.*, p. 2.
298. Canada's Response to Submission SEM-98-004 (BC Mining), 8 September 1999, p. 14.

> This warning, the alleged violations, and the surrounding circumstances will be part of the compliance history of the City of Montréal and its officials, and will be taken into consideration in the event of future violations.[299]

Under the Compliance and Enforcement Policy, the objective is to determine effective measures for achieving the desired result:

> The desired result is compliance with the *Act* in the shortest possible time and with no further occurrence of violations, in order to protect fish and fish habitat and human use of fish.[300]

In this regard, the Compliance and Enforcement Policy includes, among the factors to be considered, the alleged violator's history of compliance with the provisions of the *Act*.[301] According to Environment Canada, beginning in 1998, the City of Montréal had one instance of non-compliance with section 36(3) of the *Fisheries Act* in connection with discharges of hydrocarbons on the banks of the St. Lawrence. This led to the issuance of a warning.[302]

Under the Compliance and Enforcement Policy, one must also take into account law enforcement measures taken by other federal, provincial, or territorial authorities when selecting a measure that will be effective in dealing with an alleged violation and enforcement personnel must consider how similar situations in Canada are being or have been handled when deciding what enforcement action to take.[303] As regards section 36(3) of the *Fisheries Act*, in 1998, the federal government and Québec had already been working together for many years to combat pollution of the St. Lawrence River by industrial effluents.[304] In one case,

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299. Environment Canada Response to CEC Request for Information, Appendix 22, p. 2.
300. Compliance and Enforcement Policy, p. 18.
301. *Ibid.*
302. Environment Canada Response to CEC Request for Information, Appendix 22, p. 2.
303. Compliance and Enforcement Policy, p. 18.
304. See "Federal and Quebec Governments Tackle Industrial Toxic Waste in the St. Lawrence River," Press Release, 8 June 1989, online at <http://www.slv2000.qc.ca/communiques/phase1/rejets_toxiques_a.htm> (date viewed: 16 March 2007). See also Regional Assessment, Note to readers, "Reports on Priority Intervention Zones (known as PIZs) are produced as part of the St. Lawrence Vision 2000 action plan by Environment Canada's St. Lawrence Centre, in conjunction with Fisheries and Oceans, Health Canada, the ministère de la Santé et des Services sociaux du Québec [Québec Ministry of Health and Social Services] and its partners, and the Ministère de l'Environnement et de la Faune du Québec"; p. 29: "Among other major disruptions of the aquatic habitats in recent decades have been the construction of Highway 132 (south shore), the Bonaventure Autoroute, parking lots for Expo 67 (the site of today's Technoparc) and the Adacport, the installation of the

a company felt wronged when the federal government laid charges against it and its directors under section 36(3) of the *Fisheries Act* before expiry of the time period the province had granted the company to clean up its effluent.[305]

Concerning the Technoparc file, MDDEP has always been ready to accept that the City of Montréal would only take measures to address the groundwater if, following the installation of a system to recover LNAPLs, monitoring revealed insufficient improvement in groundwa-

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Brossard main sewer and fill work on Ile des Sœurs," online at <http://www.slv2000.qc.ca/zip/bilans_pdf/Bilanzip7_8_a.pdf> (date viewed: 30 March 2007). See also "Pour une économie bleue – le Saint-Laurent en développement" (For a blue economy – Developing the St. Lawrence) (Speech given by the Regional General Director, Environment Canada, Québec Region, and co-president for Canada on the St. Lawrence Vision 2000 Action Plan, at the Blue Economy Forum organized by Les Amis de la Vallée du Saint-Laurent, 12-13 October 1999, Delta Hotel, Trois-Rivières, online at <http://www.slv2000.qc.ca/divers/discours/JPG_accueil_a.htm> (date viewed: 27 March 2007).

305. See NL Industries Inc., form 10-K540, 5 March 1996: "The Quebec provincial government has environmental regulatory authority over Kronos' Canadian chloride and sulfate process TiO_2 production facilities in Varennes, Quebec. The provincial government regulates discharges into the St. Lawrence River. In May 1992, the Quebec provincial government extended Kronos' right to discharge effluents from its Canadian sulfate process TiO_2 plant into the St. Lawrence River until June 1994. Kronos completed a waste acid neutralization facility and discontinued discharging waste acid effluents into the St. Lawrence River in June 1994. Notwithstanding the foregoing, in March 1993 Kronos' Canadian subsidiary and two of its directors were charged by the Canadian federal government with five violations of the Canadian *Fisheries Act* relating to discharges into the St. Lawrence River from the Varennes sulfate process TiO_2 production facility. The penalty for these violations, if proven, could be up to Canadian $15 million. Additional charges, if brought, could involve additional penalties. The Company believes that this charge is inconsistent with the extension granted by provincial authorities, referred to above, and is vigorously contesting the charge," online at U.S. Securities and Exchange Commission <http://sec.edgar-online.com/1996/03/05/00/0000072162-96-000003/Section3.asp> (date viewed: 16 March 2007). See also Environment Canada, "*Fisheries Act*, Historical Legal Activities Report from January 1, 1988 to March 31, 1999 (compiled by Charged Date)," Table 23: Québec Region, Kronos Canada Inc., online at <http://www.ec.gc.ca/ele-ale/default.asp?lang=En&n=DFB7F234-1&offset=2&toc=show> (date viewed: 23 April 2007). See also Louis-Gilles Francœur, "L'année politique au Québec 1993-1994: L'environnement (The year in Québec politics, 1993-94: the environment)" *Le Devoir*, undated, online at <http://www.pum.umontreal.ca/apqc/93_94/francoeu/francoeu.htm> (date viewed: 27 March 2007).

306. See, for example, letter from Regional Director, MDDEP to Assistant General Manager, Environment, Roads and Infrastructure Department, Ville de Montréal, Re: Technoparc site – Containment option (2 April 2003), p. 2: "You will agree that it would not be any more justifiable to treat groundwater if there were no need to do so."

ter quality.[306] As for Environment Canada, it has always maintained that no violations of section 36(3) of the *Fisheries Act* will be authorized.[307] In November 2003, the City's consultant confused the positions of the two levels of government, attributing MDDEP's position to Environment Canada and claiming that Environment Canada had changed its position within the space of a few days.[308]

The Secretariat asked Canada the following question:

> Were there any discussions between the federal, provincial and municipal governments for the purpose of issuing an order or initiating legal proceedings under Québec's *Environment Quality Act* aimed at, among other things, enforcing compliance with section 36(3) of the *Fisheries Act* at the Montreal Technoparc? If so, what are the details? If not, why not?

Canada's answer was:

> The talks referred to in the question concern possible discussions between the Attorney General of Canada and the Attorney General of Québec. The existence of such talks and their content, if any, may not be disclosed.

Concerning enforcement of section 36(3) in relation to water pollution caused by contaminated sites, Environment Canada has stated that it has not developed a framework approach.[309] For its part, since 1990,

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307. See, for example, Ville de Montréal, Project to contain and recover hydrocarbons at the Technoparc – Minutes, 16 May 2002, p. 2: "[Environment Canada representative] also mentioned that there are no provisions in the *Fisheries Act* to authorize toxic discharges and that consequently, Environment Canada was under no obligation to consider any such eventuality." See also Ville de Montréal, First meeting of Technical Committee (12 August 2004), Minutes, p. 2: "[Environment Canada representative] stated that the provisions of the *Fisheries Act* are general but strict and that no regulations exist for relaxing its enforcement in the case of the problem in question."
308. SLEI, "Interception des phases flottantes d'hydrocarbures et des eaux souterraines – Site de l'ancien Adacport – Document d'orientation" (Containment of LNAPLs and groundwater at former Adacport site – Guidance document), November 2003, pp. 9-10, submitted to Ville de Montréal, Environment, Roads and Infrastructure Department.
309. On 28 November 2006, the Secretariat asked Canada the following question: "In a memorandum sent to you by the investigator of the file (Re: Technoparc, Montreal, undated), he states that he had to take into account opinions and recommendations of counsel in other similar files as well as relevant jurisprudence, in order to determine whether it is possible to gather all the elements of proof with a view to laying criminal charges under the *Fisheries Act*. Aside from the Compliance and Enforcement policy, is there a framework approach for enforcing section 36(3) of the *Fisheries Act* in the specific context of contaminated sites in Canada?" On 8 January 2007, Canada answered: "No."

MDDEP has an order power under its *Environment Quality Act* which allows it to require a polluter (regardless of whether it owns or controls the property in question) to assess a site and carry out necessary clean-up work, a power whose legality has recently been affirmed by the courts[310] and its scope widened.[311] The MDDEP can also resort to a provision of the law, also quite recent, that requires persons engaged in railway transportation auxiliary activities to notify their neighbours and MDDEP when they learn that contaminants are migrating or are at risk of migrating beyond the bounds of their properties.[312] MDDEP invoked this provision to secure CN's cooperation in this file.[313]

Furthermore, Québec's *Environment Quality Act* prohibits construction on a former landfill without the authorization of the Minister of the Environment.[314] MDDEP used this provision to prompt the City of

310. See Mira Gauvin and Anne-Marie Sheahan, "*Imperial Oil Ltd.* v. *Quebec (Minister of the Environment)*" (28 November 2003), online at <http://www.mccarthy.ca/pubs/publication.asp?pub_code=1451> (date viewed: 24 January 2007).

311. See Sophie Lavallée, *La réhabilitation des terrains contaminés et le droit québécois: un droit négocié* (Cowansville: Yvon Blais, 2004).

312. See Robert Daigneault, "La migration des contaminants et la responsabilité en droit pénal ou administratif," 59 *Revue du Barreau* 157 (1999), online at <http://www.barreau.qc.ca/fr/publications/revue/1999/no1/pdf/155.pdf> (date viewed: 24 January 2007). See also *Environment Quality Act*, R.S.Q., c. Q-2 (hereinafter, "EQA"), s. 31.52.

313. Ville de Montréal, Fifth meeting of Technical Committee (18 November 2004), Meeting minutes, p. 5. See, however, *Québec (P.G.)* c. *Compagnie des chemins de fer nationaux du Canada* [*Attorney General of Québec* v. *Canadian National Railway Company*] 2005 CanLII 13081 (QC C.Q.): "Is the provincial regulation on snow removal sites adopted under the *Environment Quality Act*, R.S.Q., Q-2, r. 15.1, constitutionally applicable to the defendant company? [...] Snow removal activities are essential to the operation of the defendant company in that they enable it to perform its activities safely and according to its mission. The provincial regulation concerns the administration of the company; as such, it affects a vital function of the company, and therefore cannot be applied to the respondent. Consequently, the Court dismisses the charge against the defendant." See also Anne-Marie Sheahan, "A case comment: *Attorney General of Quebec* v. *Canadian National Railway Company*," 12 August 2005, online at <http://www.mccarthy.ca/pubs/publication.asp?pub_code=1970> (date viewed: 3 April 2007).

314. EQA, s. 65: "No land formerly used as a site for elimination of residual materials may be used for construction purposes without the written permission of the Minister.
"The Minister may impose conditions, in particular, the deposit of a guarantee, when giving his permission pursuant to this section."
See also MDDEP, *Guide relatif à la construction sur un lieu d'élimination désaffecté* (*Article 65, L.Q.E.)* (Guide concerning construction on a former landfill site (section 65, EQA)), September 2003 (last modified: November 2005), s. 5 "Études à réaliser" (Studies to be conducted): "A firm specializing in environmental work shall be commissioned to carry out a characterization study so as to ensure that quality work is

Montréal to act expeditiously to install an LNAPL containment system along the shore of the St. Lawrence, refusing, for all intents and purposes, to allow new businesses to move into Montreal Technoparc in the meantime.[315]

On 16 November 1998, that is, four days after Environment Canada's warning, a meeting was held in MDDEP's offices in Montreal, with representatives of the City, Environment Canada, and MDDEP in attendance.[316] After reviewing the situation and discussing options for a permanent solution, participants considered existing programs that might facilitate implementation of a permanent solution. MDDEP mentioned Revi-sols, a joint City of Montréal/MDDEP, C$60 million, five-year urban contaminated sites remediation program.[317] Not eligible under this program was any work carried out to comply with an MDDEP order or a court order,[318] pursuant to the *Fisheries Act*, for example.[319] Furthermore, "any other financial assistance for the execution of eligible projects from the governments of Canada and Québec, their agencies, or from a legal representative of these governments, which is granted for eligible projects, shall be deducted from total eligible costs."[320]

For their part, at the meeting, Environment Canada's representatives mentioned the MCEBR and other research and development or assistance programs for small- and medium-sized businesses.[321] Participants agreed that efforts should be made to find ways to take advantage of these programs in the interests of a permanent solution.[322]

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done, in accordance with best practices, and that the appropriate impact mitigation measures are devised, in accordance with existing laws and professional codes."

315. Ville de Montréal, First meeting of Technical Committee (12 August 2004), Minutes, p. 5: "It is urgent that a solution be proposed as the MENV has temporarily suspended issuance of construction permits for development projects on city lands (unless such projects include LNAPL recovery)."
316. MDDEP, Minutes, Re: Contamination of the St. Lawrence River due to leaching from the City of Montréal's Technoparc (the former Adacport site), 28 October 1998.
317. *Ibid.*, p. 3.
318. Revi-sols (contaminated sites rehabilitation program), *Protocole d'entente entre le ministre de l'Environnement du Québec et la Ville de Montréal* (Memorandum of understanding between the Québec Minister of the Environment and Ville de Montréal) (23 September 2004), p. 11.
319. See above, s. 6.2.4.
320. Revi-sols, *Protocole d'entente entre le ministre de l'Environnement du Québec et la Ville de Montréal* (23 September 2004), p. 6.
321. *Ibid.*
322. *Ibid.*

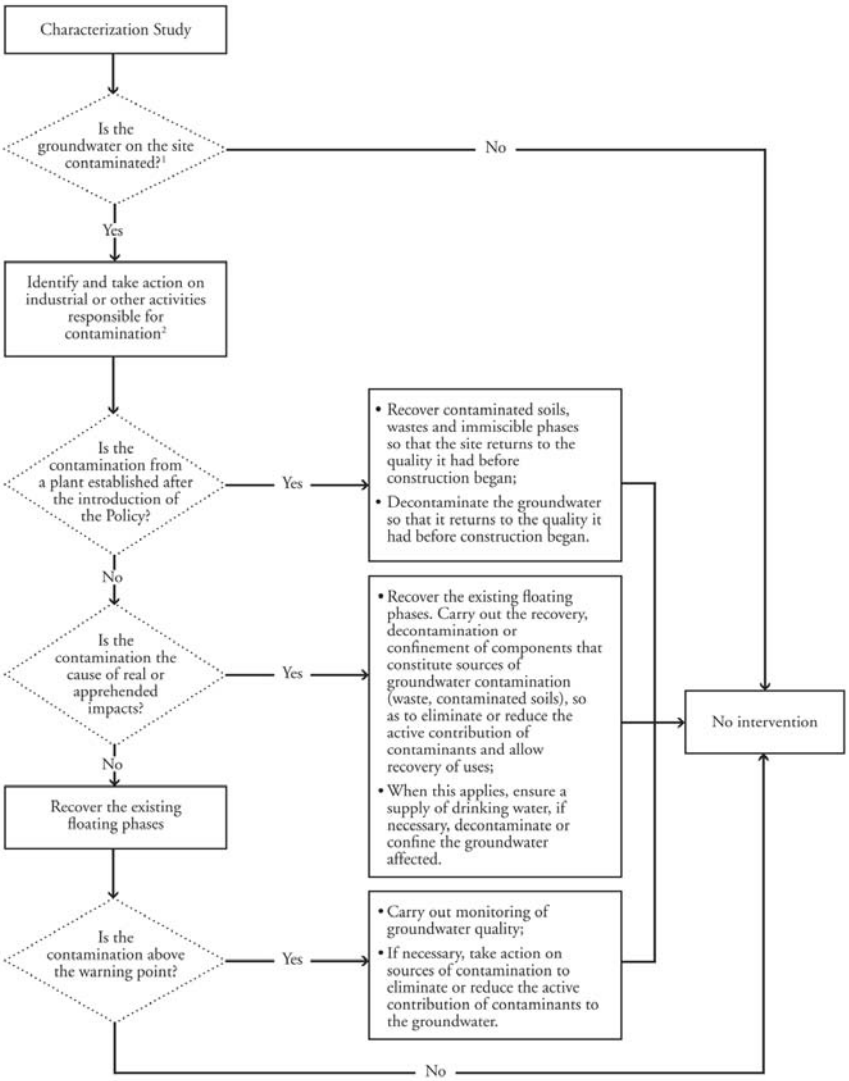
On 1 December 1998, the City of Montréal informed Environment Canada in writing that it had put back in place the temporary hydrocarbon recovery measures.[323]

8.4.3 Facts Occurring After the Warning

In 1998, MDDEP released a new version of its 1988 contaminated sites policy.[324] It now spelled out, for the first time, how to decide whether contaminated groundwater requires some sort of action (see Figure 11).[325]

323. Environment Canada Response to CEC Request for Information, Appendix 24.
324. MDDEP, *Politique de protection des sols et de réhabilitation des terrains contaminés*, Annexe 2 – Les critères génériques pour les sols et pour les eaux souterraines (Soil protection and contaminated sites rehabilitation policy, Schedule 2 – General criteria for soil and groundwater) (1998): "Where groundwater contamination originates from an industrial establishment set up after this Policy comes into force, action shall be taken in respect of the soil and groundwater to restore the land to its condition prior to the facility's establishment (see chapter 5 of the Policy). In other cases, an assessment of the impact of operations and contaminated soils on groundwater quality is required. If there is a real or apprehended impact on groundwater [see definition, section 2.2.2.1; a real impact exists, notably, when there is seepage (real or apprehended) into surface waters of groundwater contaminated in excess of the criteria established for the protection of surface waters; infiltration, into a sewer system, of groundwater contaminated in excess of criteria established for the protection of surface waters, or emanations from contaminated groundwater of volatile substances that either pose a risk to public health and safety or are a source of discomfort (e.g., gaseous hydrocarbons)], on-site action shall be required to eliminate or reduce the active contribution of contaminants such that former uses may be restored. To this end, interventions shall consist of recovering LNAPLs and, depending on the situation, recovering, decontaminating or proceeding with the containment of those components that constitute active sources of contamination (i.e., contaminated soils and wastes). In certain situations, it may also be necessary to proceed with the decontamination or containment of the contaminated groundwater and to ensure the supply of drinking water to users." See also Sophie Lavallée, "Petite histoire de la Politique de 1998," in *La réhabilitation des terrains contaminés et le droit québécois: un droit négocié* (Cowansville: Yvon Blais, 2004), pp. 208 et seq.
325. *Ibid.*

Figure 11 Groundwater intervention procedure



1. Contaminated: concentration above the measured background level or the quantification limit of the analytic method.
2. Poor practices, faulty equipment, etc.

Source: MDDEP, 1998.

The response procedure proposed in the 1998 policy reflects the basic conditions imposed by Québec on the City of Montréal in the sale of the Technoparc site: 1) recover LNAPLs and 2) monitor groundwater quality to determine whether removal of LNAPLs (which Québec referred to in 1989 as "mitigation measures") brings groundwater into compliance with applicable water use criteria.[326] However, MDDEP's authorization did not prescribe specific conditions (such as those in the response procedure presented in Figure 11) concerning the recovery, decontamination or containment of wastes and contaminated soils found on the Technoparc site.[327]

Under the Compliance and Enforcement Policy, the alleged violator's willingness to cooperate with individuals designated by the Minister of Fisheries and Oceans under the *Fisheries Act* as fishery officers or fishery guardians (s. 5), or as fishery inspectors (s. 38), is a factor to be considered when determining the appropriate measure to take in the event of an alleged violation.[328] In 1999, the City of Montréal, MDDEP and Environment Canada participated in a "value analysis exercise" facilitated by a consultant. At the end of this exercise, the City decided to adopt the same remediation objective as CN: contain and recover LNAPLs migrating off the Technoparc site towards the St. Lawrence River, without treating the groundwater.[329] The report of the consultant retained to organize this exercise contained these instructions:

326. See above, s. 8.2.2.
327. *Ibid.*
328. Compliance and Enforcement Policy, p. 18.
329. Miri-Valorex, "Ville de Montréal – Technoparc – Écoulement d'hydrocarbures au fleuve St-Laurent/Rapport" (City of Montréal – Technoparc – Report on leakage of hydrocarbons into the St. Lawrence River), June 1999, pp. 11-12:
"Environment Canada criteria:
- "Any deposit of regulated contaminants into the river in excess of 50 mg/L is a violation of CEPA (*Canadian Environmental Protection Act*), which the responsible party must remedy by implementing corrective measures.
- "Where deposits are <50 mg/L, decontamination is required if the quantity of contaminants is >0.3 g/day. Where the discharge is less than 0.3 g/day, an impact study shall be submitted in order to evaluate the scope of the corrective measures to be instituted.
- "EC (Environment Canada) has an interest in deposits into the river, whether these are LNAPLs or dissolved-phase.
- "Approximately a year ago, EC implemented new regulations on bio-restoration of contaminated sites. These regulations are particularly restrictive concerning the origin of the bacteria used, which must come from the same ecosystem as the site undergoing treatment.

[...]
"In light of the MEF (MDDEP) and EC presentations, participants agreed to restrict the development of scenarios to those pertaining to LNAPLs. In this regard, [Golder Associates representative] underscored that CN, in its letter of 30 September 1997,

> Chronologically, it is crucial to commence with the following sequence of events—a sequence that is both essential and a prerequisite to the implementation of any scenario: 1) ask for a legal opinion on the laws, regulations and contracts to be complied with; 2) [...][330]

In October 1999, the City of Montréal applied for C$3,671,500 in financial assistance from the Revi-Sols program for a project to contain and recover LNAPLs on the Technoparc site.[331] The proposed project included seven components:

Component 1: site history

Component 2: cartography

Component 3: additional environmental characterization

Component 4: preliminary design study

Component 5: hydrocarbon containment and recovery

Component 6: communications program

Component 7: legal opinion.[332]

In its application, the City of Montréal explained:

> Finally, it should be noted that the City of Montréal has undertaken to retain responsibility for recovering LNAPLs on the Technoparc site. This commitment was made to the Québec Ministry of the Environment but also in the context of selling lots to private developers for Cité du cinéma

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withdrew from cost-sharing responsibilities associated with contaminants migrating towards the river, with the exception of those migrating towards Technoparc." See also *Miri-Valorex*, p. 27: "Point 6. Implementation timeline. Scenario 7 (partially penetrating waterproof barrier at the edge of the wastes) can be implemented in approximately 30 months. Supposing that the City's elected officials approve the project in June 1999, one could expect the system to be in operation by the end of 2001. The activities to be undertaken appear in the tree diagram (Appendix E [not reproduced herein]). Chronologically, it is crucial to commence with the sequence of events below–a sequence that is both essential and a prerequisite to the implementation of any scenario: 1) ask for a legal opinion on the laws, regulations and contracts to be complied with; 2)...."

330. *Ibid.*

331. Québec, Contaminated sites rehabilitation program – Financial assistance eligibility application form – General information, 29 October 1999 (revised on 16 November 1999).

332. *Ibid.*

Mel and all the other projects in the pipeline (e.g., Fitzpatrick industrial condominiums).[333]

MDDEP accepted this application on 14 December 1999.[334] The City of Montréal then retained the services of SNC-Lavalin Environment Inc. (SLEI) to carry out an additional characterization study, the City's objective being to have an LNAPL recovery system operational, at the southern boundary of Technoparc, as of 2001.[335] SLEI submitted the final version of the additional characterization study and the preliminary design study to the City of Montréal in March of 2002.[336]

333. *Ibid.* See also Montreal Regional Environment Council, *Mémoire sur la gestion de l'eau à Montréal et au Québec* (Brief on water management in Montreal and Québec), 9 November 1999, c. 2, "La contamination de l'eau" (Water contamination), p. 15, "Les terrains contaminés" (Contaminated sites): "The MUC (Montreal Urban Community) contains a large number of contaminated sites from which leachates are discharging. A financial assistance program for the remediation of such urban sites does exist. However, this program is only aimed at contaminated sites with major commercial potential. Consequently, contaminated sites that lack such potential but pose a threat to human health or the environment are excluded from this remediation program. This means that a large number of contaminated sites are left to their fate, as their owners lack the financial means and willingness to act. The Montreal Technoparc site is a good example. This former landfill leaks water contaminated by hydrocarbons and PCBs directly into the St. Lawrence River. Although this site has been sampled and characterized, the City of Montréal has not taken any measures to remedy the situation. CRE-Montreal has retained the following proposals: 2.18 – That the municipalities of the MUC conduct studies to inventory and assess their contaminated sites; 2.19 – That the Government of Québec review its classification criteria in respect of the contaminated sites to be remediated in order to take into account these sites' impact on the environment and human health; 2.20 – That the City of Montréal install a leachate retention barrier between the river and the former landfill located under the Technoparc. 2.21 – That the Government of Québec hold public hearings on the management of contaminated sites in Montreal." See also Québec, BAPE, *L'eau, ressource à protéger, à partager et à mettre en valeur* (2000), c. 3, "Les besoins et les attentes des régions," "Industries": "Another issue of concern is containment of contaminants before they reach the river in the area where the oil company docks are located, as well as at the Adacport site, near the Victoria Bridge. In the latter case, the pumping of PCBs and leachates is ongoing and a committee has been formed to examine long-term solutions (PR3.6, p. 7 and TRAN53, p. 58)."

334. Letter from Montreal Regional Director, MDDEP to Manager, Public Works and Environment Department, Ville de Montréal, Re: Program for remediation of contaminated sites in urban areas, 14 December 1999.

335. Quebec, Contaminated sites rehabilitation program – Financial assistance eligibility application form – General information, 29 October 1999, revised 16 November 1999.

336. SNC-Lavalin Environnement inc., *Caractérisation environnementale complémentaire (volets 1, 2 et 3), Projet d'interception et de récupération des phases flottantes d'hydrocarbures, Technoparc, Montréal* (Complementary environmental characterization (components 1, 2 and 3), March 2002.

8.5 Facts surrounding Environment Canada's 2002-2003 investigation in response to a complaint from members of the public

One of the guiding principles of the Compliance and Enforcement Policy is that the public will be invited to report apparent violations of the *Fisheries Act* habitat protection and pollution prevention provisions. Pursuant to Council Resolution 04-05, the following paragraphs of the factual record present information gathered by the Secretariat regarding the investigation conducted in 2002-2003 in response to a complaint from members of the public.

8.5.1 Environment Canada's Investigation

In April 2002, in response to a complaint filed by Société pour Vaincre la Pollution and Environmental Bureau of Investigation (EBI),[337] Environment Canada initiated an investigation into possible violations of section 36(3) of the *Fisheries Act* in connection with hydrocarbons surfacing in the St. Lawrence River opposite Technoparc. A month later, Environment Canada called into question the remediation objective set by the City at the outcome of the 1999 value analysis exercise (see above, s. 8.4.3), which was limited to recovering LNAPLs.[338] The minutes of a meeting held in May 2002 reveal the following:

> [Environment Canada representative] refers to Environment Canada's letter of May 13 to the City and reiterates [EC's] concern that no groundwater toxicity analysis has been done, a matter of particular concern since, in his opinion, the water is probably toxic, given the results presented in the SNC-Lavalin characterization report.[339] [Environment Canada repre-

337. It is to be noted that an EBI employee, Janet Fletcher, was behind the suit in *Fletcher* v. *Kingston*, in which the City of Kingston was found guilty of violating section 36(3) of the *Fisheries Act* by failing to stop the discharge of leachate from a former municipal landfill into the Cataraqui River; see "Backgrounder: Belle Park Litigation", online at <http://www.cityofkingston.ca/residents/environment/bellepark/litigation.asp> (date viewed: 30 March 2007). Moreover, it was also an EBI employee who provided the leachate analyses in the Deloro case (see above, s. 6.2.3.1); see "Private Prosecution Fact Sheet," online at <http://www.eprf.ca/ebi/guide.html> (date viewed: 2 April 2007).
338. Letter from Regional Director, Environmental Protection Branch, Québec Region, Environment Canada to Director, Laboratory Services, Environment, Roads and Infrastructure Department, Ville de Montréal, Re: Technoparc floating barrier project, 13 May 2002.
339. According to the City of Montréal, it is possible that groundwater samples were contaminated by LNAPLs. See Ville de Montréal, Minutes, Re: Project to contain and recover hydrocarbons at Technoparc, 16 May 2002, p. 1.

sentative] also mentions that there are no provisions in the *Fisheries Act* to authorize toxic discharges and that consequently, Environment Canada is under no obligation to consider any such eventuality. In addition, he mentions that the Sanexen results[340] are very partial and cannot be considered representative of groundwater at Technoparc.

[MDDEP representative] briefly recaps Technoparc's historical context: a landfill since the beginning of the nineteenth century, operated in accordance with then prevailing practices, the site was sold to the City of Montréal by the provincial and federal governments in 1989 in a context where the site's history and the presence of LNAPLs were known facts. Given this context, the MENV [MDDEP] is showing solidarity in the implementation of a solution that takes costs and benefits into account.

[Environment Canada representative] reminds those present that the file is under investigation by Environment Canada, which will be completed in mid-June. He acknowledges that the federal government might have certain environmental responsibilities in this file and that, although no federal program akin to Revi-Sols is in place that would facilitate its financial involvement, federal participation of this kind is neither ruled our nor assured. [Environment Canada representative] also mentions that a comprehensive assessment of the environmental issues has not been done and that, according to figures put forward in the SLEI characterization report, the wall would only solve two-thirds of the problem.

[City of Montréal representative] mentions that if a decision were made to delay the project in order to proceed with further studies, such a decision would not be much appreciated in various quarters. If, on the other hand, the City were to go forward with the wall project in its present form, that might prove a waste of money, should the approach fail to satisfy *Fisheries Act* requirements as regards groundwater.

[The MDDEP representative] wonders about the possibility of proceeding in steps, i.e., first, put in place a wall (which could eventually apply to groundwater) and assess the need to treat the groundwater. [City of Montréal representative] indicates that the project in its present form would be difficult to "improve upon," once installed, to add groundwater treatment, because the wall, which isn't anchored in the bedrock, does not block groundwater and the pumping system only applies to LNAPLs.

340. See Canada, National Research Council, Biotechnology Research Institute, *Annual Report 2001-2002*, Partnerships: "Sanexen/Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR) – Research, development and demonstration of an Ultrasorption system and an adsorbant-bed bioreactor, and pilot project on groundwater treatment in the Montreal Technoparc," online at <http://www.irb-bri.cnrc-nrc.gc.ca/files/ar_01-02_eng.pdf> (date viewed: 25 April 2007).

> [SLEI representative] adds that if groundwater has to be pumped, the diameter of the pumping wells would probably need to be increased.
>
> [Environment Canada representative] mentions that section 36(3) of the *Fisheries Act*, as well as the legal provision authorizing a third party to sue Environment Canada in the event that it fails to enforce the *Fisheries Act,* are putting pressure on Environment Canada, as is the possibility that the proposed solution might not suffice to resolve the problem in the long term. For these reasons and given what has been mentioned previously, [Environment Canada representative] hopes a joint decision will be taken to proceed with further assessment of the groundwater's chemical characteristics, its toxicity and impacts on living organisms in order to eliminate existing uncertainty regarding potential groundwater toxicity.
>
> [MDDEP representative] mentions that if complementary groundwater characterization leads to the conclusion that action is required to address dissolved phase groundwater contaminants, a partnership (comprising the City of Montréal, MENV, Environment Canada, and owners of adjacent lots) would have to be established to fund groundwater management work.[341]

8.5.2 2002 Ecotoxicological Study

Council Resolution 04-05 instructed the Secretariat to prepare a factual record regarding the ecotoxicological study carried out in 2002. This section of the factual record contains information gathered by the Secretariat concerning this study.

Following delivery of SLEI's additional characterization study in March 2002 and the beginning of Environment Canada's investigation in April 2002, the City of Montréal agreed to commission SLEI to carry out additional sampling to assess whether the Technoparc's groundwater is toxic to fish.[342]

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341. Ville de Montréal, Project to intercept and recover hydrocarbons at the Technoparc – Planning meeting held at the request of the City of Montréal, Minutes, 16 May 2002, pp. 2-3.
342. Letter from the hydrogeologist and project manager, Environmental Projects, SLEI, to Laboratory Services, Environment, Roads and Infrastructure Department, Ville de Montréal, Re: Results of the two sampling campaigns to characterize groundwater toxicity at Montreal Technoparc, 11 November 2002, in Environment Canada Response to CEC Request for Information, Appendix 30.

In May 2002, the City called on Canada's Minister of the Environment for help.[343] In June 2002, the Minister responded in the following terms:

> I can also confirm that my officials at the Environmental Protection Branch (EPB), Québec Region, have already undertaken measures with representatives of Canadian National, VIA Rail Canada and Jacques-Cartier and Champlain Bridges Inc. I believe we have convinced them of the significance of the factors weighing in favor of their constructive participation in roundtable discussions.[344]

Thereafter, CN received subsidies to test a biotreatment process for PAH-contaminated groundwater on its property.[345] VIA Rail replaced the entirety of its diesel supply system as well as the spill containment

343. Letter from the Executive Committee member responsible for sustainable development, Ville de Montréal, to the Environment Minister, Environment Canada, 1 May 2002.

344. Letter from the Environment Minister, Environment Canada, to the Executive Committee member responsible for sustainable development, Ville de Montréal, 27 June 2002.

345. See Golder Associates, "Biofilter Development Project for the Treatment of Hydrocarbon Contaminated Water Receives Funding," 11 April 2003, and Christine Guay and Hélène Richer – Golder Associates, Ltd., Denis Rho – Biotechnology Research Institute, Stella Karnis – Canadian National Railway, "Biological Treatment of PAH-Contaminated Groundwater: A railyard Case Study," Railroad Environmental Conference 2004, U. Ill. at Urbana-Champaign, 12 October 2004: "Remediation of groundwater aquifers contaminated with diesel in railyards is often achieved using Multi Phase Vacuum Extraction (MPVE) systems. Typically, the liquid and gaseous effluents generated by these systems, even after the removal of the free phase product by an oil-water separator, are treated using expensive and short-lived activated carbon filter beds. We hypothesized that, through the substitution of these activated carbon beds by a biotreatment unit, the operation costs could be reduced and the treatment effectiveness (i.e., biodegradation vs. adsorption) could be improved. The objectives of this research and development project are to demonstrate the effectiveness of a biotreatment unit associated with a MPVE system and to perfect its design to treat the highly charged effluents at a cost similar or lower to currently available treatment options, in a sustainable development perspective.... This Golder-BRI project was made possible by the contributions of CN, the Centre d'excellence de Montréal de réhabilitation de sites, and the Fonds d'action québécois pour le développement durable and its financing partner, the Quebec government," online at <http://cee.uiuc.edu/research/railroad/RREC/Summaries04.asp> (date viewed: 27 March 2007).

system in its diesel fueling area.[346] JCCBI contracted Dessau-Soprin inc. to assess the groundwater on its property.[347]

In November 2002, SLEI submitted the results of its additional sampling campaigns to the City of Montréal.[348] Regarding the bioassays (which measure toxicity), the report concluded that the water from two of the four wells sampled was acutely toxic, while the results of the chronic toxicity analysis were less clear.[349] The report also noted that the

346. See Dessau-Soprin inc., "VIA Rail Canada – Pointe-St-Charles Maintenance Centre – Various projects" (2003): [...] Diesel fueling area – In order to collect all of the diesel fuel from a spill at the filling stations, VIA Rail's Montreal Maintenance Centre completely overhauled its fuel containment system. The work done entailed replacing the underground diesel supply system for locomotives with a new overhead system and included moving and renovating the counters and pumping stations, replacing the steel spill collection system with concrete collection areas with heating cables and built-in, double wall drainage pipes, connecting the new drainage system to the oily water from the existing oil separator [...]" online at <http://www.dessausoprin.com/eng/buildingEngg/list12transport.cfm> (date viewed: 23 March 2007). See also Ville de Montréal, Third meeting of Technical Committee (16 September 2004), Minutes, p. 2: "In 2001-2002, during an approximately 18-month period, VIA Rail carried out LNAPL recovery operations on the property it occupies. Apart from that, it relies on CN's recovery system. VIA Rail's recovery operations were limited to LNAPLs. There was no characterization of groundwater."

