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Analysis and Evaluation of the Operations of Ten Environmental Follow-Up Committees in Quebec: Exploratory Research

Prepared by
Christiane Gagnon, Laurent Lepage, Mario Gauthier, Gilles Côté, Patrick Champagne, François Miller and Louis Simard

for the
Research and Development Monograph Series, 2000

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Table of Contents

List of Tables and Figures

1. Introduction

This study on environmental follow-up committees[1] was conducted jointly by the Chair in Urban Ecosystem Studies of the *Université du Québec à Montréal* and the *Groupe de recherche et d'intervention régionale* (GRIR) [Regional research and intervention group] of the *Université du Québec à Chicoutimi*, for the Canadian Environmental Assessment Agency.

The first chapter identifies the issues behind environmental follow-up, the context in which follow-up committees emerged, and the primary and secondary research objectives. The second chapter describes the research methodology, which is based on a qualitative and comparative analysis of 10 case studies of environmental follow-up committees. The third chapter describes the formal framework, i.e., the key aspects of each of the 10 committees under study: their background, the context in which they were created, their mandate and objectives, as well as their membership, source of funding and achievements. The fourth chapter presents an analysis of the operation of the follow-up committees and describes, on the basis of interviews and observations, a number of the findings and issues raised by the various stakeholders. The fifth chapter offers an evaluation of the follow-up committees' effectiveness and makes recommendations to improve their performance. The conclusion sets out the scope and limitations of our research and suggests possible measures to further understand the role of environmental follow-up committees as a forum for cooperation.

1.1 Follow-Up Committees and New Approaches to Environmental Management: Background and Issues

After more than 25 years of public administration of the environment, we are witnessing the emergence of new environmental management approaches in Quebec, the rest of Canada and elsewhere in the world. The new approaches are designed to respond to the needs and complexities of a "society at risk" and to address the failure of "rational planning," which was proposed as a model for centralized, state management of the environment (Larrue, 2000; Lascoumes, 1999; Lascoumes and Le Bourhis, 1997; Lepage and Gauthier, 1998; Lepage, 1997). As a decision-making aid, rational planning advocated "a 'rational' approach drawing inferences between the knowledge of a situation and the changes we wish to make to it" [translation] (Hamel, 1996 : 62). On the basis of such an assessment, reason would be enhanced by science, which had become the principal decision-making tool. However, according to G. Barouch, the seemingly noble decision to base environmental management decisions on scientific knowledge quickly gave rise to a number of negative effects.

Rational planning is based on closed, rather inflexible logic that "tends to reduce reality to the representations and models provided by disciplinary logic and languages (economic, technical, regulatory, etc.)" [translation] (Barouch, 1989). Furthermore, since experts orient their analysis on the basis of the solutions they know, the diagnosis often depends on the tools available for resolving the problem. Lastly, the inertia of administrative systems and scientific paradigms conflicts with the rapid changes in environmental problems. Rational planning quickly gives rise to incompatibility between environmental policy and practice.

The new approaches to environmental management, i.e., expanded management and integrated management, are oriented instead towards expanded participation and a greater role by local and regional populations in ensuring the quality of their environment and territory (Gagnon, 1995b). The new approaches are characterized, on the one hand, by more integrated (intersectoral), decentralized public involvement that goes beyond strict environmental assessment procedures and, on the other, by cooperation among stakeholders with sometimes diverging interests (Lascoumes, 1994; Lepage, 1997). They also seek to integrate the planning, assessment, implementation and follow-up phases into a process of cooperation and exchange between the various stakeholders (Born and Sonzogni, 1995; Cornford et al, 1985; Lang, 1986; Gardner, 1990; Mermet, 1992; Margerum and Born, 1995; Margerum, 1999). The new approaches are part of a pronounced global structural trend in which the themes of regionalization, impact assessment, consultation, environmental governance and stakeholder empowerment give rise to social practices and organizational arrangements dominated by partnerships between public, private and non-governmental stakeholders (Gagnon and Fortin, 1995; Gagnon and Klein, 1991; Turcotte, 1997). A similar trend is also emerging in industry, notably in the context of ISO 14001 standards, which require companies to establish liaison committees to ensure transparency of information and improved industry practices.

1 - The expression "follow-up committee" refers to committees composed of various stakeholders (businesses, local elected officials, citizens, experts, public servants, environmental groups, etc.) charged with overseeing the implementation of environmental follow-up, control and monitoring programs, and even environmental vigilance. We have adopted a broad definition of the concept of environmental impact, one which includes social and economic impacts.

The reform of environmental assessment procedures by various governments over the past decade, it is now possible to consider such aspects as sustainable development, strategic assessment of policies, plans and programs, social impact assessment (Gagnon, 1995a, 1995c), assessment of cumulative and secondary regional impacts and biodiversity. The environmental assessment process will, from now on, require public participation in all phases of the plan for change, particularly prior to and following the policy, plan, and program evaluation, as well as during environmental monitoring and impact follow-up (Gagnon et al, 1993; Gagnon 2001; Gauthier et al, 2000).

The establishment of follow-up committees in Canada and Quebec is part of the trend towards increased public participation in environmental management (Gauthier and Simard, 2000; Germain, 1998; Green, 1997; Lynn and Busenberg, 1995). There are various examples of this type of approach, including *Stratégies d'optimisation d'écosystèmes régionaux* [Regional ecosystem optimization strategies] (De Coninck et al*.,* 1999; Vasseur et al*.,* 2000), Priority Intervention Zone (ZIP) committees (Burton, 2000), Remedial Action Plan citizens' advisory committees (Knaap et al, 1998) in Ontario and the Great Lakes Basin (Rabe), waste management watchdog committees in Quebec (Gauthier and Simard; Leduc and André) and the United Sates (Petts, 1995), as well as follow-up committees created to monitor major industrial activities in urban environments (Gagnon and Côté, 2000; Hamel-Fortin, 1998).

The *Guide de réalisation d'une étude d'impact sur l'environnement [Guide for conducting an environmental impact assessment]*, published by the Quebec Environment Department (Quebec, 1998c), defines environmental follow-up as the action of "studying, for a defined period of time, the nature, intensity and evolution of certain natural processes or phenomena believed to be disturbed by a project and for which the impact assessment and current state of knowledge do not allow for an informed decision on the anticipated impact" [translation] (p. 10). In the *Guide to the Preparation of a Comprehensive Study for Proponents and Responsible Authorities* (Canadian Environmental Assessment Agency, 1997b), follow-up is defined as the process of "verifying the accuracy of the environmental assessment of a project and determining the effectiveness of any measures taken to mitigate the adverse environmental effects of the project" (p. 63). In both cases, follow-up generally involves the drafting of an environmental follow-up and monitoring report.[2]

In principle, under both the Canadian and Quebec environmental assessment procedures, the proponent includes all follow-up and monitoring measures it intends to take in its impact study report (Canadian Environmental Assessment Agency, 1997b; Quebec, 1998c). However, this is generally limited to the biophysical component of the environment. The monitoring and follow-up program outlines the measures to be put in place during both the construction and, more importantly, operation stages. The report may describe the environmental components that will be subject to a follow-up program, the broad methodological approach, and the protocols and methods for implementing the program, particularly sampling and analysis. It may also describe the options proposed for communicating the results of the follow-up and monitoring programs, such as setting up a watchdog committee composed of community representatives.

As pointed out in the *International Study of the Effectiveness of Environmental Assessment* (Sadler), environmental impact assessment follow-up mechanisms are underdeveloped, especially in comparison with the activities carried out prior to the decision. This is particularly true with respect to social impacts (Boothroyd; Gagnon, 1995a; Sadler, 1996).

In its broadest sense, follow-up comprises monitoring and control activities. In short, "the objectives of the follow-up of the EIA process are to: ensure terms and conditions of project approval are implemented; verify environmental compliance and performance; cope with unanticipated changes and circumstances; adjust mitigation and management plans accordingly; and learn from and disseminate experience with a view to improving the EIA process and project planning and development" (Sadler, 1996 : 127). Environmental follow-up is therefore necessary if we wish "to build a post-decision quality control function into the EIA process" (Ibid: 132).

In his first report to the federal Cabinet (Canada, 1997), the Commissioner of the Environment and Sustainable Development indicated that the federal government's management of environmental and sustainable development issues showed weaknesses related to gaps between federal government commitments and concrete actions. The Commissioner noted that the federal government's performance fell well short of its stated objectives in many areas (Canada, 1999:7). He also found a lack of coordination between the departments concerning horizontal issues, which occur frequently in the areas of the environment and sustainable development. Lastly, the Commissioner reported several weaknesses in the areas of environmental management performance review and the provision of information to Parliament, a review necessary for the development of policies and programs.

2 - The Quebec environmental impact assessment and review procedure (PEEIE) draws a distinction between monitoring, follow-up and control. "*Monitoring* consists essentially of ensuring that the work is performed in accordance with government requirements, particularly in respect of the mitigation measures provided for during construction and the operating standards. *Control*, which is the responsibility of the public authority, consists of ensuring that the Department's recommendations are followed and reviewing the effectiveness of the follow-up program put in place by the proponent" [translation] (Quebec, 1998b: 10).

In his 1998 report, the Commissioner devoted a chapter to environmental assessment, which he qualifies as a critical tool for sustainable development. He underscored the uncertainties presented by the anticipated impacts of a project and the effectiveness of the mitigation measures taken to address them, and stressed the importance of strengthening the implementation of the Canadian Environmental Assessment Agency's follow-up program. He concluded that closer follow-up of the mitigation measures and outcomes would make it possible to improve the environmental assessment process (Canada, 1998:6-30). However, neither the Commissioner's reports or the responses of the Canadian Environmental Assessment Agency make any reference to follow-up committees. Yet, many such committees exist and work with regional stakeholders on follow-up issues.

In recent years, a number of Quebec government project orders have included requirements concerning not only environmental follow-up, but also the establishment of follow-up committees, particularly in the area of waste management. Committees have also been formed at the initiative of companies, municipalities, interest groups or citizens. According to some authors (André et al; Gagnon, 2001; Leduc and André, 1999; Leduc and Raymond, 2000), these committees would appear, *a priori*, capable of improving the dissemination of information, promoting transparency, taking account of citizens' concerns, finding solutions tailored to the various issues, reviewing the environmental assessment of the projects, accelerating the acquisition of knowledge by the stakeholders' and encouraging public participation in the environmental assessment process. However, these benefits have not been verified by thorough field surveys. In fact, despite the proliferation of such committees around the world, very little is known about their functioning mandate, composition, main activities, and actions. In addition, there is little information available with which to evaluate their effectiveness in verifying the accuracy of the environmental assessments, in taking the projects' social dimension into consideration and implementing measures intended to mitigate the projects' adverse effects[3] on the environment.

1.2 Research Objectives

The primary objective is to understand the operations of 10 environmental follow-up committees in order to assess their effectiveness.

The secondary objectives are to:

- observe, document and analyze the functioning of 10 environmental follow-up committees in 5 Quebec administrative regions: Eastern Townships, Lanaudière, Montérégie, Montreal and Saguenay – Lac-Saint-Jean;
- identify the role of the social stakeholders (local elected officials, industry leaders, environmental groups, citizens, government representatives, etc.) who participate in cooperative efforts;
- analyze the committees' contribution to the various facets of environmental assessment: accuracy of impact assessment, regional cumulative effects frameworks, impact mitigation, etc.
- propose courses of action and recommendations for improving the effectiveness of the follow-up committees.

3 - As can be seen from the Canadian Environmental Assessment Agency's annotated bibliography of monitoring and follow-up (Canadian Environmental Assessment Agency, 1997a), few studies have been conducted on public participation in environmental follow-up.

2. Research Methodology

This research is based on a detailed empirical analysis (semi-directed interviews, documentary analysis, direct observations) and a qualitative and comparative evaluation of 10 environmental follow-up committees selected on the basis of the following definition: a follow-up committee is a joint committee (may comprise industry, local elected officials, citizens, experts, public servants, environmental groups, etc.) that is charged with overseeing, or voluntarily oversees, the environmental follow-up and monitoring of projects (may include human, social and economic repercussions). The expanded advisory group on contaminated sediments in sector 103 of the Montreal Harbour Area does not exactly meet this definition because it is being established in advance of the project. Nevertheless, we felt it was important to include this committee because the remediation project will eventually be subject to the Quebec environmental impact assessment and review process (PEEIE) and also because the committee follows each phase of the PEEIE. The committee's decision to involve the public in the environmental assessment process, which is an increasingly common practice in environmental management, suggests that this case may illustrate the emergence of a new follow-up committee model. The examples chosen do not form a sample of follow-up committees in Quebec in the statistical sense.[4] They are, however, representative of several types of practices and projects in a variety of regions (Figure 1). This study is exploratory in the sense that it is a first attempt to understand the activities of these committees and their contribution to environmental follow-up, no broad survey of environmental follow-up committees having been undertaken in Quebec.[5]

In addition to ensuring good representation across Quebec (five administrative regions), this sample contains a number of committees that have already had research agreements in place for several years. The follow-up committees were selected because they share a number of similar contextual elements that may enhance discussion and expand the scope of the research results:

- the activities subject to follow-up are associated with large-scale projects that are likely to have numerous effects on the environment and on riverside communities;
- the sites are located in the immediate vicinity of urbanized sectors;
- the areas where the projects are located support a wide range of potentially conflicting activities;
- the activities are complex and varied (aluminum, magnesium and cement manufacturing plants, sanitary landfills, incinerators, harbour activities, etc.);
- the presence of a wide variety of regional stakeholders (including, in certain cases, the federal government) makes it possible to verify the effectiveness of these committees with regard to the acquisition of skills in the field of relations and conflict prevention.