347. See Dessau-Soprin inc., "Ponts Jacques Cartier et Champlain Incorporée – Rapport de forages, d'échantillonnages et d'essais sur les eaux souterraines de la section 12 du pont Champlain" (Jacques Cartier and Champlain Bridges Incorporated – Drilling, sampling and assay report on the groundwater of section 12 of the Champlain Bridge) (Ref.: contract no. 60562), Final report (April 2004), pp. ii-iv: "Groundwater flow is generally towards the south-southeast, i.e., along the S and T ramps of the Bonaventure Expressway towards the St. Lawrence River [...] It should be noted that this report does not include a comparison of test results with the Canada-wide criteria established by the Canadian Council of Ministers of the Environment (CCME) [...] Based on the results presented above, the groundwater flowing under the property under investigation would not be in compliance with the criteria and provisions of MENV's *Policy on Soil Protection and Rehabilitation of Contaminated Sites* in respect of groundwater discharges into the St. Lawrence River, due to the quantities of dissolved zinc, hexavalent chromium, ammonia nitrogen, and chlorides; these quantities exceed the criteria stipulated in MENV regulations (see *Résurgence dans les eaux de surface ou infiltration dans les égouts* [Discharges into surface waters or infiltration into sewers]). Furthermore, every groundwater sample taken in observation wells F-101, F-102, F-103, F-104, and F-106 indicated potentially lethal and/or sublethal toxicity to test organisms."

348. Letter from the hydrogeologist and project manager, Environmental Projects, SLEI, to Laboratory Services, Environment, Roads and Infrastructure Department, Ville de Montréal, Re: Results of the two sampling campaigns to characterize groundwater toxicity at Montreal Technoparc, 11 November 2002, in Environment Canada Response to CEC Request for Information, Appendix 30.

349. *Ibid.*, pp. 9-10.

MENV-prescribed limits on discharges into surface waters or sewer systems had not been exceeded at any time[350] and that a clear correlation existed between the concentration of ammonia nitrogen in the samples and their toxicity.[351]

8.5.3 Investigation Report

At a June 2002 meeting on the adoption of a groundwater toxicity assessment protocol for Technoparc, a City of Montréal representative inquired as to the date when Environment Canada's investigation report would be finalized.[352] According to Environment Canada, the investigator was waiting for information regarding a lot number on the cadastre and thereafter he would be submitting the report to his department head.[353] In its investigation report, dated 22 April 2003, Environment Canada concluded that no charge could be laid for a violation of s. 36(3) of the *Fisheries Act* in relation to the deposit of deleterious substances into the St. Lawrence River opposite the Victoria Bridge, as it was impossible to establish the origin and the pathway traveled by the substances in question. A chronology of the investigation and the investigation report itself (in both its draft version and its final version) are reproduced herein as appendices.[354]

The Secretariat gathered information on the procedure to follow when drafting an investigation report while enforcing section 36(3) of the *Fisheries Act*. Environment Canada's training manual outlines the elements of an investigation report:[355]

The Investigation Report

Goals

- Administrative: statistics and others
- allow superiors to follow the progress of an investigation and do quality control;

350. *Ibid.*, p. 9.
351. *Ibid.* See also above, s. 8.3.1.2.
352. Ville de Montréal, Minutes, Re: Project to contain and recover hydrocarbons at Technoparc/Groundwater toxicity assessment protocol, 13 June 2002, p. 9.
353. *Ibid.*
354. Appendices 7-9.
355. From 15-26 April 1991, Environment Canada conducted a training workshop for its investigators on enforcement of the *Canadian Environmental Protection Act* and the *Fisheries Act* at the Transport Canada Training Institute in Cornwall, Ontario. A document on investigations, with a section on investigation reports, was included in an appendix to the training manual distributed to participants.

– informs your prosecutor about information gathered during the investigation;
– chronology of steps taken during different phases of the investigation.

Definition

– It is an account of the steps taken by the investigator during an investigation. This report must reflect as faithfully as possible:
– the facts (scene, clues detected...)
– testimony (persons interviewed)
– research (procedures, scientific analyses...)
– depositions (summaries of answers given by persons interviewed)
– appendices (photos, sketches...)

Characteristics

– concise	– keep to the facts
– precise	– leaves no room for uncertainty
– impartial	– the truth
– thorough	– no further explanation required

Rules to follow

Preconceived ideas have no place in an investigation report. Expressing opinions is not forbidden however, there is the danger that an opinion will be a preconceived idea. One must distinguish between a hypothesis and an opinion. Opinion is directly related to a judgment on a subject, while a hypothesis is linked to a supposition from which one draws a conclusion.

As it is not the investigator's role to make judgments, opinions must be avoided unless you can prove what you are saying.

On the other hand, expressing the opinion that a given witness is very nervous, unstable, dishonest, or otherwise, may help the prosecutor who is reading your account of the facts to better prepare his examination of that witness.

Furthermore, should counsel for the opposing party use your report during cross-examination, you will face, depending on the opinion expressed, enormous difficulties especially if the opinions included in your report were favorable to the accused at the beginning of your investigation.

Use simple and common vocabulary. Ease of understanding is based on clear and straightforward expression. Eliminate unnecessary words. Avoid dramatizing your report. Underlining is allowed if you wish to

attract the reader's attention. That being said, only underline certain key passages or expressions. As a rule, titles are underlined:

- Victim:
- Location:
- Date and time:

It is often necessary to add appendices: a statement, a letter, a document may not square with the text but are essential for the reader.

Use upper-case letters (A, B, etc.) to identify appendices. Center the word "Appendix," including its identifying letter, along with the title on a title page.

Based on its examination of the investigation chronology, the investigation report (draft and final versions), and the training manual for investigators, on 28 November 2006, the Secretariat addressed (written) questions concerning the investigation to the person who, at the time of the investigation, was the manager of the Enforcement Division at Environment Canada's Environmental Protection Branch, Québec Region. Canada answered these questions in writing on 8 January 2007. The questions and answers are reproduced below.

Question 1: Why did the investigator recommend that you enquire about the risk of civil liability in the context of enforcing the law in the Technoparc file?

Answer 1: *On his own initiative, during his investigation, the investigator sought to take into account many possibilities. In the context of enforcing the Fisheries Act in the Technoparc file, the risk of civil liability was the subject of several meetings with the Ministry of Justice but was not subsequently considered for the purposes of the investigation.*

Question 2: What is the relevance of the *Koppers* case[356] (British Columbia) with respect to the Technoparc situation?

Answer 2: *For the same reasons mentioned previously, the investigator was concerned about a civil suit against the Ministry.*

356. See *Beazer East* v. *British Columbia (Assistant Regional Waste Manager)*, APPEAL NO. 98WAS-01(b) [2000], online at <http://www.eab.gov.bc.ca/waste/98was01b.htm> (date viewed: 14 May 2007); *Beazer East* v. *British Columbia (Director of Waste Management)*, APPEAL NOS. 2002-WAS-016(a) and 2002-WAS-017(a) [2002], online at <http://www.eab.gov.bc.ca/waste/2002was016a_017a.pdf> (date viewed: 14 May 2007).

Question 3: In his chronology of the investigation, the investigator noted the following on 5 December 2002:

> "The City refuses to build the wall proposed by our experts and as a result [the manager] asks me to arrange it so that the factual data of the investigation and its conclusions appear in the investigation report."

Please explain.

Answer 3: *Environment Canada experts did not recommend the construction of a wall to the City of Montreal. They did, however, raise questions as to the ability of the wall, proposed in the SNC-Lavalin report (un-anchored wall), to intercept the groundwater flowing towards the river. For this reason, the Environment Canada experts instead proposed a characterization of the groundwater. [The manager] asked the investigator to ensure that these facts, which she deemed important, be included in the investigation report.*

Question 4: In his investigation chronology, on 13 March 2003, the investigator noted the following:

> "Meeting with [the manager] and [principal Environment Canada investigator] for the investigation report. [The manager] explains the changes she requests and gives me a copy of the corrections to make. She will take care of correcting the letter of response. Her corrections in file."

Four days later, on 17 March 2003, the investigator notes the following in the chronology of the investigation:

> "Given the numerous changes to my investigation report I can no longer recognize it as my own."

Please explain.

Answer 4: *The corrections [the manager] suggested to the investigator during the writing of his investigation report essentially concerned syntax and details to add regarding certain facts.*

Question 4.1: Why did the investigator doubt his appointment under the *Fisheries Act* (allowing him to continue his functions as investigator) in June and July 2002?

Answer 4.1: *The reason for this doubt is not specifically related to the Technoparc file. However, to respond concisely to the question, one must understand that in order to enforce the Fisheries Act, and in particular the part assigned to Environment Canada, two appointments can be made by the Minister of Fisheries and Oceans: fishery officer and inspector. The investigator is appointed as an inspector, which allows him to enforce section 36(3) of the Act.*

Question 5: The Investigation Report (22 April 2003) concludes:

> "The investigation is not able, because of its technical and scientific complexity, to demonstrate and collect the evidence necessary to allowing for the identification of the *source* of a specific deleterious substance and the *path* it has taken to discharge into the river, while at the same time eliminating *all other possible sources* of contamination, and to connect this trajectory only to the lots that make up the Technoparc."

The relevance of these elements, in the context of an investigation under section 36(3) of the *Fisheries Act*, is not apparent. Please explain the relevance of identifying the "source" and the "path" of a substance in proving an offence under section 36(3) of the *Fisheries Act*.

Answer 5: *During an investigation related to a violation of section 36(3) of the Fisheries Act, the investigator must collect evidence for each element of the offense. In a prosecution, the Crown must then prove each of these elements beyond a reasonable doubt. Among them are the identity of the person who causes or allows the deposit, along with the location where the deposit occurs and the ability of the deleterious substance to reach water frequented by fish. For these reasons, this information is relevant to the file.*

Question 6: In a memorandum sent to you by the investigator in this file (Subject: Technoparc, Montreal, undated), he states that he must take into account opinions and recommen-

dations formulated by prosecutors in other, similar files and the relevant caselaw to determine if it is possible to collect all the elements of proof in order to lay criminal charges under the *Fisheries Act*. Aside from the Compliance and Enforcement Policy, is there a framework approach for enforcing section 36(3) of the *Fisheries Act* in the specific context of contaminated sites in Canada?

Answer 6: *No.*

Question 6.1: In this same memorandum, the investigator summarizes several court decisions concerning civil liability of the federal Crown with a view to assessing the risk of Environment Canada's being successfully sued for non-enforcement of the *Fisheries Act*. He concludes: "The investigator has observed that since the deposits into the river were first brought to its attention, EC has fulfilled its obligations and continues to do so to the extent possible and given the powers attributed to it under the law with respect to enforcing the *FA*." Is it normal for an investigator to render this type of legal opinion concerning the potential liability of Environment Canada for non-enforcement of the law?

Answer 6.1: *The response you wish to obtain does not concern the facts but rather a value judgment on the investigator's work. For this reason, we will not answer this question.*

8.6 Compliance promotion efforts following the decision by Environment Canada not to seek charges

Under the Compliance and Enforcement Policy,

> Personnel from the Department of Fisheries and Oceans and the Department of the Environment carry out many activities intended to promote compliance, including developing guidelines and codes of practice and providing technical advice. These personnel may review proposals and referrals for new projects and provide technical advice on how to achieve compliance. They may also provide expert testimony in court to support prosecutions under the *Fisheries Act*.[357]

357. Compliance and Enforcement Policy, p. 6.

The Compliance and Enforcement Policy also provides:

> The Department of Fisheries and Oceans and the Department of the Environment will continue to co-operate with other federal departments and agencies, industry, and provincial and territorial governments to promote the development of new technology in Canada for the protection of fish habitat from physical impacts and for pollution prevention and control. The departments will also promote the evaluation of such technology used elsewhere, to facilitate its application to Canadian conditions.[358]

Council Resolution 04-05 instructed the Secretariat to gather information on compliance promotion efforts that followed Environment Canada's decision not to seek charges. This section of the factual record contains the information gathered by the Secretariat in this regard.

In January 2003, the City of Montréal made a commitment to Environment Canada to adopt a two-stage approach. First, it would construct a partially anchored LNAPL containment barrier on the southern boundary of its property, with the option of anchoring the barrier in the bedrock along its entire length at a later date, should recovery of LNAPLs fail to bring groundwater quality into compliance with the law.[359] Thereafter, the City distanced itself from the action plan to which it had agreed, using legal and technical arguments in an attempt to

358. *Ibid.*, p. 14.

359. Memo from the Director, Intervention and Restoration to the Regional Director, Environmental Protection Branch, Québec Region, Environment Canada, Re: Technoparc; informal meeting (28 January) between Ville de Montréal, MENV, and EC, 6 February 2003: "The City of Montréal made a succinct presentation of the revised version of its project. The City undertakes to 'anchor' the wall along 40% of its total length, half of which would be anchored continuously (an EC request approved by MENV) in the sector where groundwater analysis has exhibited acute toxicity. The City undertakes to modify the configuration of the pumping wells initially designed to recover LNAPLs in order to permit the installation of equipment for the recovery of dissolved-phase contaminants as well. The City agrees to use some of the multiple-use wells for groundwater monitoring in 2004. The City undertakes to effect such monitoring at the ends of the continuously anchored section of the wall (an EC proposal), in order to verify whether the accumulated dissolved-phase contaminants, after diversion by this section of the wall, are in compliance with our regulatory requirements. Should these "accumulated" dissolved-phase contaminants prove toxic under section 36(3) of the *Fisheries Act*, the City has obtained assurances from its consultant, SNC-Lavalin, that it would be possible to anchor the wall along its entire length during an eventual phase II. The City of Montréal agreed to reactivate the Technical Committee (Ville de Montréal, EC, MENV) to request that it define the parameters of this environmental monitoring. The MENV insisted that the 'CA' [certificate of authorization issued under the *Environment Quality Act* (Québec)] include the monitoring criteria and that these take into account federal and provincial concerns."

secure financial and other commitments from the multiple actors in the file before embarking on any project at all.[360]

From a legal perspective, the City claimed that Environment Canada's expectations were unclear: on one hand, EC seemed willing to accept that anchoring of the hydraulic barrier be deferred, but on the other hand, it seemed quite insistent that it would not tolerate the discharge of deleterious substances in the long term.[361] The City and its consultants claimed that, if it was nearly certain that sooner or later groundwater containment would be required, it would be less costly to proceed directly with the construction of a barrier that would be anchored in the bedrock throughout its entire length.[362] Furthermore, the City and its consultants asserted that, should the contained groundwater satisfy the City of Montréal's effluent discharge standards (which appeared to be the case, based on pumping tests), this discharge option

360. Environment Canada, "Minutes of meeting of 28 August 2003 with the City of Montréal and Technoparc file partners": "City of Montréal proposal: According to the City of Montréal, for reasons essentially having to do with contractual difficulties and cost considerations, the City is finalizing a call for tenders to commission a firm to conduct a comprehensive review of the Technoparc site action strategy. This means that the action scenario developed by SNC-Lavalin will be revisited and possibly modified or replaced. The bid document will be divided into three main components: LNAPLs, dissolved-phase contaminants, and treatment of the latter. This bid document will be submitted to EC and MENV for comment on September 5. The City will also draft a memorandum of understanding on the sharing of financial responsibilities with the three neighbors (CN, VIA Rail and JCCBI). This document will be forwarded to them for comment on September 5. The City indicated that it was not particularly concerned by the media coverage of the issue, nor by the complaint filed with the CEC. The City maintained that it had not received a clear signal from the other levels of government as to the obligation to treat the groundwater and the environmental objectives to be attained. The result, according to its experts, is to introduce uncertainty into the definition of the appropriate project. Thus, despite past discussions and agreements in principle on the project, the City is not entirely convinced that it must take action and proceed with groundwater treatment. Environment Canada's position: we will receive and comment on the bid documents, principally regarding the approach and objectives cited pertaining to LNAPLs and dissolved-phase contaminants, but under no circumstances will we approve its contents and/or approach. However, in our opinion the present approach constitutes a step backward from the commitments made by the City in February 2003. We clearly indicated to the City the urgency of providing us with documents specifying the nature and scope of the project, as this would enable us to 1) make a ruling on the City's willingness to act and 2) respond, eventually, to the complaint submitted to the CEC, as well as to environmental groups and the media."

361. SLEI, "Interception des phases flottantes d'hydrocarbures et des eaux souterraines – Site de l'ancien Adacport – Document d'orientation," pp. 9-10.

362. *Ibid*., pp. 10, 13.

could become the permanent solution.[363] On this issue, the City's consultants underscored two points: (i) the characteristics of the water pumped in large quantities on the site as a whole (during pumping tests) does not reflect the characteristics of specific wells on the site, taken individually; (ii) if competent authorities should object to discharging the groundwater into the sanitary sewer, a legal opinion should be obtained.[364]

Furthermore, according to the City and its consultants, since Environment Canada's investigation had been unable to identify the party or parties responsible for the contamination,[365] if Environment Canada were to require the City to contain the groundwater (and treat it, if need be[366]), then it would be up to all of the sector's stakeholders to contribute to financing such a project.[367]

363. *Ibid.*, p. 21.
364. *Ibid.*
365. *Ibid.*, p. 10.
366. See in this regard MCEBR, "Encadrement et assistance technique dans le choix des technologies pour le traitement des eaux souterraines du Technoparc de Montréal – Proposition de services du CEMRS présentée à Développement économique Canada" (Guidance and technical assistance in the choice of technologies for the treatment of groundwater at Montreal Technoparc – MCEBR offer of services submitted to Canada Economic Development), September 2005, p. 2: "Jacques Cartier and Champlain Bridges Inc. (JCCBI), owner of the western part of the site, has commissioned Tecsult to assess the situation and identify solutions for treatment of groundwater migrating from its site. The solution proposed in 2005 opted for biological treatment prior to sewer discharge–a choice predicated on the assumption that the City of Montréal's wastewater treatment plant would remove the toxic elements."
367. See Ville de Montréal, *Petite histoire d'une occupation fluviale*, Appendix 10, September 2004. See also Ville de Montréal, *Master Plan* (2004), Part I, ch. 2, 2.7, Objective 17, "Ensure the optimal management of resources in an urban context," Action 17.3, "Ensure efficient management of the water and wastewater infrastructure;" the City undertakes, notably, to "take the following corrective actions with respect to the storm and sanitary sewer systems: Construct retention basins in areas where collector sewers overflow during heavy rains; fix improper (or crossed) connections of sanitary sewer pipes; complete the few missing connections of sanitary sewers to interceptors; reduce the discharges of problematic industrial contaminants into the sewers at their source; disinfect wastewater at the treatment plant"; Action 17.5, "Pursue the rehabilitation of contaminated sites with government funding"; Action 17.6, "Give priority to rehabilitating contaminated sites in the vicinity of certain metro and commuter train stations, as well as in areas to be transformed." See also letter from the Regional Director, MDDEP, to the Assistant City Manager, Infrastructure, Transportation and Environment Department, Ville de Montréal, Re: New project on Montreal's former Adacport site, 23 September 2004: "Furthermore, the City of Montréal Executive Committee resolution of 7 April 2004 mentions that commencement of work is tied to federal government financial participation. The City of Montréal has thus presented a request to Environment Canada for a federal government contribution."

From a technical perspective, the City raised the possibility of moving the project south of its property, closer to the riverbank, which would shorten the period during which transitional measures would be required to stay in place to trap hydrocarbons discharging to the river.[368] On this issue, according to the City, one needed to take into account the intentions of Société du Havre, which was considering the possibility of eventually relocating the Bonaventure Expressway, to restore public access to the waterfront.[369] Moreover, the City and its consultants pointed out that the groundwater samples taken on the far shoulder of the Bonaventure Expressway (owned by JCCBI) had not been acutely toxic to fish.[370]

In the spring of 2004, the City seemed ready to proceed with a new initiative (recovery of LNAPLs, containment and discharge of groundwater into municipal sewer without treatment). However, the City's Executive Committee adopted a resolution tying the start of work to financial participation from the federal government, which, as of the end of September, had yet to advise the City of its intentions.[371]

In the autumn of 2004, a multiparty technical committee agreed on the need for improvement, before January 2005, of the temporary measures for recovering hydrocarbons seeping into the St. Lawrence River.[372] At the same time, it was decided that it would be worth doing

368. It has been estimated that the Bonaventure Expressway area located in the vicinity of the Victoria Bridge, which is owned by JCCBI, contains 180,000-350,000 liters of hydrocarbons; MCEBR, "Encadrement et assistance technique dans le choix des technologies pour le traitement des eaux souterraines du Technoparc de Montréal – Proposition de services du CEMRS présentée à Développement économique Canada," p. 2. See also Ville de Montréal, First meeting of Technical Committee (12 August 2004), Minutes, p. 1.

369. Ville de Montréal, First meeting of Technical Committee (12 August 2004), Minutes, p. 1, and Ville de Montréal, Seventh meeting of Technical Committee (4 April 2005), Minutes, p. 3, Point 3 d) Pre-feasibility study on moving the Bonaventure Expressway (JCCBI/Société du Havre): "SNC-Lavalin was commissioned to conduct this study in mid-February. It is financed by Société du Havre and administered by JCCBI; Ville de Montréal, the Québec Ministry of Transport (*Ministère des Transports du Québec*–MTQ) and MDDEP are also participating in this study in connection with certain, specific issues."

370. SLEI, "Interception des phases flottantes d'hydrocarbures et des eaux souterraines – Site de l'ancien Adacport – Document d'orientation," p. 20. See also Ville de Montréal, Seventh meeting of Technical Committee (4 April 2005), Minutes, p. 3.

371. Letter from Regional Director, MDDEP, to the Assistant General Manager, Infrastructure, Transportation and Environment Department, Ville de Montréal, Re: New project on former Adacport site in Montreal, 23 September 2004.

372. Ville de Montréal, Second meeting of Technical Committee (26 August 2004), Minutes, p. 6.

a complementary assessment of the Bonaventure Expressway area (owned by JCCBI). On this issue, MDDEP and the City questioned the logic of Environment Canada's recommendation to focus groundwater sampling in the vicinity of the booms.[373] According to Environment Canada, "since the flow of oil is greater where the booms are located, the same probably holds true for the groundwater. It follows that there should be a greater focus on groundwater characterization in this sector."[374] As it happens, the groundwater analysis indicated acute toxicity in three out of five wells.[375] The City commissioned Dessau-Soprin Inc. to propose improved hydrocarbon recovery measures.[376] The solution, a floating barrier (i.e., no groundwater containment) of approximately 160 meters in length, was announced in the spring of 2005.[377] In response to Environment Canada and MDDEP queries, the City and its consultant explained that this measure was not designed for future integration into any comprehensive solution.[378] In June 2005, the City announced that the contract for the construction of this "screen" had been awarded to Services de location Ste-Croix.[379]

At the time, the City of Montréal was still receiving MDDEP funding via the Revi-Sols program.[380] This program was originally scheduled to expire on 31 March 2005, but the Government of Québec granted

373. Ville de Montréal, Third meeting of Technical Committee (16 September 2004), Minutes, p. 4, and Ville de Montréal, Second meeting of Technical Committee (26 August 2004), Minutes, p. 6.
374. *Ibid.*
375. Ville de Montréal, Fifth meeting of Technical Committee (18 November 2004), Minutes, p. 3.
376. Ville de Montréal, Fourth meeting of Technical Committee (28 October 2004), Minutes, p. 2. See also Ville de Montréal, Third meeting of Technical Committee (16 September 2004), Minutes, p. 5.
377. Sébastien Rodrigue, "Produits toxiques au Technoparc" (Toxics at Technoparc), *La Presse*, 2 April 2005; Jeanne Corriveau, "Technoparc – Un mur de béton pour protéger le fleuve" (Concrete wall at Technoparc to protect the river), *Le Devoir*, 27 May 2005.
378. Ville de Montréal, Fourth meeting of Technical Committee (28 October 2004), Minutes, p. 2, and Ville de Montréal, Fifth meeting of Technical Committee (18 November 2004), Minutes, pp. 1-2.
379. Ville de Montréal, Project to intercept and recover LNAPLs and groundwater in the former Adacport sector – Minutes, 15 June 2005, p. 2.
380. Letter from the Regional Director, MDDEP, to the Assistant General Manager, Environment, Roads and Infrastructure Department, Ville de Montréal, Re: Urban contaminated sites rehabilitation program – Sixteenth call for projects, 14 June 2002, and to the Government of Québec, Treasury Board, T.B. 203104, 6 December 2005, Re: "Request for authorization of changes to the normative framework of the Revi-Sols Program, Phase I, concerning Montreal Technoparc site."

the City an exceptional, 33-month extension (until 31 December 2008) to incur eligible expenses.[381] As for the federal government, JCCBI was trying to obtain funding under a federal contaminated sites remediation program.[382] In November 2005, Canada Economic Development[383] announced a contribution of C$1.6 million to an MCEBR project to evaluate groundwater treatment technologies for the Technoparc sector.[384] The sector under study has a surface area of 92 hectares (10.4 million square feet)[385] (see Figure 12).

381. *Ibid.*

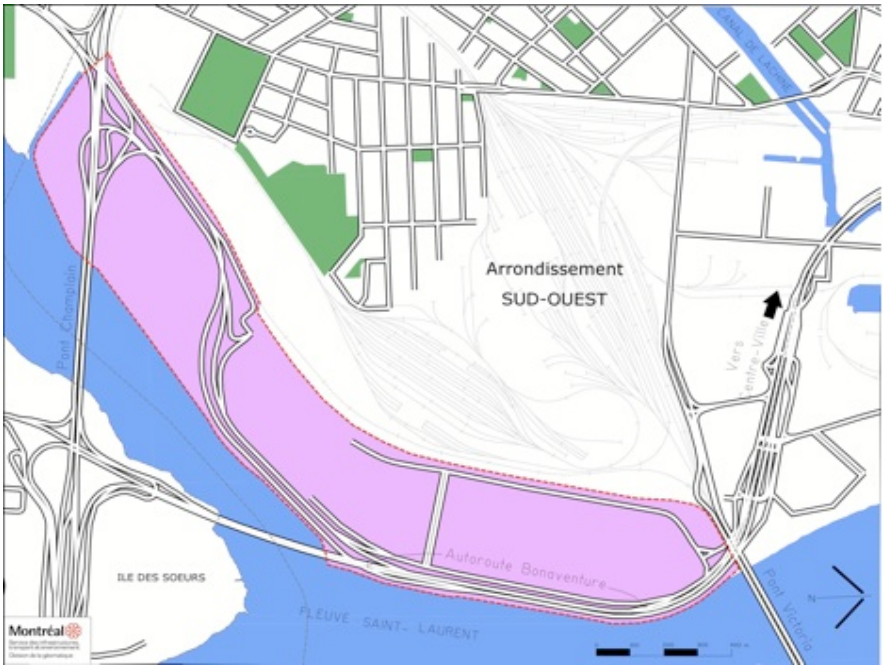
382. See Federal Bridge Corporation Limited, *Annual Report 2005-2006*, p. 31: "The JCCBI contaminated lands along the Bonaventure Expressway: a feasibility study was carried out in July 2005 to determine the most appropriate mitigation measures to be implemented. JCCBI has registered these contaminated sites with the Treasury Board Secretariat's Federal Contaminated Sites Inventory. JCCBI has also applied to receive special funding in 2006-2007 under the Federal Contaminated Sites Action Plan (FCSAP) to carry out feasibility studies," online at <http://www.federalbridge.ca/Portals/0/annual_reports/fbcl_report_2005-06_eng.pdf> (date viewed: 30 January 2007).

383. Ville de Montréal, Ninth meeting of Technical Committee (8 September 2005), Minutes (draft), p. 3: "At the suggestion of Environment Canada, the Montreal Center of Excellence in Site Remediation (CEMRS) got ready to present a proposal to Canada Economic Development (CED—the eventual payer) to carry out a study on groundwater in the former Adacport site, seeking to define problematic and possible solutions that would help to narrow the choice of treatment technology to be recommended." See also MCEBR, "Encadrement et assistance technique dans le choix des technologies pour le traitement des eaux souterraines du Technoparc de Montréal – Proposition de services du CEMRS présentée à Développement économique Canada" (Coaching and technical assistance in the choice of technologies for the treatment of groundwater at the Montreal Technoparc – MCEBR offer of services submitted to Canada Economic Development), September 2005, p. 3.

384. Canada Economic Development, "Montreal's Technoparc district: Government of Canada awards $1.560 million to the Centre d'excellence de Montréal en réhabilitation de sites (CEMRS)" (News release – 24 November 2005). See also the letter from the General Director, MCEBR, to the Director of Canada Economic Development, Island of Montreal, Re: Proposal on coaching and technical assistance services in the selection of groundwater treatment technologies at the Montreal Technoparc, 4 October 2005.

385. MCEBR, "Sélection de technologies de traitement des eaux souterraines du secteur situé entre les ponts Champlain et Victoria, en bordure du fleuve – Localisation du secteur à l'étude" (Selecting groundwater treatment technologies for the riverbank section between the Champlain and Victoria bridges), 4 December 2006, online at <http://www.cemrs.qc.ca/francais/pdf/cartesecteur.pdf> (date viewed: 13 February 2007). See also Vicky Sharpe, "Sustainable Solutions," 5 September 2006, online at <http://www.aboutremediation.com/render/pageRender.asp?itemcode=AR-NWS-LNIN&itemid=3255> (date viewed: 3 April 2007).

Figure 12 Location of area under study (MCEBR)



In 2005, preliminary studies were initiated as part of an MCEBR project to identify the main physico-chemical parameters responsible for groundwater toxicity in the Technoparc sector. Tests were conducted using rainbow trout, a method authorized for the purpose of enforcing section 36(3) of the *Fisheries Act*.[386] One objective was to determine the

386. MCEBR, "Secteur régional du Technoparc de Montréal – Développement et adaptation de technologies de traitement des eaux souterraines" (Montreal Technoparc regional sector – Development and adaptation of groundwater treatment technologies), 1 *Le Défricheur* 6 (2006). See also Ville de Montréal, Ninth meeting of Technical Committee (8 September 2005), Minutes, p. 2: "[Point] 5 – Study on the relationship between the groundwater toxicity and various physicochemical parameters (Environment Canada). Complementary laboratory tests were conducted to ascertain which physicochemical parameters contributed to the observed groundwater toxicity. Since pH increased with oxygenation in the trout testing, constant pH tests were carried out along with standard tests on water from three (3) JCCBI wells. Increased pH did not significantly affect the observed toxicity. In certain cases, however, the observed toxicity cannot be associated solely with ammonia nitrogen, as rapid trout mortality is observed at relatively weak concentrations of this parameter. Therefore, ammonia nitrogen is not the only parameter at issue, and certain metals seem to contribute to the observed trout toxicity. Given the variability observed from one well to another, it is difficult to identify the synergies with other parameters."

extent to which groundwater under the Bonaventure Expressway is affected by the City's property, which is located directly upstream, hydraulically, compared to groundwater coming from the JCCBI properties, which migrates eastward, in parallel with the St. Lawrence, through the riprap of the Bonaventure Expressway.[387]

At the time, it was thought that the cost of a comprehensive solution to the problem of discharges of contaminated and toxic effluents into the St. Lawrence River from the Technoparc sector would be in the range of C$40-60 million.[388] In January 2006, during a federal election campaign, the federal Liberal Party announced its intention to spend C$25 million to clean up Technoparc.[389] As regards the installation of a

387. Quebec, Contaminated sites rehabilitation program – Financial assistance eligibility application form – General information, 29 October 1999, revised 16 November 1999: "The principal results from previous studies are as follows: [...] The groundwater under the Technoparc generally flows towards the Bonaventure Expressway; moreover, the riprap under the Bonaventure Expressway creates a preferential pathway toward the east (i.e., towards the Victoria Bridge), parallel to the river. The depth of the water table under the Technoparc varies between 4.6 and 12.0 meters." See also Ville de Montréal, Third meeting of Technical Committee (16 September 2004), Minutes, p. 1: "Point 2 Definition of the environmental issues – missing information: Flow of groundwater and LNAPLs, and discharges into the river; Groundwater contamination (physical chemistry and toxicity)."

388. MCEBR, "Encadrement et assistance technique dans le choix des technologies pour le traitement des eaux souterraines du Technoparc de Montréal – Proposition de services du CEMRS présentée à Développement économique Canada," September 2005, p. 13.

389. See Liberal Party of Canada (Québec), "Jean-C. Lapierre reflects on his record and makes clear commitments for the future of Outremont and Montreal," 3 January 2006: "Our environment is dear to us all and I commit myself to work for the decontamination of federal lands around the Montreal Technoparc in order to restore Montrealers' access to the St. Lawrence River," online at Parti libéral du Canada (Québec) <http://www.qc.liberal.ca/fr/presse/communiques.aspx?ID=554> (date accessed: 26 January 2007). See also Liberal Party of Canada (Québec), "Speech by Prime Minister Paul Martin" (undated): "And that is why I am announcing today that after January 23rd, working with the provinces, a Liberal government will invest $1-billion over 10 years to clean up toxic hotspots along the St. Lawrence River and around the Great Lakes, which together make up the world's largest freshwater ecosystem. By taking action, we will better protect our water and our wildlife, make our waterfronts more vibrant and healthy, and ensure that the revitalization of these ecosystems stands as our collective legacy.
"Half the overall investment – some $500-million – will be devoted to restoring degraded and threatened areas throughout the Great Lakes and St. Lawrence, including specific sites such as Hamilton harbour. As well, there will be $25-million to help clean up the Technoparc site here in Montreal, which for close to a century was part of a dump for industrial and household waste," online at Parti libéral du Canada (Québec) <http://www.qc.liberal.ca/fr/presse/discours.aspx?ID=568> (date accessed: 26 January 2007).

system to contain, recover and treat groundwater in the Technoparc sector, Canada Economic Development is the agency in Québec responsible for selecting projects eligible for federal funding under Infrastructure Canada programs.[390] In its 2007 budget, the federal government announced the creation of a new infrastructure fund, "Building Canada." This fund's resources are to be allocated among the provinces and territories on a per capita basis to support large scale wastewater management, brownfield redevelopment, and other types of projects.[391]

8.7 Information on Environment Canada's actions and technical advice and their relevance to enforcement efforts in the Montreal Technoparc sector

Council Resolution 04-05 [French version] instructed the Secretariat to collect information on Environment Canada's actions and technical advice and their relevance to compliance promotion efforts in the Montreal Technoparc sector. On 28 November 2006, the Secretariat addressed a number of questions to Canada concerning compliance promotion with respect to Technoparc. On 8 January 2007, Canada answered in writing. The questions and answers are reproduced below.

Concerning compliance promotion activities related to contamination of the St. Lawrence River coming from the Technoparc:

Question 7.1: Please indicate the costs of these activities to the federal government, in human, financial and other resources, since 1991 (in total, with a breakdown of expenses).

Answer 7.1: *Collecting information on the resources dedicated to compliance promotion since 1991 would require extensive research and take more time than the deadline provided. However, since 2002, we estimate having spent 1.25 person-years at the technical level (senior engineer and biologist) and 0.5 person-years at the management and administrative support level. As regards analyses of bioassays from the summer of 2002 carried out at the St. Lawrence Centre of Environment Canada, this accounts for an amount of C$17,300.*

390. See "Infrastructure Programs," online at <http://www.infrastructure.gc.ca/ippi/index_e.shtml> (date viewed: 10 May 2007).
391. See Canada, *Budget 2007 – Aspire to a Stronger, Safer, Better Canada*, c. 5, "A Stronger Canada through a Stronger Economy: Infrastructure Advantage," online at <http://www.budget.gc.ca/2007/bp/bpc5be.html> (date viewed: 10 May 2007).

Question 7.2: Why did the federal government not object, in 1996, to CN intercepting only the LNAPLs coming from its property, hydraulically upstream from the Technoparc?

Answer 7.2: *Environment Canada does not oppose projects that present a reduction of environmental risks. In this context, there were no reasons that would have justified Environment Canada's opposing CN's project to intercept and remove free-phase petroleum hydrocarbons at the boundary of its property.*

Question 7.3: Knowing that a significant portion of the contamination on the Montreal Technoparc site comes, in all likelihood, from operations carried out by CN in its railyard over several decades, why did the federal government not insist, while the company was still a Crown corporation, that the company contribute to funding remedial action or environmental risk management at the Technoparc?

Answer 7.3: *According to the conclusions of the investigation led by Environment Canada:*

The analysis of the information obtained leads the Ministry to conclude that the diverse array of activities that contributed historically to the soil contamination, along with the complexity of the hydrology of the sector, taken as a whole, do not allow for the identification of the specific source of deleterious substances flowing into the river. The investigation was thus not able to collect the elements of proof that are needed to attribute the discharges into the river to one or more responsible parties and to identify these parties.

Between 1990 and 1995, the National Contaminated Sites Remediation Program (NCSRP) funded rehabilitation projects for priority orphan sites in Canada (with matching funds from the provinces) and, to a lesser degree, for federal ministries. The Federal Contaminated Sites Action Plan (FCSAP) approved in April 2005 funds contaminated site rehabilitation projects for federal ministries and agencies and for consolidated Crown corporations responsible for contamination. The criteria of the two funding programs mentioned above made federal business corporations non-admissible for federal funding.

Question 7.4: Why did the federal government not object when, during its value analysis of 1999, the City of Montreal opted for a solution that aimed only at intercepting floating-phase deleterious substances coming from the Technoparc?

Answer 7.4: *The value analysis (Valorex Report, June 1999) recommended the scenario of a partially penetrating interception wall to solve the problem of petroleum hydrocarbons flowing into the St. Lawrence River. The Valorex Report recommended a complementary characterization of the Technoparc and the development of a groundwater flow assessment and a mass balance. In March 2002, the City of Montreal submitted the complementary characterization report (SNC-Lavalin) to Environment Canada and the pre-project study for building a partially penetrating wall to intercept petroleum hydrocarbons (SNC-Lavalin). It was thus only in March 2002, following review of the SNC-Lavalin reports, that Environment Canada learned of the potential toxicity of the groundwater. It was therefore only from March 2002 that the Ministry notified this problem to the City of Montreal and suggested that the solution the City put forward take into account the issue of the potential toxicity of the groundwater.*

Question 7.5: Why did Environment Canada begin to insist that the groundwater be treated starting when citizens complained about it, in 2002?

Answer 7.5: *As indicated in the response to question 7.4, Environment Canada only learned of the potential toxicity of the groundwater in March 2002. The sampling campaign conducted by the City of Montreal in the summer of 2002 and the results obtained from the bioassays confirmed that the groundwater was toxic.*

Question 7.6: What is the purpose of conducting a research and development project to treat the Technoparc's groundwater when, according to our experts, there are off-the-shelf treatment technologies already available on the market, especially in the United States?

Answer 7.6: *It is important to remember that the decision regarding which technology to choose rests with the City of Montreal. From a technical standpoint, it is generally accepted that for prob-*

lems of this scale, treatability tests in the laboratory and pilot tests are required to confirm working hypotheses.

Question 7.7: Has Environment Canada set a deadline for putting in place a structure to stop the deposit of deleterious substances into the St. Lawrence River from the sector of the Montreal Technoparc?

Answer 7.7: *The Fisheries Act and the Enforcement Policy provide that persons subject to the Act must take the necessary measures to halt the deposits as soon as possible under the circumstances.*

9. Closing Note

Factual records provide information regarding asserted failures to effectively enforce environmental law in North America that may assist submitters, the NAAEC Parties and other interested members of the public in taking any action they deem appropriate in regard to the matters addressed. Pursuant to Council Resolution 04-05, this factual record provides information relevant to a consideration of whether Canada is failing to effectively enforce section 36(3) of the *Fisheries Act* in connection with discharges of deleterious substances into the St. Lawrence River from the Montreal Technoparc sector, located along the Bonaventure Expressway, between the Victoria and Champlain Bridges. Section 36(3) makes it an offence, punishable by fines and/or prison terms, to allow the discharge of a deleterious substance into water frequented by fish or in any place where such substance may enter water frequented by fish, unless authorized by a federal regulation.

Historically, the area under study was farmland, and the bank of the St. Lawrence in Pointe-Saint-Charles was a vast marsh known for attracting large flocks of geese. In the mid-nineteenth century, a railyard was built on the shore, one of the largest and oldest in Canada's history. South and west of the railyard, the marsh was landfilled with garbage, construction debris, and earth brought from elsewhere. By the late 1980s, the landfilled area, which extends approximately 500 meters into the river, was about two kilometers long, between the two bridges, and the layer of fill and other materials that had been dumped there was between four and twelve meters deep. On official plans, much of the area is still designated as being the St. Lawrence River.

In 1989, the federal and provincial governments sold part of the area south of the railyard to the City of Montreal for redevelopment as a

hi-tech park. Since both the federal and provincial governments claimed ownership of the land, both deeds of sale refer to the same lot numbers. As part of the sale, the City accepted environmental responsibility for the land and promised to defend the federal and provincial governments against any environmental claims resulting from the condition of the soil and groundwater there. To obtain provincial authorization to redevelop the former landfill, Montreal promised to deal with pockets of oil that were known to be floating under the surface, and to monitor groundwater quality. The volume of oil — a broken diesel line is partly to blame — is now estimated at between four and eight million liters (enough to fill about three Olympic-size swimming pools). It is estimated that the Technoparc contains between one and two tons of PCBs, some of which have been released from their containers (e.g., discarded transformers) through the presence of diesel fuel which acts as a solvent.

When Technoparc development began in the early 1990's, oil was noticed seeping from the shore into the river. Environment Canada set up temporary booms and absorbent pads to contain the oil along the shore, and the accumulated oil was pumped and taken offsite. CN and the City of Montreal agreed to pay operating and maintenance costs for these temporary measures. Because of ice, the booms had to be removed in the winter. In 1997, CN stopped paying; it had set up a system of pumping wells at the southern boundary of the railyard to intercept and remove the oil before it migrated downhill to the Technoparc. Thereafter, Montreal stopped maintaining the booms and pumping oil on the shore. In 1998, Environment Canada enforcement personnel issued a warning against Montreal. Also in 1998, Environment Canada program personnel tabled a project proposal for a biobarrier to intercept the oil and contaminated groundwater migrating from the Technoparc to the St. Lawrence. This barrier was not built. Thereafter, the City of Montreal resumed the temporary pumping operations. After a "value analysis exercise" in 1999, Montreal announced that it would install a permanent oil recovery system at the southern boundary of its property. Design specifications for the project were ready in March of 2002. In April of that year, Environment Canada received a letter from environmental groups, along with results from laboratory analyses of water samples taken from the river, alleging that deleterious substances were seeping into the St. Lawrence along the shore opposite Technoparc in violation of section 36(3) of the *Fisheries Act*.

Environment Canada opened an investigation in April 2002. That fall, Environment Canada analyzed groundwater samples from the Technoparc site and found them to be toxic to fish. The City indicated that it was prepared to optimize the proposed system in order to stop oil

and contaminated groundwater from migrating off its property, but it sought assurances that no contamination was migrating onto the Technoparc from upstream properties occupied by CN and VIA Rail Canada, or from neighbouring lands owned by the federal Crown corporation that manages the Bonaventure Expressway. In June 2002, the federal environment minister assured the City that Environment Canada officials were contacting all parties to ensure their cooperation. In 2003, CN obtained federal and provincial funding to pilot test a groundwater treatment system in the railyard. VIA Rail Canada, which has been operating a maintenance center northwest of the Technoparc since 1987, replaced the entirety of its diesel supply and containment systems. And Jacques Cartier and Champlain Bridges Inc. tested its own groundwater, west of the Technoparc, and found it to be toxic. In April 2003, Environment Canada terminated its *Fisheries Act* investigation, concluding that it was not possible to determine the source and pathway of substances discharging to the river.

Thereafter, Montreal continued to insist on obtaining financial support from all of the area's stakeholders. The City's Executive Committee made acceptance of any remediation proposal conditional upon obtaining federal funding. The City underscored the fact that Environment Canada's investigation had not been successful in identifying who was responsible for the discharges to the river. Furthermore, the City and its environmental consultants pointed out that groundwater in the Technoparc sector meets the City of Montreal's sewer discharge criteria. They argued that rerouting groundwater from the Technoparc to the municipal sewer would be a waste of money and would only result in the pollution entering the river at the other end of the island, since the wastewater treatment process used by the City cannot completely eliminate the toxicity of the groundwater from the Technoparc sector. In 2007, a project was underway to pilot test onsite groundwater treatment technologies for the Montreal Technoparc sector.

APPENDIX 1

Council Resolution No. 04-05
(20 August 2004)

Montreal, 20 August 2004

COUNCIL RESOLUTION 04-05

Instruction to the Secretariat of the Commission for Environmental Cooperation Regarding the Assertion that Canada is failing to effectively enforce sections 36(3) of the federal *Fisheries Act* (SEM-03-005).

THE COUNCIL:

SUPPORTIVE of the process provided for in Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) regarding submissions on enforcement matters and the preparation of factual records;

CONSIDERING the above noted submission, filed on 14 August 2003 by Waterkeeper Alliance, Lake Ontario Waterkeeper, Société pour Vaincre la Pollution, Environmental Bureau of investigation and the Upper St. Lawrence Riverkeeper/Save the River!, and the 14 November 2003 response provided by the Government of Canada;

HAVING REVIEWED the 19 April 2004 notification to Council by the Secretariat recommending the development of a factual record with respect to the submission;

HEREBY UNANIMOUSLY DECIDES TO:

INSTRUCT the Secretariat to prepare a factual record in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters* under Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* in respect of the following items arising in the context of Submission SEM-03-005 with regard to alleged failure to effectively enforce section 36(3) of the *Fisheries Act*:

- facts surrounding Environment Canada's inspections, before and after, the issuance of a warning in 1998;
- facts surrounding Environment Canada's 2002-2003 investigation, in response to a request from members of the public;
- characteristics and fate of the contamination of the Montreal Technoparc sector;
- results of the oil containment and pumping system(s) at the Montreal Technoparc sector;

- the ecotoxicological study carried out in 2002;
- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;
- information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector; and
- compliance promotion efforts following the decision by Environment Canada not to seek charges.

DIRECT the Secretariat to provide the Parties with its overall work plan for gathering the relevant facts and to provide the Parties with the opportunity to comment on that plan; and

TO DIRECT the Secretariat to consider, in developing the factual record, whether the Party concerned "is failing to effectively enforce its environmental law" since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

APPROVED BY THE COUNCIL.

APPENDIX 2

Overall Plan to Develop a Factual Record
(16 September 2004)

Secretariat of the Commission for Environmental Cooperation

Overall Plan to Develop a Factual Record

Submission I.D.: **SEM-03-005 / Montreal Technoparc**

Submitter(s): Waterkeeper Alliance
Lake Ontario Waterkeeper
Société pour Vaincre la Pollution
Environmental Bureau of Investigation
Upper St. Lawrence Riverkeeper/Save the River!

Party: Canada

Date of this plan: 16 September 2004

Background

On 14 August 2003, the Submitters identified above presented to the Secretariat of the Commission for Environmental Cooperation (CEC) a submission in accordance with Article 14 of the North American Agreement on Environmental Cooperation (NAAEC). The submission, along with supporting materials, asserts that Canada is failing to effectively enforce section 36(3) of the federal *Fisheries Act* against the city of Montreal in connection with the discharge of contaminated groundwater from the city's Technoparc site to the Saint Lawrence River. Section 36(3) of the *Fisheries Act* prohibits the deposit of a deleterious substance into water frequented by fish unless the deposit is authorized by regulation.

On 15 September 2003, the Secretariat determined that the submission met the requirements of Article 14(1) of the NAAEC and requested a response from the Party concerned (Canada) in accordance with Article 14(2). Canada submitted its response on 14 November 2003. The response explains Environment Canada's responsibilities in regard to administration of section 36(3) of the *Fisheries Act*, presents summary information concerning the history and environmental condition of the sector of the Montreal Technoparc, and describes enforcement and compliance promotion actions undertaken by Environment Canada in regard to deposits of deleterious substances from the sector of the Montreal Technoparc into the Saint Lawrence River. On 19 April 2004,

the Secretariat informed the CEC Council that it considered that the submission, in light of Canada's response, warranted developing a factual record.

On 20 August 2004, in Council Resolution 04-05, the Council decided unanimously to instruct the Secretariat to prepare a factual record in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters* under Articles 14 and 15 of the NAAEC (*Guideline*s) in respect of the following items arising in the context of the submission with regard to the alleged failure to effectively enforce section 36(3) of the *Fisheries Act*:

- facts surrounding Environment Canada's inspections, before and after, the issuance of a warning in 1998;
- facts surrounding Environment Canada's 2002-2003 investigation, in response to a request from members of the public;
- characteristics and fate of the contamination of the Montreal Technoparc sector;
- results of the oil containment and pumping system(s) at the Montreal Technoparc sector;
- the ecotoxicological study carried out in 2002;
- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;
- information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector; and
- compliance promotion efforts following the decision by Environment Canada not to seek charges.

The Council directed the Secretariat to provide the Parties with its overall work plan for gathering the relevant facts and to provide the Parties with the opportunity to comment on that plan. The Council further directed the Secretariat to consider, in developing the factual record, whether the Party concerned "is failing to effectively enforce its environmental law" since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

Under Article 15(4) of the NAAEC, in developing a factual record, "the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information: (a) that is publicly available; (b) submitted by interested nongovernmental organizations or persons; (c) submitted by the Joint Public Advisory Committee (JPAC); or (d) developed by the Secretariat or by independent experts."

Overall Scope of the Fact Finding

To prepare the factual record, the Secretariat will gather and develop information relevant to the following items with regard to the government of Canada's alleged failure to effectively enforce section 36(3) of the *Fisheries Act* with respect to the Montreal Technoparc site, as asserted in the submission:

(i) facts surrounding Environment Canada's inspections of the Technoparc site, before and after the issuance of a warning in 1998;

(ii) facts surrounding Environment Canada's 2002-2003 investigation regarding the Technoparc site, in response to a request from members of the public;

(iii) characteristics and fate of the contamination of the Montreal Technoparc sector;

(iv) results of the oil containment and pumping system(s) at the Montreal Technoparc sector;

(v) the ecotoxicological study carried out in 2002 regarding the Technoparc site;

(vi) information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;

(vii) information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector; and

(viii) compliance promotion efforts following the decision by Environment Canada not to seek charges with respect to the Technoparc site.

Overall Plan

Consistent with Council Resolution 04-05, execution of the overall plan will begin no sooner than 1 October 2004. All other dates are best estimates. The overall plan is as follows:

- Through public notices or direct requests for information, the Secretariat will invite the Submitters; JPAC; community members; the general public; and local, provincial and federal government officials to submit information relevant to the scope of fact-finding outlined above. The Secretariat will explain the scope of the fact finding, providing sufficient information to enable interested nongovernmental organizations or persons or the JPAC to provide relevant information to the Secretariat (section 15.2 of the *Guidelines*). **[October-November 2004]**

- The Secretariat will request information relevant to the factual record from federal, provincial and local government authorities of Canada, as appropriate, and shall consider any information furnished by a Party (Articles 15(4) and 21(1)(a) of the NAAEC). **[October-November 2004]**

- The Secretariat will gather relevant technical, scientific or other information that is publicly available, including from existing databases, public files, information centers, libraries, research centers and academic institutions. **[October 2004 through February 2005]**

- The Secretariat, as appropriate, will develop, through independent experts, technical, scientific or other information relevant to the factual record. **[October 2004 through February 2005]**

- The Secretariat, as appropriate, will collect relevant technical, scientific or other information for the preparation of the factual record, from interested nongovernmental organizations or persons, the JPAC or independent experts. **[October 2004 through February 2005]**

- In accordance with Article 15(4), the Secretariat will prepare the draft factual record based on the information gathered and developed. **[February through May 2005]**

- The Secretariat will submit a draft factual record to Council, and any Party may provide comments on the accuracy of the draft within 45 days thereafter, in accordance with Article 15(5). **[end May 2005]**

- As provided by Article 15(6), the Secretariat will incorporate, as appropriate, any such comments in the final factual record and submit it to Council. **[August 2005]**
- The Council may, by a two-thirds vote, make the final factual record publicly available, normally within 60 days following its submission, according to Article 15(7).

Additional information

The submission, the Party's response, the Secretariat's determinations, the Council Resolution, and a summary of these are available in the Registry on Citizen Submissions on the CEC home page <www.cec.org>, or upon request to the Secretariat at the following address:

Secretariat of the CEC
Submissions on Enforcement Matters Unit
393 St-Jacques St. West,
Suite 200
Montreal QC H2Y 1N9
Canada

APPENDIX 3

Request for Information
(8 February 2005)

Secretariat of the Commission for Environmental Cooperation

Request for Information for Preparation of a Factual Record Submission SEM-03-005 (Montreal Technoparc) 8 February 2005

Contents

1. The factual record process

2. The Montreal Technoparc submission and Council's instructions

3. Request for information

4. Additional background information

5. Where to send information

1. The factual record process

The Commission for Environmental Cooperation (CEC) of North America is an international organization created in 1994 under the *North American Agreement on Environmental Cooperation* (NAAEC) by Canada, Mexico and the United States. The CEC operates through three organs: a Council, made up of the highest-level environmental official in each member country; a Joint Public Advisory Committee (JPAC), composed of five citizens from each country; and a Secretariat located in Montreal.

Article 14 of NAAEC allows persons or nongovernmental organizations in North America to inform the Secretariat by a written submission that any member country (hereinafter a "Party") is failing to effectively enforce its environmental law. This initiates a process of review of the submission, after which the Council may instruct the Secretariat to prepare a factual record in connection with the submission. A factual record seeks to provide detailed information to allow interested persons to assess whether a Party is effectively enforcing its environmental law with respect to the matter raised in the submission.

Under Articles 15(4) and 21(1)(a) of NAAEC, in developing a factual record, the Secretariat shall consider any information furnished by a Party and may ask a Party to provide information. The Secretariat also may consider any relevant technical, scientific or other information that is publicly available, submitted by JPAC or by interested nongovern-

mental organizations or persons, or developed by the Secretariat or independent experts.

On 20 August 2004, in Council Resolution 04-05, the Council decided unanimously to instruct the Secretariat to prepare a factual record in connection with the submission, in accordance with Article 15 of the NAAEC and the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the NAAEC* (*Guidelines*). The Secretariat is now requesting information relevant to matters to be addressed in the factual record. The following sections provide background on the submission and describe the information requested.

2. The Montreal Technoparc submission and Council's instructions

On 14 August 2003, Waterkeeper Alliance, Lake Ontario Waterkeeper, Société pour Vaincre la Pollution, Environmental Bureau of Investigation, and Upper St. Lawrence Riverkeeper/Save the River! presented to the CEC Secretariat a submission in accordance with Article 14 of the NAAEC. The submission, along with supporting materials, asserts that Canada is failing to effectively enforce section 36(3) of the federal *Fisheries Act* in connection with the discharge of deleterious substances from the city's Technoparc site to the Saint Lawrence River. Section 36(3) of the *Fisheries Act* prohibits the deposit of a deleterious substance into water frequented by fish unless the deposit is authorized by regulation.

On 15 September 2003, the Secretariat determined that the submission met the requirements of Article 14(1) of the NAAEC and requested a response from the Party concerned (Canada) in accordance with Article 14(2). Canada submitted its response on 14 November 2003. The response explains Environment Canada's responsibilities in regard to administration of section 36(3) of the *Fisheries Act*, presents summary information concerning the history and environmental condition of the sector of the Montreal Technoparc, and describes enforcement and compliance promotion actions undertaken by Environment Canada in regard to deposits of deleterious substances from the sector of the Montreal Technoparc into the Saint Lawrence River. On 19 April 2004, the Secretariat informed the CEC Council that it considered that the submission, in light of Canada's response, warranted developing a factual record.

On 20 August 2004, in Council Resolution 04-05, the Council decided unanimously to instruct the Secretariat to prepare a factual

record in accordance with Article 15 of the NAAEC and the *Guidelines* in respect of the following items arising in the context of the submission with regard to Canada's alleged failure to effectively enforce section 36(3) of the *Fisheries Act*:

- facts surrounding Environment Canada's inspections, before and after, the issuance of a warning in 1998;
- facts surrounding Environment Canada's 2002-2003 investigation, in response to a request from members of the public;
- characteristics and fate of the contamination of the Montreal Technoparc sector;
- results of the oil containment and pumping system(s) at the Montreal Technoparc sector;
- the ecotoxicological study carried out in 2002;
- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;
- information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector; and
- compliance promotion efforts following the decision by Environment Canada not to seek charges.

The Council directed the Secretariat to provide the Parties with its overall work plan for gathering the relevant facts and to provide the Parties with the opportunity to comment on that plan. The Council further directed the Secretariat to consider, in developing the factual record, whether the Party concerned "is failing to effectively enforce its environmental law" since the entry into force of the NAAEC on 1 January 1994. In considering such an alleged failure to effectively enforce, relevant facts that existed prior to 1 January 1994, may be included in the factual record.

Under Article 15(4) of the NAAEC, in developing a factual record, "the Secretariat shall consider any information furnished by a Party and may consider any relevant technical, scientific or other information: (a) that is publicly available; (b) submitted by interested nongovernmental organizations or persons; (c) submitted by the Joint Public Advisory Committee (JPAC); or (d) developed by the Secretariat or by independent experts."

3. Request for information

The Secretariat seeks information relevant to:

- facts surrounding Environment Canada's inspections, before and after, the issuance of a warning in 1998;
- facts surrounding Environment Canada's 2002-2003 investigation, in response to a request from members of the public;
- characteristics and fate of the contamination of the Montreal Technoparc sector;
- results of the oil containment and pumping system(s) at the Montreal Technoparc sector;
- the ecotoxicological study carried out in 2002;
- information on the division of ownership of the Montreal Technoparc sector and its relevance to enforcement efforts;
- information on Environment Canada's technical actions and advice and its relevance to enforcement efforts at the Montreal Technoparc sector;
- compliance promotion efforts following the decision by Environment Canada not to seek charges;
- information on communications and relations between Environment Canada, the Quebec Ministry of the Environment and the City of Montreal to promote compliance with and enforce the *Fisheries Act* (R.S.C. 1985, c. F-14);
- any other information considered relevant.

4. Additional background information

The submission, Canada's response, the Secretariat's determination, the Council Resolution, the overall plan to develop the factual record and other information are available on the Citizen Submissions on Enforcement Matters page of the CEC web site: <http://www.cec.org/citizen>. These documents may also be requested from the Secretariat.

5. Where to Send Information

Relevant information for the development of the factual record may be sent to the Secretariat **until 31 May 2005**, by e-mail to <info@cec.org> or by regular mail to the following address:

Secretariat of the CEC
Submissions on Enforcement Matters Unit
393 St-Jacques St. West
Suite 200
Montreal QC H2Y 1N9
Canada

Please reference SEM-03-005 (Montreal Technoparc) in all correspondence.

For any questions, please call Katia Opalka, Legal Officer, Submissions on Enforcement Matters Unit at (514) 350-4337 or send her an e-mail at <kopalka@cec.org>.

APPENDIX 4

Request for Additional Information
(30 January 2006)

From: CEC Legal Officer

Sent: Monday, January 30, 2006

To: Environment Canada

Cc: CEC

Subject: CEC/ Technoparc/ Request for Additional Informations

Good morning,

As agreed, here is the list of additional information we would like access to. Please let me know as soon as possible how long it will take to process this request.

Sincerely,

Annexe 32 – Missing page 1
SNC Lavalin Environnement Inc. "System for intercepting and recovering hydrocarbon floating phases at the site of the former Adacport, Montréal. Supplementary characterization, Summer 2003". August 2004. (report in French only)

Annexe 36 – Missing most of the text
Ville de Montréal. Call for proposals for professional services. November 2001. (in French only)

Other documents required:

* Dessau-Soprin, April 2004. "Drilling, sampling and assay report for groundwater in section 12 of the Champlain Bridge." (report in French only)

* Golder Associés, August 2003. "Appraisal of the presence and vertical extent of the dissolved phase at the boundary of the site east of the Butler branch line in Pointe St-Charles, Québec." (report in French only)

* All technical documents or communications after autumn 2004 issued by the City of Montréal, the MDDEP or EC, in particular regarding changes in methods for treating groundwater at the site. In the

autumn of 2004, the City of Montréal changed its decontamination approach to include groundwater treatment instead of only floating phases.

* A wall was built by Dessau-Soprin in Autumn 2005 to capture floating phases and to contain and treat groundwater. All documents related to the design and construction of this wall.

* All documents related to federal government grants for treatment at the Technoparc site. These grants would have been awarded to the MCEBR in 2005.

APPENDIX 5

Supplementary information requests (6 and 19 September 2006) and Canada's responses (1 November 2006)

6 September 2006

Re: **Supplementary Information Request**
SEM-03-005 (Montreal Technoparc) /
Development of a factual record

We hereby request supplementary information in order to finalize the process of developing a factual record related to the above-captioned submission.

Based on information obtained by the Secretariat, it appears that some of the contamination found at the Montreal Technoparc comes from adjacent sites, in particular, those lands hydraulically upstream from the Technoparc used by the CN (*Canadian National Railway Company*) for railway operations for many years. The Secretariat would like to know whether the federal government or a crown corporation has any obligation, either under a contract or in some other way, concerning the contamination on those lands that is flowing into the groundwater at the Technoparc and eventually reaching the St. Lawrence River. If so, we request that you provide details of the origins, nature and extent of this obligation, and that you provide us with a copy of any related documentation. This will help us create a complete picture of the federal government's situation vis-à-vis section 36(3) of the *Fisheries Act* as regards discharges coming from the Montreal Technoparc.

So as not to delay the finalization of the factual record, the Secretariat would appreciate receiving the information described above no later than 6 October 2006.

We thank you in advance for your attention in this matter.

Yours sincerely,

Legal Officer
Submissions on Enforcement Matters Unit

c.c. Environment Canada
CEC Executive Director

Enclosure

19 September 2006

Re: **Meeting Request**
SEM-03-005 (Montréal Technoparc) /
Development of a factual record

After having read and considered the information provided by Canada in August 2005 regarding the development of a factual record for the submission noted above, the Secretariat wishes to convene a meeting in Montréal with those in charge of this file at Environment Canada in order to better understand the roles of compliance promotion and enforcement with respect to achieving the goal of compliance with section 36(3) of the *Fisheries Act* at the Montréal Technoparc.

At this meeting, we hope to obtain further details concerning the following points:

1.0 What groundwater quality standards did Environment Canada use to assess options put forward by the City of Montreal regarding parameters found in the Technoparc groundwater?

1.1 With respect to compliance with section 36(3) of the *Fisheries Act*, is it acceptable to redirect the groundwater at the Montréal Technoparc to the City of Montreal's wastewater treatment plant without any pretreatment?

1.2 What is the relationship between Environment Canada's enforcement of section 36(3) of the *Fisheries Act* and the participation of the federal government in funding a pilot project at the Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR) to treat groundwater at the Technoparc?

1.3 Is the federal government pursuing a comprehensive approach to achieving compliance with section 36(3) of the *Fisheries Act* for all the properties in the Montréal Technoparc sector owned by the government or a crown corporation or for which the government has a contractual obligation? If so, what are the details of this approach? If not, why not?

The Secretariat will also be trying to better understand how Environment Canada collaborated with the ministère du Développement durable, de l'Environnement et des Parcs du Québec—in the spirit of

agreements reached by the Canadian Council of Ministers of the Environment (CCME)—to develop a coordinated approach that would allow the federal government to fulfill the requirements of enforcement of section 36(3) concerning the off-site discharge of contaminants from the Technoparc. In particular, the Secretariat will broach the following questions:

2.1 According to the CCME, there are agreements between Québec and the federal government concerning harmonization in environmental matters. Is there an agreement concerning the enforcement of section 36(3) of the *Fisheries Act*, and if so, what are its provisions?

2.2 Were there any discussions between the federal, provincial and municipal governments for the purposes of issuing an order or initiating legal proceedings under Québec's *Environment Quality Act* aimed at, among other things, enforcing compliance with section 36(3) of the *Fisheries Act* at the Montreal Technoparc? If so, what are the details? If not, why not?

Please contact Rosa Blandon at 514-350-4363 to set a meeting time, which should ideally occur before 15 October 2006, so as not to delay the finalization of the factual record.

In the meantime, we thank you for your attention in this matter.

Yours sincerely,

Legal Officer
Submissions on Enforcement Matters Unit

c.c. Environment Canada
CEC Executive Director

MONTREAL TECHNOPARC
DEVELOPMENT OF A FACTUAL RECORD
COMMISSION FOR ENVIRONMENTAL COOPERATION (CEC)

CEC REQUEST OF 6 SEPTEMBER 2006

Summary: The Secretariat wishes to know if the federal government or a federal Crown corporation has any obligation, contractual or otherwise, with respect to the contamination of the lands in question and which flows into the groundwater of the Technoparc, eventually reaching the St. Lawrence River. If so, the Secretariat would like further details as to the origin, nature and extent of this obligation, along with a copy of any related documentation.

Response: The properties occupying the former riverbed that forms part of the Technoparc sector are indicated in the cadastral maps submitted to the CEC. Concerning the question of establishing any obligation of the federal government or a federal Crown corporation with respect to the groundwater contamination, the sought after response falls into the category of legal opinion. Legal opinions obtained by the Government of Canada are protected by lawyer-client privilege and cannot be disclosed.

CEC REQUESTS OF 19 SEPTEMBER 2006

Question 1.0: What groundwater quality criteria did Environment Canada use to assess the intervention options proposed by the City of Montreal with respect to the different parameters of the Technoparc's groundwater?

Answer 1.0: Subsequent to the City of Montreal's submission, in the winter and spring of 2002, of an environmental characterization study carried out by SNC-Lavalin and a final design study for the construction of an interception system for floating phase petroleum hydrocarbons (unanchored wall 1.6 km in length), Environment Canada compared the groundwater test results with the quality criteria for aquatic life in the *Canadian Environmental Quality Guidelines* (Chapter 4: Canadian Water Quality Guidelines for the Protection of Aquatic Life), pub-

lished by the Canadian Council of Ministers of the Environment.

Question 1.1: With respect to compliance with section 36(3) of the *Fisheries Act*, is it acceptable to redirect groundwater from the Montreal Technoparc to the City of Montreal's wastewater treatment plant without pre-treatment?

Answer 1.1: Regardless of the solution implemented, compliance with section 36(3) of the *Fisheries Act* is mandatory. Environment Canada will ensure that this provision is respected under the terms of the "Compliance and Enforcement Policy for the Habitat Protection and Pollution Prevention Provisions of the *Fisheries Act*" (July 2001).

Question 1.2: What connection is there between Environment Canada's enforcement of section 36(3) of the *Fisheries Act* and the federal government's participation in the pilot project of the Montreal Centre for Excellence in Brownfields Rehabilitation (MCEBR) aimed at treating the Technoparc's groundwater?

Answer 1.2: The MCEBR project, funded by Economic Development Canada, is aimed at identifying one or more technologies that would resolve the environmental problem of the entire Montreal Technoparc sector.

Question 1.3: Does the federal government take a comprehensive approach to achieving compliance with section 36(3) of the *Fisheries Act* that covers all properties of the Montreal Technoparc sector that it or a Crown corporation owns or has a contractual obligation towards? If so, what are the details of this approach? If not, why not?

Answer 1.3: The approach taken by the federal government to achieve compliance with section 36(3) of the *Fisheries Act* assumes that the stakeholders involved are seeking a solution. The implementation of the solution is what will allow compliance to be achieved. An enforcement measure would always be possible if one of the alleged violators decided to cease contributing to the search for and implementation of a solution. This ministerial approach is in agreement with its own enforcement

policy, under which the choice of enforcement measure takes into account the willingness of the alleged violators to cooperate in returning to compliance.

Question 2.1: According to the CCME, agreements exist between Quebec and the federal government concerning environmental harmonization. Is there any agreement concerning the enforcement of section 36(3) of the *Fisheries Act*, and if so, what are its provisions?

Answer 2.1: There exists no agreement between the governments of Quebec and Canada concerning the enforcement of section 36(3) of the *Fisheries Act*.

Question 2.2: Have there been any talks between the federal, provincial and municipal governments in order to issue a decree or initiate legal proceedings under Quebec's *Environment Quality Act* aimed at, among other things, compliance with section 36(3) of the *Fisheries Act* at the Montreal Technoparc? If so, what are the details? If not, why not?

Answer 2.2: The talks mentioned in the question fall under possible discussions between the Attorney General of Canada and the Attorney General of Quebec. The existence of such talks, if any, and their substance cannot be disclosed.