4 - It was not the objective of our research study to cover all Quebec environmental follow-up committees.

5 - A few specific studies have, however, been conducted: one on the watchdog committees associated with waste disposal facilities (Rocher, 2000) and another which provides a brief analysis of three case studies (Leduc and André, 1999).

The data collection activities for all the cases are summarized in Table 1.

Table 1. Summary of Data Collection Activities

Full name of the follow-up committee	Municipality	Abbreviated name	Direct observations	Number of participants	Number of interviews
Committee for the development and environmental follow-up of the Alcan aluminum smelter in Alma	Alma	Alma CASE committee	Yes	12	12
Follow-up committee for the maximization of the economic benefits of the Alcan aluminum smelter in Alma	Jonquière	CRCD committee	Yes	8	8
Magnola project citizens' committee	Asbestos	Magnola citizens' committee	No	12	7
Coalition for a clean Magnola	Asbestos	Magnola coalition	No	5	3
Citizens' liaison committee: Lafarge Canada Inc.'s Saint-Constant plant	Saint-Constant	Lafarge Citizens' liaison committee	Yes	8	5
Lanaudière environmental follow-up committee (St. Lawrence Cement)	Joliette, Notre-Dame-des-Prairies, Saint-Thomas	St. Lawrence Cement committee	No	8	6
Lanaudière environmental follow-up committee (Les Entreprises Berthier)	Joliette	EBI committee	Yes	17	8
Lanaudière environmental follow-up committee (Bédard-Cascades)	Joliette	Bédard-Cascades committee	No	11	5
Standing committee on wastewater monitoring in the Montreal Urban Community	Montreal	MUC standing committee	No	12	6
Expanded advisory group on contaminated sediments in sector 103 of the Port of Montreal	Montreal	Sector 103 advisory group	Yes	16	9
			Total	109	69

Selection of the Committees

The Alma CASE and CRCD committees were already part of an extensive research program on modelling the follow-up of the social impacts of the Alma (Alcan) smelter complex.[6] The Port of Montreal sector 103 advisory group is part of a survey on the management of the St. Lawrence River, which has been led by the Chair on Urban Ecosystem Studies[7] for the past three years. Two of this team's researchers have been participatory observers on the EBI committee since its inception.[8] The St. Lawrence Cement committee was selected because it prompted the creation of the Lanaudière environmental follow-up committee (COSE). The latter also steers the Bédard-Cascades committee. The authors of this study felt it was important to include the MUC standing committee on wastewater monitoring because wastewater is a priority issue in urban areas and also because wastewater management is one of the province's first major environmental management initiatives, i.e., the Quebec water remediation program and the municipal wastewater treatment program. Finally, the Magnola citizens' committee and the Magnola coalition were selected because of their controversial nature in the Eastern Townships and because they are involved in an industrial project.[9]

Data Collection Techniques

Data were collected according to three complementary techniques: documentary research, direct observation and semi-directed interviews (Table 1).

With respect to documentary research, we consulted primarily scientific papers, government reports, documentation from the follow-up committees (minutes of meetings, documents published by the committees), corporate documentation, as well as undertaking a media review.

In half the cases, direct observation consisted of observing the committees at work during meetings.[10] Since the creation of the EBI committee and the sector 103 advisory group, some members of the research team have been both observers and participants: serving as facilitators in the first case, and as expert committee members in the second. In the case of the Alma and CRCD committees, one of the team members was an observer for more than two years.

6 - Under the direction of research professor Christiane Gagnon.

7 - Under the direction of research professor Laurent Lepage.

8 - Mario Gauthier and Louis Simard.

9 - The Alcan and Magnola complexes are among the first large industrial projects subject to the PEEIE. Although they were included in the 1980 *Regulation Respecting Environmental Impact Assessment and Review*, sections 2(j), (n) and (p) concerning large industrial projects did not come into force until the 1996 *Regulation Amending the Regulation Respecting Environmental Impact Assessment and Review* was adopted. Subsequent governments have always feared that these sections would make “Quebec less competitive than the United States and other Canadian provinces in attracting new industry ” [translation] (Meunier and Gagnon, 1996: 59).

10 - Several committees did not meet during the research period (November 15, 2000 to March 31, 2001).

For the semi-directed interviews, we met with 69 of the 109 committee members, or 63 per cent. We selected interviewees such that we were able to meet at least one representative of each stakeholder category (proponents, citizens, municipalities, environmental organizations, public authorities, etc.) for each committee. The interviews lasted, on average, one hour and were conducted using a grid (Appendix 1) tailored to environmental follow-up. In the case of the St. Lawrence Cement committee, the EBI committee, the Bédard-Cascades committee, the MUC standing committee and the sector 103 advisory group, the interviews were held between January 5 and February 15, 2001. In the other cases, the interviews took place between May 5, 2000, and February 9, 2001.

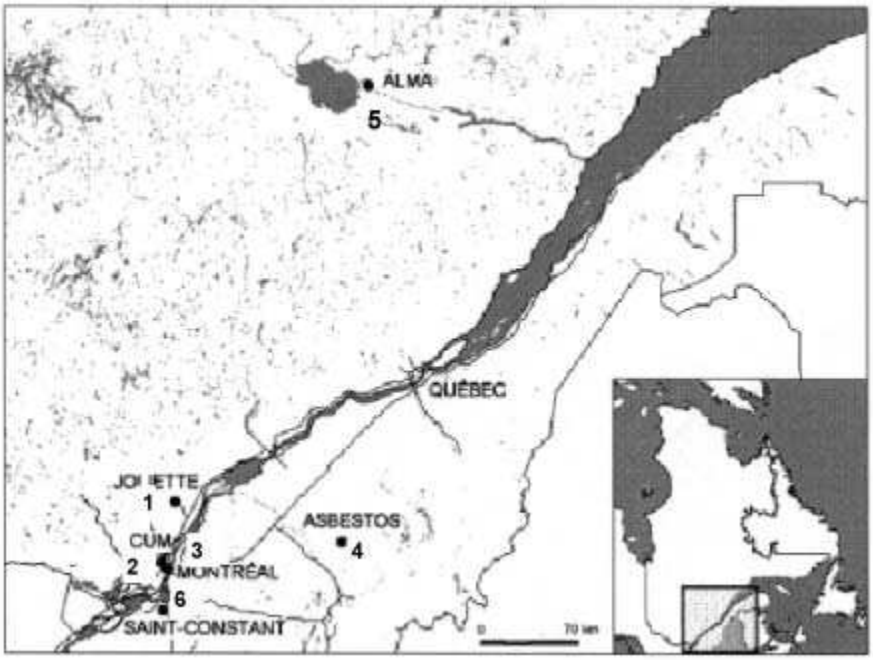
Data Analysis

Data analysis was conducted in two phases. First, the committees’ formal frameworks were analyzed using the available documentation (Chapter 3), followed by a review of their operations on the basis of the observations and interviews (Chapter 4). Our analysis was based, among other things, on the strategic analysis method (Friedberg, 1988), which consists of using the data collected during semi-directed interviews and observations to explain the dynamics between the various committee members and the strategies developed by them. The analysis uses an inductive methodology, based on case studies. It does not formulate strong hypotheses *a priori*, which makes it possible to integrate the findings of the empirical research. In fact, it is on the basis of the interviewees’ comments and our own observations that we are best able to see how the follow-up committees operate and to advance hypotheses to provide a more general explanation.[11]

On the basis of the findings and issues that emerged from the interviews and observations, a grid was developed to evaluate the effectiveness of the follow-up committees, incorporating elements from the literature concerning studies of similar cases (Chapter 5). More specifically, we drew on the conditions for the success of integrated environmental management, as described by R.D. Margerum. The evaluation of the committees’ effectiveness allows us to make recommendations to improve the operation of follow-up committees.

11 - For further details on the methodology of strategic analysis, see the methodological appendices in Crozier and Friedberg (1977) and Friedberg (1994).

Figure 1: Locations of Follow-up Committees



Legend:

1. EBI committee, Bédard-Cascades committee and St. Lawrence Cement Committee
2. MUC standing committee
3. Sector 103 advisory group
4. Magnola coalition and Magnola citizens' committee
5. Alma CASE committee and CRDC committee
6. Lafarge citizens' liaison committee

3. Description of the Committees

In this chapter, we describe the context in which each of the committees was created, their mandate and objectives, composition, funding mechanisms and actual achievements. At the end of the chapter, a matrix and summary are provided, outlining the key elements of the 10 formal frameworks.

3.1 Committee for the Development and Environmental Follow-up of the Alcan Aluminum Smelter in Alma [*Comité d'aménagement et de suivi environnemental (CASE) de l'aluminerie Alcan à Alma*]

Issues and Context

Alcan Aluminum Ltd. has been operating an aluminum electrolysis plant at Isle-Maligne (Alma, Quebec) since 1944. The company has developed a facilities modernization program in which it is examining the possibility of replacing its Söderberg technology plants. In the late 1980s, it launched a project to modernize its old Isle-Maligne plant in Alma. It temporarily abandoned the project in 1991, resuming it again in 1996.

The project consists of the construction of a complex with the following main components:

- six potrooms, four of which form a 1-km potline, with the two others forming a ½km potline, for a total capacity of 407,000 t/year;
- raw material unloading and storage facilities (alumina silos, coke silos and pitch storage tanks);
- a pot relining shop in which the internal screening surfaces (refractory and carbon) are installed (potlining) and removed from the reduction cells;
- an anode plant;
- a casting centre.

The project also calls for the construction of associated infrastructure, including a rail line, a gas pipeline, a power line, holding basins for site runoff water and a stormwater outfall.

The complex occupies roughly 80 hectares in the central portion of Alma Island, an integral part of the City of Alma. The site is located close to an urban area, less than four kilometres from downtown Alma. Alma Island also supports many agricultural, tourism and recreational activities. Lastly, the site abuts a number of residential sectors, the closest residence being 600 metres from the smelter complex.

For the first time in the history of aluminum plant construction in Quebec, this project is subject to the Quebec environmental impact assessment and review process. The PEEIE requires that an impact assessment of the project be conducted and provides for the possibility of holding a public inquiry. In accordance with the PEEIE, the proponent filed a project notice on September 10, 1996. Following the recommendation of the Quebec Environment Department, Alcan held a preliminary consultation with 2,181 people[12] before proceeding with the impact assessment.

12 - The "primary target publics" of the proponent's preliminary consultation were Alcan employees and "neighbouring residents" of the sectors affected. This group comprises 600 individuals or families who live immediately adjacent to the site of the future plant. Over 200 organizations and pressure groups involved in different areas at the local, regional and provincial levels were also consulted.

Subsequent steps in the process were as follows:

- April 18, 1997: the impact assessment report is submitted by the proponent;
- June and August 1997: public hearings are held by the *Bureau d'audiences publiques sur l'environnement* (BAPE) [Office of public hearings on the environment];
- October 9, 1997: BAPE report is forwarded to the Quebec Environment Minister;

- January 1998: the government issues an order authorizing the project;
- February 19, 1998: the project start-up is publicly announced.

The project raises many issues, both environmental (air emissions, water discharges, management of production waste, technological risks, etc.) and social (disturbances during construction and operation, local and regional economic benefits, jobs, training, etc.). The issue of follow-up was raised by both the proponent in its impact assessment and by participants at the public hearings held by the BAPE. In its report, the BAPE commission expressed the need to put in place follow-up mechanisms that would allow the participation of not only municipal authorities and regional organizations but also the public. To encourage public participation, it recommended implementing “an information and feedback mechanism that is easily accessible to the residents” [translation] (p. 124). It also proposed the creation of an environmental follow-up committee responsible for receiving information on the activities and results of the follow-up (Quebec, 1997: 121).

Mandate and Objectives

Acting on this recommendation, the municipal council of the City of Alma created the committee for the development and environmental follow-up of the Alcan aluminum smelter in Alma (CASE) [13] in March 1998. The general objectives of the CASE committee, as set out in the council’s resolution, are to:

- participate in site development planning (land peripheral to the Alma plant);
- help to minimize the adverse effects of construction activities;
- receive information from the Alma plant related to the environmental follow-up;
- share the information with the groups concerned;
- propose, where appropriate, any necessary impact mitigation measures.

The objectives for the construction phase are to:

- participate in planning and implementing the landscaping of the area peripheral to the Alma plant;
- share information on the follow-up of construction impacts (disturbances and inconveniences as per the impact assessment and the authorization certificate);
- facilitate communication with the site’s neighbours.

The objectives for the operating phase consist of receiving information pertaining to the Alma plant’s environmental follow-up program and facilitating communication with the citizens concerned.

Membership and Funding

CASE is composed of 12 members:[14]

13 - Resolution 109-06-98.

14 - Two members of the research team from the *Université du Québec à Chicoutimi* involved in modelling the follow-up of the social impacts of the Alma aluminum smelter sit on the committee as observers.

- two representatives of the proponent;
- The City of Alma:
    - two municipal councillors;

  - director of the urban and socio-economic planning department of the City of Alma;
  - one representative of the enhancement committee;

- residents of the adjacent sectors:
  - two citizens;
  - one agricultural representative;
  - one tourism and recreation representative;

- environmental organizations:
  - one representative of the priority intervention zone of the Alma sector;
  - one representative of the *Conseil régional de l'environnement* (CRE) [Regional environmental council].

The membership of the CASE committee was determined by the municipal council. The individuals residing in areas adjacent to the project site were also selected by the council.