APPENDIX 6

Notice of Contamination (CN, 2005)

Page 1 of 1

Ressources naturelles, Faune et Parcs

QUÉBEC

Certified Registration Certificate of Law Québec Land Registry

I certify that the requisition presented on 2005-02-08 at 09:00 was entered into the land registry of the registration division of Montréal under the number 12 063 295.

Requisition Identification

Presentation method:	Notice	
Form:	Under private signature	
General nature:	Notice of contamination, art. 31.58, Env. Quality Act	
Name of parties:	Applicant	Canadian National Railway Company

2005-02-08 9:00

NOTICE OF CONTAMINATION
(Article 31.58 of the *Environment Quality Act*,
R.S.Q., c. Q-2) 12 063 295

REGISTRATION DIVISION OF MONTRÉAL

Montreal, this 1st day of February, two thousand five (2005)

APPEARED: **CANADIAN NATIONAL RAILWAY COMPANY** legally established corporation, having its headquarters located at 935 rue de La Gauchetière Ouest, City of Montréal, Québec, H3B 2M9, acting and represented by Normand Pellerin, duly authorized as he has declared;

(hereafter, the "Appearer")

WHO GIVES THE PRESENT NOTICE and requests the officer of the bureau of publication of rights of the registration division of Montréal to record in the register the present notice of contamination concerning the land designated hereafter, namely a statement of the nature of the contaminants present in this land exceeding the regulatory limit values, as described in the summary of the characterization study presented below and attested to by an expert under article 31.65 of the *Environment Quality Act*, R.S.Q., c. Q-2.

1. DESIGNATION OF LAND

A known lot or location and designation as being:

1.1

A- Lot 1 382 514

Lot **ONE MILLION THREE HUNDRED EIGHTY-TWO THOUSAND FIVE HUNDRED FOURTEEN (1 382 514)**, of the Québec Cadastre,

registration division of Montréal, in the municipality of the City of Montréal, with an area of five hundred seventy square meters and six-tenths (570.6 m²).

B- Lot 1 380 526

Lot **ONE MILLION THREE HUNDRED EIGHTY THOUSAND FIVE HUNDRED TWENTY-SIX (1 380 526)**, of the Québec Cadastre, registration division of Montréal, in the municipality of the City of Montréal, with a trapezoidal shape, bounded and more explicitly described as follows: in the north (90°48′) by a portion of lot 1 728 972, measuring forty-seven meters and ten one-hundredths (47.10 m) along this boundary; in the east (180°39′) by a portion of lot 1 728 972, measuring twenty-nine meters and twenty-four one-hundredths (29.24 m) along this boundary; in the south (270°48′) by lot 1 603 279 composed of rue Sainte-Madeleine, measuring forty-seven meters and ten one-hundredths (47.10 m) along this boundary; in the west (0°39′) by lot 1 381 578 composed of rue LeBer, measuring twenty-nine meters and twenty-four one-hundredths (29.24 m) along this boundary.

Containing an area of one thousand three hundred seventy-seven square meters and one tenth (1,377.1 m²).

C- Lot 1 382 524

Lot **ONE MILLION THREE HUNDRED EIGHTY-TWO THOUSAND FIVE HUNDRED TWENTY-FOUR (1 382 524)**, of the Québec Cadastre, registration division of Montréal, in the municipality of the City of Montréal, of irregular shape, bounded and more explicitly described as follows: in the north (90°48′) by a portion of lot 1 728 972, measuring one hundred thirty-one metres and fifty-four one-hundredths (131.54 m) (cadastre: one hundred thirty two metres and thirty one-hundredths (132.30 m)) along this boundary; in the east (180°48′) by a portion of lot 1 728 972, measuring sixteen meters and twenty-five one-hundredths (16.25 m) (cadastre: sixteen meters and fifteen one-hundredths (16.15 m)) along this boundary; in the north (90°48′) by a portion of lot 1 728 972, measuring forty-two metres and ninety-eight one-hundredths (42.98 m) along this boundary; in the east (180°48′) by a portion of lot 1 728 972, measuring twenty-nine meters and twenty-three one-hundredths (29.23 m) along this boundary; in the south (270°48′) by a portion of lot 1 728 972, measuring six meters and seventy-one one-hundredths (6.71 m) along this boundary; in the east (180°48′) by a portion of lot 1 728 972, measuring twenty-nine meters and twenty-three one-hun-

dredths (29.23 m) along this boundary; in the south (270°48′) by a portion of lot 1 728 972 and by lot 1 382 636 composed of rue Bourgeoys, measuring one hundred sixty-seven meters and ninety-six one-hundredths (167.96 m) (cadastre: one hundred sixty-eight meters and twenty-two one-hundredths (168.22 m)) along this boundary; in the west (0°48′) by lot 1 382 599 and by lot 1 603 279 composed of rue Sainte-Madeleine, measuring seventy-four meters and seventy-two one-hundredths (74.72 m) (cadastre: seventy-four meters and seventy-seven one-hundredths (74.77 m)) along this boundary.

Containing an area of twelve thousand one hundred forty-six square meters and nine tenths (12,146.9 m^2) (cadastre: twelve thousand two hundred three square meters and two tenths (12,203.2 m^2)).

D- Portion of lot 1 380 523

A portion of lot **ONE MILLION THREE HUNDRED EIGHTY THOUSAND FIVE HUNDRED TWENTY-THREE (1 380 523 pt)**, of the Québec Cadastre, registration division of Montréal, in the municipality of the City of Montréal, of irregular shape, bounded and more explicitly described as follows: in the north-west (36°44′) by a portion of lot 3 116 826, measuring two hundred forty meters and three one-hundredths (240.03 m) along this boundary; in the north-west (64°01′) by a portion of lot 3 116 826, measuring one hundred thirty-eight meters and fifty one-hundredths (138.50 m) along this boundary; in the east by another portion of lot 1 380 523, measuring seventy metres and sixty-three one-hundredths (70.63 m) along the arc of a circle to the left with an outside radius of one hundred twenty-seven meters and sixty-eight one-hundredths (127.68 m) and a line of sixty-nine meters and seventy-three one-hundredths (69.73 m) in the direction of 188°21′ along this boundary; in the east (172°48′) by another portion of lot 1 380 523, measuring fifty-five meters and seventy-one one-hundredths (55.71 m) along this boundary; in the east (172°48′) by another portion of lot 1 380 523, measuring twenty-nine meters and eighty-four one-hundredths (29.84 m) along the arc of a circle to the left with an outside radius of one hundred sixteen meters and fifty-six one-hundredths (116.56 m) and a line of twenty-nine meters and seventy-six one-hundredths (29.76 m) in the direction of 163°57′ along this boundary; in the north-east (156°55′) by another portion of lot 1 380 523, measuring nine meters and fifty-six one-hundredths (9.56 m) along this boundary; in the north-east (154°39′) by another portion of lot 1 380 523, measuring twenty-eight meters and ten one-hundredths (28.10 m) along this boundary; in the north-east (154°32′) by another portion of lot 1 380 523, measuring thirty-nine meters and sixty-eight one-hundredths (39.68 m)

along this boundary; in the east by another portion of lot 1 380 523, measuring two hundred seven meters and fifty-eight one-hundredths (207.58 m) along the arc of a circle to the right with an inside radius of one hundred seventy-eight meters and ninety-nine one-hundredths (178.99 m) and a line of one hundred ninety-six meters and fourteen one-hundredths (196.14 m) in the direction of 183°53′ along this boundary; in the south-west (217°06′) by another portion of lot 1 380 523, measuring one hundred twenty-nine meters and three one-hundredths (129.03 m) along this boundary; in the south (270°48′) by a portion of lot 1 728 972, measuring seventy-five meters (75.00 m) (cadastre: seventy-four meters and ninety-six one-hundredths (74.96 m)) along this boundary; in the south (270°48′) by a portion of lot 1 728 972, measuring three meters and fifty-seven one-hundredths (3.57 m) along this boundary; in the west (0°44′) by a portion of lot 3 116 826, measuring one hundred ninety meters and forty-one one-hundredths (190.41 m) (cadastre: one hundred ninety-one meters and forty-one one-hundredths (191.41 m)) along this boundary.

Containing an area of one hundred twenty-two thousand four hundred seventy-two square meters and six tenths (122,472.6 m^2).

E- Portion of lot 1 728 972

A portion of lot **ONE MILLION SEVEN HUNDRED TWENTY-EIGHT THOUSAND NINE HUNDRED SEVENTY-TWO (1 728 972 pt)**, of the Québec Cadastre, registration division of Montréal, in the municipality of the City of Montréal, of irregular shape, bounded and more explicitly described as follows: in the north (90°48′) by a portion of lots 3 116 826 and 1 380 523, measuring two hundred thirty-seven meters and seventy-six one-hundredths (237.76 m) (cadastre: two hundred thirty-eight meters and sixty-two one-hundredths (238.62 m)) along this boundary; in the east (180°48′) by a portion of lot 1 380 523, measuring seventy-five meters (75.00 m) (cadastre: seventy-four meters and ninety-six one-hundredths (74.96 m)) along this boundary; in the north (90°48′) by a portion of lot 1 380 523, measuring two hundred fourteen meters and eighty-six one-hundredths (214.86 m) along this boundary; in the south-east (217°06′) by another portion of lot 1 728 972, measuring twenty-nine meters and fifty-eight one-hundredths (29.58 m) along this boundary; in the west (0°51′) by a lot 1 380 626, composed of rue Dick-Irvin, measuring eighty-one meters and forty-three one-hundredths (81.43 m) (total in cadastre: eighty-one meters and forty-four one-hundredths (81.44 m)) along this boundary; in the south (270°48′) by a lot 1 382 638, composed of rue Charon and by lot 1 380 626 composed

of rue Dick-Irvin, measuring eighty-nine meters and twenty-three one-hundredths (89.23 m) (cadastre: eighty-nine meters and thirty-two one-hundredths (89.32 m)) along this boundary; in the west (0°48′) by lots 1 382 440 and 1 382 513, measuring fifty-eight meters and forty-seven one-hundredths (58.47 m) (cadastre: fifty-eight meters and seventy-seven one-hundredths (58.77 m)) along this boundary; in the north (90°48′) by lot 1 382 636, composed of rue Bourgeoys, measuring seven meters and thirty-one one-hundredths (7.31 m) along this boundary; in the east (180°48′) by lot 1 382 514, measuring twenty-nine meters and twenty-three one-hundredths (29.23 m) (cadastre: twenty-nine meters and twenty-six one-hundredths (29.26 m)) along this boundary; in the north (90°48′) by lot 1 382 514, measuring nineteen meters and fifty one-hundredths (19.50 m) along this boundary; in the west (0°48′) by lot 1 382 636, composed of rue Bourgeoys, and by lot 1 382 514, measuring forty-eight meters and seventy-two one-hundredths (48.72 m) (cadastre: forty-eight meters and seventy-five one-hundredths (48.75 m)) along this boundary; in the north (90°48′) by lot 1 382 524, measuring eighty-two meters and fifty-five one-hundredths (82.55 m) (cadastre: eighty-two meters and seventy one-hundredths (82.70 m)) along this boundary; in the west (0°30′) by lot 1 382 524, measuring twenty-nine meters and twenty-three one-hundredths (29.23 m) along this boundary; in the north (90°48′) by lot 1 382 524, measuring six meters and seventy-one one-hundredths (6.71 m) along this boundary; in the west (0°48′) by lot 1 382 524, measuring twenty-nine meters and twenty-three one-hundredths (29.23 m) along this boundary; in the south (270°48′) by lot 1 382 524, measuring forty-two meters and ninety-eight one-hundredths (42.98 m) along this boundary; in the west (0°48′) by lot 1 382 524, measuring sixteen meters and twenty-five one-hundredths (16.25 m) (cadastre: sixteen meters and fifteen one-hundredths (16.15 m)) along this boundary; in the south (270°48′) by lot 1 382 524 and lot 1 603 279 composed of rue Sainte-Madeleine, measuring one hundred ninety meters and nineteen one-hundredths (190.19 m) (cadastre: one hundred eighty-nine meters and eighty-eight one-hundredths (189.88 m)) along this boundary; in the west (0°39′) by lot 1 380 526, measuring twenty-nine meters and twenty-four one-hundredths (29.24 m) along this boundary; in the south (270°48′) by lot 1 380 526, measuring forty-seven meters and ten one-hundredths (47.10 m) along this boundary; in the west (0°39′) by lot 1 381 578 composed of rue LeBer, measuring seventy-four meters and seventy-one one-hundredths (74.71 m) (cadastre: seventy-five meters and nine one-hundredths (75.09 m)) along this boundary.

Containing an area of fifty-five thousand three hundred sixty-seven square meters and nine tenths (55,367.9 m^2).

F- Portion of lot 3 116 826

A portion of lot **THREE MILLION ONE HUNDRED SIXTEEN THOUSAND EIGHT HUNDRED TWENTY-SIX (3 116 826 pt)**, of the Québec Cadastre, registration division of Montréal, in the municipality of the City of Montréal, of irregular shape, bounded and more explicitly described as follows: in the north-west (64°02′) by another portion of lot 3 116 826, measuring seventy-four meters and three one-hundredths (74.03 m) (cadastre: seventy-five meters and forty-six one-hundredths (75.46 m)) along this boundary; in the north-west (61°41′) by another portion of lot 3 116 826, measuring eighteen meters and forty-three one-hundredths (18.43 m) along this boundary; in the north-west (58°12′) by another portion of lot 3 116 826, measuring sixteen meters and four one-hundredths (16.04 m) along this boundary; in the north-west (54°57′) by another portion of lot 3 116 826, measuring forty-six meters and twenty-seven one-hundredths (46.27 m) along this boundary; in the north-west (64°20′) by another portion of lot 3 116 826, measuring seven hundred eighty-two meters and forty-four one-hundredths (782.44 m) along this boundary; in the north (71°02′) by another portion of lot 3 116 826, measuring ninety-two meters and fifty-eight one-hundredths (92.58 m) along this boundary; in the south-east by another portion of lot 3 116 826, measuring forty-four meters and thirty-eight one-hundredths (44.38 m) along the arc of a circle to the left with an outside radius of one hundred twenty-seven meters and sixty-eight one-hundredths (127.68 m) and a line of forty-four meters and fifteen one-hundredths (44.15 m) in the direction of 214°09′along this boundary; in the south-east (244°01′) by a portion of lot 1 380 523, measuring one hundred thirty-eight meters and fifty one-hundredths (138.50 m) along this boundary; in the south-east (216°44′) by a portion of lot 1 380 523, measuring two hundred forty meters and three one-hundredths (240.03 m) along this boundary; in the east (180°44′) by a portion of lot 1 380 523, measuring one hundred ninety meters and forty-one one-hundredths (190.41 m) (cadastre: one hundred ninety-one meters and forty-one one-hundredths (191.41 m)) along this boundary; in the south (270°48′) by a portion of lot 1 728 972, measuring two hundred thirty-four meters and nineteen one-hundredths (234.19 m) (cadastre: two hundred thirty-five meters and five one-hundredths (235.05 m)) along this boundary; in the west (0°39′) by lot 1 381 578 composed of rue LeBer and by lot 1 382 642 composed of rue De Sébastopol, measuring twenty-three meters and thirty-one one-hundredths (23.31 m) (cadastre: twenty-two meters and eighty-seven one-hundredths (22.87 m)) along this boundary; in the south-west by lot 1 382 642 composed of rue De Sébastopol, measuring fifteen meters and seventy-eight one-hundredths (15.78 m) along the arc of a circle to the left with an outside

radius of thirty meters and forty-eight one-hundredths (30.48 m) and a line of fifteen meters and sixty one-hundredths (15.60 m) in the direction of 307°41′along this boundary; in the south (270°45′) by lot 1 382 642 composed of rue De Sébastopol, measuring two hundred fifty-five meters and fifty-four one-hundredths (255.54 m) (cadastre: two hundred fifty-three meters and six one-hundredths (253.06 m)) along this boundary; in the south (268°36′) by lot 1 382 642 composed of rue De Sébastopol, measuring twenty-six meters and sixty-six one-hundredths (26.66 m) along this boundary; in the south (264°13′) by lot 1 382 642 composed of rue De Sébastopol, measuring seventeen meters and eighty-six one-hundredths (17.86 m) along this boundary; in the south (261°31′) by lot 1 382 642 composed of rue De Sébastopol, measuring twenty-eight meters and seventy-five one-hundredths (28.75 m) (cadastre: thirty meters and seventy-one one-hundredths (30.71 m)) along this boundary; in the south (262°07′) by lot 1 382 642 composed of rue De Sébastopol, measuring fifty-nine meters and one one-hundredth (59.01 m) (cadastre: sixty meters and eighty-seven one-hundredths (60.87 m)) along this boundary; in the west (7°28′) by lot 1 381 638 composed of rue Wellington, measuring ten meters and fourteen one-hundredths (10.14 m) along this boundary.

Containing an area of one hundred twenty-eight thousand seven hundred fifteen square meters and eight tenths (128,715.8 m^2).

All dimensions are in meters (SI)

Parcels B and F are as indicated on map number I 45025 and in the technical description prepared by Daniel Lacroix, land surveyor, field sheet 8163, reference 2004-01-38, dated 21 January 2005.

1.2 bearing civic address 1830 rue Le Ber, in the City of Montréal, Québec, H3H 2A4.

(hereafter "Immoveable")

2. IDENTIFICATION OF OWNER AND PERSON SUBJECT TO THE NOTICE

CANADIAN NATIONAL RAILWAY COMPANY is the owner of the Immoveable in accordance with the deeds of ownership published with the office of publication of rights of the registration division of Montréal under the numbers 12 806, 12 813, 12 849, 76 275, 121 382, 141 724, 12 002 382, and non-published deeds and its address is 935, rue de La Gauchetière Ouest, City of Montréal, Québec, H3B 2M9.

3. DESIGNATION OF THE MUNICIPALITY AND AUTHORIZED USE

The land is located in the municipality of the City of Montréal and " Industrial" use is authorized on the land under this municipality's zoning regulations.

4. SUMMARY OF CHARACTERIZATION STUDY

The attached summary of the characterization study "Complementary Characterization — Pointe St. Charles Site, Montréal, Québec, PIN 52184, 51335, 50239, 52334" [*Caractérisation complémentaire — Site de Pointe St-Charles, Montréal Québec, NIP 52184, 51335, 50239, 52334*], report prepared by Golder Associés Ltée for Canadian National and Alstom Canada Inc., bearing reference number 04-1223-002, dated 29 October 2004, countersigned by the Appearer, is an integral part of the present notice and contains:

4.1 a statement of the nature of the contaminants present in the land and whose concentrations exceed the regulatory limit values;

4.2 a brief history of the activities that have taken place at the Immoveable;

4.3 the area of the land occupied by contaminated soils as well as the location and the volumes of these soils at the surface and at depth;

4.4 a statement of the nature and extent of the contaminants present in the groundwater, if any;

4.5 an indication of the presence of a water collection facility destined for human consumption within one kilometer as well as the proximity of a waterway or body of surface water, if applicable.

This summary is attested to by Madam Hélène S. Richer on 22 December 2004, a copy of which attestation form is appended.

5. SPECIAL CONDITION REGARDING NOTICES OF CONTAMINATION

The present notice remains in effect as long as a notice of decontamination has not been recorded in the register against the Immoveable, or part thereof.

IN WITNESS WHEREOF, THE APPEARER HAS SIGNED

Signature of Appearer

By: *N Pellerin* [signature]
Normand Pellerin

_____
Montréal, 1 February 2005

ATTESTATION *(xviii)*

I, the undersigned, Olivier Chouc, attorney or notary, attest that:

1. I have verified the identity, capacity and competence of the **Appearer;**

2. The document translates the wishes expressed by the **Appearer;**

3. The document is valid as to its form;

Attested at Montréal, province of Québec, this 1st day of February in the year two thousand and five (2005).

Name: **Olivier Chouc**

Capacity: **Attorney**

Address: **Canadian National**
935 de La Gauchetière ouest, 16th floor
Montréal, Québec
H3B 2M9

Olivier Chouc [signature]
Olivier Chouc, attorney

Ministère
de l'Environnement

Québec

Terrestrial Policies Directorate
Contaminated Sites Division

ATTESTATION FORM

SUMMARY OF CHARACTERIZATION STUDY

Address: 1830 Leber, Point St. Charles, Montréal	
Lot nos: 1728972, 1380523, 1382524, 3116826, 1382514, 1380526	**Coordinates: DEG.DEC.NAD** **Latitude:** 45º29'00" **Longitude:** 73º33'00"
Cadastre name: Cadastre of Québec, registration division of Montréal, municipality of City of Montréal	
Name: Yves Decoste	
Name of company: Canadian National	
Address: 935 de la Gauchetière, Montréal	**Postal Code:** H3B 2M9
Telephone no.: 514-399-7155	**Fax no.:** 514-399-7703
Title: Caractérisation complémentaire — Site de Pointe St-Charles, Montréal, Québec	
Firm: Golder Associés Ltée	
Author: Simon Marcotte, Jacques Labonté, Pierre Groleau, Hélène S. Richer	**Date:** 29 October 2004

After verification, I attest that the summary is in accordance with the requirements of the *Guide de caractérisation des terrains* of the ministère de l'Environnement du Québec.

HÉLÈNE S. RICHER **Name of expert** (printed)	**135** Identification number of expert
Hélène S. Richer [signature] **Signature of expert**	**22 December 2004** **Date**

N Pellerin **[signature]** *Feb 1/05*

SUMMARY OF SITE ASSESSMENT

COMPLEMENTARY ASSESSMENT
POINT ST. CHARLES SITE
MONTREAL, QUEBEC
PIN 52184, 51335, 50239, 52334
CONFIDENTIAL

Submitted to:

Canadian National
Central Station
935 de la Gauchetière Ouest,
12th floor
Montreal, Quebec
H3B 2M9

Alstom Canada Inc.
5003, rue Lévy
Suite 200
Saint-Laurent, Quebec
H4R 2N9

December 2004 04-1223-002

1.0 LOCATION AND DESCRIPTION OF SITE

The property under review is the site of the former Canadian National (CN) repair shops located at 1830 rue Leber, in the Point St. Charles district of Montréal. The activities carried out at this site consisted of locomotive maintenance and repair. The site, with an area of 32.67 hectares, is bounded to the south by the property of VIA Rail, to the north by the main thoroughfare of the St-Hyacinthe subdivision of CN, to the west by residential properties of the Point St. Charles district, and to the east by the Victoria Bridge. The property identification numbers (PIN) of the site are 52184, 51335, 50239, and 52334. The sector surrounding the land is serviced by municipal waterworks and sewer lines.

The coordinates of the central portion of the site are longitude 73°33′00″ and latitude 45°29′00″. The property is located on lots 1 728 972, 1 380 523, 1 382 524, and 3 116 826. These lots are zoned E.7(1) and I.5:100. Under the land use planning regulations of the South-West Borough of the City of Montréal, this zoning allows for the following uses: equipment and service vehicle yard, rail and rolling stock switching yard (E.7(1)), heavy machinery, machine tool, motor (I.5:100), which is compatible with the current uses of these lots. According to the personnel questioned at the department of development and urban planning at the South-West borough offices, the future zoning of these lots is unknown.

For ease of reference, a map of the land has been prepared, dividing it into eight sectors (A, B, C, D, E, F1, F2, and G). The following table offers a brief description of these sectors.

Sector	Description
A	Triangular shaped sector located on the north-west portion of the site.
B	Sector comprising the north complex on the center-north portion of the site.
C	Sector of the service and sand blasting center located on the north-east portion of the site.
D	Sector comprising the south complex, the boiler room and the wheel machining shop.
E	Glace Brunelle sector, located on the west portion of the site, along the residential area.
F1	Triangular shaped sector located on the south-east portion of the site.
F2	Sector of the former PCB storage depot, and of former buildings used for rail car maintenance. This sector is located on the south portion of the site.
G	Small rectangular shaped sector on the south-west portion of the site.

2.0 HISTORY AND PREVIOUS STUDIES

An initial environmental assessment (Phase 1) of the shops site was carried out by Arthur D. Little (ADL) in 1994, drawing attention to a total of twenty-five sectors presenting known or potential contamination based on the nature of the facilities or historically identified activities.

The Phase 1 study highlighted two known contaminated sectors:

1. the service center;

2. the old underground storage tanks to the west of the service center;

As regards the service center, a 20-cm-thick layer of floating phase hydrocarbons was reported as measured in a trench fashioned into a sort of collection well. The presence of the free phase product at this location is attributed to known spills of diesel fuel and to leaks from underground storage tanks and locomotives.

Little data is provided in the Phase 1 study related to the other sector of known contamination. Evidence of contaminated soil was observed during the removal of the five underground storage tanks to the west of the services center, indicating potential groundwater contamination.

Twenty-two (22) sectors of potential contamination were also identified in the Phase 1 study. Among the most significant environmental issues, is use of petroleum products at the former roundhouse near the north complex, current or past mechanical maintenance operations, numerous underground or above ground storage tanks, and an old service station (Penn Oak oil) on an adjacent site.

The use of solvents is also identified in the sand blasting shop, the former paint and varnish shop, the north and south complexes, the service center, the wheel shop, and the former "Dope Shed." Locations where electrical equipment and materials contaminated with PCBs were used or stored are also mentioned. Finally, potential contamination by

metals can be linked to former smelting operations, battery storage, used oil management and painting and sand blasting activities.

A Phase II of the environmental assessment was carried out by ADL in 1994 and a Phase III assessment was carried out by DDH in 1996. The results of these characterizations are included in the present study.

3.0 ASSESSMENT RESULTS

The primary objective of the study was to carry out an environmental characterization that includes all the elements that would allow it to be attested by expert under Québec's Environment Quality Act, Section IV 2.1, due to the cessation of activities of Alstom on 31 March 2004. In order to achieve this objective, certain actions had to be taken:

1. an update of the Phase I characterization study to include activities carried on since 1995, and
2. a characterization of the soils and groundwater in order to determine the presence and degree of environmental contamination and define the contaminated sectors.

3.1 Update of Phase I EAs

In general, since the ADL study carried out in 1994, the operations at the site have been reduced in terms of their spatial distribution. In fact, upon arriving, Alstom concentrated most of its operations within the north complex, which it enlarged for its needs. As a result, a reduction in the number of facilities was observed, in terms of both auxiliary buildings and storage tanks. In addition, the few storage tanks that were installed during the 1990s were all above-ground, with integrated double walls. Nor was any major event such as a spill reported during the interviews.

Thus, according to the data collected for the present update, the activities carried out at the site since 1994 do not represent a significant environmental risk that necessitated a change in the characterization's work program. In other words, the work planned for the sectors of concern that had been identified by ADL in 1995 and by Golder in 2003 appeared to be sufficient to cover the operations recently conducted by Alstom.

Nevertheless, the interviews did indicate that underground infrastructures had been built by Alstom at the end of the 1990s in the north complex (anchor pit, basins, inspection trenches, etc.). This update also targets more specifically the sectors of concern located within the other

buildings, such as the south complex, the wheel machining shop and the special projects building, through a survey of underground infrastructures. Also, more details were obtained regarding the use of the buildings in sector G.

Moreover, some information obtained was considered for the materials assessment. For example, the fire insurance report mentioned that the walls of the Glace Brunelle Inc. building were covered with asbestos.

Finally, according to documents reviewed, Pintsch gas operations likely took place on site. However, to date, the exact nature of these operations remains unknown.

3.2 Soil and groundwater assessment

The Point St. Charles district is completely serviced by a municipal waterworks network and the use of groundwater is not considered a planned alternative source of water. According to the MENV (1999a) classification system, given that the entire population of this district is serviced by a waterworks network, and given the absence of water supply wells in the superficial deposits and in the bedrock, the hydrostratigraphic units (superficial deposits and bedrock) below the site fall into class III.

Potential receptors of groundwater flowing beneath the site are:

1. the combined sewer of the City of Montréal, and

2. the buildings.

The St. Lawrence river is located about 500 m east of the property. However, the outflow of the site's groundwater is located on the southwest side, towards rue LeBer and the residential district and not towards the river. For this reason, the St. Lawrence River is not considered a potential receptor of the groundwater flowing beneath the site, as defined by the MENV policy.

Assessment of the soil and groundwater indicated the presence of soil and groundwater exceeding usage criteria for the site. With respect to groundwater, no impact on the receptors was identified. In fact, the groundwater flowing out of the site meets the combined sewer discharge criteria. Moreover, the quality of the groundwater beneath the site presents no risk to the health of occupants of the buildings. Applicable criteria were observed to be exceeded in the groundwater for aluminum, petroleum hydrocarbons and PAHs. These excesses were primarily located in sector C (service centre), where there is a plume of free phase product. The area of the plume of contaminated groundwater is about 5,365 m^2.

With respect to soil quality, a summary of the results is presented by sector:

- Sector A: exceedances of the Schedule II criteria (*Land Protection and Rehabilitation Regulation*) for metals were observed in the sector fill. The volume of soil exceeding the Schedule II criteria is estimated at about 18,025 m^3. No exceedances of the D criteria (*Regulation respecting the burial of contaminated soils*) were observed in this sector.

- Sector B: exceedances of Schedule II and D criteria for metals were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 8,903 m^3 in excess of D criteria and 41,690 m^3 in excess of Schedule II criteria (Schedule II-D range).

- Sector C: exceedances of D criteria in metals and Schedule II criteria in metals and HP[1] were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 7,400 m^3 in excess of the D criteria, 13,160 m^3 in excess of Schedule II criteria (Schedule II-D range) in metals, and 21,320 m^3 in excess of HP Schedule II criteria (of which about 7,000 m^3 exceed the D criteria.)

1. Translator's note: I believe HP here refers to "hydrocarbures petroliers," or petroleum hydrocarbons.

- Sector D: exceedances of Schedule I and II criteria and of D criteria for metals were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 730 m^3 in excess of the D criteria, 7,103 m^3 in the Schedule II-D range and 11,665 m^3 in the Schedule I-II range.

- Sector E: exceedances of Schedule I and II criteria and of D criteria for metals were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 3,300 m^3 in excess of the D criteria, 28,600 m^3 in the Schedule II-D range, and 17,275 m^3 in the Schedule I-II range.

- Sector F1: no soil exceeding the usage criteria were observed in this sector. However, some pockets of contaminated soil identified in other sectors do cross this sector. The volume of soil that exceeds Schedule II criteria for metals is estimated at about 735 m^3.

- Sector F2: exceedances of D criteria for metals and PAHs and of Schedule II criteria for metals and HP were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 2,431 m^3 in excess of D criteria for metals, 5,315 m^3 in excess of D criteria for PAHs, and 38,920 m^3 in the Schedule II-D range for metals and HP.

- Sector G: exceedances of Schedule I and II criteria for metals were observed in the fill. The volumes of soil that exceed the criteria are estimated at about 1,510 m^3 in excess of Schedule II criteria and 6,825 m^3 in the Schedule I-II range.

In general, the contaminated soils are located in the surface fill to a depth of less than 2 m.

Based on the results of this study, there is no indication that the contamination of the soil and groundwater observed on and beneath the property was caused by the activities of Alstom.

Golder Associés

APPENDIX 7

Chronology of investigation*
(Environment Canada, 2002-2003)

*** This text, originally written in longhand, has been carefully transcribed to match the original. Chronologically, the text begins on the last page and ends on the first page.**

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
03-03-18	Meeting with [Manager, EC] and [Enforcement Officer, EC, Investigations] Presentation of the latest version of the Investigation report.	
	Complete info in Nemesis. Investigation report appended	

03-03-18

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
	of the Crown. Must not make a connection with those responsible in the past.	
	[Senior Counsel, Justice Canada, Federal Prosecution Service] explains the elements required to lay charges.	
03-03-12	Work on draft report and letter to complainant	
03-03-13	Meeting with [Manager, EC] and [Enforcement Officer, EC, Investigations] for the investigation report. [Manager, EC] explains the changes she requests and gives me a copy of the corrections to be made. She will take care of correcting the response letter. Her corrections on file.	
03-03-14	Work on Technoparc. Investig. report.	
03-03-17	Work on Technoparc. Investig. report.	
	Given the numerous changes to my investigation report I can no longer recognize it as my own.	

03-03-18

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
03-02-14	Send a note to [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] requesting that he send me the reference documents before the meeting.	
	Prepare documents for meeting.	
03-02-24	Update of report "*État de situation d'une enquête*" ("State of the investigation"). Meeting with [Manager, EC] to discuss the information to remove in accordance with the Access to Info. Act.	
03-02-25	Meeting planned with [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] will take place on 10 March 2003 at Complexe Guy Favreau, 5th, East Tower at 2:30 p.m	
03-03-11	Meeting with [Senior Counsel, Justice Canada Commercial Law Directorate (Montreal)] and [Senior Counsel, Justice Canada, Federal Prosecution Service], 5th Tower East, place Guy Favreau. Discussion of the possibilities at the penal level, corrections suggested for the investigation report as well as the response to the complainant. [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] recommends removing the references to legal opinions and the inferences regarding possible liability	

03-02-14

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
03-02-10	Concerning the decision regarding whether or not to release certain information about which she is still asking herself questions, such as drafts or ministerial notes, I refer her to [Manager, EC].	
*	It is agreed that as soon as the response letter is sent to the witnesses we will advise her so that she can release all the information to the applicant.	
03-02-12	[Advisor, EC, Access to Information and Privacy] sends me certain pages that she received following the request for access to the info in the file. On some pages there is info missing. I research each of these pages and send her the entire original version by fax.	
03-02-14	[Manager, EC] informs me that [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] intends to meet with us shortly.	

03-02-10

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
	[docu]ments that I sent him on 18 December 2002. He tells me that he has been very busy and that he could not review it. He thinks he will be able to call me back by Friday and do the review. Inform [Manager, EC]	
03-01-23	I am summoned to a meeting Monday January 27, 2003 at 8:45 a.m.	
	I receive the preliminary report for the analyses done by our labs on the samples of groundwater at the Technoparc.	
03-02-10	Speak to [Advisor, EC, Access to Information and Privacy]. She informs me that she is working on the access to information request. She must determine what can be turned over to the applicant and wishes to know how the file is coming along. I reply that the investigation is finished but that, officially, as long as we have not responded to the complainants, it remains open for the public and the applicant.	

03-01-22

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-12-17	Meeting with [Manager, EC] who confirms that the response letter dated 24 Sept 2002 that I had written as a draft must also be reviewed by [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)].	
02-12-18	Send documents to [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)]: – Investigation report – Response to complainants	
03-01-07	We receive an access to info request. [Manager, EC] wants me to get back to [Advisor, EC, Access to Information and Privacy].	
	I contact [Advisor, EC, Access to Information and Privacy] and leave her a msg to call me back.	
	I meet with [Mailroom clerk, EC] and explain to her that we will provide her with all the documents of the investigations that will be photocopied.	
03-01-08	Contact [Advisor, EC, Access to Information and Privacy] and answer her questions as written in the email of 7 January 2003 at 9:04 a.m.	
03-01-22	Contact [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] to know how he is coming along with the review of the docu[ments]	

02-12-18

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-9-23	Work on file.	
02-9-24	Work on file.	
02-9-30	Received from [Manager, EC] the corrected Q&A and ministerial briefing notes.	
02-12-05	Meeting with [Manager, EC] to find out about the latest developments in the file.	
	The City refuses to build the wall that our experts proposed and consequently [Manager, EC] asks me to ensure that the factual data from the investigation and its conclusions appear in the investigation report. Moreover, the questions-answers and ministerial briefing notes must be sent to [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] for review.	
02-12-10	Work on file.	
02-12-11	Work on investigation report.	

02-09-24

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-9-4	Work on the report prepared by [Regional Intelligence Coordinator, EC].	
02-9-5	Work on the report prepared by [Regional Intelligence Coordinator, EC] and my own.	
02-9-6	Work on the draft final report. Submitted to [Manager, EC] and [Section Manager, EC, Investigations] for review.	
02-9-12	Receive msg from [Manager, EC] to give a copy to: [Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] [Regional Director General, EC] [Senior Advisor, Sustainable Development, Water and Contaminated Sites, EC, and Member, Federal Interdepartmental Group on Sustainable Development].	
	Send copies as requested.	
02-9-16	Meeting with [Manager, EC]. We discuss the draft end-of-investigation report and the changes and additions to be made. She gives me points to include in the letter of response to the complainants. N.B.: It must be reviewed by [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)]	

02-09-16

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-8-22	I informed [Manager, EC] and [Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] that the report is written in large part and that I am awaiting the results of the search in the cadastre and for the owners of the lands in question. I also asked [EC] to provide me with the geo. coordinates of the sampled locations.	
	Minutes for this meeting will be prepared and a copy placed in the file.	
02-8-23	Work on the investigation report.	
02-8-26	Work on the investigation report.	
02-8-28	Work on the investigation report.	
02-8-29	Work on the maps with [Regional Intelligence Coordinator, EC] and [EC] who gave us the coordinates of the sampled locations.	
02-9-3	Work on the report prepared by [Regional Intelligence Coordinator, EC].	

02-08-22

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-8-22	[Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] says he is planning a meeting of the technical committee on 5 September. He wants city representatives to endorse the results of the sampling carried out in the summer of 2002.	
	After, he is quite sure he'll get an undertaking from them to carry out work that will be satisfactory from the point of view of compliance with the FA.	
	He plans another meeting in mid-September with the concertation committee.	
	[Manager, EC] would like the investigation report to be presented to management in mid-September and finalized by the end of that month. In the meantime the response to the complainants and to the media must be prepared. I must also ensure the transmission of information to the various levels according to the decision-making process.	

02-08-22

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-8-14	Investigation at the Registry Office at the Court House. Searches in the property titles and notarized contracts. To do this I am with [Regional Intelligence Coordinator, EC].	
02-8-19	[Manager, EC] confirms the date of the next meeting on Monday 22 August at 1:30 p.m. I suggest that she invite [EC].	
02-8-21	[Regional Intelligence Coordinator, EC] carries out searches of property owners at the Court House. I review correspondence from recent weeks in the file and filed electronically in EC Montréal 10.	
02-8-22 13h30	Work on file. Meeting with [Manager, EC] and [Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] Discussion regarding progress of the investigation. When and how to release the information on the conclusion of the investigation. Strategy to adopt with the City.	

02-08-14

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-8-14	on current and past owners of some of the lands that are relevant to the complaint that started this file. We agree that our searches must be confined to certain lands located between Fernand-Séguin Street and the Victoria Bridge and the CN property boundary to the north and the river to the south. Among these lands, those on which [EC] took samples and that are also in the sector where the complainants took samples. For the lands not registered in the cadastre and shown on the maps that we have at hand (the most recent) and identified as being the St. Lawrence River, even though they've been landfilled, we will check to see whether they in fact belong to the Crown or to someone else.	

02-08-14

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-8-12	been taken to date and that he wants to take a third series so that the sampling is statistically valid and representative. He plans to add a fifth sampling point higher up, north of point PO-8.	
	According to the analyses already carried out with the tests with rainbow trout points PO99-4 and 99P-117-9 contain toxic substances. The two others PO-8 and PR-2 passed the test but he wants to submit the samples to other tests in order to see if there is bio-accumulation of toxics and thereby determine if we are dealing with effects that are sub-lethal for fish.	
02-8-14	Study the maps received from prov. Min. of natural resources. Along with [Regional Intelligence Coordinator, EC] we determine how to proceed with our research	

02-08-14

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-06-19	Send note by email to [Manager, EC] informing her of this. I ask her to confirm to me that I am in a position to continue my functions as an investigator under the *Fisheries Act* before any action at all on this file.	
02-07-12	To date, I have not received confirmation from central that I was able to continue my current functions.	
02-07-22	Meeting with [Manager, EC] hands me a letter confirming my current designation under the *Fisheries Act*.	
02-08-12	Meet [EC]. He explains to me the sampling procedure at the Technoparc site. There are 4 points to date that he identifies on a map that he gives me. The points are identified as: PO-8, PR-2, PO99-4, 99F117-9. He explains that two series of samples have	

02-06-19

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-6-10	Send a fax with the documents we have on the Koopers case to [Counsel, Justice Canada] at Justice Canada in Mtl.	
	Send email to [Head, Inspections, EC] with [Counsel, Justice Canada]'s tel. no.	
02-6-11	Meeting with [Manager, EC] for file update. Explain the delay in receiving information from the Min. of natural resources. I inform her that I have established contact between the lawyer dealing with the Koopers case in Vancouver, Me Kiselbach, and [Counsel, Justice Canada] from Justice Canada in Mtl. I also asked her that I be sent their meeting minutes.	
02-06-17	Received a note from [Ministerial Correspondence and Briefing Officer, EC Transportation] on behalf of [National Director, EC, Environmental Enforcement]. We are asked to return the appointment cards and the badges if we didn't complete the training in Regina.	

02-06-10

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-6-10	to represent the ministry on behalf of Justice Canada (a full-time prosecutor could not be provided for this file).	
	[Counsel, EC, Justice Canada], national civil litigation committee at (613) 953-1385. He is in charge of coordinating all files involving civil suits at the ministry.	
	[Head, Inspections, EC] prefers that our prosecutor be contacted by Me KISELBACH who will ask him exactly what he needs.	
	Contact [Counsel, Justice Canada], intern and replacement of [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] during his absence. I explain to her that Mr. KISELBACH will contact her and that in the meantime I am sending the very cursory information that we have on the Koppers case.	

02-06-10

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-6-3	Contact [Project Officer, EC, P+Y Environmental Protection Operations], coordinator of civil suits at (604) 666-5958. Away until July. I am referred to [Senior Environmental Investigator EC, Investigations] (phonetic) at (604) 666-3716.	
02-6-10	Contact [Senior Environmental Investigator EC, Investigations]. Leave message.	
	Contact [Head, Inspections, EC]. He explains the case to me and makes recommendations to pass onto programs in order to avoid us being exposed to civil suits. The comments and suggestions are very similar to what [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] told us during the 24 May meeting.	
	Due to the complexity of the Koppers file and the significant number of documents, he refers me to two people with whom [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] could discuss: Me Dan KISELBACH from Miller Thompson. This is the law firm that was mandated	

02-06-03

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-05-24	from Justice Canada: [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] [Counsel, Justice Canada]	
	from Programs: [Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] [EC] [Project Manager, EC, Evaluation, Restoration and Waste Water] [Program Engineer, EC, Evaluation, Restoration and Waste Water]	
	from the St. Lawrence Centre: [Manager, QA/QC Program and Ecotoxicology Laboratory, EC, Quebec Laboratory for Environmental Testing] [Biologist, Aquatic Toxicology, EC, Quebec Laboratory for Environmental Testing]	
	The purpose of the meeting was advice from [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] on how to proceed from the operations perspective. [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] stressed the importance of close consultation with partners based on proven solutions and results that can be scientifically verified.	
	I will obtain information on the Cooper case and transfer it to him	

02-06-03

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
	of taking samples on site, which would have the effect of delaying the barrier project and preventing the City of Montréal from having access to funding from the Révisol program, which could later be held against us. Confirmed by email.	
02-05-21	Work on file.	
02-05-22	Work on file.	
02-05-23	Work on file. Meeting with [Manager, EC] for follow-up. A meeting with [Senior Counsel, Justice Canada, Commercial Law Directorate (Montreal)] was scheduled for 31 May 2002.	
02-05-24	Work on file.	
02-05-27	Work on file.	
02-05-29	Work on file.	
02-05-30	Work on file.	
02-05-24	Work on file. Meeting with the following people:	

02-06-03

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-05-07	Work on file.	
02-05-08	Work on file	
02-05-09	Work on file.	
02-05-10	Work on file.	
02-05-13	Work on file. Meeting with [Manager, EC] I recommend she consult a lawyer from the civil section at Justice Canada.	
02-05-14	Work on Technoparc.	
02-05-15	Work on Technoparc.	
02-05-16	Work on Technoparc.	
02-05-17	Work on Technoparc. Meeting with [Manager, EC] and I give her, once again, the document on the KOPPERS case from B.C. I ask her if management consulted Justice Canada. She tells me no. I reiterate that they must assess the importance	

02-05-07

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-4-17	Receive file from archives. Analyze information.	
02-04-19	Investigation in the field with [Enforcement Officer, EC, Investigations] [Regional Intelligence Coordinator, EC] [EC]	
	Take photos.	
02-04-23	Work on file.	
02-04-24	Work on file.	
02-04-25	Work on file.	
02-04-30	Work on file.	
02-5-01	Work on file.	
02-5-2	Work on file. Meeting with [EC].	
02-5-6	Work on file. Meeting with [EC].	

02-04-17

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
02-04-12	Receive documents from [Section head, inspections, EC] related to an investigation request	
02-04-15	Examine documents received from [Section head, inspections, EC].	
	Work on file. Send several requests to complete information on file.	
	I obtain from [Regional Intelligence Coordinator, EC] documents obtained on the Internet site of the Environmental bureau of investigation which is assisting the complainant with its investigation request.	
	I obtain from [Enforcement Officer, EC, Investigations] info from the library.	
	Meeting with [Manager, EC] to do an overview and strategy to adopt during the investigation.	
02-4-16	Work on file.	

02-04-12

Date

Investigator
Personnel number: 454

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
11/04/2002	Received a FAX addressed to [Section head, inspections, EC] It is a letter signed by Mark Matson of EBI and DANIEL GREEN of SVP requesting EC to investigate in the TECHNOPARC file	

Date Investigator 16/04/2002
Personnel number: ____

Environment Canada
Environmental Protection Branch
Investigations Section – pollution sector

Chronology of investigation

Date	File: QUE –020412-001	#
21/01/2002	Meeting with Daniel Green of SVP and Mark Matson of EBI in the EC offices at 105 McGill. Mr. Matson gives [Section head, inspections, EC] a preliminary report on contamination of the St. Lawrence by the Technoparc site. It is agreed that a final report will be given to us in about 10 days according to EBI	
25/01/2002	Meeting with the City of Montréal and E.C. (See minutes)	
*25/02/2002 *Approximate date	Telephone call from Mark Matson EBI to [Section head, inspections, EC] to cancel a meeting that was supposed to take place on 28/02/2002 in order to give the EC a final report on contamination of the St. Lawrence by the TECHNOPARC site.	
28/02/2002	Meeting of EC ([Regional Director General, EC], [Regional Director, Programs, Transport Canada, Transfers and Real Estate Development] and [Section head, inspections, EC]) and Justice Canada ([Prosecutor, Federal Prosecution Service, Justice Canada], [Prosecutor, Federal Prosecution Service, Justice Canada], [Regional Director, Federal Prosecution Service, Justice Canada] on the TECHNOPARC file.	
11/04/2002	Meeting with EBI (Mark Matson, Eric Matson) and SVP (Daniel Green) and [Section head, inspections, EC]. EBI gives EC a study report (The TECHNOPARC SITE, April 11, 2002) on contamination of the St. Lawrence by the TECHNOPARC site.	

Date _____
Investigator
Personnel number: ____

APPENDIX 8

Memorandum — Montreal Technoparc (Environment Canada, n.d.)

Environnement Canada **Région du Québec**
Environment Canada **Québec Region**

NOTE DE SERVICE / MEMORANDUM

À TO	Manager, Enforcement Division EPB, Montreal	**AUTEUR/ AUTHOR # TEL.**	283-0954
		N/R V/R	QUÉ020412-001
DE FROM	Investigator EPB, Montreal	**SÉCURITÉ/ SECURITY**	PROTÉGÉ ÉBAUCHE
		DATE	

OBJET SUBJECT	**Technoparc, Montréal**

A complaint was filed with Environment Canada's Environmental Protection Branch in Montréal (EC, EPB Montréal) and was turned over to the Investigations Section. The investigation request was dated 11 April 2002 and signed by Daniel Green, executive director of the *Société pour vaincre la pollution* (SVP) and Mark Mattson, executive director of the Environmental Bureau of Investigation (EBI). They assert that toxic substances are being discharged into the St. Lawrence River. The complaint was accompanied by a sampling report of tests carried out on the shoreline along the Bonaventure Autoroute and adjacent to properties that are part of the Technoparc. The analyses in the report indicated that the samples contained PCBs, PAHs, and oils or greases. The validity of the analyses of the submitted samples was accepted out of hand and was not subject to independent verification by EC.

All available documents kept by EC, EPB Montréal were consulted, including documents kept in the archives, in divisions of federal programs, and the Inspection and Emergencies sections. Others were obtained from the Ministry of Natural Resources and the registry office for the Montréal registration division (*Bureau de la publicité des droits de la circonscription foncière de Montréal*). An information report containing all documents relevant to the cadastral searches is available.[i] Given the complex nature of this file, further details were requested from EPB Montréal resource personnel.

The different lots comprising the Technoparc are located in an urban area on the southeast portion of the island of Montréal, between the Champlain and Victoria bridges. The Technoparc is bounded to the east by the St. Lawrence River and the Bonaventure Autoroute, and to the west by the Canadian National (CN) rail yard, along the Butler line. The historical details that follow are based on available information. However, some details dating back to the 19th century are lacking or cannot be confirmed. The investigator cannot therefore guarantee their accuracy.

The entire current area of the Technoparc was originally a riparian wetland along the St. Lawrence River and thus not registered in the cadastre. Indeed, maps, updated and obtained from the Ministry of Natural Resources still show significant portions of the area as being part of the St. Lawrence River, whereas today they are man-made lands built up on the riverbed. Some have not yet been registered in the cadastre and we were unable to find documentation attesting to their current owners. A portion of the site is in fact the former "Point St. Charles dump," which dates from the mid-19th century.

In 1840, Point St. Charles was part of the countryside surrounding Montréal, with the particularity that most of the land belonged to various religious communities. In 1853, the Grand Trunk Railway of Canada acquired almost all the lands between Point St. Charles and St. Lambert. In total, 120 *arpents* were purchased from four Point St. Charles religious communities.

In 1864, the City of Montréal's Waterworks Committee assigned one of the Point St. Charles properties to the incineration department to be used as a dump. In 1888, the City of Montréal acquired four other lots registered in the cadastre, including two from religious communities, in order to create a dump at the southern end of Ash Street at Point St. Charles. Though the dump had been used for years, it was only officially established by the City in 1902 and closed in 1966, when it became a parking lot for EXPO '67. The dump received between 4 and 12 meters of household and industrial waste, along with dry materials. The oldest section was filled prior to 1933.

In 1909, the Harbour Commission (Port of Montréal) declared that legally, the port's property extended over 16 miles along both the eastern and western shores, at the high water mark.

In 1925, given the progression of the "Point St. Charles dump," primarily on the southern side, the Commission authorized the City to

dump garbage on lands over which it held jurisdiction, extending to the "Southern Boundary of the Harbour." After 1955, the area filled in was primarily toward the Victoria Bridge. In its post-1937 expansion, the dump was located on Port of Montréal property.

In 1937, the City of Montréal transferred the site located on the St. Gabriel pier at the south end of Ash Street to Canadian National (CN) in exchange for other properties. CN built a new switching yard on the site, bounded on the southeast by the Butler Line.

In 1966, the lands that today make up the Technoparc, like those of the dump, were leveled and covered with a thin layer of gravel, to be used as a parking lot for EXPO '67, called the Victoria Autoparc. This was when problems related to gas produced by decomposing organic matter were first encountered. At the same time, the Bonaventure Autoroute was built using significant amounts of off-site fill deposited directly onto the riverbed between the Victoria and Champlain bridges. This work continued for several years. The land supporting the Bonaventure Autoroute that is registered in the cadastre belongs to Environnement Quebec. It should be noted that another portion of the land below the autoroute does not appear on maps, which instead show the river. Since it has not been registered in the cadastre, we can only speculate that it belongs to the same owner.

After EXPO '67, these properties were not used again until 1973, when a runway, terminal and maintenance facilities for short-take-off-and-landing aircraft (*avions à décollage et atterissage court*—ADAC) was built.

After the "ADACport" was abandoned in 1980, a layer of backfill was added to the surface of the northern portion of the site. The St. Lawrence waterfront, downstream from outlet of the St. Pierre sewer line, below the Champlain Bridge and up to the Bonaventure Autoroute, was still being backfilled in certain places as late as 1982 in order to straighten the shoreline and prevent the accumulation of wastewater from the sewer line.

In 1984, construction work began on a maintenance centre at Point St. Charles, on the southwest portion of the Technoparc, for Via Rail Canada (VRC), a Crown corporation. A portion of the site was also used to store granular material until the end of 1984, and as a snow depot during the winter of 1985.

In 1985, EC, EPB Montréal published a study of gas emissions at the ADACport site ("Étude des gaz site de l'ADACport"). The report stated that as part of a program to assess waste disposal sites on federal lands in Québec, the ADACport site was slated for further work because of potentially serious impacts related to gas and leachate production.

On 3 August 1989, the Technoparc site, with an area of 456,057 square meters, was sold to the City of Montréal by Her Majesty in Right of Canada and the Montréal Port Corporation. The property was then identified as "Blocks 2 and 5." In ensuing years, Block 5 was subdivided several times to build streets and to allow the sale of several portions to new owners. Nineteen (19) subdivided lots were created from Block 5, although it was never completely subdivided.

These lots received their own cadastral numbers, and some were subdivided again, for a total of 30 distinct lots. The portions of Blocks 5 and 2 that were not subdivided were given a separate cadastral designation.

On 19 September 1989, the City of Montréal resold a portion of Block 5 to Teleglobe Canada, comprising an area of 18,750 square meters.

In August 1991, following a complaint, the Emergencies Section of EC, EPB Montréal began an initial legal survey in this sector and demonstrated that hydrocarbons contaminated with PCBs and metals were flowing into the river.[1] Following these results, representatives of the Emergencies, Investigation and Intervention sections met with the various stakeholders at the time, i.e., CN, VRC, the City of Montréal, and the MEF [*ministère de l'Environnement et de la Faune*] in order to pool the various available sources of information and have the party responsible for the site take charge of recovering these substances. Ever since the discharges into the river were first noticed, EC has thus intervened immediately and practically, taking measures to limit their impact on the aquatic environment and thereby adhering to the provisions of the FA [*Fisheries Act*].

In October 1991, hydrocarbons contaminated with PCBs were once again seen flowing into the St. Lawrence, and once again EC, EPB

1. Translator's note: there appears to be an error in the French original here. It reads "En août 1991, suite à une plainte, la section des urgences d'EC, DPE Montréal procède à un premier relevé légal dans ce secteur *par et démontre* l'écoulement au fleuve d'hydrocarbures contaminés par des BPC et des métaux." [Italics added]

Montréal inspectors intervened immediately, ensuring that measures be taken to recover these substances in the vicinities of the Technoparc and the Victoria Bridge. CN and the City of Montréal agreed to share the costs of maintaining booms in areas where the discharges had been observed and of recovering these hydrocarbons. The Crown corporation also agreed to study the implementation of corrective measures to permanently stop the hydrocarbons from flowing into the river. The engineering firm that carried out the study initially proposed waterproofing the shoreline in the areas where hydrocarbons were resurging and collecting them with a system of pumping wells.

Following this meeting, CN decided to take over operations but insisted strongly that it admitted no responsibility for the discharges. Subsequently, the costs of collecting the hydrocarbon discharges were to be shared between the City and CN. It should be noted that representatives of EC, EPB Montréal had at that time consulted a Department of Justice (DOJ) attorney.

On 30 November 1995, the City of Montréal sold another portion of Block 5, with an area of 12,805 square meters, to Bell Mobility Cellular Inc.

Between 1993 and 1996, the Jacques Cartier and Champlain Bridges Corporation Inc. had planned to rebuild drainage ways "T" and "O" of the Bonaventure Autoroute. Two environmental characterization studies carried out in 1993 and 1996 were submitted to EC. The Ministry drew up recommendations concerning the disposal of soil and contaminated wastes from the excavation work. The work to rebuild drainage ways "T" and "O" adhered to these recommendations and schedules.

On 29 June 1999, the City sold another portion of Block 5, with an area of 20,346 square meters, to *Société immobilière Parctech. inc.*

On 4 June 1999, the City sold Blocks 5-18 and 5-19, with a total area of 47,870 square meters, to *Cité du cinéma (MEL) inc.*

In December 1999, the provincial government issued a press release along with the mayor of Montréal announcing grants totaling $2.35 million awarded as part of the Urban Contaminated Sites Rehabilitation program to decontaminate lands needed for six (6) new development projects. The Technoparc project was among the six (6) projects targeted by the program.

On 6 March 2002, the City of Montréal sold lot 2597381, with a total area of 70,499 square meters, to *Cité du cinéma (MEL) inc.*

Today, the Technoparc is managed by the City's department of economic development for commercial and industrial development purposes. To improve the quality of the surface materials, the topography and the drainage in the eastern and central portions of the Technoparc, the City elevated the land with backfill imported from three different construction sites in Montréal and with soil from the Technoparc itself. According to our cadastral research, the City sold 37 percent of the Technoparc's area to other owners.

The files consulted show that between 1978 and 1998, characterizations were carried out in different locations. Certain occupants such as CN carried out their own studies and installed 117 piezometers along the southern boundary with neighboring properties in order to permanently recover the contaminants before they contaminated neighbouring properties or the river.

One of these studies was carried out on behalf of EC, EPB Montréal and the MEF. The services of two consultants were employed, who carried out a thorough characterization of the site and a statistical analysis. They drilled and took samples at depths ranging from 4 to 26 meters. The soil data comprised a total of 67 measurements and a maximum of 33 physicochemical variables. The ground and surface water data comprised 44 measurements and a maximum of 75 physicochemical variables.

Their report, published in 1990, showed that the soil and water were contaminated by a host of substances, including some at very high levels.[ii] For surface and ground water, these substances included ethylbenzene, benzene, toluene, styrene, xylene, total PAHs, chlorophenols, and dichloromethane. In the subsurface, they included zinc, nickel, silver, cadmium, arsenic, phenols, PAHs, and PCBs. The report also included maps showing where the various contaminants were concentrated.

The report stated that "the subsurface analysis and the soil showed strong variability (expressed by the coefficients of variation) of concentrations measured throughout the site for most of the variables measured. Assuming negligible inaccuracies in the laboratory analyses, and given that the samples were taken at numerous stations spread throughout the site at different depths, such variability indicates a very heterogeneous distribution of contaminants on the site." These studies

demonstrated that there was indeed significant and non-point-source contamination of the soil and groundwater by a wide range of substances throughout the properties of the Technoparc region.

In 1996, CN withdrew all contributions to further characterization work and hydrocarbon interception, convinced that the installation of its 117 piezometers and the system of vacuum pumps would recover the floating phases along the southern boundary of its property and no longer contribute to contamination of the river.

On 18 February 1998, _____, head of the laboratory division, public works department, sent a note to _____, commissioner of the economic development department, in which he took stock of progress in the efforts to put permanent corrective measures into place to halt the flow of hydrocarbons into the river. He made reference to different scenarios put forward for their interception and recovery.[iii]

On 26 February 1998, _____, engineer, and _____,[2] principal consultant of the Intervention and Restoration section of the EPB's Technology and Restoration division, submitted a report on the use of "biobarriers" to biodegrade hydrocarbons and recalcitrant organochlorines contaminating the aquifer at the ADACport.[iv] The project planned for representative samples at strategic locations along the Technoparc waterfront to determine the amount of contamination from floating and dissolved phases, with a view to making recommendations concerning the installation of a watertight barrier as well as the recovery and treatment of the hydrocarbons. The project was not given the go-ahead at the time.

In April 1998, representatives of EC, EPB Montréal gave a presentation on environmental regulations relevant to the flow of hydrocarbons into the river during a workshop entitled "Écoulement d'hydrocarbures au fleuve St-Laurent — Atelier d'analyse de la valeur" organized by the City of Montréal. Several interviews were granted to the media. Several briefing notes, the last of which dates from April 2002, were written on behalf of the Minister's office over the years.

In October 1998, the Inspections section of EPB Montréal undertook a second legal survey after newspaper articles noted the presence of barrels containing used PCB-contaminated oils near the Victoria Bridge. The survey confirmed the presence of PCBs in the water samples taken

2.

from the river and in the liquid contained in storage barrels located near the shore.

A warning letter dated from November was sent to City of Montréal representatives, claiming an infraction under paragraph 36(3) of the FA.[v] However, following the reception of a legal opinion to the effect that the Storage of PCB Materials Regulations[3] could not apply under these circumstances, no measures to enforce the law were taken with respect to the storage of barrels containing PCB-contaminated water.[vi] Since then, the City of Montréal has put into place measures, through the services of a specialized firm, to recover, pump and dispose of the substances recovered.

On 21 October 1998, representatives from EC Programs and Inspections, EPB Montréal and from the MEF met to discuss the problem of substances flowing into the river. Among the recommendations issued, the need for closer collaboration between the City of Montréal, the MEF and EC was stressed, along with the development of an action plan by the three levels of government. Financial assistance was foreseen to carry out the necessary work.[vii]

In June 1999, the City consulted several partners, including EC and the provincial government, to assess short- and medium-term actions. The City subsequently allocated funds for a new site characterization.

In a letter dated 18 October 1999, the City of Montréal public works department informed the director of EPB Montréal that during a city council session held on 14 September 1999, an engineering firm was mandated to carry out supplementary environmental characterization and final design studies for intercepting and recovering floating hydrocarbon phases at the Technoparc site.[viii]

Between October 1998 and January 2002, personnel from the Inspections section of EPB Montréal carried out fourteen (14) supplementary visual inspections at the site and issued several verbal directives to City officials. In each case, the goal was to rectify the immediate situation in areas where oily substances were observed to be flowing into the river, notably through the use of absorbents and the replacement or adjustment of booms to reduce their spread into the aquatic environment.[ix] This section carried out regular follow-ups of all work done by

3. Translator's note: the French original here refers to the "Règlement sur le stockage de BPC," which I assume refers to the federal "Règlement sur le stockage des matériels contenant des BPC" and for which I have provided the English version.

City of Montréal consultants and ensured that the measures for retention and recovery put into place were functional.

In several formal and informal meetings with various stakeholders involved in the file, representatives from the Technologies and Interventions division of EPB Montréal attended as technical and scientific consultants. Several City of Montreal documents (reports, studies, estimates, etc.) were submitted to EPB Montréal for comment. EPB also had representatives on the Temporary and permanent measures follow-up committee (*Comite de suivi des mesures temporaires et permanentes*) and the Montreal Centre of Excellence in Brownfields Rehabilitation Committee.

On 25 January 2002, EPB Programs representatives met with City officials and requested the City of Montréal action plan, including the project schedule.[x] It was at this point that the City began tendering procedures.

The City of Montréal divisional manager sent a letter to the director of the EPB, dated 28 January 2002. The letter stated that following the allocation of $2.9 million, the City was in the process of receiving submissions for building an interception and recovery system for hydrocarbon floating phases at the Technoparc. A new contract was expected to be issued shortly.[xi]

In March 2002, SNC Lavalin submitted a supplementary characterization report and a final design study for intercepting and recovering floating hydrocarbon phases.[xii] This, following the creation of the Technoparc in 1989 and the requirements of the MEF set out in the sale agreement. The SNC report confirmed the presence of significant amounts of PAHs and/or PCBs in the water of certain observation wells near the waterfront. The consultant reported that from October 1999 to October 2000, weekly inspections of the river showed resurgences ranging from very significant to weak, with the most intense period being the fall of 1999, when the water level in the river was very low.

PCBs were detected in a high number of wells throughout the Technoparc. Samples were taken from the waterfront, opposite Fernand-Séguin Street, which is situated more or less in the center of the Technoparc. This location is made up of fill materials that support the Bonaventure Autoroute. The results of the analyses indicated that total PCB contents were on the order of 110 ppm. For PAHs, the highest measured values came from a well located approximately 225 meters north of one of the booms, where the complainants appeared to have taken some of their samples.

The contamination mass in dissolved phases in the groundwater was established at 0.4 to 2.8 kg for the various PAH compounds, 1.1 kg for total PCBs, and 10,370 kg for C^{10}–C^{50} petroleum hydrocarbons. The characterization of the river water opposite the Technoparc showed that concentrations fell short of applicable quality criteria and detection limits, and that there was no detectible increase compared with the control station upstream from the Technoparc.

The same month, the Ville-Marie and Jacques-Cartier ZIP committees requested a meeting with the EPB director for the month of June. In a letter dated 18 April 2002, the director confirmed she would attend in order to discuss the Technoparc issue and develop a regional partnership with them

On 2 April 2002, representatives of the EPB Programs division met with City of Montréal representatives,[xiii] who explained the planned installation of a barrier to intercept floating phases, with work to begin in the fall of 2002. The EPB representatives expressed their concerns about the ability of such a structure to intercept the dissolved phase. One EPB representative specifically questioned the engineer representing the engineering firm about the stability and permanence of the proposed barrier. The engineer answered that all work would be done according to standard trade practices, with no other guarantee. The City representatives confirmed that as planned, the barrier project would not intercept dissolved phase contaminants, and that no toxicity trials had been done at any time to determine if they were toxic. The EPB representatives specifically stated that they wished to take part in a roundtable initiated by the City of Montréal.

On 3 April 2002, Minister David Anderson met with City of Montréal representatives about the Technoparc issue. According to the minutes of this meeting, the City was preparing to build a watertight wall to prevent floating phase hydrocarbons from flowing into the river.[xiv] The project was estimated to cost $7 million, with supplementary costs of $350,000 for pumping and disposal of the hydrocarbons. Even so, it was known that some contaminants would remain in the portion of the site below and along the Bonaventure Autoroute, and thus [in] the river, which could not be recovered by the work and which would continue to flow into the river for a number of years. Other means would have to be used to collect these contaminants. The minister confirmed the backing of EC.

On 16 April 2002, the EPB director met with City representatives as part of their divisional summit. Discussions of the Technoparc issue took place.[xv]

On 19 April 2002, investigators and a specialist from the EPB Intervention section went to the waterfront along the Bonaventure Autoroute, opposite the Technoparc. They observed iridescent films on the river's surface in two locations where absorbent booms were permanently installed. This phenomenon is usually associated with the presence of oily substances. They noted the complexity of collecting all the evidence necessary to establish criminal responsibility.

On 13 May 2002, the EPB director sent a letter to _____, engineer and head of the laboratory division for the City of Montréal's environment and road network department.[xvi] She recommended that the City undertake bio-assays to determine the extent of the dissolved-phase contamination. She offered the technical support of recovery experts and the resources of Environment Canada laboratories in planning the sampling work and interpreting the analytical results.

An analysis of the information available in this file shows that from 1903, and even before, until its closure in 1966, citizens contributed greatly to filling the Point St. Charles city dump and the lands that make up the Technoparc. The industrial companies that occupied and operated on the site also added large quantities of various substances, both solid and liquid. This occurred first in the wetlands along the river's shoreline and later on the riverbed itself, to a depth estimated at about 12 meters. A significant portion of the fill that covers and was used to create the Technoparc and the Bonaventure Autoroute came from off-site, and we do know the extent of the contamination of the original material in the locations where this off-site fill was taken. The contaminants have been moved about over the years in various ways, especially though excavation, blasting, and filling done in the current area of the Technoparc and during the construction of the Bonaventure Autoroute infrastructures.

The various characterizations that have been done confirm that the Technoparc is contaminated to a significant depth by a large number of substances. The environmental practices at the time were guided by practical or sanitary considerations. These were standard practices, were not considered illegal and were known to all governmental authorities. These activities continued until the early 1970s, when increasing public concern for the environment resulted in the adoption and

enforcement of new laws governing, among other things, waste management and disposal.

Sanitary and storm sewers, both existing and no longer in use, along with groundwater, constitute primary pathways for the flow of hazardous substances into the river. In addition, spring runoff changes the height of the river and contributes to "washing" the lands, freeing some of the contaminants contained in their waters.

ANALYSIS AND RECOMMENDATIONS

Our department is responsible for enforcing article 36 of the FA under the terms of the *Department of the Environment Act* and a memorandum of agreement entered into in May 1985 between the deputy minister of Fisheries and Oceans and the deputy minister of EC. Following the complaint filed by Mr. Green and Mr. Mattson, the mandate of the investigator assigned to the file is essentially to determine if it is possible to collect enough evidence to lay criminal charges under the FA, against a private individual or a corporate body. He therefore had to take into account legal opinions and recommendations in similar cases as well as relevant jurisprudence.

He did not consider other types of legal recourse, such as those involving civil liability or others set out in Canadian legislation, nor did he comment on the technical solutions being studied; these were not under the purview of his mandate or his expertise.

The alleged offense falls under paragraph 36(3) of the FA, i.e., to deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

Before an investigator can recommend to legal counsel that criminal charges be laid, he must first ensure that *all* evidence proving the alleged offense *beyond a reasonable doubt* has been collected. First of all, he must answer the following two questions: *When* did the offense occur, and by *whom* [was it committed]?

The courts have said that for a person to be proven guilty of committing an offense or allowing it to be committed, one must prove, *beyond a reasonable doubt*, that he or she was instrumental in or was in a position to exercise *continuous control* over the *prohibited activity*. Paragraph 38(4) of the *Fisheries Act* defines such a person as someone who

"*owns* the deleterious substance or has the *charge, management or control* thereof, or *causes or contributes to the causation* of the deposit or danger thereof[.]"

We cannot prove *beyond a reasonable doubt* the *source* of a deleterious substance and the specific *path* it took to flow into the river while eliminating *all other possible sources* of contamination.

We cannot prove *beyond a reasonable doubt* that during a specific period, an individual or corporate body deposited a deleterious substance, or was in a position to exercise continuous control over the prohibited activity in the location where a deleterious substance was deposited, in the river or another location, allowing the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance to enter the water.

The human activities that generated the deleterious substances and that allowed their deposit into the river occurred before the deposit was noticed by inspectors in 1991. This is well outside the limitation of suits set out in paragraph 82(1) of the FA, all amendments included.