The committee has no specific source of funding. Meetings are held at the offices of either the proponent or the municipality. Secretariat services are provided by one of the proponent's representatives, who attends the meetings and prepares the minutes. The meetings are called by the director of the urban and socio-economic planning department of the City of Alma.

From January 1998 to December 2000, CASE met 16 times, at irregular intervals. Seven meetings were held in 1998, when construction began. At the peak of the site preparation work between April and August 1998, one meeting was held every month. Four meetings were held in 1999 and five in 2000. During this period, the committee organized, in conjunction with the proponent, two information sessions for the residents of the sectors adjacent to the complex site (600 neighbouring residents). A first session, which focused on operations associated with the start-up of construction, was held in March 1998. A second, which focused on the gradual start-up of the plant, took place in April 2000. Four other information meetings were organized with limited groups of residents affected by specific problems related to construction (rock blasting, construction of the stormwater outfall, rebuilding of the hydro grid, relocation of the rail line).

Activities and Accomplishments

During the construction phase, the role of the CASE committee was to ensure liaison between Alcan and the community by acting as the primary focal point for disseminating information on the progress of construction. The proponent organized a number of training sessions for the committee members on various topics, including the aluminum manufacturing process, the components of the smelter complex, the environmental issues raised by the project and the main environmental follow-up measures identified in the impact assessment report. Several visits were also made to the smelter complex.

The committee was often the forum in which the community expressed its concerns. Because of the committee members' relationship with their community—one of the criteria taken into account in selecting the members—the residents of the adjacent sectors voiced their complaints and concerns to the committee members rather than to the proponent or the municipality.[15] Thus, the dissemination of project information and the communication of citizens' concerns occurred during social encounters or meetings of the residents' committee. However, for questions requiring more specific knowledge or involving property damage, CASE members referred the individuals directly to the proponent or to the municipal authorities.

In keeping with its advisory role, the CASE committee was consulted by the proponent on a number of specific issues, such as the landscaping of the site and the strategy for communicating information about the plant start-up to citizens. The minutes of CASE meetings are available on request from the Alma City Hall. The committee does not, however, have the resources to disseminate information to the general population of Alma.

15 - In addition to the CASE committee, residents also approached the proponent directly, specifically its community relations department, which was responsible for handling complaints. The municipal council also played a role during a specific controversy concerning heavy transportation in a

residential neighbourhood adjacent to the construction site. A group of residents in the affected sector formed a committee to pressure the municipal authorities to stop heavy transportation in their neighbourhood. A number of protests on public thoroughfares were organized, and several committee representatives voiced their views during council meetings.

3.2 Follow-up Committee for the Maximization of the Economic Benefits of the Alcan Aluminum Smelter in Alma [*Comité de suivi pour la maximisation des retombées économiques de l'aluminerie Alcan à Alma*]

Issues and Context

According to the proponent's impact assessment, the Alma smelter complex would require an investment of approximately $1.8 billion. The potential benefits of the project at the regional level were estimated at $787 million. The creation of the follow-up committee was one of the measures proposed to maximize the economic benefits, which was raised as a concern by both community stakeholders and the proponent.

In 1988, the City of Alma formed a committee charged with maximizing the local economic benefits. In 1996, this committee was replaced by the coordinating committee. Its mandate consisted of:

- coordinating all activities associated with preparing companies and suppliers of goods and services;
- ensuring that the planned activities were carried out within the required time frames;
- ensuring that the activities reflected the recipients' expectations.

The coordinating committee was composed of representatives of the following organizations: the City of Alma, the Community Futures Development Corporation (CFDC), *Société d'initiative et de développement des artères commerciales* [Business area initiative and development association], Human Resources Development Canada, *Société québécoise de développement de la main-d'œuvre* [Quebec labour development association], the Alma Cégep and school board, the Federal Office of Regional Development – Quebec, the Alma Chamber of Commerce, *Femmes en affaires* [Women in business], and the Economic Council of the Lac Saint-Jean Est regional county municipality (RCM). The coordinating committee was assisted by three subcommittees (partnership preparation, technical and financial assistance and training) composed of members of the coordinating committee but also of other stakeholders, particularly from the financial community.

As for the proponent, the vice-president of Alcan Smelters and Chemicals Ltd. asked the *Conseil régional de concertation et de développement* (CRCD) [regional cooperation and development board] to make recommendations on the creation of a regional economic benefits follow-up committee.

> We are of the opinion that the CRCD would be in a position to play an important consensus-building role and to promote sustainable regional development. The CRCD could contribute to ensuring liaison between Alcan and the community, coordinating the community's steps to formalize its support for the project, recommending a follow-up committee formula for the construction and operating phases, and act as a conciliator as required. [translation] (letter, March 20, 1997)

After the BAPE public hearings were held, a working group was formed comprising representatives of the City of Alma, the CRCD, Alcan Corporation and the *Association régionale des commissaires industriels* [regional industrial commissioners association]. At a meeting held in September 1997, the working group recommended that a follow-up committee be formed (the CRCD committee) to ensure that the project's economic benefits were maximized.

The recommendation was approved by the CRCD's board of directors. The follow-up committee was established pursuant to a CRCD board resolution on November 11, 1997, and was identified as the authority responsible for ensuring the economic follow-up of the Alcan aluminum smelter project in Alma (CA-97-09-11). The follow-up committee therefore became an instrument of the CRCD and was to report its activities to the board of directors.

Mandate and Objectives

The follow-up committee's broad mandate is to provide follow-up on the Alcan aluminum smelter project at Alma and contribute to maximizing the local and regional economic benefits, while respecting the time frames and anticipated

costs of the construction program.

The committee's objectives, as set out in the working group's report (Working Group 1997), revolve around four major mandates:

1) to support efforts to maximize economic benefits by:

- facilitating communication among partners, particularly through the dissemination and exchange of information (project proponent, businesses, community organizations and various target organizations);
- facilitating and encouraging the participation of the business people in the preparation and training process;
- studying opportunities for maximization.

2) to follow up on efforts to maximize local and regional economic benefits by verifying the results, particularly on the basis of the data provided by the proponent;

3) to gather, discuss and attempt to resolve the community's main concerns regarding the project, especially those regarding the maximization of economic benefits;

4) to make recommendations to stakeholders and refer any questions regarding project follow-up that exceeds its mandate to the CRCD board of directors.

Membership and Funding

The committee members are as follows:[16]

- mayor of the City of Alma;
- director of the urban and socio-economic planning department of the City of Alma;
- two representatives of Alcan, including the manager of community relations for the Alma smelter project;[17]
- two representatives of the Regional association of industrial commissioners; and
- one representative of the Quebec Department of Industry, Trade and Technology.

The committee has no specific sources of funding for its operations. It meets once a month at the proponent's offices. Secretariat services are provided by a CRCD development officer who is responsible for calling the meetings and taking the minutes. At each meeting, the proponent presents the monthly breakdown of contracts and purchases by area (local, regional, provincial, outside Quebec), the names of the contractors and the number of hours worked on the work site. Participants then have an opportunity to ask the proponent's representatives questions, particularly concerning the participation of regional businesses. The committee has no control over the contractor selection process. The exact amount of the contracts awarded is not disclosed because the proponent considers this information to be confidential. In addition to the issue of economic benefits, the proponent reports on the progress of construction.

16 - Two members of the UQAC research team involved in modelling the follow-up of the social impacts of the Alma aluminum smelter sit on the committee as observers.

17 - The team responsible for construction of the smelter complex (Alma smelter project) is separate from the team responsible for its management after the start of its operations.

Activities and Accomplishments

In terms of accomplishments, the committee's work consisted primarily of making public, on a quarterly basis, the information communicated at the meetings on the contracts and purchases awarded by territory and the number of hours worked on the work site. This was achieved through news releases and news conferences. The committee also

provided liaison between the community and the company by organizing information sessions on the tender process jointly with the company, by preparing a directory of businesses by sector of activity and by conducting a survey of regional businesses to identify their needs and facilitate their participation in the tender process.

3.3 Magnola Project Citizens' Committee [*Comité de citoyens du projet Magnola*]

Issues and Context

On November 28, 1994, Noranda Metallurgy Inc. filed a notice with the Quebec Environment Department for a magnesium plant project. The technology was developed by the "Magnola" consortium and consists of extracting magnesium from serpentine (a material contained in asbestos mine tailings) using a magnesium chloride electrolysis process. A pilot plant was built on the site of an existing Noranda plant, Canadian Electrolytic Zinc Ltd., in Valleyfield, Quebec, in order to test the process.

The main environmental concerns associated with this process are the use of chlorine and atmospheric emissions of organochlorines. Organochlorines (PCB, BHC, dioxins) are persistent organic pollutants (POPs) which degrade slowly and bioaccumulate. Even in minute quantities, POPS cause adverse health effects in exposed individuals, including an increased incidence of cancer and disruption of the endocrine system.[18]

The proposed project consists of constructing of a 58,000 tonnes/year magnesium plant that uses 300,000 tonnes/year of asbestos mine tailings containing serpentine as raw materials. The project is located in Asbestos, Quebec, the site of an open-pit asbestos mine.

The impact assessment was released in May 1997 and public hearings were held by the BAPE in October and November 1997. In March 1998, the inquiry and public hearing report was filed and, one month later, the government issued an order authorizing work to begin. Construction started on April 15, 1998. In the fall of 2000, when our survey was conducted, the plant was in the start-up phase.

The project raised both hopes and concerns within the community. On the one hand, there were hopes that the project would have significant economic benefits in terms of investment and job creation, particularly given that the economy of the Town of Asbestos and surrounding municipalities had been seriously affected in recent years by massive layoffs due to the slowdown in mining operations at the asbestos mine operated by JM Asbestos, the region's main employer. Between 1976 and 1991, the number of employees at the mine fell from 2,500 to 800. On the other hand, the project raised serious concerns because of the experimental nature of the process used and the uncertainty surrounding organochlorine emissions. The most serious concerns related to the health of communities located along the river and to the sustainability of the existing economic activities, given that the plant would be located in the heart of an agricultural area with a large number of dairy farms.

The participants at the BAPE public hearings considered environmental follow-up to be essential, particularly due to the uncertainty surrounding the actual level of organochlorine emissions from a large-scale production plant. Public participation in the environmental follow-up was proposed by several active stakeholders. Drawing on the Canadian Chemical Producers' Association's *Responsible Care* model, the *Conseil régional de l'environnement de l'Estrie* (CREE) [Eastern Townships regional environmental council] recommended the creation of a community advisory committee formed of citizens and stakeholders from different sectors (community, municipal, etc.) to maintain an open and frank dialogue between the community and the proponent regarding the environmental issues that might arise from the project and the citizens' concerns about these issues (Quebec, 1998a). Furthermore, in its report, the BAPE Commission stated that it would be desirable to form a citizens' relations committee composed of representatives from concerned municipalities, agricultural and forest producers, the CREE, the economy, community health and government agencies and the public. The Commission also suggested that such a committee should consult government scientific experts for an impartial opinion on the outcome of the environmental follow-up (Quebec, 1998a).

18 - Between the time Magnola Metallurgy Inc. was founded in March 1995 and the pilot plant was commissioned in October 1996, the regulation which makes industrial projects of this nature subject to the PEEIE was adopted. The PEEIE requires that project proponents conduct an impact assessment and release it to the public, and provides for the possibility of holding a public hearing.

The initiative to create a follow-up committee was taken by the Asbestos CFDC through a public call in the newspapers. At that time, the committee was composed of the following members:

- one representative of the economic community;

- one representative of each of the municipalities of Asbestos, Danville and Shipton;
- one citizen from each of the municipalities of Chapleau, Asbestos, Danville, Shipton, Saint-Georges and Saint-Adrien;
- one representative of the Regional environmental council;
- one representative of Magnola;
- two guest members:
    - one representative of the Quebec Environment Department and one representative of the *Direction de la santé publique* [The Direction of public health].

Apart from the facilities offered by the CFDC (use of part of its premises, telephone, computer, photocopier, etc.), the committee received no funding.

After eight months of operation, the members decided, at the meeting of December 10, 1998, to dismantle the committee and form a new one, with a completely different membership and operating procedure. The factors that prompted this change included:

- the lack of motivation of certain members in overseeing environmental follow-up;
- absenteeism;
- the risk that the committee would dissolve;
- the desire to form a committee composed exclusively of citizens.

Mandate and Objectives

The primary objective of the new committee is to provide a dynamic forum for constructive discussions on the community's main concerns (environmental, economic and social) regarding the design, construction and operation of the plant on its territory, in support of sustainable development issues. The specific objectives are:

- to identify citizens' concerns;
- to receive reports from Magnola Metallurgy Inc.;
- to consider and discuss any grounds for environmental, economic and social concerns; the committee can invite guests and consult specialists;
- to submit opinions and make recommendations on various aspects of the activities and projects of Magnola Metallurgy Inc. that affect the community and its environment;
- to regularly inform the public of its activities (feature articles, public information nights, conferences, etc.).

Membership and Funding

The new committee is composed of three types of participants: voting citizen members, permanent guest members, regular guest members. The six voting citizen members are exclusively residents of Asbestos and adjacent municipalities. The following arguments were advanced to justify forming a committee composed exclusively of citizens:

- to give citizens the right to express their views without having to go through representatives of constituted organizations;
- to give credibility to the new committee composed of individuals with no personal interest in the project.

The permanent guest members include one representative of the CFDC, two representatives of the Asbestos regional county municipality (RCM), one representative of the Quebec Environment Department, two representatives of the proponent (Magnola Metallurgy Inc.), one representative of the *Régie régionale de la santé de l'Estrie* [Eastern township regional health board] and one representative of the City of Asbestos.