Not only were all governmental authorities at the time aware of these activities, many of these lands were sold by one government or another, or by a Crown corporation, to the City of Montréal with full awareness of the soil contamination. Some of the sales contracts contain clauses that specifically relieve the Crown or one of its corporations (the seller) of all liability for the quality of the soil and subsurface. In the two (2) bills of sale in which the City of Montréal is the purchaser, it is mentioned that Her Majesty (in right of Canada or Québec, as applicable) is "freed from all liability related to the state of the property's soil and subsurface, and [the purchaser] wholly and formally renounces all claims and/or actions against Her Majesty related to the state of the soil or subsurface."[4]

Moreover, "the City does not require Her Majesty to provide titles or search of titles certificates for the site and relieves Her Majesty of all liability concerning the value of the title." Many other irregularities concerning the property's title have been noted, and it is clear that the lands were sold to the City of Montréal without the identity of the titleholder being clearly established.

4. Translator's note: not an official citation but a translation from the French; the clarification in square brackets is my addition.

In another similar case, an inspector asked a prosecutor and a lawyer from the civil section of the DOJ to examine the possibility of laying criminal charges and to determine whether EC could ever be reproached for not having fulfilled its obligation to enforce the FA and therefore be exposed to lawsuits. The opinion, received in July 2001, essentially stated that paragraph 36 of the FA did not constitute a specific obligation on the part of the ministry to take action.[xvii]

In 1981, this question had already been addressed at the Federal Court by a group of people who wished the Departments of Fisheries and Environment to enforce, according to their purviews, the *Seal Hunt Regulations*.[5] Evidence showed that infractions had been reported that that in certain cases, no measures had been taken. The essence of the judgment was that "one can certainly not say that infractions are to be tolerated or approved of, but the enforcement of a law or a regulation is a question of degree."[6]

In another case, another group wished to compel the Minister of Consumer and Corporate Affairs to enforce certain statutory provisions. The judge concluded that no such obligation had been foreseen and that accusatorial procedures fell to the Attorney General, who, when carrying out accusatorial functions, exercised administrative powers that were not subject to control by the courts except in cases of flagrant impropriety.

Finally, in a more recent case, the Federal Court of Appeal handed down a judgment in a similar case involving the Federal Minister of Revenue. While the judgment noted that the Minister is required to uphold the law and must take all reasonable measures to enforce its provisions, the Court deemed that political factors falling outside the jurisdiction of the court must be taken into consideration since they bear upon the manner in which the Law must be applied.

These decisions are relevant with respect to actions already taken by representatives of the Ministry. This is especially true considering that interventions were taken in the field and corrective measures were requested, and also given that technical support was offered by EC, EPB Montréal to the stakeholders involved, including the City of Montréal,

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5. Translator's note: The French here refers to the *Règlement sur la chasse aux phoques*. I have translated this but could not find any reference to any Canadian regulation of this name. The modern equivalent would appear to be the Marine Mammal Regulations.
6. Again, not an official citation but rather a translation from the French.

in order to help put suitable and permanent solutions into place to intercept and dispose of the contaminants flowing into the river.

Even before the Investigations section was involved in the file, a meeting was held between several EPB Montréal representatives and prosecutors and attorneys of the civil section of the DOJ in Montréal. A presentation of the Technoparc issue was given and discussions followed. They provided the following opinion: "Given the technical and scientific complexity of the file, the significant uncertainty of the true source or sources of the contamination, uncertainties concerning the owners and users of the site at the time, uncertainties concerning the possible parties responsible for the state of the site, the possible contribution of sources external to the Technoparc site itself, it is highly unlikely that the file can be brought before the courts." They believed that a joint approach to searching for a solution that would be acceptable in terms of environmental protection and of enforcing the law was the best answer.[xviii]

The investigator noted that since the deposits into the river were first brought to his attention, EC has fulfilled its obligations and continues to do so to the extent this is possible and given the powers attributed to him under the law with respect to enforcing the FA. He recommends continuing the work done by the experts of the Intervention and Restoration section with the groups involved, including the City of Montréal, toward implementing an effective and permanent technical solution to intercept and dispose of the floating and dissolved phases. In this respect he recommends closing the file.

DOCUMENTS CONSULTED

i. Rapport de renseignement sur les titres de propriété nº QC-2002-06.

ii. "Analyse statistique des données de caractérisation des lieux d'élimination des déchets," December 1990. Prepared by Service d'analyse de données MESIC inc. and by G.R.E.B.E. inc.

iii. Note dated 8 February 1998, from _____ of the City of Montréal public works department to _____ of the economic development department.

iv. _____, EC, EPB Montréal, report summary of "Essais de biodégradation à l'aide de "biobarrières" des hydrocarbures pétroliers et des produits "organochlorés" récalcitrants, contaminant un aquifère, à l'Adacport."

v. Letter of warning to the City of Montréal, dated 12 November 1998, (dossier LP363-0017, vol. 2 doc. page 56).

vi. Report of telephone conversation with Mr. _____, EC legal adviser, 27 October 1998 (dossier LP363-0017 vol. 2 doc. Page 30).

vii. Minutes of meeting of 21 October 1998 between EC and the MEF.

viii. Letter dated 18 October 1999, from the Service des travaux publics, Ville de Montréal, to _____, director, EPB Montréal.

ix. EC, EPB Montréal dossier: LP363-0017, vols. 1 and 2.

x. Minutes of meeting on 25 January 2002 between EC and the City of Montréal.

xi. Letter dated 28 January 2002, from _____, City of Montréal engineer, to Madame _____, director, EPB Montréal.

xii. SNC-Lavalin. *Projet d'interception et de récupération des phases flottantes d'hydrocarbures Technoparc, Montréal. Caractérisation environnementale complémentaire*. March 2002.

xiii. EC, EPB Montréal, minutes of meeting of 2 April 2002.

xiv. Minutes of EPB Montréal meeting of 3 April 2002.

xv. Minutes of EPB Montréal meeting of 16 April 2002.

xvi. Letter dated 13 May 2002 from M. _____, director, EPB Montréal to M. _____, City of Montréal engineer.

xvii. Legal opinion, Me _____ of MDJ, dated 13 July 2001. Dossier LP363-0044.

xviii. Minutes of meeting with MDJ prosecutors Me _____, _____ and _____, 28 February 2002.

Signatures

Investigator

APPENDIX 9

Environment Canada, Investigation Report
(April 2003)

FILE

Environnement Canada
Environment Canada

Région du Québec Quebec Region
Environmental Protection Branch
105 Mill Street, 4th Floor
Montreal (Quebec) H2Y 2E7

April 24th, 2003

Mr. Daniel Green
Executive Director
Société pour Vaincre la Pollution

Mr. Mark Mattson
Executive Director
Environmental Bureau of Investigation
225 Brunswick Avenue
Toronto, Ontario M5S 2M7

Objet: Conclusion of the investigation on the Technoparc site

Sirs,

This letter is in response to your request to open an investigation regarding the alleged deposit of deleterious substances in the St. Lawrence River. According to your April 11th. 2002 request, these substances would come from the Technoparc site in Montréal. As indicated in our letter sent to you on April 22nd. Environment Canada opened an investigation relatively to the general prohibition concerning the deposit of a deleterious substance in water frequented by fish as prescribed under section 36(3) of the *Fisheries Act*.

We have investigated the historical facts of the Technoparc site, the origin and type of the contamination and the geology of the site. The analysis that we have done does not allow us to determine the precise source of the deleterious substances released to St. Lawrence River. Therefore, Environment Canada brings closure to the investigation that you requested on April 11th, 2002.

Please be assured that Environment Canada is continuing its efforts with different stakeholders to find a sustainable solution to protect the environment.

We thank you for your interest in the protection of the St. Lawrence River.

Sincerely,

Director
Environmental Protection Branch

Montréal Technoparc
File: QUÉ020412-001

Investigation Report

Submitted 22 April 2003

By _____
Investigator, Investigations Section, EPB

[1.0] Introduction[1]

Daniel Green, Executive Director of the Société pour vaincre la pollution (SVP), and Mark Mattson, Executive Director of the Environmental Bureau of Investigation (EBI), filed an investigation request dated 11 April 2002, with the offices of the Environmental Protection Branch (EPB) of Environment Canada in Montréal. The complainants assert that the site of the Montréal Technoparc is discharging harmful toxic substances into the St. Lawrence River. Accompanying the investigation request were a sampling report of tests carried out along the shoreline adjacent to the Technoparc lands, certificates of analysis, and aerial photographs taken in October and November 2000. The analytical results obtained by the complainants indicate that a number of the samples taken at this location contained PCBs, PAHs, oils and greases.

Subsequent to the filing of the complaint with the EPB, which asserted an infraction under paragraph 36(3) of the *Fisheries Act* (FA), the EPB opened an investigation to collect the evidence needed to prove the infraction and to assign criminal liability to one or several specific parties. Paragraph 36(3) states that it is prohibited to deposit or permit the deposit of a deleterious substance of any type in water frequented by fish or in any place under any conditions where the deleterious substance or any other deleterious substance that results from the deposit of the deleterious substance may enter any such water.

The federal Department of Fisheries and Oceans (DFO) has the statutory responsibility to administer and enforce the *Fisheries Act*. However, in 1978, the prime minister assigned Environment Canada the responsibility for administering enforcing the anti-pollution provisions of the *Fisheries Act* that cover the deposit of deleterious substances in water frequented by fish. A memorandum of understanding between the DFO and the Department of the Environment sets out the responsibilities of the two parties in administering and enforcing the anti-pollution provisions of the *Fisheries Act*. All EPB documents were consulted, including documents kept in the archives, in the Technology and Intervention Division, and in the Inspection and Emergencies sections. The investigator also requested further clarifications from EPB resource personnel. Other documents were consulted at the registry office for the Montréal registration division (*Bureau de la publicité des droits de la circonscription foncière de Montréal*) and were obtained from the Ministry of Natural Resources. All documents relevant to the identification of the

1. This document is a translation of the original report text in French. Should any variance be found between this English language version and the French language original, the latter should be preferred.

different property owners and to the transfer of property titles were recorded in the information report.[1]

[2.0] Historical overview

The different lots comprising the Technoparc are located in an urban area on the southeast portion of the Island of Montréal, between the Champlain and Victoria bridges. The Technoparc is bounded to the east by the St. Lawrence River and the Bonaventure Autoroute, and to the west by the Canadian National (CN) rail yard, along the Butler line. The historical details that follow are based on the available information. However, some details dating back to the 19th century are lacking or cannot be confirmed.

The entire current area of the Technoparc was originally a riparian wetland along the St. Lawrence River and thus not registered in the cadastre. Indeed, maps, updated and obtained from the Ministry of Natural Resources, still show significant portions of the area as being part of the St. Lawrence River, whereas today they are man-made lands built up on the riverbed. Some have not yet been registered in the cadastre and no documentation attesting to their current owners could be found. A portion of the site is in fact the former "Point St. Charles dump," which dates from the mid-19th century.

In 1840, Point St. Charles was part of the countryside surrounding Montréal, with the particularity that most of the land belonged to various religious communities. In 1853, the Grand Trunk Railway of Canada acquired almost all the lands between Point St. Charles and St. Lambert. In total, 120 *arpents* were purchased from four Point St. Charles religious communities.

In 1864, the City of Montréal's Waterworks Committee assigned one of the Point St. Charles properties to the incineration department to be used as a dump. In 1888, the City of Montréal acquired four other lots registered in the cadastre, including two from religious communities, in order to create a dump at the southern end of Ash Street at Point St. Charles. Though the dump had been used for years, it was only officially established by the City in 1902 and closed in 1966, when it became a parking lot for EXPO '67. The dump received between 4 and 12 meters of household and industrial waste, along with dry materials. The oldest section was filled prior to 1933.

In 1925, given the advance of the "Point St. Charles dump," primarily on the southern side, the Harbour Commission (Port of

Montréal) authorized the City to dump garbage on lands over which it held jurisdiction, extending to the "Southern Boundary of the Harbour." According to the documents consulted, in 1909, the Harbour Commission declared that legally, the port's property extended over 16 miles along both the eastern and western shores, at the high water mark.[11] After 1955, the area filled in was primarily toward the Victoria Bridge. In its post-1937 expansion, the dump was located on Port of Montréal property.

In 1937, the City of Montréal exchanged properties with CN. The City transferred the site located on the St. Gabriel pier at the south end of Ash Street, where CN built a new switching yard, bounded on the southeast by the Butler Line.[11]

In 1966, the lands that today make up the Technoparc were also leveled and covered with a thin layer of gravel, to be used as a parking lot for EXPO '67, called the Victoria Autoparc. This was when problems related to gas produced by decomposing organic matter were first encountered.

At the same time, the Bonaventure Autoroute was built using significant amounts of off-site fill deposited directly onto the riverbed between the Victoria and Champlain bridges. This work continued for several years. The land supporting the Bonaventure Autoroute that is registered in the cadastre belongs to Environnement Québec. It should be noted that another portion of the land below the autoroute does not appear on maps, which instead show the river. Since it has not been registered in the cadastre, we can only speculate that it also belongs to Environnement Québec.

After EXPO '67, these properties were no longer in use. In 1973, the federal Department of Transport decided to build a runway for short-takeoff-and-landing aircraft (*avions à décollage et atterissage court*—ADAC), along with a terminal, a parking lot and fuel tanks. After the "ADACport" was abandoned in 1977 and its facilities finally dismantled in 1991, a layer of backfill was added to the surface of the northern portion of the site.[11]

The St. Lawrence waterfront, downstream from outlet of the St. Pierre sewer line, below the Champlain Bridge and up to the Bonaventure Autoroute, was still being backfilled in certain places as late as 1982 in order to straighten the shoreline and prevent the accumulation of wastewater from the sewer line.

In 1984, construction work began on a maintenance centre at Point St. Charles, on the southwest portion of the Technoparc, for Via Rail Canada (VRC). A portion of the site was also used to store granular material until the end of 1984, and as a snow depot during the winter of 1985.

In 1985, the EPB published a study of gas emissions at the ADACport site (*Étude des gaz site de l'ADACport*).[15] The report stated that as part of assessment program for waste disposal sites on federal lands in Québec, the ADACport site was slated for further work because of potentially serious impacts related to gas and leachate production.

On 3 August 1989, the Technoparc site, with an area of 456,057 square meters, was sold to the City of Montréal by Her Majesty in Right of Canada and the Montréal Port Corporation. Research carried out in the registry office for the Montréal registration division, along with consultations of cadastral maps and documents accompanying maps obtained from the Ministry of Natural Resources, indicate that the property was then identified as "Blocks 2 and 5." In ensuing years, Block 5 was subdivided several times to build streets and to allow the sale of several portions to new owners. Nineteen (19) subdivided lots were created from Block 5, although it was never completely subdivided. These lots received their own cadastral numbers, and some were subdivided again, for a total of 30 distinct lots. The portions of Blocks 5 and 2 that were not subdivided were given a separate cadastral designation. On 19 September 1989, the City of Montréal resold a portion of Block 5 to Teleglobe Canada, comprising an area of 18,750 square meters.

In August 1991, following a complaint about an oil slick on the St. Lawrence below the Victoria Bridge, the Emergencies Section of the EPB carried out an inspection and took a water sample (incident report QUE-56, file 4461-2\M). Initially, since the source of the pollution was unknown, Environment Canada covered the costs related to putting an oil containment system into place on the river. Following these actions, representatives from the Emergencies Section met separately with representatives from CN and Via Rail Canada. After the meeting, CN decided to take over operations, but in a letter of intent it insisted strongly that it admitted no responsibility for the discharges. Environment Canada next organized a meeting with representatives from the City of Montréal, Environnement Québec, CN and Via Rail Canada in order to pool the various available sources of information and have the party responsible for the site take charge of recovering these substances. During this meeting, it was stressed that CN was probably not solely responsible for the discharges since the analyses of the samples taken

from the river indicated the presence of PCBs and that the results from samples taken in CN's interception wells showed no PCBs. CN and the City of Montréal agreed to share the costs of maintaining booms in areas where the discharges had been observed and of recovering these hydrocarbons; CN also agreed to study the implementation of corrective measures to permanently stop the hydrocarbons from flowing into the river. Ever since the discharges into the river were first noticed, EC has thus intervened immediately and practically, taking measures to limit their impact on the aquatic environment.

On 30 November 1995, the City of Montréal sold another portion of Block 5, with an area of 12,805 square meters, to Bell Mobility Cellular Inc.

Between 1993 and 1996, The Jacques Cartier and Champlain Bridges Inc. had planned to rebuild drainage ways "T" and "O" of the Bonaventure Autoroute. An environmental assessment report carried out in 1996 was submitted to EC.[16] The Ministry drew up recommendations concerning the removal and disposal of soil and contaminated wastes from the excavation work. The work to rebuild drainage ways "T" and "O" adhered to these recommendations and schedules.

On 4 June 1999, the City sold Blocks 5-18 and 5-19, with a total area of 47,870 square meters, to Cité du cinéma (MEL) inc. On 29 June 1999, the City sold another portion of Block 5, with an area of 20,346 square meters, to Société immobilière Parctech. inc.

In December 1999, the provincial government issued a press release, along with the mayor of Montréal announcing grants totaling $2.35 million awarded as part of the Urban Contaminated Sites Rehabilitation program to decontaminate lands needed for six (6) new development projects. The Technoparc project was among the six (6) projects targeted by the program.

On 6 March 2002, the City of Montréal sold lot 2597381, with a total area of 70,499 square meters, to Cité du cinéma (MEL) inc.

Today, the Technoparc is managed by the City's department of economic development for commercial and industrial development purposes. To improve the quality of the surface materials, the topography and the drainage in the eastern and central portions of the Technoparc, the City elevated the land with backfill imported from three different construction sites in Montréal and with soil from the Technoparc itself. According to our cadastral research, the City sold 37 percent of the Technoparc's area to other owners.

The files consulted show that between 1978 and 1998, a number of characterization studies were carried out in different locations in this sector by different occupants. For example, CN carried out its own studies and in 1996 installed a system of vacuum hydrocarbon pumps (117 pump wells) along the southern boundary with neighboring properties in order to permanently recover the contaminants before they contaminated neighboring properties or the river.[12]

A report published in 1990 and done on behalf of the EPB and the MEF [*ministère de l'Environnement et de la Faune*] showed that the soil and water were contaminated by a host of substances, including some at very high levels.[3] The study included a thorough characterization of the site and a statistical analysis, and this work showed that there was indeed significant and non-point-source contamination of the soil and groundwater by a wide range of substances throughout the properties of the Technoparc region.

In 1996, CN withdrew all contributions to further characterization work and hydrocarbon interception, convinced that the installation of its system of vacuum pumps would recover the floating phases along the southern boundary of its property and no longer contribute to contamination of neighbouring properties or the river.

On 18 February 1998, _____, head of the laboratory division, public works department, sent an internal memo to _____, commissioner of the economic development department, in which he took stock of progress in the efforts to put permanent corrective measures into place to halt the flow of hydrocarbons into the river.[4] He made reference to different scenarios put forward for their interception and recovery.

On 26 February 1998, _____, engineer, and _____, principal consultant of the Intervention and Restoration section of the EPB's Technology and Restoration division, submitted a report on the use of "biobarriers" to biodegrade hydrocarbons and recalcitrant organochlorines contaminating the aquifer at the ADACport.[5] The project planned for representative samples at strategic locations along the Technoparc waterfront to determine the amount of contamination from floating and dissolved phases, with a view to making recommendations concerning the installation of a watertight barrier as well as the recovery and treatment of the hydrocarbons.

In October 1998, after the publication of an article in the daily *Le Devoir*, EPB inspectors went to the site to carry out inspections of two containers holding barrels of oil containing PCBs and located less than

10 meters from the St. Lawrence. Samples taken confirmed the presence of PCBs in the samples of liquid taken from some of the barrels in the containers. Two letters of warning were sent to City of Montréal officials, asserting a violation of the Storage of PCB Materials Regulations under the *Canadian Environmental Protection Act* (CEPA), and a violation of paragraph 36(3) of the FA. Since then, the City of Montréal has used the services of a specialized firm to dispose of the substances recovered.

On 21 October 1998, representatives from the Intervention and Restoration Section, from the Inspections section, and from the MEF met to discuss the problem of substances flowing into the river. Among the recommendations issued, the need for closer collaboration between the City of Montréal, the MEF and EC was stressed, along with the development of an action plan by the three levels of government.[7]

In April 1999, EPB representatives gave a presentation entitled "Le Technoparc and Environnement Canada" dealing with environmental regulations relevant to the flow of hydrocarbons into the river during a workshop entitled "Écoulement d'hydrocarbures au fleuve St-Laurent — Atelier d'analyse de la valeur" organized by the City of Montréal.

In June 1999, the City consulted several partners, including EC and the provincial government, to assess short- and medium-term actions. The City subsequently allocated funds for a new site characterization. In a letter dated 18 October 1999, the City of Montréal public works department informed the director of EPB that during a city council session held on 14 September 1999, an engineering firm was mandated to carry out supplementary environmental characterization and final design studies for intercepting and recovering floating hydrocarbon phases at the Technoparc site.[8]

Between October 1998 and January 2002, personnel from the EPB Inspections Section carried out 19 supplementary visual inspections at the site and issued several verbal directives to City officials.[2] In each case, the goal was to rectify the immediate situation in areas where oily substances were observed to be flowing into the river, notably through the use of absorbents and the replacement or adjustment of booms to reduce their spread into the aquatic environment. This section carried out regular follow-ups of all work done by City of Montréal consultants and ensured that the measures for retention and recovery put into place were functional.

In several formal and informal meetings with various stakeholders involved in the file, representatives from the Technologies and Interven-

tions division of EPB attended as technical and scientific consultants. EPB also had representatives on the Temporary and permanent measures follow-up committee (*Comite de suivi des mesures temporaires et permanentes*) and the Montreal Centre of Excellence in Brownfields Rehabilitation Committee. Several City of Montreal documents (reports, studies, estimates, etc.) were submitted to EPB for comment.

On 25 January 2002, representatives from the Intervention and Restoration section of EPB met with City officials and requested the City of Montréal action plan, including the project schedule, for the project to build a contaminant retaining wall at the Technoparc. It was at this point that the City began tendering procedures.[9] The City of Montréal divisional manager sent a letter to the director of the EPB dated 28 January 2002.[10] The letter stated that following the allocation of $2.9 million, the City was in the process of receiving submissions for building an interception and recovery system for hydrocarbon floating phases at the Technoparc. A new contract was expected to be issued shortly.

In April 2002, SNC-Lavalin submitted to the City of Montréal its final report on the final design study for the interception and recovery of floating hydrocarbon phases at the Technoparc,[12] and in March 2002, a final report on the project to intercept and recover floating hydrocarbon phases at the Technoparc site.[11] This, following the creation of the Technoparc in 1989 and the requirements of the MEF set out in the sale agreement. The SNC-Lavalin report confirmed the presence of significant amounts of PAHs and/or PCBs in the water of certain observation wells near the waterfront. The SNC-Lavalin study also showed the presence of PCBs in a high number of wells throughout the Technoparc site. The characterization of the river water opposite the Technoparc showed that concentrations fell short of applicable quality criteria for surface water and of detection limits, and that there was no detectible increase compared with the control stations upstream from the Technoparc.

On 2 April 2002, representatives of the EPB Intervention and Restoration Section met with City of Montréal representatives, who explained the planned installation of a barrier to intercept floating phases, with work to begin in the fall of 2002.[13] The EPB representatives expressed their concerns about the ability of such a structure to intercept the <u>dissolved</u> phase.

On 19 April 2002, two investigators and a specialist from the EPB Intervention and Restoration Section went to the waterfront along the Bonaventure Autoroute, opposite the Technoparc. They observed iridescent films on the river's surface in two locations where absorbent

booms were permanently installed. The observation of iridescent films on the water indicates the presence of oily substances (hydrocarbons).

On 13 May 2002, the EPB director sent a letter to _____, engineer and head of the laboratory division for the City of Montréal's environment and road network department.[14] She recommended that the City undertake bio-assays to determine the extent of the dissolved-phase contamination. She offered the technical support of recovery experts and the resources of Environment Canada laboratories in planning the sampling work and interpreting the analytical results.

3.0 Analysis

An analysis of the information available in this file shows that from 1903, and even before, until its closure in 1966, the Point St. Charles city dump and the lands that make up the Technoparc were filled with domestic and industrial wastes. The industrial companies that occupied and operated on the site also added large quantities of various substances, both solid and liquid. This occurred first in the wetlands along the river's shoreline and later on the riverbed itself, to a depth estimated at about 12 meters. A significant portion of the fill that covers and was used to create the Technoparc and the Bonaventure Autoroute came from off-site, and we do know the extent of the contamination of the original material in the locations where this off-site fill was taken. The contaminants have been moved about over the years in various ways, especially through excavation, blasting, and filling done in the current area of the Technoparc and during the construction of the Bonaventure Autoroute infrastructures.

The various characterizations that have been done confirm that the Technoparc is contaminated to a significant depth by a large number of substances. The report done on behalf of EC and the MEF[3] lists a total of 67 measurements taken and a maximum of 33 physicochemical variables. The report indicates that the subsurface contains zinc, nickel, silver, cadmium, arsenic, phenols, PAHs, and PCBs. The ground and surface water data comprised 44 measurements and a maximum of 75 physicochemical variables, and the report indicated the presence of ethylbenzene, benzene, toluene, styrene, xylene, total PAHs, chlorophenols, and dichloromethane. The report also included maps showing where the various contaminants were concentrated. The report stated that, "the subsurface analysis and the soil showed strong variability (expressed by the coefficients of variation) of concentrations measured throughout the site for most of the variables measured. Assuming negligible inaccuracies in the laboratory analyses, and given that the

samples were taken at numerous stations spread throughout the site at different depths, such variability indicates a very heterogeneous distribution of contaminants on the site."

The March 2002 report of SNC-Lavalin[11] confirmed the presence of significant amounts of PAHs and/or PCBs in the water of certain observation wells near the waterfront. The consultant reported that from October 1999 to October 2000, weekly inspections of the river showed resurgences ranging from very significant to weak, with the most intense period being the fall of 1999, when the water level in the river was very low. The study also showed the presence of PCBs in a high number of wells throughout the Technoparc. Samples were taken from the waterfront, opposite Fernand-Séguin Street, which is situated more or less in the center of the Technoparc. This location is made up of fill materials that support the Bonaventure Autoroute. The results of the analyses indicated that total PCBs were on the order of 110 ppm. For PAHs, the highest measured values came from a well located approximately 225 meters north of one of the booms, where the complainants appear to have taken some of their samples. The study established the contamination mass in dissolved phases in the groundwater at 0.4 to 2.8 kg for the various PAH compounds, 1.1 kg for total PCBs, and 10,370 kg for C_{10}-C_{50} petroleum hydrocarbons. The characterization of the river water opposite the Technoparc showed that concentrations fell short of applicable water quality criteria or detection limits, and that there was no detectible increase compared with the control stations upstream from the Technoparc.

The various existing studies demonstrate first that there is contamination by various substances often recognized as being harmful and second that the contamination is present on the Technoparc site and on sites adjacent to it.

According to _____, the expert consulted by the Intervention and Restoration Section, the bed of gravel upon which rest the sanitary and storm sewers, both existing and no longer in use, constitute a primary pathway for the flow of groundwater—and hence of any contamination it may contain—into the river. In a heterogeneous environment such as the Technoparc site, the contaminated sites at the end of the Bonaventure Autoroute access roads are subject to "washing" when the water rises during spring runoff, and when the water level recedes, some of the contaminants contained therein are drawn into the St. Lawrence. The pollutant load (floating phase) and frequency of contaminants flowing into the river is thus higher during spring runoff.

A verification was also carried out to determine the owners of the lots making up the Technoparc site and the neighboring lands. None of the lots making up the Technoparc site, along with some of the adjacent lots, officially existed before 1980 because the cadastral designation was created only after that time. There are thus no microfiche data before this date that could identify their previous owners. Numerous irregularities were noted with respect to the property titles.

For the lands immediately north of the Technoparc, currently occupied by CN, the cadastral maps indicate that the area is not presently registered in the cadastre. Indeed, it is odd that this strip of land along the northern boundary of the Technoparc is still characterized and described on the maps as being the St. Lawrence River. It is quite obvious that this portion of the river has been filled for decades. For the lands immediately to the south of the Technoparc (upon which the Bonaventure Autoroute is built, and the adjacent lands between the autoroute and the river), the majority are not registered in the cadastre and their owners are not indicated. Some are registered, however, and these all belong to the Ministère de l'Environnment du Québec.

The information concerning the Technoparc site dates from 1989 and later because it was created in 1988. The land register contains no indication as to the owners of the Technoparc site before its block sale to the City of Montréal. The sale of the Technoparc site to the City involved two separate contracts and two distinct owners for a single piece of land. The site was given an official cadastral designation (Blocks 5 and 2) in order to allow its block sale to the City in 1989. The two (2) deeds of transfer in which the City of Montréal is the purchaser specify that the seller is freed from all liability for the state and quality of the soil and subsurface and that the purchaser expressly relinquishes all legal recourse or action against the seller concerning the state and quality of the soil and subsurface. It also adds that the City will not require the seller to furnish titles or search of titles certificates and frees the seller of all liability with respect to the value of the title. It is clear that the properties were sold to the City despite the fact that the identity of the titleholder had not been clearly established. The documents consulted demonstrate clearly that the City of Montréal is no longer the sole owner of the Technoparc site. After having purchased the site from Her Majesty in Right of Québec and from the Montréal Port Corporation in 1989, the City subdivided and sold the lots. From the date of this report, the Technoparc is made up of 30 lots (including the lots that were designated and subdivided by the city into streets and pedestrian walkways) belonging to five distinct owners.

4.0 Conclusions

Before an investigator can recommend to the Attorney General of Canada that criminal charges be laid, he must:

1. possess evidence for *each* of the essential elements of the alleged infraction, and

2. be in a position to conclude, taking into account the criteria set out in the Enforcement Policy of the *Fisheries Act*, that legal action is the best course of action to achieve compliance in the shortest possible time and a discontinuation of the alleged infraction.

Therefore, given:

1. the complex nature of the historical contamination at the Technoparc site and neighboring lots, including contamination from a dump, from industrial activities, and possibly by substrates of an unknown nature used as fill at the site;

2. the irregularities surrounding the property titles over the years and the impossibility of identifying certain owners and users of the contaminated Technoparc site and neighboring lots;

3. the complexity of the water regime of the entire sector forming the Technoparc and neighboring lots; and

4. the real difficulty in attributing the flow of contamination into the river to a single source or sources of specific contamination;

the investigation's technical and scientific complexity makes it impossible to demonstrate and collect the evidence necessary to identify the *source* of a specific harmful substance and the *path* it takes into the river, while at the same time eliminating *all other possible sources* of contamination, and to associate this path solely to the lots that make up the Technoparc.

Recommendations

The investigator recommends closing the investigation file. He also recommends that Environment Canada continue to take all appropriate measures and action, as it has done in the past, to reach a viable long-term solution.

[signature]

References

1. Rapport de renseignement sur les titres de propriété nº QC-2002-06.

2. EPB dossier: LP363-0017, vols. 1 and 2.

3. "Analyse statistique des données de caractérisation des lieux d'élimination des déchets," December 1990. Prepared by Service d'analyse de données MESIC inc. and by G.R.E.B.E. inc.

4. Note dated 18 February 1998, from _____ of the City of Montréal public works department to _____ of the economic development department.

5. _____ and _____, EC, EPB Montréal, report summary of "Essais de biodégradation à l'aide de "biobarrières" des hydrocarbures pétroliers et des produits "organochlorés" récalcitrants, contaminant un aquifère, à l'Adacport."

6. Letter of warning to the City of Montréal, dated 12 November 1998, (dossier LP363-0017, vol. 2 doc. page 56).

7. Minutes of meeting of 21 October 1998 between EC and the MEF.

8. Letter dated 18 October 1999, from the Service des travaux publics, Ville de Montréal, to _____, director, EPB Montréal.

9. Minutes of meeting of 25 January 2002 between EC and the City of Montréal.

10. Letter dated 28 January 2002, from _____, City of Montréal engineer, _____, director, EPB Montréal.

11. SNC-Lavalin. *Projet d'interception et de récuperation des phases flottantes d'hydrocarbures Technoparc, Montréal. Caractérisation environnementale complémentaire*. March 2002.

12. SNC-Lavalin. *Étude d'avant-projet d'interception et de récupération des phases flottantes d'hydrocarbures au site du Technoparc, Montréal — Rapport final*. April 2002.

13. EC, EPB Montréal, minutes of meeting of 2 April 2002.

14. Letter dated 13 May 2002 from _____, director, EPB Montréal to _____ of the City of Montréal public works department.

15. Foratek International inc. *Étude des gaz — Site de l'Adacport*. March 1985.

16. The Jacques-Cartier and Champlain Bridges Inc. Rapport – Évaluation environnementale, projet de réfection du drainage, Sections "T" et "O" Autoroute Bonaventure. June 1996.

APPENDIX 10

Brief History of an Encroachment into a River
(City of Montreal, September 2004)

THE VICTORIA AUTOPARC

Brief History of an Encroachment into a River

Department of Infrastructure,
Transportation and Environment

SEPTEMBER 2004

Montréal

Introduction

This document is a brief historical overview of the appropriation and use of a portion of the St. Lawrence River waterfront over the more than three hundred years of Montreal's history, and in particular, the history of a site named "Victoria Autoparc" a few decades ago, a huge, 128-acre parking lot built on the riverbed in 1966 by the Canadian Corporation for the 1967 World Exhibition.

The purpose of this brief historical overview is to illustrate the changing use of the St. Lawrence waterfront between the current locations of the Victoria and Champlain bridges, starting with the early colonization of Ville-Marie, to the period of the St. Pierre Common, and up until the development of a site for non-polluting light industry focused on new technology and communications. Increasingly, a portion of this site has come up in discussions related to the creation of a recreation and tourism area that would be accessible to the population of Montreal. A site whose previous uses caused significant contamination of the subsurface and whose drainage into the St. Lawrence Rive today calls for action by both the various owners, occupants or occasional users and those who contributed to this state of affairs.

Written in a narrative style, this short text refers to various historical documents, maps and aerial photographs to help the reader better appreciate and assess the use of the St. Lawrence waterfront at Point St. Charles.

Deputy Director
Department of Infrastructure, Transportation and Environment
City of Montreal

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1. Ville-Marie at the time of the Congregation of Notre-Dame de Montréal

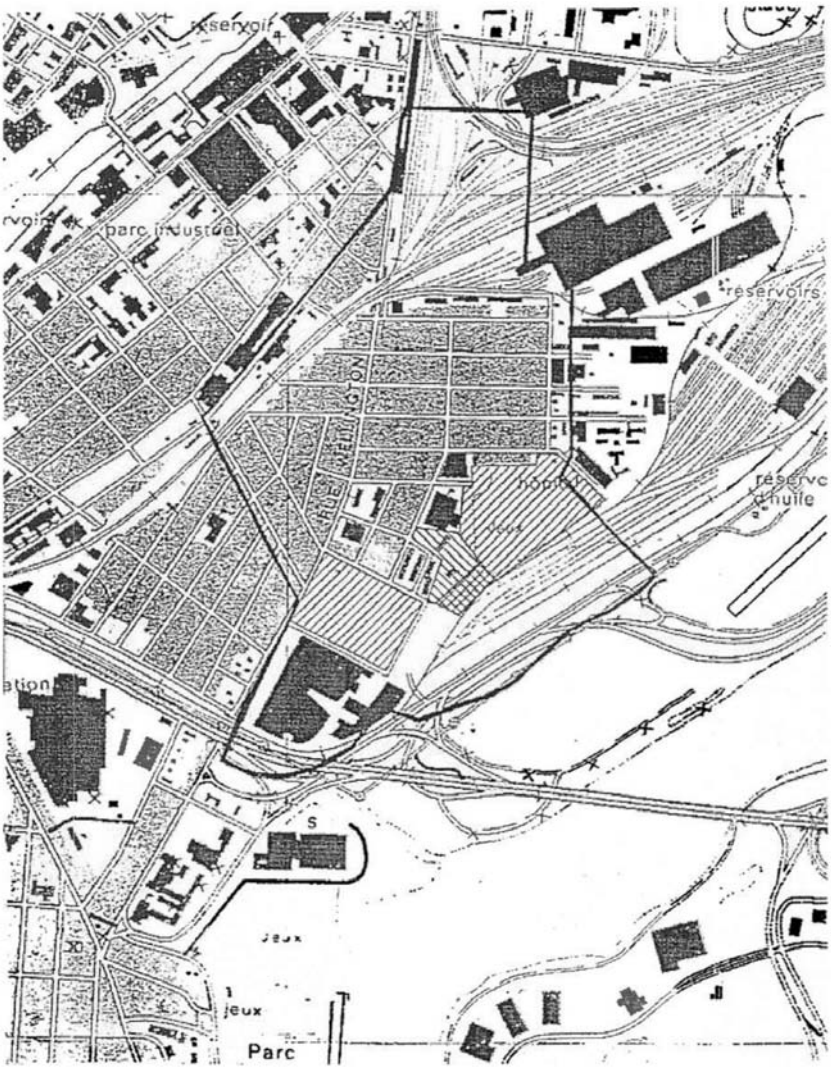
1659. Marguerite Bourgeoys, founder of the Congregation of Notre-Dame de Montreal (CND), returned from France with four new primary school teachers and employed them in her new school located on Saint-Paul street, a former stable donated by Paul de Chomedey, sieur de Maisonneuve. Three years later, with the young congregation having trouble meeting the basic needs of its Saint-Paul street boarders, Maisonneuve granted Bourgeoys a concession to farm the land located between the Saint-Pierre fields (also called the common) and the concession belonging to Nicolas Millet, also known as "le Beauceron."

Nearly ten years later, with the arrival of the first "filles du roi" [marriageable women of childbearing age brought to the colony at royal expense], Bourgeoys purchased a house neighboring the concession at Point St. Charles from Pierre LeBer. The combination of these properties became what was called the Point St. Charles farm, and as the Congregation's needs grew it was expanded over the years through additional purchases or exchanges with neighboring lands, or trough bequests. As a result, between 1662 and 1731, the CND's land area increased from about 30 *arpents* to over 210 *arpents*.[1]

> *By way of various combinations, we are able to determine approximately the extent of the estate circa 1723. At that time, on the north side, the Saint-Pierre river separated the Congregation's farm from the Saint-Gabriel estate, which belonged to the Sulpicians. On the east side, starting at the Saint-Pierre common at a point located in the current extension of LeBer street, the boundary of the farm went to about Bridge Street. To the west, the boundary followed Hibernia Street, from Mullins Street to Rushbrooke Street. At the intersection of Hibernia and Rushbrooke, it merged with the latter and down to about the Champlain Bridge and on to the river.*
>
> *According to the titles in the congregational archives, these boundaries remained much the same from 1723 to 1853.*[2]

1. Translator's note: an *arpent* is an old French measure of land area equal to about 0.85 of an acre.
2. Emilia Chicoine, C.N.D., translated excerpt from *La métairie de Marguerite Bourgeoys à la Pointe-Saint-Charles*, Montreal: Éditions Fides, 1986, pp. 97–98.

Property limits of the Saint-Gabriel farm ca. 1850



From "Étude de potentiel et inventaire archéologique au site de la Ferme Saint-Gabriel et du parc LeBer", Ethnoscop, 2004.

2. Point St. Charles at the dawn of the industrial age

At the beginning of the 19th century, 40 years after the conquest of New France by England, the population of Montreal reached 9,000 people. The gradual demolition of the Ville-Marie fortifications (today's Old Montreal) and the filling in of the rivers and streams surrounding the old town encouraged the construction of wide streets and fostered travel between the *faubourgs* (or suburbs) where nearly two-thirds of the population lived and worked. Under British rule, Montreal's economy came to be based on the development of the port, with the emphasis on trade, both with England and with the interior of the continent, including Upper Canada. The Lachine Canal, the shipping channel opened in 1824 to bypass the rapids on the St. Lawrence, was widened in 1848. A rail line was built along the canal to guaranty year-round transportation of goods between Montreal and Lachine.

The construction of the Lachine Canal significantly changed the shoreline landscape southwest of Montreal, which, not long before, had been made up of farmland. Point St. Charles, at the entrance to the canal, did not escape these changes, especially since the area was also the base of an expanding railway network. This trend would soon be firmly established, since Montreal was an island, and there was not yet any land link between the city and the terminuses of the various railroad companies located in Kahnawake (Montreal and New-York Railroad), Laprairie and Saint-Lambert (Champlain and Saint-Lawrence Railroad) and Longueuil (Saint-Lawrence and Atlantic Railroad).

In 1851, with a number of the railroad companies linking the south shore to the Maritimes and the United Sates in financial difficulty, some influential Montreal businessmen (the Ferriers, Molsons and Simpsons) founded the Grand Trunk Railway System (GTR). They soon absorbed the troubled railroad companies and, with the financial assistance of united Canada, they began construction of a rail link between Montreal, Kingston and Toronto. At the same time, the possibility of building a bridge between Point St. Charles and the south-shore terminus in Longueuil began to be discussed.

> *John Young, who is no longer minister (of public works) but an administrator of the Port of Montreal, feels it indispensable that the railroad's terminus be not on the south shore of Montreal but in Montreal itself. This would necessitate a bridge over the St. Lawrence, a bridge over which trains could travel. A bridge over two miles long.*[3]

3. Robert Rumilly, translated excerpt from *Histoire de Montreal*, Vol. II, Montreal: Éditions Fides, 1970, p. 344.

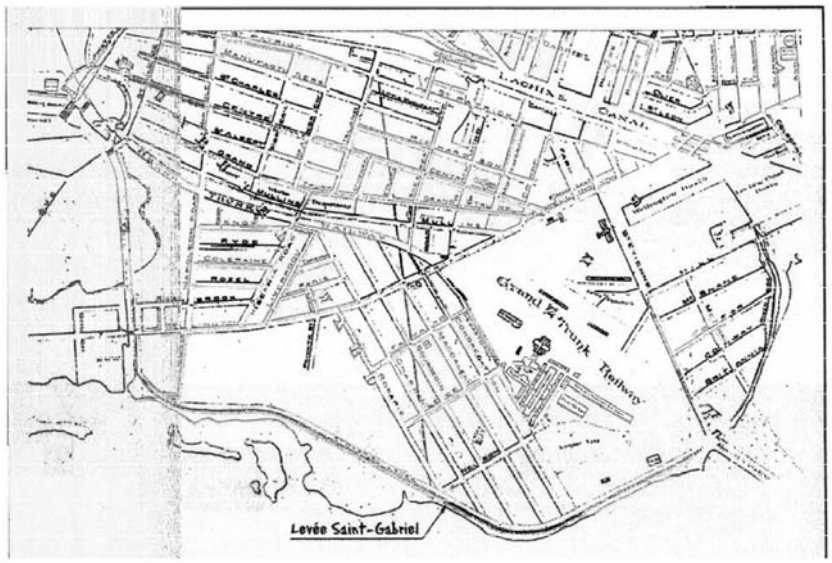
The GTR needed land to carry out these projects, and the company began to acquire property in Point St. Charles, both from private landholders and from various religious communities (the Sœurs de l'Hôtel-Dieu de Montréal and the Sœurs Grises de la Charité). As part of this acquisition process, the GTR purchased 34 *arpents* from the Congregation of Notre-Dame de Montréal, bordered to the west by the current Sébastopol Street, to the north by Wellington Street (formerly called Chemin de la rivière Saint-Pierre), to the east by a lot already belonging to the GTR, and to the south by the Point estate. Other successive acquisitions ate away at the Point St. Charles farm, and the GTR property spread further and further along the shores of the St. Lawrence, at least until, around the late 1880s, a huge dike was built (the "Saint-Gabriel Levee") to protect the south west part of the island against spring flooding.

In 1856, the GTR opened its huge Point St. Charles shops and three years later, the Victoria Bridge opened. The bridge was covered and included a rail line connecting the Point to Saint-Lambert on the South Shore. At the time, the Point St. Charles farm still existed but, faced with industrial and urban development, it was becoming smaller and smaller.

> *With their imposing rail infrastructure, rolling stock, stations, roundhouses, coal depots and warehouses, the railroads were then the most visible industry in Canada. Yards like those of the Grand Trunk in Point St. Charles in the heart of Montreal were veritable steam cities spreading out over more than 30 acres and containing foundries, rolling mills, crushers, and forges where thousands of boilermakers, machinists, electricians, moulders, modelers, pipe fitters, sheet-metal workers and carpenters worked.*[4]

4. Donald MacKay, translated excerpt from *L'histoire du CN,* Montreal: Éditions de l'Homme, 1992, p. 22. [Translator's note: the text here is a retranslation into English. The original English title of the book is *The People's Railway: A History of Canadian National*, Vancouver: Douglas and McIntyre, 1992, 328 p.]

Location of the Saint-Gabriel Levee



Excerpt of map "City of Montreal and Vicinity, October 1890," by Chas. E. Goad, Civil Engineer.

3. The Saint-Pierre Common and its occupation for municipal purposes

By the mid-19th century, the population of Montreal had reached 58,000, and this growth posed a number of public health problems for the municipal administration. The waterworks system had only recently been taken over by the city, and garbage collection and disposal was becoming an issue. Both the city's health committee and the roads commission tabled proposals to, among other things, buy more land for waste disposal purposes.

And so, on 13 April 1864, the Police Committee (responsible for health and safety on public roads) obtained from the Waterworks Committee, a property in Point St. Charles for use as a dump. However, less than two years later, citizens began to complain about odors coming from the site, which bordered the Point St. Charles Farm, between the GTR rail lines and Napoleon Road.

On 6 November 1868, the Health Committee recommended that the city council stop sending garbage to the Point St. Charles site and that it accept the offer of William Logan to thenceforth send to the Logan Farm (now Lafontaine Park) the detritus that until then was going to the farm in Pointe St-Charles.

Garbage collection and disposal remained a significant concern for the municipal administration, especially given that toward the end of the 19th century, Montreal was swept with serious cholera epidemics. In 1900, the city council created the "Incineration Commission" along with an Incineration Department. In early 1902, the Harbour Commission authorized the city to dump garbage in areas where it wanted to landfill basins, near Windmill Point (Pointe du-moulin-à-vent), east of the current Technoparc site no. 1.

> *The President informs the members of the Commission that he has visited the Windmill Point dump in the company of city councilors Robillard and Lemay, of Harbour Commissioner Mr. Racine, and of Chief Harbour Inspector Mr. Guernon, and that they all noted that only ash had been dumped at this site. Four department employees are permanently stationed at the dump and collect all tin cans and burn all paper and wood. Organic matter that may be dumped accidentally is collected and sent to the incinerator to be burned.*[5]

5. Montreal Municipal Archives, [translated] *Excerpt of minutes of the Incineration Commission meeting of 7 March 1902* (Extrait du procès-verbal d'une assemblée de la Commission de l'incinération tenue le 7 mars 1902), File 9897, 3rd series "Dump: Saint-Gabriel pier at the south end of Ash street" (Dépotoir; jetée Saint-Gabriel à l'extrémité sud de la rue Ash).

Despite the city's proper use of the site, the agreement between the Harbour Commission and the city did not last long, and two years later, the Congregation of Notre-Dame de Montréal authorized the city to dump road sweepings and ashes on the property located between the north side of Ash avenue and the levee wall free of charge, and on the north side of Leber street east to the levee wall.

The use of the Saint-Pierre Common as a municipal dump thus dates back to 1904, aside from the brief period from 1864 to 1868. Which does not rule out the possibility that between these two periods, citizens or contractors may have used the site for similar purposes, with or without the authorization of the riparian owners.

From 1904 to 1937, the period during which the area located at the foot of Ash street was used as a municipal dump, it is difficult to determine the amount of "incombustible" garbage landfilled in Point St-Charles because the first statistics started in 1917, the year in which a weighing system was set up at the entrance to the various city dumps. By way of example, in 1922, the Saint-Pierre Common site received 63,000 tonnes of waste and ashes, that is, 24 percent of all the garbage disposed of on the territory of Montreal. At that time, these materials were not yet being dumped onto the riverbed.

4. The creation of Canadian National Railways (CNR)

At the end of the 19th century, the Grand Trunk Railway Company widened the Victoria Bridge to add a second rail line in the middle, and a lane on either side of the central structure for horse-drawn vehicles and automobiles and for Montreal Southern and Counties streetcars. As this work was being done, the Harbour Commission, with the support of grants from the federal Ministry of Public Works, undertook a significant expansion of the Port of Montreal.

While the port and railroad activities were in full expansion along the St. Lawrence waterfront, the railroad companies in Western Canada were in headlong competition with one another and several companies were unable to meet their obligations. Bowing to public pressure and following a board of inquiry, in June 1919, the federal government created Canadian National Railways (CNR) and added to it a number of railroad companies from Western Canada and the Maritimes. That same year, the CNR, one of Canada's first commercial crown corporations, was put in charge of managing the Canadian Merchant Fleet, and three years later it officially absorbed the assets of the GTR. Company headquarters remained in Montreal and the Point St. Charles shops expanded their activities.

In early 1925, the City of Montreal began to survey the lands it occupied between Ash street, the city waterworks drainage channel, and the Harbour Commission property. According to correspondence written in English, the Commission agreed to allow the city to landfill garbage on its strip of land as long as only "good materials" were dumped. Saint-Gabriel district residents and management at the Alexandra Hospital began to complain about odors from the Point St. Charles dump, and the Congregation of Notre-Dame made a claim for a parcel of land and islands 2, 3 and 4 appearing on the Port of Montreal boundary map dated 5 February 1925.

On 14 June 1929, the federal government passed the *Canadian National Montreal Terminals Act* (George 5, chapters 19-20). According to section 2 of this act, the CNR had "the right to acquire or to take [...] lands and interests in lands for all such purposes, all on the Island of Montreal in the Province of Quebec, or on the mainland adjacent thereto[.]"

Not only did this act state how the acquisitions or expropriations could be made, it described the targeted properties, including "connections to existing railway facilities and Harbour Commissioners' trackage" (paragraph b) and "[c]oach yard facilities at various points, with

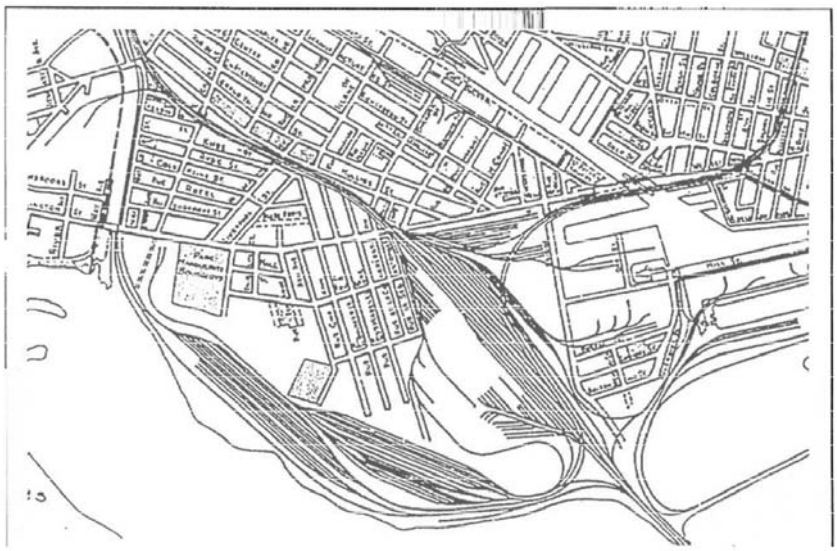
principal yard at Point St. Charles" (paragraph c), as well as "[r]ailway from a point on the line between St. Henri and Point St. Charles near Atwater Avenue, along the St. Pierre River and the Aqueduct Tail Race to the waterfront, and construction of yard facilities on the Waterfront with connection to existing lines and Harbour Commission trackage" (paragraph i).

Backed by this legislation, the CNR began negotiating with owners of waterfront property, including the City of Montreal. By 1931, the city realized that it would soon reach the capacity of the Point St. Charles dump site because on the site's eastern border, the CNR was quickly filling in the area with earth from the construction site of a new downtown central station on de La Gauchetière street. Six years later, the City of Montreal and the CNR carried out a large scale land swap.

> *Whereas the City of Montreal needs to acquire certain properties to proceed with the opening or widening of Persilliers, Papineau, Charland, de la Montagne, Guy, Saint Maurice, William, Upper Lachine Road (rue Saint-Jacques), and Saint-Rémi streets, of which properties said City has already taken possession, though they belong to Canadian National Railways;*
>
> *Whereas Canadian National Railways has consented to cede these properties to the City of Montreal, on the condition that in exchange it cede certain lands including the Saint Gabriel levee, a portion of the St. Lawrence River waterfront, a portion of Saint-Jacques street where the current viaduct passes, certain lots located on Bruchési, Lacordaire, Monsabré, Dickson and Curotte streets, a portion of Bourgeois street, and a portion of Gravel alley, of which said Canadian National Railways has already taken position, though it is not the owner; all of which is described in the draft deed mentioned below;*
>
> *Whereas [...]*
>
> *Your committee recommends that this deed of exchange be approved, that His Honour the Mayor and the City Clerk be authorized to sign it, in the name of the City; and that the said deed be submitted to the provincial legislature for ratification.*[6]

6. Montreal Municipal Archives, [translated from] *Report of the Executive Committee to City Council* (Rapport du Comité exécutif au Conseil municipal), 24 March 1937.

The arrival of the Canadian National Railways yard



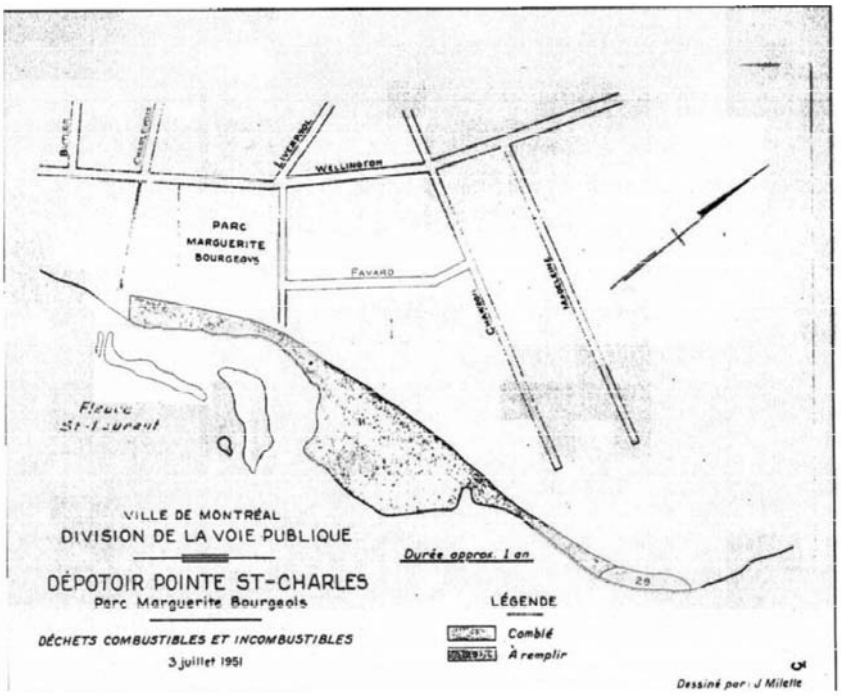
Excerpt of map prepared for the City of Montreal Planning Department, March 1952.

Between the time of the land exchange between the city and the CNR and the early 1950s, it is difficult to find reliable information about the how the St. Lawrence waterfront was used because it was owned in part by the CNR and in part by another crown corporation created in 1936 to replace the Harbour Commission: the National Harbours Board. However, it was during this time that the first major encroachment on the riverbed occurred, to build the major rail yard along the waterfront.

The City of Montreal also backfilled onto the riverbed, but a 1951 map shows that it was fairly limited in scope (see figure on next page).

From 1955 to 1965, according to various sources, the entire area between the Victoria and Champlain bridges was used as a dump site. The western portion was used by a private garbage collection company, while the eastern portion was operated by the city. The border between these two areas is not known, however. The disposal of used oil, paint, etc. occurred in a limited fashion. The waste disposed of by the city was about 40 percent garbage and 60 percent earth and construction waste. In 1956, the National Harbours Board banned the city's disposal of putrescible wastes on its property. In 1960, a call for tenders for the disposal of the city's incombustible waste and incinerator residues stipulated that they be taken to certain dump sites, including the one at Point St. Charles.

Extent of the Point St. Charles landfill site in 1951



Excerpt from a City of Montreal brief on waste incineration, 13 December 1951.

5. The arrival of the Canadian Corporation for the 1967 World Exhibition

In the summer of 1958, at the Brussels World Exhibition, the Speaker of the Canadian Senate declared that an exhibition of a similar scale should be held in Canada to celebrate the centenary of Confederation, and furthermore that it should be held in Montreal to also commemorate the 325th anniversary of the founding of Ville-Marie.

The idea was the object of lively discussions throughout the country, but two years later, the Government of Canada submitted Montreal's candidature to the International Exhibitions Bureau (IEB) for Expo '67. Surprisingly, the IEB awarded the 1967 World Exhibition to Moscow to celebrate the 50th anniversary of the Russian Revolution. However, in April 1962, the USSR withdrew its candidacy, and on November 13, after studying a number of proposals, Canada and Montreal were chosen to replace the Soviet Union and Moscow.

Barely a month later, the federal government passed the *Act to Create the Canadian Corporation for the 1967 World Exhibition* (the Corporation) and injected it with $20 million. Under an agreement signed in 1960, when Montreal's candidacy was initially submitted, the provincial government contributed a further $15 million and the City of Montreal, $5 million. This three-way agreement served as the basis for sharing future costs of Expo 67 (50 percent from the federal government, 37.5 percent from the province, and 12.5 percent from the city).

Time to produce the event was short–less than four years. Under the act that created the Corporation, the City of Montreal was to deliver to the Corporation, at its own expense and before 30 June 1964, a piece of land free of buildings on the Island of Montreal. At the end of March 1963, after rejecting proposals to hold the Expo on various sites, including the Saint-Sulpice lands north of the Metropolitan Boulevard, Maisonneuve Park, and Point St. Charles and the area called Goosetown or Victoriatown, the city announced the chosen location: the islands of Ronde, Sainte-Hélène and Notre-Dame, which would have to be expanded, and the MacKay Pier, which, once filled in, would be renamed Cité du Havre.

Aerial view of the waterfront, 1958

With the site chosen, the Corporation not only had to deal with developing it but also had to solve the significant problem of visitor access to the islands. The City of Montreal agreed to extend the metro line to the South Shore, with a stop on Ile Sainte-Hélène. On the South Shore, near the exit of the Longueuil metro station, the Corporation built a parking lot with a gross area of 4 million square feet, able to accommodate nearly 8,300 automobiles.

On the Montreal side, in extending the Mackay pier to create the Cité du Havre, the federal government agreed, with the support of the National Harbours Board, to fill in the river, starting at the CNR property, to a sufficient elevation to build a 5.5 million-square-foot parking lot. It also agreed to build a highway linking the new Champlain Bridge to downtown Montreal. Built between 1965 and 1967, at the same time as the Victoria Autoparc, the Bonaventure Autoroute was subject to a number of agreements between the City of Montreal and the National Harbours Board, which acted as the federal government's agent and oversaw the project, as the following excerpt illustrates.

> *In view of communications with the National Harbours Board [...] related to the construction of a limited access route linking the Champlain Bridge with University Street, it is*
>
> *RESOLVED to approve the following terms of the agreement between the National Harbours Board and the City of Montreal concerning the construction of*

the "Road" linking University Street to the reception area for the 1967 World Exhibition site and thenceforth on to the Champlain Bridge:

1. *The Road will be built according to the drawings and specifications of project no. 11-A [...]*

2. *[...]*

3. *The cost of the work to build the Road will be assumed in its entirety by the City for the portion between the centre of the Lachine Canal up to Notre-Dame Street, and by the Board for the portion between the said centre of the Lachine Canal up to the Champlain Bridge.*

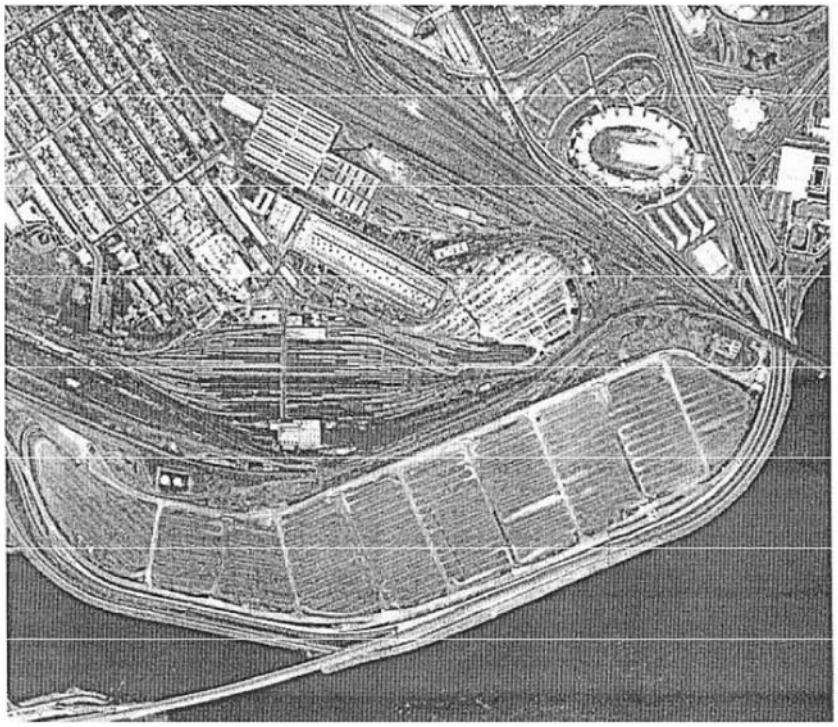
4. *The expropriations required for the construction of the Road, from the Champlain Bridge up to Notre Dame Street will by carried out and closed by the City, and the properties so expropriated, located between the Champlain Bridge and the Lachine Canal, will be ceded to the Board, without cost. The National Harbours Board will for its part, and at no cost to the City, obtain all necessary titles and easements for properties belonging to the federal government or to crown corporations, between the Champlain Bridge and the centre of the Lachine Canal.*

5. *[...]*

6. *General maintenance costs, including maintenance of the structure and the lighting system, repaving, snow removal and street cleaning, shall be assumed by the two parties for the sections of the Road which they own.*[7]

7. Montreal Municipal Archives, [translated] *Excerpts of minutes of the City of Montreal Executive Committee meeting of 20 May 1965* (Extrait du procès-verbal d'une séance du comité exécutif de la Ville de Montréal tenue le 21 mai 1965), #3030.

Aerial view of the Victoria Autoparc, 1968



The construction of the Victoria Autoparc, between the Bonaventure Autoroute to the south and CNR property to the north, was also subject to cost sharing. The backfilling costs thus fell to the federal government (likely the National Harbours Board) and the building costs were assumed by the Corporation ($2,231,555).

According to the general report of the Canadian Corporation for the 1967 World Exhibition, published in 1969, the Victoria Autoparc comprised 12,500 parking spaces for cars and 500 for busses, two tollbooths, two information kiosks, service buildings and a gasoline station (FINA) located near the Victoria Bridge. Next to the gas station, a water treatment plant for the Cité du Havre was built where "soil conditions were very poor." In total, the Victoria Autoparc comprised 6,000 feet between the Champlain and Victoria bridges, with an average width of 1,100 feet, and retaining walls completing the sector were 7,800 feet long.

Maintenance of the two large parking lots (Longueuil and the Victoria Autoparc) posed further difficulties; graders went over unpaved roads almost every night;

> *given the nature of the fill material, dust-control measures were required on a permanent basis [...]*
>
> *Dust-control measures were carried out before and after Expo opened using special equipment. Before Expo opened, most of the roads had not been paved and oil was sprayed on them. During Expo, LOGNOSOL was used, this product being harmless to automobiles.*[8]

Built for the sole purpose of the 1967 World Exposition, the Victoria Autoparc also acted as a sponge for the industrial areas north of the site, particularly those of Canadian National. From that point forward, all flows of chemicals, toxic or otherwise, were diverted from the river to accumulate below this huge, partly landscaped parking lot. In 1968, when it came time for the retrocession by the Corporation of the main Expo sites used for Man and His World (the islands of Ronde, Sainte-Hélène and Notre-Dame) to the City of Montreal, the Victoria Autoparc was excluded from the assignment, and following the dissolution of the Corporation under the *Expo Winding-up Act*, the parking lot fell under the jurisdiction of the National Harbours Board.

8. Canadian Corporation for the World Exposition of 1967, translated excerpt from *Rapport général sur l'exposition universelle de 1967, Vol III, 1969, pp. 1508–1509.* [translator's note: though the text here is a translation, this report does exist in an official English version entitled *General Report on the 1967 World Exhibition*.]

6. From parking lot to airport: the Adacport

In the early 1970s, in an attempt to boost the troubled Canadian aeronautics industry (one need only think of the Canadair plant in Ville Saint-Laurent or the De Havilland facility in Toronto), the federal government proposed setting up a project to link the downtown cores of Ottawa and Montreal using short take-off and landing aircraft (STOL, or ADAC in French).

The choice of aircraft was the topic of vigorous discussions among Montreal and Toronto firms, but the federal Department of Transport quickly announced the selection of six Twin Otter DHC-6, manufactured by De Havilland. In the wake of this announcement, in the spring of 1971, the minister also announced that an airport able to accommodate this type of aircraft would probably be built on the site of the Victoria Autoparc, unused since 1967, with flights beginning as early as September 1972.

This breath of optimism led Montreal City Council to amend its zoning regulations for the affected areas (Regulation 4444) so that the industrial area would be rezoned as class III. However, while the Victoria Autoparc was the only available site near downtown Montreal that could accommodate such a project, its development was regularly called into question, especially because its soil was said to be too soft, and because of the gas emissions escaping from the subsurface. In the summer of 1973, the federal Department of Transport granted a $1.6 million contract to convert the site into an airport.

> *Initially planned to begin on April 1, postponed to the 15th and then to the beginning of May, the STOL air service between Montreal and Ottawa will not start until late May or early June because of technical problems related to the type of land on which the Montreal airport is built.*
>
> *The tarmac (the parking and boarding areas) has sunk four to six inches into the ground, which is composed essentially of 10 feet of garbage, dumped there to build the Victoria Autoparc, and which is now being converted into an airport.*
>
> *The runway is cracked in two places, and an inspector who tossed a piece of tissue to which he had lit a match was surprised to see the runway catch fire at his feet due to the methane emissions, caused by the decomposition of organic matter. Finally, the stacks that were supposed to automatically burn the methane from the site are working much harder than planned because the site is emitting more gas than engineers had estimated. [...]*[9]

9. René-François Desamore, "Adacport opening delayed yet again" (L'ouverture de l'Adacport de nouveau retardé), *La Presse*, 26 March 1974.

With site preparation finally finished, the federal Department of Transport entrusted management of the Adacport to Air Canada, which created the subsidiary AirTransit for this purpose. The first flight took off in the summer of 1974, but after two years of operation and a great deal of financial difficulty, the Adacport project was abandoned.

One of the Airtransit airplanes

Source: http://aviation.technomuses.ca

In 1977, Canada's two large railway companies, Canadian Pacific (CP) and Canadian National (CN) were having great financial difficulties with their passenger services and, after the fashion of the U.S. government and its creation of AMTRAK, the Canadian government created a new Crown corporation, VIA Rail Canada.

VIA Rail, which reported to the federal Department of Transport, had its headquarters in Montreal and operated a maintenance site in Ville Saint-Pierre, near the Lachine Canal along the edge of Autoroute 20. Nearly five years after its creation, Via Rail announced investments of over 300 million dollars to build five maintenance facilities in Canada, including one costing approximately $140 million to be built on the CN property in Point St. Charles. The new Montreal Maintenance Centre (or, as VIA Rail Canada calls it, MMC) was inaugurated on 25 September 1987. VIA also signed an agreement with CN (whose operations were declining) that engaged over 500 CN employees in maintaining VIA's rail cars.

In August 1984, ten years after the opening of the airport on the St. Lawrence waterfront, Environment Canada's Environmental Protection

Service made public a study of 48 hazardous waste landfill sites located on federal properties in Québec, including the Adacport site.

> *The methane gas generated by waste from the former Montreal dump, subsequently buried on the Adacport site in downtown Montreal, can move considerable distances and eventually pose an explosion risk. This is one of the conclusions of a report produced by Foratek International Inc. at the request of the federal Environmental Protection Service and made public yesterday [...]*
>
> *These gasses, continue the authors, can move appreciable distances around the site and accumulate in certain areas, thus presenting a long-term impact independent of the level of activity at the site. They could also migrate through all types of conduits (sewer pipes or electrical and telephone conduits), accumulate in enclosed spaces and thus eventually pose risks of explosions on neighboring sites. Moreover, the packing of the site caused by compaction of the garbage will affect current and future development on the site, such as roads and buildings, whose design and maintenance will clearly be affected.*[10]

Faced with this state of affairs, well-intentioned Montreal citizens called on the city administration to acquire the site to exploit its buried methane gas reserves. The president of the executive committee calmed public fears about the dangers of the site and added that based on studies carried out for the City of Montreal, it seemed that the methane reserves on the site were far less abundant than those on the site of the old Miron Quarry, and that if any site should be exploited for its methane, it should be that one.

> *It is currently not possible to build on the Victoria Autoparc site. However, Mr. Lamarre could see a park along the waterfront, a greenspace corridor along the river and the Bonaventure Autoroute, which could be moved closer to the Autoparc [...].*
>
> *Furthermore, a thorough hydrogeological study of the former Point St. Charles dump will be carried out to verify the impermeability of the "Butler line," which forms a natural barrier between the Canadian National switching yard and the Adacport site and which is composed of waste of various types; this study has been commissioned by Environment Canada.*[11]

10. Louis-Gilles Francœur, "Dangers of explosion at the Adacport?" (Des dangers d'explosion à l'Adacport ?) *Le Devoir*, 30 August 1984.
11. Elyse Avon, "Gasses under the Adacport pose no threat to the population: Yvon Lamarre" (Les gaz enfouis de l'Adacport, aucun danger pour la population–Yvon Lamarre) *La Voix Populaire*, 14 May 1985.