Funding for the new committee was provided by Magnola Metallurgy Inc., which allocated $10,000 for the first year. The CFDC allows the committee to use part of its premises and provides various other services: telephone, computer and photocopier, etc. However, since its first year of existence, the committee's funding has doubled and it has diversified its sources. At the time of our survey, funding was provided by the City of Asbestos ($20,000), Magnola Metallurgy Inc. ($2,000) and the Asbestos RCM ($2,000).

Activities and Accomplishments

The new Magnola project citizens' committee met 24 times between January 1999 and December 2000 (once a month on average). An environmental follow-up subcommittee was formed to examine certain issues more closely. It met 10 times from July 1999 to April 2000. The first meetings were devoted to discussing the committee's membership, mandate, operation and funding, and to drawing up an action plan. Following the adoption of the program of activities and the recommendations of the environmental follow-up subcommittee at the meeting of August 9, 1999, committee meetings were devoted to discussing the plant's operation and the potential main sources of emissions, the effects of the various pollutants (organochlorines, dioxins and furans, PCBs, etc.), public health concerns, reference levels (sampling) and the environmental follow-up that would be put in place.

The duties of chair, vice-chair and treasurer are performed exclusively by the voting members. Decisions are made by consensus. To date, no situation has required that a vote be held. Lastly, a coordinator has been hired two days a week.

The committee's main accomplishments are as follows:

- the creation of a Web site[19] containing information on the committee (nature, mission, composition, activities), links to important documents on environmental follow-up and the order pertaining to the Magnola project;
- the production of a newsletter to inform the public of the committee's activities (five issues produced between October 1999 and December 2000);
- a study day held on March 11, 2000, bringing together a panel of experts who were invited to answer questions submitted in advance on various aspects of the project's environmental impacts, human health risks, the content of the government order and environmental follow-up;
- additional follow-up measures to supplement those in the government order.

The proponent played an active role in improving the environmental follow-up measures. The additional measures taken are the result of a process of more than two years, during which the committee's voting members had to familiarize themselves with the production process and with the impacts of organochlorines on the environment and human health.

The experts have played a crucial role in this regard. Their participation is characterized by:

- invitations by the committee;
- their independence vis-à-vis the proponent;
- their diverse institutional and professional backgrounds;
- their mandate defined by the committee in the form of questions.

19 - http://www.reseau-sadc.qc.ca/asbestos/comcitoy.htm.

The public liaison role, which is often a primary objective of follow-up committees, seems to have been secondary in

this case. Despite the information on the Web site, the newsletter and the public information session, there was little direct interaction between the committee and the public. However, the committee was often asked by the media to comment on news concerning the project. Lastly, the committee focused its activities primarily on one type of pollutant, i.e., organochlorines.

3.4 Coalition for a Clean Magnola [Coalition pour un Magnola propre]

Issues and Context

The Coalition for a clean Magnola was created in April 1998 by concerned citizens following the release of the report of the BAPE Commission (Quebec, 1998a). The Commission had concluded that major changes would have to be made to the project before it could be considered acceptable. This conclusion was based mainly on the environmental issues related to “the emission of a plume of organochlorines containing dioxins and furans never before seen in Quebec or the rest of Canada” [translation] (Quebec, 1998a). The Commission had also recommended to the Quebec Minister of Environment and Wildlife that the virtual elimination of organochlorine emissions be a prerequisite to government approval of the project.

Mandate and Objectives

The board of directors defines the coalition as an advocacy group whose role is to pressure Magnola Metallurgy and the Quebec government to comply with the recommendations made by the BAPE. It considers the coalition’s efforts to be complementary to those of the Magnola citizens’ committee. The role of the committee, which maintains ongoing relations with the company, is to present the demands of the citizens, particularly those of the coalition.

Membership and Funding

The coalition is a volunteer group of citizens (200 individual members) whose mission is to ensure compliance with BAPE recommendations, particularly the recommendation dealing with the virtual elimination of organochlorines. The coalition also enjoys the support of nine municipalities of the Asbestos RCM, and of 31 local organizations and businesses which signed a resolution to this effect.

The group’s funding, which totalled just over $5,000 at the end of 2000, comes from the sale of membership cards, the sale of 125 “Coalition for a Clean Magnola” sweaters and grants from an environmental group and a local financial institution.

The coalition’s activities are overseen by an informal board of directors composed of four or five members. The members communicate by telephone and meet regularly.

Activities and Accomplishments

The coalition’s numerous accomplishments include:

- creation of a Web site[20] containing information on the coalition’s activities and documents on various topics related to the Magnola project and organochlorines;
- submission of a petition signed by 2,300 people in favour of implementing the BAPE recommendations;
- preparation of information materials;
- drafting or participation in the drafting of newspaper articles;
- organization of public information meetings;
- participation in events (e.g., public forum on persistent organic pollutants organized by the International POPs Elimination Network); protests on public thoroughfares.

20 - http://magnola.wd1.net/anglais/CoalitionpourunM2.html

With the support of Jules Blais, a biochemist with the University of Ottawa, and Daniel Green of *Société pour vaincre la pollution* [Organization to stop pollution] (SVP), the coalition launched an independent community follow-up program. It consisted of collecting animal carcasses within a 30-kilometre radius of the plant. According to the coalition, organ tissue samples from wild animals are very significant indicators of the accumulation of the toxic substances ingested and inhaled by these animals and, at the same time, of the level of environmental contamination. As part of the community follow-up, the entire community was invited to take part in collecting carcasses on May 20 and 21, 2000. Moreover, with the cooperation of hunters from the region, samples were taken from more than 126 white-tailed deer killed during the most recent hunting season.

3.5 Citizens' Liaison Committee: Lafarge Canada's Saint-Constant Plant [Comité de liaison des citoyens: Lafarge Canada inc. Usine de Saint-Constant]

Issues and context

Lafarge Canada Inc. has operated a cement plant in Saint-Constant on Montreal's South Shore since September 1967. In 2000, the production capacity of the plant was 1 million tonnes of cement. The plant and associated facilities, including two quarries, are located at the junction of an urban area with agricultural land. Several residential areas are located within a radius of just over one kilometre of the Saint-Constant plant, including the village of Saint-Mathieu, the Val Boisé residential development and chemin Saint-Francois-Xavier, which runs along the periphery of the plant property.

Cement production comprises many operations, the chief among them being the extraction, transportation and crushing of limestone, and the blending and grinding of inputs (silica, iron, alumina). These operations are likely to result in many disturbances due to noise, dust and vibration. Cement production also involves heating the raw materials in kilns at a temperature of 1,450℃. The use of fuel to operate the kilns and the heating operation itself generate air emissions, the composition and quantity of which vary according to the fuel used.

Mandate and Objectives

The establishment of the citizens' liaison committee on the Lafarge Canada plant in Saint-Constant (the Lafarge citizens' liaison committee) in 1991 was an initiative of the company, which wanted to use scrap tires as an additional fuel source. The committee's mandate is to:

- identify concerns related to the activities and projects of the Lafarge complex in Saint-Constant;
- develop solutions and measures needed to improve the quality of life in the sector adjacent to the complex;
- act as an intermediary between the public and the company.

The role of citizen members is to:

- participate in regular meetings with the company;
- prepare reports on the committee's activities and the progress of the file;
- participate in meetings with guest experts and follow up on the studies and works underway;
- participate in information sessions with the local media.

Membership and Funding

When first created, the citizens' liaison committee was composed of:

- four residents of Saint-Mathieu;
- three residents of Saint-Constant;

- two representatives of Lafarge (plant manager, production engineer);
- one representative of an engineering consulting firm (COGESULT inc.) that acted as a consultant for Lafarge regarding the committee's operation.

In 2000, the committee members included three residents of Saint-Constant and two residents of Saint-Mathieu. Expressions of interest were sought through an advertisement placed in the local newspaper stating that the company was looking for residents who were interested in sitting on a liaison committee. A meeting was then held to elect members from among the residents present. The membership of the committee has changed little since then. In fact, three of the five citizen members have been on the committee since its establishment. There is no member replacement process, but departures have been filled by people who showed an interest in participating in the committee's activities or by acquaintances of the members.

In 1992, the committee's membership and mandate was revised with a view to the implementation of an energy enhancement project that consisted of burning waste oils and solvents as a fuel source to power the cement kilns. This project was to be subject to the PEEIE. The company therefore suggested expanding the committee's objectives, mandate and membership. The objectives of the new committee were:

- to help the groups concerned fully understand the projects;
- to ensure ongoing communication between the company and the community, groups and citizens;
- to ensure that the community's main concerns were taken into consideration.

The committee's mandate consisted of the three following tasks:

- to review the results of the impact assessment and other associated studies with the help of resource persons;
- to make suggestions or recommendations that would make the project socially acceptable;
- to make recommendations on the program to inform and consult the communities affected.

The committee's membership was to be expanded by calling on representatives of municipal and regional administrations, the economic, agricultural and environmental sectors, and the citizens of the sensitive areas. The representatives of the community health department and the Quebec Environment Department were to attend as resource persons. However, the project to burn waste oils and solvents was abandoned and, as a result, the committee was not expanded.

The liaison committee has no specific operating budget. Meetings are held at the company's offices. A representative of the consultant hired by the company is responsible for chairing the meetings and preparing the minutes. The use of experts or other resource persons is at the expense of the company. In most cases, information is provided by the company. However, a number of committee members have taken the initiative of contacting public agencies or consulting documentation from other public or private organizations on various topics.

Other operating procedures were adopted by the committee at its first meeting on November 20, 1991. It was agreed that:

- topics of discussion would be chosen by the committee;
- documents relevant to the meetings would be sent at least one week before the meetings;
- the minutes would be sent to the members a few days after the meeting;
- the minutes would be approved by each member.

In 1991, when the committee was formed, provisions were made to send news releases to local newspapers to keep the public abreast of the committee's and company's activities. The role of committee spokesperson was given to a

citizen member in a secret vote. It was also agreed that before speaking to the media, the spokesperson was to consult the largest possible number of members in order to express the committee's opinion, rather than a personal point of view. In addition to information in the local newspaper, communication between the committee and the public is maintained through informal relations between the members and the community. One citizen member receives an estimated 30 calls a year from residents with concerns or complaints.

Activities and Accomplishments

The committee has no set meeting schedule. From 1991 to 1999, it held 48 meetings. In 1992 and 1993, the committee met once a month on average. In subsequent years, meetings were held an average of once every two months, except in 1998 and 1999, when the committee experienced a marked slowdown in activity, due primarily to changes in plant management and to particular circumstances affecting the members' availability.

The liaison committee is not a decision-making committee but rather a forum for discussion and cooperation between the residents and the company. Among the topics discussed are:

- disturbances related to quarry and plant operations and truck traffic (noise, vibrations, dust);
- local air emissions (kilns);
- rehabilitation of part of the site surrounding the plant in order to set up a "discovery area";
- expansion of a quarry;
- construction of an asphalt production plant and a concrete plant on the Francon – Lafarge property;
- potential air emissions associated with the proposal for burning waste oils and solvents (dioxins, furans and heavy metals);
- Lafarge's strategy for communicating with the public.

The concern that has dominated the committee's work in recent years has been the burning of scrap tires as an additional source of fuel for the cement plant kilns. Discussions have focused primarily on air emissions associated with the burning of tires and on risks related to the transportation and storage of a large quantity of tires at the plant site. The members were particularly concerned about the risk of arson and asked the company to prohibit access to the storage sites located in one of the two quarries.

The committee has assumed the responsibility of conveying the concerns of the residents of adjacent sectors to company management and of suggesting ways to lessen disturbances. On several occasions, it acted as an intermediary between the public and the company's managers. It has proposed security measures for storing the tires and has participated in information sessions specifically concerning the issue of burning tires. Tire storage continues to be a concern within the committee.

3.6 Lanaudière Environmental Follow-up Committee (St. Lawrence Cement) [*Comité de suivi environnemental de Lanaudière (Ciment Saint-Laurent)*]

Issues and Context

Independent Cement Inc. was founded in Joliette in 1964. The plant actually lies in three municipalities: Joliette, Notre-Dame-des-Prairies and Saint-Thomas. In 1976, Independent Cement was purchased by St. Lawrence Cement Inc., the current owner. The cement manufacturing process consists of grinding and mixing the raw materials (limestone, silica, alumina and iron oxide) and heating them in a rotary cement kiln at a temperature of 1,450℃. To reach this temperature, the kiln is heated using conventional fuels (heavy oil or coal). The cement plant is, however, looking for inexpensive and efficient fuels as a partial alternative. It was the choice of secondary fuels that sparked a series of protests by local residents.

In 1987, St. Lawrence Cement obtained a permit from the Quebec Environment Department to burn waste oils. In 1989, the company, supported by the environmental group *À court d'eau*, announced its intention to test the burning of PCB-contaminated oils. This decision prompted a wave of protests within the community, which was concerned about

the possible environmental impacts of such a project. The community became organized and, after several months of discussion, formed a coalition against the company's proposed testing. The coalition included the *Mouvement d'opposition au projet de Ciment Saint-Laurent* [Movement against the St. Lawrence Cement Project], the *Union des producteurs agricoles* [Agricultural producers' union], the Confederation of National trade Unions (CSN), the *Regroupement des citoyens de Saint-Thomas* [St. Thomas citizens' group], the *Bande à Bonn'eau de Lanoraie* [Lanoraie clean water group], the *Comité prairiquois de protection de l'environnement* [Prairies' environmental protection committee], the *Association contre la pollution atmosphérique* [Association against air pollution], the *Comité régional sur la gestion des déchets toxiques et domestiques* [Regional committee to manage toxic and household waste], the *Syndicat de l'enseignement de Lanaudière* [Lanaudière teachers' union], the *Comité action Sainte-Thérèse* [Ste-Thérèse action committee] and the Joliette group *"Pas dans ma cour"* [Not in my backyard].

The project's opponents collected 12,000 signatures on a petition and planned a protest march that was to take place in 1990. Faced with this pressure, the City of Joliette withdrew its approval of the project a few days before the protest. The next day, St. Lawrence Cement decided to abandon its plans to use PCB-contaminated oils in its production process.

However, in the summer of 1991, the company announced that it planned to make use of its permit and begin burning waste oil. Once again, the citizens voiced strong opposition to its plans. Despite the public outcry, St. Lawrence Cement went ahead with its plans and began operations in November 1991. The citizens therefore asked their MNA, Guy Chevrette, to appeal to the Quebec Minister of the Environment, Pierre Paradis, to impose a moratorium on burning waste oil and to rescind the company's permit. The request was denied and the community mobilized immediately. Mr. Chevrette suggested forming a committee bringing together all stakeholders. The working committee on the use of waste oil at the Joliette cement plant was thus formed in November 1991.

Its mandate, as defined in the memorandum of understanding between the parties, was to "participate in the assessment of the waste oil burning process, to ensure a free exchange of information and to initiate research for information purposes or with a view to developing mechanisms to protect the health of workers and the general public" [translation] (Working committee on the use of waste oil at the Joliette cement plant: 3). In January 1995, after just over three years, the working committee on waste oil dissolved due to the withdrawal of two of its members and a lack of financial resources.

Given its experience on the waste oil management committee and in an attempt to maintain good relations with the public in a cooperative environment, the company organized a meeting to form a new follow-up committee. A coordinator was hired and the committee was legally formed in September 1995 under the name *Comité de suivi environnemental des activités industrielles du Grand Joliette* [Grand Joliette environmental follow-up committee for industrial activities]. In 1998, the committee changed its name to the Lanaudière environmental follow-up committee (COSE).[21]

Mandate and Objectives

The committee's objectives were defined as follows:

- to reduce emissions from St. Lawrence Cement Inc.;
- to carry out an environmental follow-up of St. Lawrence Cement's activities.[22]

The committee has the power to make recommendations and exert pressure on the company or other stakeholders. Its activities are focused on public health and agriculture. Its tasks were divided as follows:

- a technical subcommittee is responsible for the environmental follow-up's technical and scientific evaluations;
- a communications subcommittee is responsible for media relations and all other communication activities.

21 - The Lanaudière environmental follow-up committee is a non-profit organization devoted to improving the environment of the citizens of the greater Lanaudière region. Part of its funding comes from the companies with which it deals. The rest comes from the *Fonds de lutte contre la pauvreté* [Anti-poverty fund] of the Quebec Department of Social Solidarity. Its board of directors consists of representatives of the private and public sectors and citizens. It coordinates three cooperation committees.

22 - Excerpt from the minutes of the committee's first meeting held on March 22, 1995.

Membership and Funding

The St. Lawrence Cement cooperation committee has eight members:

- one representative of the company;
- one representative of the *Conseil régional de l'environnement de Lanaudière* [Lanaudière regional environmental council];
- one elected municipal official;
- one citizen;
- one physician from the Lanaudière public health department;
- one representative of the *Union des producteurs agricoles* [Agricultural producers' union];
- one representative of the Quebec Environment Department;
- one representative of the Quebec Department of Agriculture, Fisheries and Food.

Other stakeholders and organization representatives were also present, including a veterinarian, a representative of the chamber of commerce and a citizens' representative.

From its creation in 1995 until 1997, the committee met six times a year on average. However, since 1998, the committee has held only about four meetings a year. The first meetings of the committee were chaired by a councillor of the City of Joliette. To date, most meetings have been held at the St. Lawrence Cement plant. In addition to the committee's regular activities, other events have been organized to bring the company closer to citizens. For example, five months after the committee was formed, the Saint-Thomas recreation department organized a visit to the cement plant. The company stressed at that time that it was prepared to accept any tour requests from outside individuals.

To facilitate the cooperation committee's operation and ensure its continuity, St. Lawrence Cement has allocated an annual sum of between $24,000 and $30,000 to the committee. The company also granted $65,000 over four years for two research projects spearheaded by the Lanaudière environmental follow-up committee.

Activities and Accomplishments

The cooperation committee's main accomplishments include:

- the implementation of two research projects on the impact of dust from the cement plant on nearby soil (September 1995 to June 1996);[23]
- the daily monitoring of the smoke plumes from the plant and a study on the perception of the citizens living on the periphery of the plant (summer 1996);
- the follow-up of tests on burning PCP-treated wood waste, railroad ties, and demolition and construction wood (September 1996).

The committee is still in place. The participants feel it is necessary given that the company is constantly looking for new fuels for its kilns.

23 - One study, conducted by Agriculture Canada, focused on the environmental impact of the deposition of cement plant particulates. The other, carried out by the Environmental Toxicology Research Laboratory (TOXEN) of the *Université du Québec à Montréal*, focused on the environmental follow-up of atmospheric emissions from the cement plant.

3.7 Lanaudière Environmental Follow-up Committee (Les Entreprises Berthier) [*Comité de*

suivi environnemental de Lanaudière (Les Entreprises Berthier)]

Issues and Context

Les Entreprises Berthier Inc. (EBI) owns and operates a landfill site that covers part of the regional county municipalities of Joliette and d'Autray. Although it was founded in 1960, public opposition to the landfill did not arise until 1990. At that time, the Sainte-Geneviève-de-Berthier municipal council asked the *ministère de l'Environnement et de la Faune* (MEF) [Quebec Department of Environment and Wildlife] to investigate the landfill's operations. The council suspected the managers of failing to comply with the landfill standards in effect and the RCM of allowing the owners to expand the site without an impact assessment and without taking the public opposition into account.

It was not until October 1998 that a dialogue was established between the municipality, the citizens, the local environmental group and the company's representatives to discuss the safety of the landfill site. At that time, the stakeholders voiced their concerns, while the company and MEF provided reassurances. However, in January 1999, the presence of unauthorized materials was observed at the landfill and the MEF ordered EBI to take corrective action under its supervision. Two months later, EBI conducted an analysis of the groundwater adjacent to the site. The results revealed compliance with the environmental standards in effect. To address the issue of air emissions from the landfill, the company installed 55 stacks shortly thereafter to collect about 70 per cent of the biogas produced.

In April 1999, the Joliette RCM signed a $38-million, 20-year contract with the landfill operator to collect, sort and dispose of its wastes. This announcement prompted a strong reaction from several local stakeholders. The Lanaudière regional environmental council and the Autray RCM, among others, believed that the Joliette RCM was shirking its obligation to develop a regional waste management plan as required by the government action plan. For this reason, the Quebec Minister of Municipal Affairs, supported by the Quebec Minister of the Environment, refused to approve the contract.[24]

During the same period, EBI applied to the MEF for a certificate of authorization to expand its landfill, which involved a zoning modification to the Autray RCMs. In order to obtain a clear understanding of the issue, the Autry RCM formed the waste management study committee, an advisory body charged with keeping the RCM council informed of the issues involved in managing the landfill and developing the waste management plan. Citizens were not represented on this committee.

After several months of negotiations with the company, the Autray RCM agreed to amend its development framework on the condition that the anticipated expansion serve only the territory's 17 municipalities and that a committee be formed to come to an agreement on the terms of operation: landfill volume, site development and an environmental liability fund. This agreement put an end to the legal action initiated by EBI to obtain the zoning modification it needed to expand its landfill site.

In November 1999, *Regroupement Vert* (a local environmental group) presented a brief to the *Commission sur la gestion de l'eau au Québec* [Quebec water management commission] demanding a public inquiry by the BAPE into the management of the landfill and the potential groundwater contamination. This initiative was one of a series of actions and protests that have taken place over the years and continue today.

Against this difficult backdrop and at the request of a citizen, the Lanaudière environmental follow-up committee (COSE) held talks with the managers of EBI in 1998. In April 1999, after several months of discussions, the company agreed to create a cooperation committee. An information evening was held to form the cooperation committee and to define its terms of operation. The citizens wondered whether this committee was being set up merely to help EBI improve its image, but COSE stressed the reasons for its existence.

Mandate and Objectives

The meeting to form the cooperation committee was held in May 1999. At that meeting, it was decided that the EBI cooperation committee's objectives would be:

- to keep citizens informed;
- to answer citizens' questions concerning the company's operations;

- to look for solutions to improve the citizens' quality of life.[25]

24 - Under the municipal by-laws, all waste management contracts over five years must be approved by the responsible minister.

25 - Excerpt from the report of the May 26, 1999 information evening.

A fourth objective was subsequently added, namely:

- to carry out an environmental follow-up of the company's activities.

Membership and Funding

The funding allocated by EBI to COSE, the organization responsible for coordinating the EBI cooperation committee, ranged from $9,500 to $15,000 per year. The number of participants changed as the meetings went on. Although it was initially established that the committee would have 14 members, there are now 17:

- two industry representatives;
- eight citizens;
- one representative of the local ecological group;
- one representative of the Quebec Environment Department;
- one physician from the Lanaudière public health department;
- one representative of the RCMs and the municipalities;
- one representative of the Joliette RCM environment committee;
- one representative of the *Conseil régional de l'environnement de Joliette* [Joliette regional environmental council]; and
- one representative of the Agricultural producers' union.

The cooperation committee addressed four major themes concerning EBI's activities:

- odours;
- transportation;
- biogases; and
- leachate.

The committee has met seven times to date. The frequency of the meetings varies. All stakeholders believe that it is difficult to make progress at the meetings and that there is often a very high level of tension between the committee members, as seen by the disorderly conduct at the meetings, the EBI's refusal to allow a citizen to visit the site, the publication of an article in the newspapers critical of EBI, etc. During the meetings, the key issue is always access to information. The cooperation committee still exists, but has not held a meeting in over six months.

Activities and Accomplishments

Although EBI has set up a few programs to improve the quality of life of the citizens living in the vicinity of the site, the cooperation committee can count few concrete achievements due to the continuous confrontation.

3.8 Lanaudière Environmental Follow-up Committee (Bédard-Cascades) [*Comité de suivi environnemental de Lanaudière (Bédard-Cascades*)]

Issues and Context

Bédard-Cascades Inc. was formed in April 1994 following a merger between Groupe Bédard Ltée and Cascades Inc. The 16,000 m2 plant is located in the heart of a residential neighbourhood in the City of Joliette and has approximately 50 employees. The plant uses asphalt and rolls of felt board to produce asphalt paper for the roofing and automotive industries. However, the problems related to this plant date back to March 1990 when Cascades Inc., the owner of the site, received authorization from the Quebec Environment Department to install and operate an asphalt paper saturating plant equipped with a volatile organic compound emissions incinerator. This project was not part of the list of projects subject to the *Regulation Respecting Environmental Impact Assessment and Review*, and was authorized under section 22 of the *Environment Quality Act* (R.S.Q., c. Q-2), which requires a proponent, who wishes to modify or undertake activities that are potentially harmful to the environment, to obtain a certificate of authorization from the minister beforehand.

As a result of disturbances caused by the plant operations, a group of citizens from the Saint-Jean-Baptiste neighbourhood of Joliette formed a committee in July 1990. The main issues that were affecting the quality of life of the residents in the vicinity of the site included:

- the smell of tar or burned oil;
- the constant noise from the facilities;
- soot fallout;
- overflowing of the open-air asphalt tanks.[26]

To back its demands, the citizens' committee collected 300 names on a petition calling for the authorities to take the necessary action to correct the situation. The petition was sent to the Quebec Environment Minister, the MNA for Joliette (Guy Chevrette) and the RCM, and was presented at a session of the Joliette municipal council, which passed a motion to address the plant operations that were causing problems for the residents.

After growing pressure from the residents and the City of Joliette, the company took a number of corrective measures. For example, a muffler was installed on the incinerator stack to reduce noise levels and smoke and soot emissions. Despite significant improvements, the smell of tar persisted.

After a period of calm, the citizens became increasingly vocal in their complaints concerning the increase in noise levels and odours following the installation of a second asphalt saturator in the spring of 1996. The mayor of Joliette then organized a meeting to give citizens an opportunity to make their complaints directly to the plant's managers. The citizens asked that the following corrective actions be taken:

- reduce noise levels;
- reduce odours resulting from normal operations;
- find ways to stop the odour emissions during blackouts and mechanical failures; and
- organize the truck traffic.[27]

A second meeting took place in October 1996. No further meetings have been called since, due largely to a workers' strike.

Mandate and Objectives

In June 1997, the Lanaudière environmental follow-up committee approached Bédard-Cascades Inc. regarding the resumption of meetings with the citizens. Bédard-Cascades gave the committee responsibility for organizing and

coordinating meetings between local residents and the company. At the first meeting, the cooperation committee set itself the following objective:

26 - Excerpt from a letter sent by the citizens' committee to the Quebec Environment Department in July 1990.

27 - Excerpt from the report of the information evening held in May 1996 at Sainte-Geneviève-de-Berthier.

“To enable the various stakeholders in the Bédard-Cascades matter to establish agreements. The main topic of discussion will be the reduction of disturbances associated with the plant’s operations that affect citizens” [translation].[28] The committee was also a forum for dialogue and information sharing, where the citizens could voice their concerns directly to the company and where the company could present its accomplishments.