7. A new vocation: the Technoparc

In November 1989, the Committee for Economic Recovery and Revitalization of Employment in Southwest Montreal (*Comité pour la relance de l'économie et de l'emploi du SUD-OUEST de Montreal*–CREESOM), made pubic a report on community organization fpr development in the area ("Sud-Ouest, organiser notre développement ensemble") that described the district's socio-economic decline and offered solutions toward an action plan.

Less than four months later, in response to the report, the Montreal Economic Initiative and Development Commission (*Commission d'initiative et de développement économiques de Montréal–CIDEM*) announced an action plan for the economic recovery of Southwest Montréal ("Plan d'action de la Ville de Montréal pour la relance économique du sud-ouest"). This plan included projected expenditures of $223 million over five years for revitalizing the area, in particular to renovate former industrial zones, to develop an industrial and commercial business complex, to boost the industrial renewal assistance program, to revitalize areas along the Lachine Canal, and to improve road infrastructure.

The action plan did not refer specifically to the Victoria Autoparc, and for good reason. In early 1988, the City of Montreal Executive Committee and the Québec provincial cabinet had reached an agreement in principle for the City, under various conditions, to acquire the former Acacport site in order to develop a high-tech research complex, which was in keeping with the Montreal Urban Community's development plan for the site.

In fact, the initiative for this process can be traced back to Teleglobe Canada, which, needing space for its operations, included a portion of the Adacport site among its development options. Teleglobe undertook a number of feasibility studies with the City of Montreal, the "Société des ports nationaux"[12] and the Québec environment ministry, which had long claimed ownership of the site since the hydric nature of its origins should legally give the ministry all rights to it.

> *To resolve the dilemma, the following agreement, valid only for the Adacport site, was signed between the two levels of government. The Government of Canada and the Government of Québec each agreed to cede to the City of Montreal, by way of notarial act, all rights and claims that they had or may have on the totality of the*

12. Translator's note: it is unclear what organization, presumably federal, is being referred to here since as far as I can tell, no organization with this name has ever existed.

properties in question. In this way, the City of Montreal can take over ownership of the properties in question and the two upper levels of government agree that no prejudice is caused to their rights to other similar properties in the future.[13]

At the session of 30 March 1989, City Council adopted two draft deeds though which the City of Montreal acquired the same property from two different owners–the former Victoria Autoparc site (only a portion of which was used for the Adacport)–and under different terms.

THE EXECUTIVE COMMITTEE submits

1. *A draft deed by which the Montreal Port Corporation sells, assigns and conveys, without security, all rights, titles, claims and interests it holds in a property located in Montreal, it being a deep-water lot, composed of block no. 2 of the municipal assessment roll of the parish of Montreal, and block no. 5 of the City of Montreal municipal assessment (Sainte-Anne ward), all of which is as shown on map R10072, this sale being made for the nominal sum of $1.00 and all good and valuable considerations.*

2. *A draft deed by which Her Majesty in right of Quebec sells to the City, without security, all rights, titles, claims and interests she holds and may hold in a property located in Montreal, it being a deep-water lot, composed of block no. 2 of the municipal assessment roll of the parish of Montreal, and block no. 5 of the City of Montreal municipal assessment (Sainte-Anne ward), all of which is as shown on map R10072, this sale being made for the sum of $1,000,000.*

   On the basis of the report of the head of the Corporate Affairs Department, the Executive Committee recommends

   a) *that these draft deeds be approved and that the executive director or City clerk be authorized to sign them in the name of the City;*

   b) *granting an appropriation to this end of $1,030,000 including financial costs and to allocate these credits from the loan authorized by municipal by-law 8082.*[14]

In the first case, and for the nominal sum of $1 and "all good and valuable considerations," the City of Montreal, pursuant to article 1 related to the conditions of the deed of sale, accepts the property as is and "frees Her Majesty in right of Canada, along with her representa-

13. Montreal Municipal Archives, CIDEM, "Notes to Council," [translation] 15 March 1989, File no. 89 –0030936.
14. Montreal Municipal Archives, translation of "Certified excerpt from minutes of City Council Assembly session of 31 March 1989," (Extrait authentique du procès-verbal de l'assemblée du Conseil municipal, séance tenue le 31 mars 1989), Resolution no. CO89 01189.

tives and agents, and in particular the Montreal Port Corporation and its representatives and employees, from all liability related to the title of ownership and to the state of the property's soil and subsurface, and it will wholly relieve them from all claims, requests, actions, procedures, losses, fines or expenses, or any damage resulting from defects in titles or stemming from the state of the soil or subsurface of the property."[15]

In the second case, and for the sum of $1,000,000, similar conditions appear in the deed of sale, with the exception that in addition, the City is required to carry out, or have carried out, an assessment of the hazardous substances that may be found in the soil or subsurface of the site, with the cost of the study, up to $300,000, being deducted from the sale price.

In December 1989, the Montreal-Lanaudière regional office of the Québec ministry of environment authorized the City of Montreal to build sanitary and storm sewers, along with waterworks lines, beneath the southern portion of what is now known as the Montreal Research and High Technology Centre (*Parc de recherche et de haute technologie de Montréal*). Work on the infrastructure had only just begun when, in August 1990, the first seepages of hydrocarbons were observed upstream from the Victoria Bridge.

15. Translated from the French. No official source given in the original French text.

8. Temporary corrective measures

In 1991, Canadian National, through its affiliate AMF techno transport inc., which ran the Point St. Charles shops, put temporary hydrocarbon capture measures into place. Beginning in the autumn of that year, the costs of these measures, along with studies to find a permanent solution, were shared equally by CN and the City of Montreal, until such time as CN installed its own recovery system and withdrew its participation in September 1997. CN's system, installed on CN property near the limits of the City's property, comprises 122 collection wells for floating hydrocarbons but has no effect on groundwater; by the spring of 2000, the system had intercepted 600,000 liters of oil. In parallel with these efforts, between 1992 and 1995, CN dismantled two large above-ground storage tanks dating from 1957 and located near the boundary of the City's property.

Around the same period, in an effort to improve the quality of surface materials, drainage and topography, the City of Montreal backfilled the central and eastern portions of the site with 540,000 cubic meters of clean soil. Since CN's withdrawal from the partnership with the City, the City has, by itself, conducted studies to find a permanent solution and taken temporary measures along the waterfront using booms near the Victoria Bridge.

In May of 1999, faced with the complexity of the problem, the environmental impacts related to seepage and future projects, the numerous possible interception and recovery scenarios, and legal and economic issues, the City of Montreal decided to undertake a value analysis. The City formed a multidisciplinary team of ten people to define the City's needs and obligations and then choose the optimum scenario and identify subsequent steps. The scenario chosen by the team was the construction of a watertight wall with passive recovery optimized along its entire length, which would extend 1.1 km along a municipal easement located on the southern limit of the former Adacport. This scenario included the use of floating booms along the edge of the river for a certain number of years.

The preparatory studies required to put the wall into place were entrusted to SNC-Lavalin Environment Inc. (SLEI) and comprised two separate reports (March and April 2002). The system proposed in the pre-project study consisted of an un-anchored interception wall on the limits of the City's property, north of Carrie-Derick Street. This wall, whose length was extended to 1.6 km after subsequent characterization studies, lets groundwater flow along its base, while wells to skim off

floating oils are located upstream from the wall. Recovery operations along the waterfront were planned to continue for a certain period. The volume of floating phase hydrocarbons on the City's site was estimated at 3,800,000 liters upstream from the projected wall, and 270,000 liters between the wall and the river, below the Bonaventure Autoroute. The cost of the project was estimated at the time to be between 8 and 9.8 million dollars.

In February 2002, SLEI was given the job of drawing up plans and estimates for the hydrocarbon recovery and collection system, leading to a call for tenders for the system's implementation in 2002. However in May 2002, at the request of Environment Canada and the Québec environment ministry, the design work was temporarily halted in order to carry out characterization studies of the toxicity of the groundwater and, in light of the results, to reassess the planned work.

The hydrocarbon collection and recovery project was thus modified to include the interception of groundwater. In April 2004, SLEI, submitted plans and estimates for the new system, with construction costs now reaching $20.3 million.

9. The future of a site intimately tied to Montreal's history

In the spring of 1993, independent of the measures adopted to recover hydrocarbons seeping from the CN property, Montreal city council amended the zoning by-law for the wards of Sainte-Cunégonde, Saint-Henri, Saint-Paul, Sainte-Anne, Saint-Gabriel and Saint-Joseph (by-law no. 9373) to authorize the new activities of the Montreal campus of the Montreal metropolitan technoparc. Among the activities authorized were research centers and laboratories and their associated production units, as well as business administration centers, technical centers, and teaching facilities in the fields of aerospace, biotechnology, electronics, consulting engineering, materials engineering, computer science, scientific instruments, pharmaceutics, optics, and telecommunications. During the early years, only two telecommunications companies set up shop: Teleglobe Canada and Bell Mobility. It was only years later that Mel's, a large soundstage complex, was built on what was formerly the Adacport and before that the Victoria Autoparc and the Saint-Pierre Common.

> *From 1662, the estate of the Congregation of Notre-Dame in Point St. Charles gradually expanded from the original 30* arpents *granted by Maisonneuve to 212* arpents *in 1731. It was first isolated from the city then invaded by it. On the south side, the jetee blocked access to the river and obstructed the horizon; the immense landscaping works for Expo '67 absorbed the Common, where farm animals grazed, and the two small islands familiarly called île Chevaux and île Savate. To the north and west, an arm of the Saint-Pierre River and Saint-Gabriel Brook gave way to streets and the Canadian National railroad, while to the east, a considerable portion was occupied by CN services. Over time, factories, public buildings, commercial establishments and residences slowly relegated the agricultural vocation of this corner of the Island of Montreal to a distant memory.*[16]

On 27 April 2004, the Secretariat of the Commission for Environmental Cooperation (CEC), an international organization created by Canada, the United States and Mexico under the North American Agreement on Environmental Cooperation (NAAEC), recommended to the CEC's Council to develop a factual record concerning the Montreal Technoparc submission (SEM-03-005).

This recommendation followed up on requests submitted to the Secretariat less than a year earlier by five non-governmental environmental organizations, including the Société pour vaincre la pollution (SVP), and challenged Environment Canada to ensure the enforcement

16. Chicoine, p. 122.

of the *Fisheries Act*, especially with respect to the release of toxic substances into the St. Lawrence from the Montreal Technoparc site.

> *Following a request by some of the Submitters in April 2002, Environment Canada conducted an investigation for violation of s. 36(3) of the Fisheries Act. According to Canada, the investigation succeeded in gathering all the evidence required to establish an offense, except the identity of the person or persons responsible for the deposits. As a result, the Ministry decided to end its investigation.*
>
> *In 2002, the City proposed installing a system aimed at stopping substances present in a suspended phase from draining into the Saint Lawrence River. Canada states that Environment Canada expressed concerns about the capacity of such a system to contain substances present in a dissolved phase. In the response, Canada states that Environment Canada is in talks with the province of Quebec and the City of Montreal to find a comprehensive solution to the problem.*[17]

A week after the CEC's press release, the ministers of Industry and Economic Development Canada announced that the Government of Canada was renewing its support for the Montreal Harbourfront Corporation (*Société du Havre de Montreal*), an organization created in the wake of the Montreal Summit (Sommet de Montreal) of 2002 with the goal of providing the Montreal administration with a development plan for the area consisting broadly of the lands between the Jacques Cartier and Champlain bridges and between Saint-Antoine Street to the north and the St. Lawrence River to the south.

This ministerial announcement was made on the day the Harbourfront Corporation, after over a year of intense work, unveiled its action plan, entitled *Montreal Harbourfront VISION 2025.* In this development plan, the Corporation suggests, among other things, that the Bonaventure Autoroute–owned by Transport Canada and operated by The Jacques Cartier and Champlain Bridges Incorporated–be reconfigured to allow safe access to the St. Lawrence waterfront for all Montrealers.

The Corporation's plan also contemplates expanding the Technoparc's vocation, though it is aware of the soil contamination problems at the site, and above all bears in mind the development potential represented by the unused Canadian National properties. It also suggests that any future development plan for the huge industrial sites created over one hundred fifty years ago by the Grand Trunk Railway include a buffer zone in the form of a linear park between the VIA Rail shops and those owned by CN.

17. North American Commission for Environmental Cooperation, "Secretariat recommends factual record for Montreal Technoparc submission," press release issued 27 April 2004.

Vision of future development of the site

Christian Thiffault, Architects for the Montreal Harbourfront Corporation.

10. Perspectives

Because it serves as a buffer zone between the CN property and the St. Lawrence, the site of the former Victoria Autoparc is the cause of negative environmental impacts on the river, and remedial measures must be put into place. As the site's new owner, the City of Montreal assumes a certain portion of the responsibility, and since the first appearance of hydrocarbon seepage into the river upstream from the Victoria Bridge, the City has continued recovery operations along the waterfront–jointly with CN at first, and then alone after the former Crown corporation withdrew in 1997. In parallel with this process, the city administration has hired various consultants in order to put in place a permanent solution. To date, the City of Montreal has invested over $2 million toward solving the negative environmental impacts in this area.

In the spring of 2004, the Government of Canada announced investments of $3.5 billion over 10 years to decontaminate federal sites, along with an additional $500 million to promote the clean-up of sites for which it shares responsibility, such as the Sydney tar ponds in Nova Scotia. For the good of the Montreal community, it is up to the federal government to recognize that the numerous Crown corporations it created over a period of nearly 150 years and that occupied the shores of the St. Lawrence have greatly contributed to the current state of the Technoparc site, and that given this historical context, it is completely justifiable that a portion of these additional funds go toward rehabilitating these lands.

At a time when more than one project to develop the former Victoria Autoparc site and the CN lands are under discussion, the search for and implementation of a permanent solution to the environmental problem at this site is vital, and the cost should be borne by both current and former owners.

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Acknowledgements

This document was made possible though the collaboration of the following people:

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Desk officer, Document Management Division, Registry Division, Corporate Affairs Department

Division Head, Geomatics Division, SITE

Engineer, Laboratory division, SITE

APPENDIX 11

Guy Martin's *résumé*

Guy Martin

- Citizenship: Canadian
- Working languages: French and English
- Security classification: Level II, secret
  Environment Canada File number:
- Retired in January 2004 from Environment Canada; held position of Chief, Inspections and Investigations Division, Environmental Enforcement Branch, Environment Canada Headquarters
- Designated officer of the peace and fisheries officer for purposes of enforcement of the *Canadian Environmental Protection Act, 1999* and the *Fisheries Act*, respectively.

EDUCATION

Université de Montréal, HÉC Management course, certificate		1994 Montreal, Québec
Université du Québec à Montréal Environmental geology course, certificate		1976 Montreal, Québec
CEGEP Saint-Laurent Post-junior college course	– Industrial chemistry and pollution – Instrumental chemistry – Hydraulics and flow measurement	1970–1972 Ville St-Laurent, Québec
Institut de Technologie de Vaudreuil, Technical water treatment course, junior college degree		1966–1969 Vaudreuil, Québec
Montreal Catholic School Board, Saint-Émile Secondary School *High school diploma*		1962–1966 Montreal, Québec

WORK EXPERIENCE

January 2004 to the present	➢	☞ Retired 16 January 2004, from Environment Canada. ☞ Temporarily employed as training specialist for a legal sampling course given to Environment Canada officers.

1996 to January 2004	➢	Chief, Inspections and Investigations Division Environmental Enforcement Branch Environment Canada, Environment Canada Headquarters, Gatineau, Québec ☞ Coordinated regional law enforcement support; provided information and managed regional law enforcement activities, advised persons in charge of real and potential controversial issues; acted as liaison with other departments, agencies, and domestic and international organizations (Commission for Environmental Cooperation/NAFTA, INTERPOL, USEPA, US Customs, US Justice, etc.)
1995–1996	➢	Special Law Enforcement Adviser Environmental Enforcement Branch Environment Canada, Environment Canada Headquarters, Hull, Québec ☞ Advised the director and the assistant director on law enforcement; provided support to the regions, and acted as liaison with other departments, agencies, and domestic and international organizations.
1993–1995	➢	Chief, Inspections and Investigations Division Environmental Protection Branch Environment Canada, Quebec Region, Montreal, Québec ☞ Directed regional inspection and investigation activities and developed law enforcement tools and procedures. ☞ Directed major investigations and prosecuted offenders; e.g.: Tioxide Canada Limited. Fine: $4 million.
1988–1993	➢	Chief, Investigations Division Environmental Protection Branch Environment Canada, Quebec Region, Montreal, Québec ☞ Directed investigation activities; conducted major investigations and developed investigation tools and procedures.
1983–1988	➢	Senior Technologist, Environmental Emergency Operations Environmental Protection Branch Environment Canada, Quebec Region, Montreal, Québec ☞ Delivered emergency response, developed environmental emergency response tools and procedures, maintained standby state.
1974–1988	➢	Duty Officer, Emergency Operations (Shift Officer) Environmental Protection Branch Environment Canada, Quebec Region, Montreal, Québec ☞ Part-time emergency response.

1973–1983	➢	Senior Technologist, Federal Enterprises Division Environmental Protection Branch Environment Canada, Quebec Region, Montreal, Québec ☞ Developed and directed a "Monitoring and Inspection" program for facilities treating federal waters; directed an effluent sampling team (industrial, municipal, governmental). ☞ Responsible for quality control of potable water production and distribution and for wastewater treatment effluent quality for the Western Québec region. Conducted systematic sampling, recommended corrective measures, and informed the agency's management and the municipalities of any risks.
1970–1971	➢	Shift supervisor, wastewater treatment plant school Ministère de l'Éducation du Québec Cité des Jeunes de Vaudreuil, Vaudreuil, Québec ☞ Responsible for production and quality control of potable water for distribution to the Cité des Jeunes de Vaudreuil (youth complex) and the City of Vaudreuil, Québec
1969–1970	➢	Shift supervisor, Wastewater Treatment Plants Water Treatment Department City of Montreal, Québec ☞ Responsible for the mechanical operation and the quality control of wastewater treatment processes at plants under the control of the City of Montreal.

ATTACHMENT 1

Council Resolution 08-04

23 June 2008

COUNCIL RESOLUTION 08-04

Instruction to the Secretariat of the Commission for Environmental Cooperation to make public the Factual Record for Submission SEM-03-005 (Montreal Technoparc)

THE COUNCIL:

SUPPORTIVE of the process provided for in Articles 14 and 15 of the *North American Agreement on Environmental Cooperation* (NAAEC) regarding submissions on enforcement matters and the preparation of factual records;

HAVING RECEIVED the final factual record for Submission SEM-03-005; and

NOTING that pursuant to Article 15(7) of the NAAEC, the Council is called upon to decide whether to make the factual record publicly available;

HEREBY DECIDES:

TO MAKE PUBLIC and post on the registry the final factual record for Submission SEM-03-005;

TO ATTACH to the final factual record comments provided by Canada to the Secretariat on the draft factual record; and

TO INCLUDE with the final factual record a disclaimer which states that the document was prepared by the Secretariat, and that the views contained therein do not necessarily reflect the views of the governments of Canada, Mexico or the United States of America.

APPROVED ON BEHALF OF THE COUNCIL:

_____
David McGovern
Government of Canada

_____
Enrique Lendo Fuentes
Government of the United Mexican States

_____
Scott Fulton
Government of the United States of America

ATTACHMENT 2

Comments of Canada

Gatineau QC K1A 0H3

January 22, 2008

Mr. Adrián Vázquez, Executive Director
Commission for Environmental Cooperation
393, rue St-Jacques Ouest
Bureau 200
Montréal, QC H2Y 1N9

Dear Mr. Vázquez:

Canada was pleased to review the draft Factual Record in relation to Submission on Enforcement Matters SEM-03-005 (the "Montreal Technoparc" submission), pursuant to Article 15(5) of the *North American Agreement on Environmental Cooperation* (NAAEC). In order to assist the Secretariat in the development of the final factual record for this submission, I am pleased to submit the attached comments which address inaccuracies in the text and clarify the presentation of some of the facts.

In addition to the attached comments, there are also concerns about the inclusion of material that may affect the objectivity of the factual record. Although the term "factual record" is not defined in the NAAEC nor the *Guidelines for Submissions on Enforcement Matters under Articles 14 and 15 of the North American Agreement for Environmental Cooperation* ("Guidelines"), these sources provide guidance regarding the purpose and the type of information a factual record should include. As previously noted by the Parties, from these sources, it is clear that the purpose of a factual record is to provide the public with an objective, independent presentation of the facts to allow readers to draw their own conclusions with respect to the alleged failure to effectively enforce environmental law. Since opinions and hypotheses may compromise the objectivity of the document, they should not form part of the factual record.

The Secretariat has provided legal analysis and interpretation of legislation and case law, including interpretation of the *Fisheries Act*. It is not the role of the Secretariat to review the law in a particular area. Of particular concern is section 6.2 which presents a lengthy opinion on the state of Canadian jurisprudence on this issue. In order to preserve the neutrality of the report, the Secretariat's analysis of case law should be omitted from the factual record.

Similarly, speculation on the success of enforcement action against CN Rail before and after 1991, which is presented in sections 8.4.1 and 1.3., should be withdrawn from the report since it is not factual information.

As well, Canada wishes to emphasize the need for factual records to conform to Council Instructions. This factual record concerns the alleged failure to effectively enforce s. 36(3) of the *Fisheries Act*. In canvassing this subject, the factual record must respect the direction provided in the Council Resolution No. 04-05. This Resolution authorizes the preparation of a factual record that is explicitly focused on the geographical area that is occupied by the Montreal Technoparc sector. In this regard, the references to a study conducted on the Montreal Urban Community wastewater effluent and on the surface water upstream of the wastewater discharge in the St-Lawrence River (Section 8.3.1.2 and Section 1.2), and to the Love Canal in the United States (Section 8.3.2.1) are two examples of information that are extraneous to the scope of the Council's instructions. These passages do not contribute to the public's understanding of the enforcement of the *Fisheries Act* in the Montreal Technoparc sector, and therefore, should be removed.

Although Council Resolution No. 04-05 does request the documentation of facts concerning the "characteristics and fate of the contamination of the Montreal Technoparc site", it does not request that the CEC Secretariat present hypotheses on the possible sources of contamination. In this regard, the last part of section 8.3, following Figure 7, should be removed from the factual record as this information is hypothetical and not factual. The first part of this section is an inference derived from factual information provided to the Secretariat by CN Rail. Second, the report written for the CEC Secretariat by the former Head of Inspections and Investigation Division of Environment Canada's regional office represents an opinion rather than facts. This report has not been peer-reviewed and the sources of information presented are not known and cannot be verified. Given the nature of this information, Canada is compelled to request that this section be omitted from the factual record.

In order to facilitate our review of the final factual record and increase the timeliness of making a decision on publication, it would be appreciated if the Secretariat could provide Canada with an electronic version of the final factual record in "revision mode".

Please note that the attached comments are provided in French and refer to the French version of the draft factual record. Canada will promptly provide an English translation of these comments.

Canada notes that as a matter of procedure, comments of a Party are not to be made public without such instructions from the Council and only upon a Council decision to make the final factual record publicly available pursuant to Article 15(7) of the NAAEC.

Yours sincerely,

(original signed)

David McGovern
Assistant Deputy Minister,
International Affairs

Section #	Section of Record	Page #	Comment / Suggestions
		1	Second paragraph: "...from the Montreal Technoparc site, formerly a household and industrial waste disposal site ...." It would be more accurate to say that the Technoparc is on land that was used as a waste disposal site until 1966.
		1	Second paragraph: For improved clarity, it would be useful to indicate that the City of Montreal was responsible for operating the Pointe Saint-Charles dump while it was in operation.
		3	First paragraph: The primary use of the Technoparc sector was a waste disposal site, while rail yard activities were concentrated in western section (based on magnetic north) of the Technoparc sector. Consequently, this paragraph should be adjusted to clarify the purpose of the entire sector. The second paragraph of Section 2 (p. 7) provides a more accurate description of the sector's use.
		3	First paragraph: "Over time, here as elsewhere ...." 'Elsewhere' is not defined and should be explained or removed.
		3	First paragraph: "...was later used for a short-takeoff and landing airport." The report should specify that the area "was later used by Transport Canada for a short-takeoff and landing airport."
		3	Second paragraph: "... it was decided that urgent action was not needed...." To establish the facts, it would be useful to specify who made this decision.
		3	Third paragraph: "The city of Montreal, in addition to accepting...." For more precision, should be replaced by "...The city of Montreal undertook to accept the environmental risks and to indemnify and save harmless the sellers..."
		3	Third paragraph: "Under provincial law ...." The name and section of the law in question should be specified: section 65 of Quebec's *Environment Quality Act*.

Section #	Section of Record	Page #	Comment / Suggestions
		3	Fourth paragraph: "The federal Crown corporation Jacques Cartier and Champlain Bridges Inc. (JCCBI) owns the land between Technoparc and the Champlain Bridge to the west ...." This information requires the following clarification: JCCBI owns a section of these lands, and under the Quebec government's decree of 1963, the JCCBI administers a section of the riparian lands owned by Quebec.
1.2	Characteristics and Fate of Contamination in the Technoparc Sector	4	First paragraph: "Environmental studies conducted ...diesel fuel floating .... It is estimated that [it] contains 4-8 million litres of diesel fuel ...." These data are taken from the 2002 and 2004 SNC Lavalin report, which states that floating phase petroleum hydrocarbons are composed of diesel and a mixture of diesel and other heavier substances.
		4	First paragraph:"The presence of PCBs in the diesel fuel is partly attributable to the latter's corrosive effect. It is believed that the fuel accelerated the release ... (e.g., old transformers) buried in this area." The first sentence is incorrect: diesel acts as a solvent, not a corrosive; the second is based on an assumption. Removing these two sentences is recommended since the information is not factual.
		4	Second paragraph: "The groundwater from the rail yard was then ...." This information is incorrect. A correction should reflect the fact that the water is reinjected into CN lands.
		4	Third paragraph: "In 2006, a center set up by Canada, Quebec, and the city of Montreal received federal government funding ... ." This information is incomplete and could be more precise by replacing with the following: "In 2006, the Montreal Centre of Excellence in Brownfields Rehabilitation (MCEBR), a non-profit organization set up by Canada, Quebec, and the city of Montreal, received funding from Canada Economic Development (CED) to conduct a study on the treatability of groundwater in the Technoparc sector, including a study on the sources of toxicity of the groundwater."

Section #	Section of Record	Page #	Comment / Suggestions
		4	Third paragraph: "... that would reduce to a minimum the harmful components in the groundwater before it is discharged into the river or the city of Montreal sewer system... ." The following rewording is fact-based and would avoid making an assumption " ... that would reduce to a minimum the harmful components in the groundwater."
1.3	Facts surrounding Environment Canada's inspections, before and after the issuance of a warning	5	First paragraph: "During the next six years, CN – a federal Crown corporation in the process of being privatized – and the city of Montreal..." This information is misleading and should be replaced with the following: "During the next six years, CN – which was privatized in 1995 – and the city of Montreal ..." This would be a factual and impartial presentation of the information.
		5	Second paragraph: "In 1997, CN installed a groundwater pumping system on its property ...." This information is incorrect: CN installed a vacuum pumping (bioslurping) system to recover floating phase hydrocarbons on the edges of its land. This system was designed to pump the hydrocarbons, taking out as little groundwater as possible.
		5	Second paragraph: "After 1991, under the *Fisheries Act*, CN could, in its defense, claim to have demonstrated due diligence ...." This sentence should be removed: it is an opinion and is not factual.
		5	"Environment Canada engineers put forward ....." Provide the reference.
1.4	Facts surrounding Environment Canada's Investigation and Ecotoxicological Study	5	Fifth paragraph: "At the time, it was known that if the city ...." This sentence is an opinion and contains an assumption. Either the source should be identified, or the sentence should be removed.

Section #	Section of Record	Page #	Comment / Suggestions
1.5	Compliance Promotion after Termination of Environment Canada's Investigation	6	Fourth paragraph: "It was hoped that JCCBI's involvement ...." This sentience should specify who hoped and indicate the source. As presented, the sentence does not provide factual information.
		7	Second paragraph: "In January 2006, the federal government announced ... ... large-scale wastewater treatment projects." It is incorrect to say that the federal government announced its intention to invest C $25 million to clean up Technoparc because this was announced as a promise during a federal election campaign. To be more precise, it should also be stated that Building Canada is planning to support brownfields redevelopment.
3.2	Description of the Sector Comprising the Techno-parc Site	11	Second paragraph: "... problems related to the production of gas..." The word gas should be replaced with biogas.
		11	Second paragraph: "... the land was unused until ... 1976, when the federal Department of Transport .... The correct year is 1974, not 1976.
5	Information Gathering Process	17	Second paragraph: "... detected a strong odor of gasoline." Replace with: a strong odor of hydrocarbons (SNC Lavallin's 2002 and 2004 studies show that these hydrocarbons are a mixture of diesel and heavier products, and not gasoline).
7.1	Fisheries Act Habitat Protection and Pollution Prevention Provisions – Compliance and Enforce-ment Policy	26	The third paragraph of this section mentions that there were notable differences between the draft and final versions of the Compliance and Enforcement Policy, which are described further on in the text. There are no facts to support that statement, and no evidence provided in the rest of the chapter.
7.2	Decision to Prosecute	28	Second paragraph: "Under the Compliance and Enforcement Policy, prosecution is therefore ruled out or at any rate unlikely in cases where a deleterious substance was

Section #	Section of Record	Page #	Comment / Suggestions
7.2 (*cont.*)	Decision to Prosecute	28	deposited but no harm was or is likely to be caused to fish or their habitat." This statement is false and seems to stem from a misinterpretation of the Policy. It is true that it is not necessary to prove harm to fish or their habitat to establish an infraction under section 36(3) of the Act. However, what the Policy states that in the event of damage or a risk of damage to fish or its habitat, prosecution is the preferred response – not necessarily the response that will be chosen, because there are other factors to consider, but it is the preferred response. On another important point, when the Department decides to opt for prosecution, the decision as to whether or not to go ahead with the prosecution rests with the Department of Justice. This decision is based on various criteria, i.e., whether there is sufficient evidence, and whether the
		32	First paragraph: "Moreover, the process to privatize CN had already begun, in the early 1990s, when hydrocarbons suspected to be diesel fuel from the CN rail yard were observed surfacing on the banks of the St. Lawrence." This text suggests a link between CN's privatization and the possibility of liability for hydrocarbon upwellings. First, there are no facts or evidence to confirm this assumption. Secondly, please specify who "suspected" and "observed" as the text seem to be referring to different actors.
		32	First paragraph: "In these two transactions, the federal government was both the seller, <u>seeking to limit its environmental liability</u> ...and a public authority responsible for environmental law enforcement." The underlined text should be removed as this is an opinion, and not a fact.
		33	Footnote 139: The weblink to for this reference is not available. An information source which confirms the validity of this statement should be identified.
8.1	Background	36	First paragraph: The shoreline did not <u>recede</u>, it advanced because of infilling.
		37	First Paragraph: "This effluent was known to cause long plumes of pollution on the St. Lawrence." The footnote refers to information that is not fact-based.

Section #	Section of Record	Page #	Comment / Suggestions
		37	Fourth paragraph: "...is located on the other side of the expressway, bordered to the west by land belonging to JCCBI." This is information incorrect. The following underlined text should be added: ".....bordered to the west by land belonging to JCCBI and the Government of Quebec."
		38	Second paragraph: "...was sold to the city of Montreal in the late 1980s, by the federal government and...." As the date of sale is precise, replace the underlined text with 1989. This is the date of the deed of sale for the land.
8.3.1.1	LNAPLs	48	Fourth paragraph: "It has been known since the 1980s, if not earlier..." For a more precise statement, replace the underlined text with the following: "According to studies done in the Technoparc sector and submitted to the Secretariat for the development of the factual record, since the 1980s, the sector's subsoil ...".
		49	First paragraph: "...it was known that this "oily" product ..." Include a reference which indicates how this is known.
8.3.1.2	Groundwater	61	Last paragraph: "...but the groundwater samples were not taken..." This information is incorrect and not impartial. It does not include the critical information contained in footnote 237. We suggest replacing this sentence with the following: "The sampling campaign conducted by the city of Montreal in the summer of 2002 and the results obtained from the bioassays confirmed that the groundwater was toxic." This means that footnote 237 is redundant and can be deleted.
8.4.2	Issuance of a Warning to the City of Montreal	75	Second paragraph and Footnote 305: "In one case, a company...." Both the text and the footnote have no link with Montreal Technoparc site and should not be included in the factual record.

Section #	Section of Record	Page #	Comment / Suggestions
8.6	Compliance promotion efforts following the decision by Environment Canada not to seek charges	94	First paragraph: "In November 2005, Canada Economic Development, <u>following up on a suggestion by Environment Canada announced a contribution</u> ...." This statement is inaccurate. Environment Canada suggested that MCEBR develop a project, which was subsequently funded by CED. For accuracy, replace this underlined phrase with the following: "...announced a contribution of $1.56 million..."
[9]	Closing Note	100	First paragraph: "In 1998, Environment Canada issued a warning against Montreal and proposed construction of a barrier to intercept the oil and contaminated groundwater migrating from the Technoparc to the Saint Lawrence." This sentence suggests a link between Environment Canada's warning and its proposal to construct a barrier. There are no links between these two facts. A warning is one of the possible consequences when there are reasonable grounds to believe in a violation of section 36(3) of the *Fisheries Act has occurred*. Such warnings are issued by Environment Canada's Enforcement Branch. Regarding the second fact, a proposal by Environment Canada to construct a barrier is unlikely because the Department does not have the authority to approve projects that would interfere with compliance with section 36(3) of the *Fisheries Act*.
		100	First paragraph: "When design specifications for the project were ready, Environment Canada received a complaint from environmental groups, under section 36(3) of the *Fisheries Act*, regarding the failure of the proposal to address discharges of contaminated groundwater into the Saint Lawrence." The complaint received by Environment Canada in 2002 was not related to the city of Montreal's proposal to install a system for recovering oil (LNAPL). In fact, the complaint was a request to the Department to open an investigation into the discharge of oil (LNAPL) upstream of the Victoria Bridge based on the premise that the party responsible for the discharge would be the owner of Technoparc, i.e., the city of Montreal.

Section #	Section of Record	Page #	Comment / Suggestions
		115	It is Environment Canada that expressed reservations regarding the capacity of the project proposed by the city of Montreal to bring the site into compliance with the *Fisheries Act*, given that the project did not include any interventions concerning groundwater anywhere on the site, which seemed at the time to have toxic potential. This potential was confirmed in the ecotoxicological study, the results of which were known in the fall of 2002.
	General comments		Several times, the report mentions the results of interviews with several people. The sources should be cited. One of these is on page 62, i.e., "However, several people interviewed by the Secretariat mentioned that it would have been unlikely for the city ...," and another is on page 3: "At the time, despite the environmental risks posed by this contamination ..."