Membership and Funding

The Bédard-Cascades cooperation committee is composed of 11 members:

- two industry representatives;
- one union representative;
- one physician from the Lanaudière public health department;
- five citizens;
- one elected municipal official; and
- one representative of the Quebec Environment Department.

Bédard-Cascades Inc. provided COSE with annual financial assistance of about $6,000. Its activities were still under way in 2001. Between its creation in October 1997 and March 1999, the cooperation committee met five times. During the first year, it met about every three months or so; nearly nine months went by between the fourth and fifth meeting. Three of these meetings were held in the COSE offices and two in the office of the Joliette RCM. Although the citizen members of the committee were all residents of the Saint-Jean-Baptiste neighbourhood, all residents of Greater Joliette who had concerns about the issue were invited to attend.

In addition to the meetings of the Bédard-Cascades cooperation committee, a number of meetings were also organized at the plant itself to discuss various topics related to the disturbances affecting the residents or unusual events that had occurred at the plant. These meetings were attended by a smaller number of people, i.e., citizens, the company’s representative and another stakeholder. The number varied according to the topics being addressed.

Activities and Accomplishments

The committee’s accomplishments to date include:

- following-up on noise tests conducted by the Quebec health and labour safety board inside the plant;
- checking truck traffic patterns in the neighbourhood with the City of Joliette;
- conducting literature searches on noise, odours and the health effects of asphalt fumes;
- drafting of a summary of the Quebec Environment Department’s inspection reports on the Bédard-Cascades plant.

In order to limit noise and odour problems, the company made a number of changes. For example, it installed a new muffler, reducing noise levels to below the established standards. The noise standards enforced by the Quebec Environment Department are between 45 and 55 dB during the day and 40 to 50 dB at night. Corrective measures were also taken inside the plant to reduce asphalt odours.

There appears to be no established protocol for forwarding complaints to the company's managers, which makes systematic follow-up difficult.

28 - Excerpt from the minutes of the meeting to form the Bédard-Cascades cooperative committee (October 1997).

At the cooperation committee's initial meetings, the citizens' demands were not well received by either the plant management or its employees, and were perceived as an effort to close down the plant. Through dialogue, however, constructive progress was made. The committee is still in place today, but meets less frequently than initially, likely due to the significant reduction in the disturbances caused by the plant's activities.

3.9 Standing Committee on Wastewater Monitoring in the Montreal Urban Community

Issues and Context

The Montreal Urban Community (MUC) comprises 28 municipalities, for a total of 1,800,000 residents and 8,500 companies. In 1970, pursuant to Ordinance 153 issued by the *Régie des eaux du Québec* [Quebec water board], the MUC, which was created that same year by an act of the Quebec National Assembly (SQ 1969, c. 84, assented to on December 23, 1969), was required to carry out the necessary work for the treatment of wastewater in most of its territory. Following a report by the *Service d'assainissement des eaux usées* [Wastewater treatment department] (May 1971), the MUC decided to build a treatment plant in the Rivière-des-Prairies neighbourhood. The wastewater was to be conveyed to the treatment plant by two intercepting sewers (north and south). The MUC began construction of the sewers in 1974, and of the treatment plant in 1976. Partial operations started up at the treatment plant in 1984, and the official inauguration took place on November 2, 1987. At that time, however, the plant treated only water from the north interceptor sewer. Since August 1995, the MUC's treatment plant receives all wastewater from the area during dry periods. The plant's average flow is 2,500,000 m^3 per day and can reach 7,600,000 m^3 per day during heavy rains. Since the treatment plant began operations, there has been a reduction in fecal coliform bacteria and other pollutants around and downstream of the Island of Montreal.

However, the MUC's wastewater treatment system does have a number of shortcomings. Some sectors of the area are served by separate or semi-separate sewer systems. With both types of systems, a separate sewer receives stormwater only, which is discharged directly into rivers and streams without prior treatment, reducing the volume of water to be treated. Some areas into which these storm sewers discharge show very high levels of fecal contamination, which suggests that defective connections might be conveying wastewater from households into storm sewers. Since sewer management is the responsibility of the municipalities, the latter are responsible for defective connections.

In addition to this problem, sewer overflows reveal another deficiency in the treatment system. During heavy rains, the current sewer system is unable to contain all the water it receives. Several areas of the island are served by a combined sewer that receives both domestic wastewater and stormwater. Since the system cannot accommodate such a high volume, large quantities of water are discharged directly into rivers and streams without treatment.

Lastly, the treatment plant was designed to use a chlorine water disinfection process but has never put this process into operation because studies revealed that this type of treatment was more harmful to aquatic ecosystems than a lack of treatment. Specialists at the plant are currently studying other means of disinfection.

At the regulatory level, under an agreement concluded in 1986 between the Quebec Environment Department and the MUC concerning air and water quality, the territory of the MUC is exempt from certain provisions of the *Environment Quality Act*. MUC by-law 87, which was passed in 1986, sets limits on the concentrations of toxic pollutants in effluent from industries and businesses.

After an investment of $1.375 billion, there are still a number of outstanding environmental, social and economic issues (Auclair, 1995; Bibeault and Jourdain, 1995; Quebec, 2000; Fortin, 1995). They concern primarily:

- stormwater overflows;
- the contamination of metropolitan Montreal's rivers and streams due to defective connections and overflows;
- restrictions on recreational and tourism activities downstream from the outfall;

- illegal toxic discharges into sewers in excess of the standards;
- bacterial contamination downstream from the treatment plant outfall.

The MUC standing committee on wastewater monitoring was formed in response to these issues. However, it was not established as the result of a government order or recommendation, but because of pressure from three environmental groups (STOP, *Société pour vaincre la pollution* and Great Lakes United) and from an initiative of the Jacques-Cartier ZIP Committee, which had integrated the wastewater issue into its Ecological Rehabilitation Action Plan (ERAP).[29] The Ville-Marie ZIP Committee, on the other hand, began its activities at the same time as the standing committee. Its coordinator participated in the MUC standing committee from the outset, and the issue of sewer overflows was integrated into the Ville-Marie ZIP Committee's ERAP, completed a few months after the standing committee began its work.

29 - The objective of the Priority Intervention Zone program is to increase the understanding of the St. Lawrence River ecosystem by fostering local initiatives for the protection, restoration, conservation and enhancement of the river's uses and resources, consistent with sustainable development. Ecological Rehabilitation Action Plans are developed by the ZIP Committee in cooperation with the community's stakeholders. ERAPs are used to define the measures to be taken based on the priorities identified during consultations.

Mandate and Objectives

The MUC standing committee held its first meeting in December 1997 and has held 16 meetings since then. They are always held on a weekday, from 9 a.m. to noon at the MUC treatment plant. The first two meetings were devoted to establishing the committee's operating procedures and identifying members' roles. The next meetings focused on targeting specific priorities. In May 1998, the committee adopted an action plan, setting out the following priorities, which were to be overseen by subcommittees:

- overflows;
- application of the regulation on industrial discharges into the sewer;
- the reduction of toxic discharges in the effluent;
- the ecological follow-up network; and
- bacteriological contamination of the treatment plant effluent.

Membership and Funding

The standing committee is composed of 12 members from various groups:

- one federal and four provincial representatives
- three MUC representatives
- one representative of an environmental group
- two coordinators from the ZIP committees
- one representative of an industry association

The coordinator of the Ville-Marie ZIP Committee is the only representative of the West Island of Montreal, all others coming from Montreal East.

The standing committee has no independent source of funding. It received funding under the Community Involvement Program,[30] which is funded in large part by the federal and provincial governments and includes the MUC participation for certain issues. For the most part, coordination is overseen by the coordinators of the two ZIP committees.

Activities and Accomplishments

To date, all attention has been focused on the sewer overflows subcommittee. Most of the meetings and efforts have been concentrated on this issue. The regulations and toxic discharges subcommittee is the only other subcommittee that has been formed.

30 - The Community Involvement Program was developed jointly by the federal and provincial departments of the Environment as part of Phase III of St. Lawrence Vision 2000.

The follow-up committee rapidly evolved into a working group. Since its inception, the issue of sewer overflows has clearly dominated. The overflows subcommittee was formed on February 12, 1999. Its members commissioned a report on the issue (Forget and Demard), in order to develop an action strategy. The first measure, which is still underway, consists of meeting with MUC authorities to present the issue to them. Following that, the MUC is to produce an action plan. The municipalities are being encouraged by the subcommittee to produce a plan to reduce their citizens' water consumption and to invest in repairing defective sewer connections. Discussions with the municipalities began in May 1999. After that, a brochure summarizing the issue of sewer overflows was produced for the public.

The subcommittee's work on the regulation of toxic discharges into sewers is progressing somewhat more slowly. After about two years, discussions are still focused on the scope of the issue and the goals of the subcommittee. As for the problem of standardizing regulations on toxic discharges in the metropolitan area, the work became bogged down when the subcommittee members attempted to meet with representatives of the towns in the suburbs. Today, this subcommittee's work consists primarily of preparing a status report on industrial discharges into sewers.

The next step for the standing committee is to meet with the municipalities of the Island of Montreal. Officially, increasing importance should be placed on the other priorities as the overflow project progresses. However, the toxic discharges and overflows projects are the only ones to have been taken up by subcommittees. Uncertainties caused by the municipal reform initiative in the metropolitan area are also raising many questions about the committee's future.

This follow-up committee's work resembles that of a group of experts. Indeed, since July 1999, only one of the three environmental group representatives has participated in the committee's activities. There have been no citizen members on the committee since the departure of the sole representative shortly after work began. It should be noted that the proposal for setting up this follow-up committee included the participation of union and community representatives.

3.10 Expanded Advisory Group on Contaminated Sediment in Sector 103 of the Port of Montreal

Issues and Context

From 1920 to 1930, Montreal East became heavily industrialized, particularly by the petrochemical industry. The area's rapid industrial development, combined with the lack of environmental standards, led to the contamination of many sites over the following decades.

Following the adoption of the St. Lawrence Action Plan,[31] an identification of contaminated sites along the St. Lawrence River was commissioned (Lavalin Environnement, 1989). This study identified sector 103 of the Port of Montreal as one of the most contaminated aquatic sites on the St. Lawrence River. Research into the cause of the problem rapidly became focused on effluent from several industries and the municipality, which had been discharged into this sector untreated for many years. At the same time, Environment Canada's Emergency Response Service was grappling with problems associated with the resuspension of hydrocarbons in sector 103 during heat spells. Because of the recurring nature of the problem, the file was transferred to the Aquatic Sites Remediation Program of Environment Canada's Environmental Protection Branch, which restricted the passage of ships with a draught of less than 7 metres in the north bay to prevent the resuspension of contaminated sediments.

31 - Launched in 1988 by Environment Canada — followed by a partnership with the Quebec Environment Department in 1989 — the St. Lawrence Action Plan was the first in a series of three five-year action plans for the protection, conservation and restoration of the St. Lawrence River. The first phase aimed specifically at defining the problems affecting the river, protecting it and restoring contaminated sites. The second phase of the action plan (1993-1998), called St. Lawrence Vision 2000 (SLV 2000), promoted the integration of local communities and stakeholders into the management of the river. This phase gave birth to the ZIP committees. Phase III of St. Lawrence Vision 2000 seeks to foster "local initiatives for the protection, restoration, conservation and enhancement of the uses and resources of the St. Lawrence, consistent with sustainable development" (Burton).

The identification process made it possible to define the issue more clearly:

- two bays (north and south) in which sedimentation is promoted by the position of the piers, which isolate the bays from the river's currents;
- close to 40,000 m³ of contaminated sediments;
- the main contaminants in the two bays are PAHs,[32] mineral oil and grease, and copper;
- of the 10 contaminants studied, nine exceed the standards[33] in the north bay and three exceed or are very close to exceeding the intervention criteria in the south bay.

32 - Polycyclic aromatic hydrocarbons

33 - Interim criteria for assessing the quality of St. Lawrence River sediment (St. Lawrence Centre).

Because the sediment contaminant concentrations exceeded the standards (Interim criteria for assessing the quality of St. Lawrence River sediments – St. Lawrence Centre), several industries could be questioned by Environment Canada. Those responsible for the file at Environment Canada proposed a voluntary partnership approach between the industries involved and the Montreal Port Authority. At Environment Canada's initiative, a working group composed of the Montreal Port Authority and three companies was formed. From 1994 to 1998, the working group established provisional mitigation measures, commissioned and funded studies on the identification and spatial distribution of the contaminated sediments, selected options and developed scenarios for remediation, tested various technologies and conducted an assessment of the risks to human health and the environment.

In May 1998, the working group submitted a summary document containing four recommendations:

- restore the two bays in sector 103;
- form a restoration implementation group;
- form an advisory group to involve the organizations concerned;
- establish a dialogue to obtain public participation.

On completion of the working group's activities, the restoration project for the bays comprised six remediation scenarios to be examined by the implementation and advisory groups, and efforts to find financial partners who had carried out potentially polluting activities in the sector.

Although no project has been officially selected to date, the PEEIE and the federal environmental assessment process should apply when a project is selected. The sector is approximately 20,025 m² in area and, under the Quebec *Environment Quality Act* (R.S.Q., c. Q-2, r. 9), dredging operations are subject to the environmental impact assessment and review process when the area exceeds 5,000 m2. Depending on the remediation option chosen, the project would also be subject to fisheries legislation and to the *Canada Port Authority Environmental Assessment Regulations*. Environment Canada and the financial partners opted to form an advisory group in advance of the project. If the remediation project does proceed, it would therefore be subject to provincial and federal environmental impact assessment legislation through a joint review as provided for under section 40(2) of the *Canadian Environmental Assessment Act.*[34]

Upon learning of the recommendations set out in the working group's report, the Jacques-Cartier ZIP Committee (formerly the Montreal East ZIP), set up the sector 103 advisory group. It held its first meeting on June 16, 1999.

34 - This was the case, for example, of the Lachine Canal Decontamination Project, in which the provincial and federal environmental assessment processes were implemented jointly.

Mandate and Objectives

To date, the advisory group's meetings have focused on five issues:

- identifying financial partners and securing their buy-in;
- selecting a remediation project;
- determining the level of site remediation;
- negotiating the project's regulatory process;
- establishing the content and conduct of information evenings.

During the first year, discussions were aimed at persuading industries to participate financially in the project. The other topics took on more importance once the industries confirmed their financial participation in the remediation effort in June 2000. However, the members of the advisory group are still trying to secure the participation of a fourth company that left the sector several years ago.

Membership and Funding

The sector 103 advisory group is composed of 16 members:

- three financial partners (the companies); • one representative of Montreal East; • one representative of the Montreal Port Authority;
- community organizations:
  - three members of citizens' committees
  - one representative of a regional development agency;
- governments:
  - two federal members;
  - two provincial members;
- environmental organizations:
  - two members from the Jacques-Cartier ZIP Committee;
  - one university representative.

The membership of the advisory group was mutually agreed upon by the working group and the Jacques-Cartier ZIP Committee. The companies in question, the Montreal Port Authority and Environment Canada form an implementation subcommittee, which meets regularly to discuss the economic, technical and legal conditions pertaining to the sediment remediation project. This subcommittee regularly reports on its activities at the meetings of the advisory group.

The sector 103 advisory group has no specific source of funding for its operations. However, it does receive funding under a program designed to keep the public informed, in keeping with its mandate. The members of the advisory group generally meet once a month. The group is coordinated by the coordinator of the Jacques-Cartier ZIP Committee, which has integrated this role into its mandate. The chairman of the Jacques-Cartier ZIP Committee chairs the meetings of the advisory group. Most of the information concerning sediment contamination and related projects comes from research commissioned by the working group.

Activities and Accomplishments

In addition to its meetings, the advisory group has organized four information evenings and one evening plenary session for the general public, including the residents of Montreal East and Pointe-aux-Trembles. The plenary session on May 25, 2000, and three information evenings held on June 15, 2000, October 19, 2000, and January 25, 2001, were funded by the federal-provincial Community Involvement Program. The meetings provided a forum to inform the public of the project, to explain the reasons for the sediment decontamination project to outline the risks to human

health and the environment, and to present the remediation options, the environmental assessment process and the legislation pertaining to this type of project. The meetings also provided the citizens with an opportunity to ask questions directly of the advisory group members in attendance. The Jacques-Cartier ZIP Committee has produced the first volume of a summary document of the studies conducted on the issue (ZIP Jacques-Cartier Committee).

The financial partners and departmental representatives are currently negotiating the terms of a memorandum of understanding that would release the partners of any liability for contamination prior to the remediation that will take place. With the exception of one company, which wants to take sole responsibility for cell 1 and use its own bioremediation facilities, the financial partners are continuing to study the various sediment decontamination options. They are currently trying to determine the best option in terms of cost for cell 3. The option of the company that wishes to manage cell 1 in its entirety appears to satisfy the other partners and Environment Canada, but cannot be contemplated for cell 3 because of the overly high concentration of heavy metals. At Environment Canada's request, efforts were initiated in September 2000 to harmonize the partners' proposals and will be finalized with the signature of the sediment decontamination contracts and memoranda of understanding. Since then, many discussions have been held on assessing the potential environmental impacts of such a project. According to the financial partners and Environment Canada, an impact assessment and public hearings would delay the process. To the great displeasure of the citizens' representatives, the possibility of not decontaminating cell 2, which is the least contaminated of the three, was raised. The advisory group is also discussing the level of decontamination to be achieved.

3.11 Synthesis and Analysis of the Formal Frameworks

The formal description of the cases studied lets us pinpoint several elements for use in a comparative analysis (see Table 2). Before analyzing the actual operation of the committees, we can identify certain trends and characteristics using the formal frameworks described previously. These elements fall into six categories: 1) context, 2) mandates and objectives, 3) composition, 4) operating procedures, 5) resources, and 6) actions and accomplishments.

Table 2: Synoptic Table of the Formal Frameworks

	Alma CASE Committee	**CRCD Committee**	**Magnola Citizens' Committee**
Lead organization	Municipal council of the City of Alma (participant in public hearings)	CRCD Saguenay – Lac Saint-Jean (participant in public hearings)	CFDC Asbestos (participant in public hearings)
Background	New proposal submitted to the Quebec EA process (PÉEIE) Public hearings BAPE recommendations	New proposal submitted to the Quebec EA process (PÉEIE) Public hearings BAPE recommendations	New proposal submitted to the Quebec EA process (PÉEIE) Public hearings BAPE recommendations
Mandate and objectives	Follow up BAPE recommendations Facilitate communications with site neighbours Propose impact mitigation measures Participate in site development	Follow up BAPE recommendations Oversee the application of measures to maximize economic benefits	Mandate and objectives guided by BAPE Inform citizens Receive citizens' concerns Make recommendations on the enterprise's activities and projects
Membership (sector)	Selection by the municipality Private sector: 2 Public sector: 4 Associations: 2 Citizens: 4 TOTAL: 12	Selection of members in accordance with a government order Private sector: 2 Public sector: 5 Associations: 0 Citizens: 0 TOTAL: 7	Selection of members guided by BAPE Private sector: 2 Public sector: 6 Associations: 0 Citizens: 6 TOTAL: 14
Operating procedures	Consensus decision-making Recommendation power only 8 closed-door meetings/year	Consensus decision-making Recommendation power only 12 closed-door meetings/year	Majority decision-making Recommendation power only 12 closed-door meetings/year
Resources	**Funding** None **Infrastructure** Secretariat: proponent Meeting location: city, proponents	**Funding** None **Infrastructure** Secretariat: CRCD Meeting location: proponent	**Funding** Joint (proponent, city, RCM) **Infrastructure** CFDC Employee (1)
Actions/ deliverables	Company/neighbour relations, info sessions, advise proponent	Application of measure to maximize economic benefits, press releases on results	Web site, newsletter, study day with experts, additional follow-up measures

	Magnola Coalition	**Lafarge Citizens' Liaison Committee**	**St. Lawrence Cement Committee**
Lead organization	Local citizens (participant in public hearings)	Private-sector proponent	Joint proponent/ Lanaudière environmental follow-up committee
Background	New proposal submitted to the Quebec EA process (PÉEIE) Public hearings BAPE recommendations	Plant in operation Modification of the procedure	Plant in operation Public and political pressure
Mandate and objectives	Follow up BAPE recommendations Promote public awareness	Follow up BAPE recommendations Identify neighbours' concerns Develop solutions Act as intermediary between the public and the company	Reduction at source Environmental follow-up of proponent's activities
Membership (sector)	All citizens Private sector: 0 Public sector: 0 Associations: 0 Citizens: 5 TOTAL: 5	Elective selection process Private sector: 3 Public sector: 0 Associations: 0 Citizens: 5 TOTAL: 8	Selection by consensus Private sector: 1 Public sector: 4 Associations: 2 Citizens: 1 TOTAL: 8
Operating procedures	Consensus decision-making Recommendation power only Closed-door meetings	Consensus decision-making Recommendation power only 6 closed-door meetings/year	Consensus decision-making Recommendation power only 6 meetings/year
Resources	**Funding** Membership cards, activities, private grants **Infrastructure** None	**Funding** None **Infrastructure** Secretariat and meeting location: proponent	**Funding** ± 50% company, ± 50% provincial grant **Infrastructure** Permanent employees: 3 Secretariat: Environmental follow-up committee Meeting location: proponent
Actions/ deliverables	Web site, petition, information documents, public information meetings	Company/neighbour relations, press releases, information sessions, recommendations	Implementation of two research projects, daily impact monitoring

	EBI Committee	Bédard-Cascades Committee	MUC Standing Committee
Lead organization	Lanaudière environmental follow-up committee	Lanaudière environmental follow-up committee	Association (ZIP)
Background	Plant in operation Public pressure	Plant in operation Public pressure	Plant in operation Pressure from environmental groups
Mandate and objectives	Inform citizens, respond to their queries and improve their quality of life Environmental follow-up of the company's activities	Establish agreements between the citizens and the proponent to reduce nuisances	Reduce environmental impacts
Membership (sector)	Selection by consensus Private sector: 2 Public sector: 5 Associations: 2 Citizens: 8 TOTAL: 17	Selection by consensus Private sector: 2 Public sector: 3 Associations : 1 Citizens: 5 TOTAL: 11	Selection by consensus Private sector: 1 Public sector: 8 Associations: 3 Citizens: 0 TOTAL: 12
Operating procedures	Consensus decision-making process Recommendation power only 4 closed-door meetings/year	Consensus decision-making process Recommendation power only 3 closed-door meetings/year	Consensus decision-making process Recommendation power only 5 closed-door meetings/year
Resources	**Funding** ± 50% company, ± 50% provincial grant **Infrastructure** Permanent employees: 3 Secretariat: Environmental follow-up committee Meeting location: proponent	**Funding** ± 50% company, ± 50% provincial grant **Infrastructure** Permanent employees: 3 Secretariat: Environmental follow-up committee Meeting location: Environmental follow-up committee or Joliette RCM offices	**Funding** No specific source Receives joint private/public grants for specific projects **Infrastructures** Part-time employees: 2 Secretariat: ZIP Meeting location: Proponent
Actions/ deliverables	Few actions due to the confrontational climate Discussion on mitigation measures	Follow-up of noise tests, verification of truck traffic, documentary research and summary of MENV inspection reports	Influences the decision-making process Information brochure for the public, technical report on the problem

	Sector 103 Advisory Committee	Summary
Lead organization	Association (ZIP)	■ Highly diverse organizations (both private sector, public sector and associations)
Background	New proposal potentially submitted to the Quebec EA process (PÉEIE) Recommendations of the multistakeholder working group	■ Four proposals subject to the Quebec EA process (PÉEIE) ■ In 9 cases, public pressure prior to the establishment of the committee
Mandate and objectives	Initiate the project Follow up project implementation Inform the public	■ Public information, awareness and communication mandate in 9 committees ■ Follow up BAPE recommendations in all resulting committees
Membership (sector)	Selection by consensus Private sector: 3 Public sector: 6 Associations: 7 Citizens: 0 TOTAL: 16	■ Consensus selection process in half of the cases ■ Citizens on 7 committees
Operating procedures	Consensus decision-making process Recommendation power only 8 closed-door meetings/year	■ Consensus decision-making in most cases ■ Recommendation power for all committees ■ All meetings held behind closed doors ■ 3 to 12 meetings a year
Resources	**Funding** No specific source Receives joint private/public grants for specific projects **Infrastructure** Part-time employees: 1 Secretariat: ZIP Meeting location: ZIP	■ 4 committees have annual funding ■ Proponent's investment varies ■ Employee on the committee in 6 cases ■ Meetings often held at the proponent's offices
Actions/ deliverables	Evening public information meetings Reports for public reports (outreach)	Impacts of follow-up committees: ■ The dissemination of information to affected or concerned citizens ■ Implementation of studies or research ■ Development of follow-up measures ■ Implementation of follow-up measures

Context

We note that follow-up committees were either established formally, in a process stemming from the application of the environmental assessment process, or voluntarily. Three such committees (CASE, CRCD and the Magnola citizens' committee) were formed in accordance with the formal process and seven others were set up voluntarily.

Following discussions between the proponent and local elected officials, committees associated with the application of Quebec's environmental assessment process were formed either by a government order (CRDC), a recommendation by the municipality (CASE), or a recommendation by the BAPE (Magnola citizens' committee). In the case of the Saguenay–Lac-Saint-Jean CRCD, the proponent, the elected officials and the CRCD had already held discussions when the BAPE recommended that the committee be set up, noting that: "the CRCD could take responsibility for introducing, in partnership with Alcan, a follow-up mechanism for monitoring economic impacts" [translation] (Quebec, 1997:122). In the case of the Magnola citizens' committee, the BAPE also identified possible members for the committee, and the Community Futures Development Corporation took the initiative of inviting citizens to form a committee.

The second context in which the committees were formed involves a more voluntary process. In seven cases (Magnola coalition, Lafarge citizens' committee, St. Lawrence Cement committee, EBI committee, Bédard-Cascades committee, MUC standing committee, and the sector 103 advisory group), committees were established without any institutional pressure to do so. These are industrial operations or projects whose activities have an impact on shoreline populations or the environment, but are not necessarily subject to an environmental assessment process. This type of committee set-up is defined as voluntary or "bottom up," in that it is a community initiative.

In six cases (Lafarge citizens' committee, St. Lawrence Cement committee, EBI committee, Bédard-Cascades committee, MUC standing committee and sector 103 advisory group), the committee was formed through mutual agreement with the proponent. Five of these six committees were formed by non-governmental organizations whose mandates deal entirely or partially with building consensus (COSE Lanaudière and the ZIP committees). These organizations approached the proponents in situations of conflict and stressed the importance of environmental follow-up. The Lafarge citizens' committee is the only example of a committee formed by a proponent in response to complaints voiced by some citizens about bothersome operations and new activities such as burning tires. The Magnola coalition is a special case since it was launched by and composed only of citizens.

The sector 103 advisory group also stands out, first, since it is the only committee not to have experienced public pressure at the time of its formation, and second, because it is the result of a joint proposal by the proponents and the government. This project will eventually be subject to the PEEIE and the federal environmental assessment process. Creation of this committee illustrates a new strategy based on anticipating potential recommendations by government authorities. This is also true in the case of the EBI committee, in that it was created in anticipation of a request to expand the site. In this way, the company anticipated the requirements of the *Plan d'action québécois sur la gestion des matières résiduelles 1998-2008 [Quebec Action Plan for the Management of Residual Materials 1998-2008]* (Quebec, 1998d), according to which the operators will henceforth be required to set up follow-up committees[35] for landfill sites.

35 - Also called "watchdog committees."

Mandates and Objectives

Beyond the specific characteristics of each case, the organizations' governing documents show similarities in the way that committees define themselves. They define themselves as a discussion forum where various stakeholders share information and views in order to find solutions for environmental issues or disturbances, in a cooperative atmosphere.[36] In analyzing the cases, however, we find that the committees' specific mandates and objectives can differ. We identified five types of objectives:

1. public information, awareness and communication;
2. impact mitigation and disturbance reduction measures;
3. compliance with BAPE recommendations;
4. maximization of economic benefits;
5. participation in the implementation of the project or change.

We note that all the committees inform, raise awareness and communicate with the public, although only half had set this as a formal objective.

Composition

The composition of the committees studied varies greatly in terms of selection method and diversity of membership as in number of representatives. However certain trends do emerge.

The method of selecting members varies widely from one committee to another. BAPE made strong recommendations concerning the composition of two committees (CASE and Magnola citizens' committee). In the case of the Magnola project, for example:

> The Commission is of the opinion that, in the event of the project's authorization, Magnola should conduct a thorough, ongoing and transparent environmental follow-up during the operation of its proposed plant. To this end, the Commission recommends that Magnola form a citizens' relations committee. In addition to citizen members, this committee could include representatives from the municipalities involved, agricultural and forest producers, CREE, and economic, community health and government organizations. The committee should be able to consult government scientists for an impartial interpretation of the results of the environmental follow-up [translation] (Quebec, 1997:126).

The order authorizing the Alcan project (Alma) also refers to the follow-up committee:

> Whereas a committee, composed of representatives of the community and the Department of Industry, Trade and Technology, has been formed to provide follow-up and help maximize local and regional economic benefits from the aluminum smelter project in Alma [translation] (Order 1557-97).

The composition of the follow-up committees is not pre-established by the BAPE, whose role as an advisory agency is to respond to the community's intentions and whose proposals serve as recommendations to Cabinet, which is responsible for the final decision.

In other cases, participants are selected by consensus. Half the committees decided on their membership based on the approval of all members present during the first meetings, i.e., the proponent(s) and the initiating organization, usually a government representative and occasionally citizens. Consensus often required intense negotiations, with each party stressing its interests. In several cases, the actual follow-up process was greatly delayed by these negotiations. We even found that several clearly identified local spokespersons were unconditionally included by certain members of the committee, generally by the proponent. These members even went as far as to threaten to withdraw if these persons did not participate in the work of the committee.

36 - We note that this statement is very similar to the definition of integrated environmental management developed by Margerum, which will be discussed in Chapter 5.

Finally, each of the last three committees adopted a different process. The CASE committee left the membership up to a single organization, namely the municipality. Conversely, the Magnola Coalition accepted any citizen who wished to participate. Lastly, the Lafarge citizens' committee differed from the others in that it chose its members by an elective process following an open public meeting.

Stakeholders also differed from committee to committee. However, with the exception of the Magnola coalition, the key factor was diversity. We note that most of the committees include government representatives. All committees, with the exception of the Lafarge citizens' committee, include local elected officials and representatives of the municipal government. Moreover, the provincial government is fairly well represented on six of the ten committees. It should be pointed out that, in most cases, more than one department or level of government is involved in the work of the committees. Environmental organizations are represented on half of the committees studied, while all the committees include citizens as members, with the exception of the CRCD committee.

Operating Procedures

The follow-up committees' general operations are characterized by two distinct decision-making processes and two types of power. A number of trends also emerge in terms of the frequency of meetings, access to the committee's work and mechanisms for informing the public.

First, with the exception of the Magnola coalition, all the committees have adopted a consensus process for decision-making. This practice therefore seems to be the rule among follow-up committees.

All the committees have only the power to recommend. We note, however, that this power is exercised to varying degrees. Certain groups that hold highly technical discussions play more of a decision-making support role. Other committees have more of a public liaison role or a role of defenders of a cause, such as protection of the environment and quality of life.

Several issues must be considered with respect to actual operations. On the one hand, we note that the number of meetings per year varies greatly from committee to committee, ranging from 3 to 12. In certain cases, meetings are cancelled unilaterally by the proponent. For example, in the case of one committee, the proponent postponed or cancelled meetings several times without consulting the members.

Access to meetings emerges as an important issue for negotiation among committee members. In all cases, meetings are held behind closed doors; in other words, members of the public cannot participate without obtaining the prior approval of committee members. The degree to which this rule is enforced varies greatly from committee to committee. Some readily welcome the participation of outside players while others have adopted a strict rule regarding approval procedures. This occurred after a participant invited another individual without forewarning the other committee members.

The last issue concerns external relations. As we emphasized above, almost all the committees have established some mechanisms for informing and communicating with the public. In most cases, these mechanisms take the form of information evenings usually preceded by a press release in the local newspapers. However, some committees take more elaborate steps, including local radio spots, Web sites, information brochures, etc.

Human and Financial Resources

Like any organization, follow-up committees need a minimum amount of funding, infrastructure and human resources to carry out their day-to-day tasks. Needs vary according to the size, objectives and accomplishments of the various committees. Among those studied, three committees receive no direct funding at all. However, they use the proponent's premises for meetings and the proponent is responsible for secretariat services.

While these three committees are not given any financial support by the proponent, the others receive two types of funding. Most of the committees are subsidized jointly by the proponent and one other organization (municipality, regional county municipality, federal or provincial department).In addition, two committees (the MUC standing committee and the sector 103 advisory group) do not receive standing grants but do receive some grants for specific projects.

In all cases, funding comes from various sources and the proponent is never the sole subsidizer. Although there is an obvious link between funding and the ability to achieve tangible results, we also note that several committees have made significant accomplishments on limited budgets.

Activities and Accomplishments

In terms of activities and accomplishments, the role of the follow-up committee is substantially more than simply monitoring activities associated with the project or production. Almost all the committees have created public information tools, which usually take the form of information sessions. Other means of liaising with citizens (news conferences, publications, Web sites, etc.) have also been developed by committees with access to steady or temporary financial resources.

As mentioned above, a number of committees have produced technical papers on issues of primary concern to project follow-up; this applies particularly in the case of committees on which citizens have little or no representation.

Finally, all committees devoted part of their project follow-up and monitoring efforts to holding discussions on the follow-up measures to be adopted and their implementation. In almost all cases, proponents organized site visits specifically for committee members.

A summary of the "formal frameworks" of the follow-up committees studied highlights certain points.

- Two contexts exist for the emergence of follow-up committees: a formal process that stems from Quebec's environmental assessment process, and a process arising from voluntary initiatives.

- Although the follow-up committees begin with similar mandates, the priority given to the different objectives varies greatly. Almost all place emphasis on public information, awareness and communication.
- The composition of the committees (between 5 and 17 members) and the number and types of interests represented by the members varies greatly. The same is true of the membership selection procedure, which can be the focus of lengthy negotiations.
- Consensus is by far the preferred mode of decision making among the committees.
- The frequency of meetings varies considerably (between 3 and 17 meetings a year) and is a factor over which the proponent seems to have a great deal of influence.
- Most of the follow-up committees have access to financial resources and are never entirely dependent on the proponent in this regard.
- The committees seem to be at the heart of many initiatives that often exceed their mandate. These involve disseminating information, conducting studies and research and developing and implementing follow-up measures. These initiatives seem to be highly dependent on the financial resources available to the committee.

4. Analysis of the Actual Operation of the Follow-up Committees

As mentioned earlier, our research approach is inductive and therefore does not involve verifying hypotheses formulated in advance. The major aspects and facets of the analysis emerge instead as understanding grows of the actual operation of the phenomenon under study. Thus, from the elements presented in this chapter, which emerged from our interview data and observations, we have derived a structural framework based on five themes: 1) information, 2) rules and procedures, 3) expertise, 4) organizational context, and 5) the changing action system and lessons learned.

4.1 Information

Many of the findings and issues that emerged from these case studies concern information. Several concrete examples show that information was the predominant theme for several stakeholders. Three subthemes are associated with information: the presence of a key player at the heart of discussions, information control strategies, and how the interpretation of the mandate affects the information that circulates.

4.1.1 Presence of a Key Player

We note that in the great majority of the cases, one individual is found to be at the heart of the flow of information. We refer to these people as “key players” since it is through them that information is passed from person to person. These players often hold advantageous positions in the organizations. This role can be played by different individuals, and their functions on the committees vary from case to case. For example, the key player is sometimes the committee coordinator; in other cases this person represents the proponent or the public health department. The people we met said the following about this person:

> *I rely a great deal on him. He receives information from everyone and promptly summarizes it for me. This enables me to stay up to date*. [translation] (an association representative)

This privileged position undeniably enables the person who holds it to steer discussions to a certain extent and to facilitate communication.

4.1.2 Withholding of information or transparency

In several cases, interviews revealed a distinct gap between information requests from community groups and citizens, and what companies are prepared to reveal. While they are concerned about image, companies also consider themselves to be adequately monitored by the various government agencies:

> *We are already monitored by the Department of the Environment. They dotheir work, so the committee should not be asked to monitor us as well. A line has to be drawn somewhere*. [translation] (an entrepreneur)

This negotiation on information disclosure leads to different strategies used by the stakeholders. In general, proponents have three types of reactions. First, a company sometimes attempts to limit information to what it deems “necessary.”

> *If I let them (the other committee members) have their way, they wouldhave me give them all the documents I have in the plant. If it concerns the committee’s activities, okay. But if not, it’s none of their business.*[translation] (a proponent)

Second, other companies play the transparency card and send a huge quantity of information, overwhelming the recipient, who does not really know what to do with such an excessive amount of data:

> *He gives us a lot of information. I found him very thorough… Perhaps there are times when he could skip it*. [translation] (a citizen)

Lastly, some company representatives pass on information that only partially relates to the activities being studied by the committee. They take advantage of the emphasis placed on certain priorities to provide less information on other

priorities. No matter what strategy is adopted, the motive remains the same: to control the information that circulates in the committee.

4.1.3 Information and Interpretation of the Mandate

As a general rule, members' interpretation of the mandate creates misunderstandings with regards to the sharing of information within the group. Although the different stakeholders may have agreed beforehand on a statement of the committee's mandate, its interpretation varies greatly depending on the pressure group. For example, while a given committee's mandate to "conduct an environmental follow-up of company activities" may be interpreted by the company itself as a simple presentation of the "technical operations" on the site. For citizens and ecological groups, the mandate encompasses a precise understanding of the quantity and nature of materials that pass through the site. This dual interpretation often adds to conflicts inspired by the concept of information (also see 4.2.3).

4.2 Rules and Procedures

A second theme that emerges from the analysis relates to the rules and procedures that are used to regulate a committee's operations (sitting frequency, setting the agenda, operating procedures, etc.) and that define the powers and responsibilities of the committee and its members. Our findings in this regard show that, in most cases, follow-up committee operations are relatively informal and their powers and responsibilities are rarely precisely defined. This situation causes certain difficulties that should be defined.

4.2.1 Complaint Routing

Environmental follow-up committees are often formed as a result of disturbances in an area. Disturbances are inevitably accompanied by protests and citizens' complaints. Despite the fact that follow-up committees have a mandate to serve as intermediaries

between citizens and companies, most committees lack a structure for forwarding complaints concerning company activities. When a problem situation arises, some citizens contact the committee, while others contact the company, the Department of the Environment, the media or elected officials (municipal or provincial). Hence, according to one citizen:

> *The cooperation committee is there, but the media are much more useful for getting things going*. [translation] (a citizen)

In fact, each individual seems to adopt the strategy that he or she considers will produce the best results, or most agrees with.

This state of affairs also demonstrates that the committees' rules and procedures conflict with the external environment. For example, after a standard complaint procedure has been developed whereby citizens are to approach the proponent directly, many appeal directly to the mayor or the municipal councillor on the committee. The company, which would prefer to monopolize the handling of complaints, then finds itself confronted with a "breach" of the rules for which it would be hard pressed to blame the mayor.

4.2.2 Conducting Meetings

A significant proportion of citizens raised issues related to committee meetings. First, the floor time given to each group is considered unfair by some.

> *They (proponent) take up all the meeting time to present their beautifulproject and tell us how they are going to implement it. When the time comes to deal with the points we want to talk about, there's no time left.* [translation] (a citizen)

Setting an agenda is another source of lively discussion in many committees. Some players say they feel excluded from the process.

> *When we get to the table, the agenda has already been drawn up. Even if we prepare a list of important topics to deal with, we can't even address them because they aren't on the agenda!* [translation] (a

citizen)

These quarrels are a tangible reflection of the fact that participants are constantly attempting to maximize their intervention power within the committee.

4.2.3 Interpretation of the Mandate

As we saw earlier, the many ways of interpreting the mandate lead to various interpretations concerning the information that should be made available to committee members. The same can be said of the scope of powers that should be given to the committee. Businesses are not inclined to favour the idea of giving a great deal of power to the committees…

> *My operations must meet the criteria set by the Department of the Environment. If I submit all my projects to the committee, what criteria are they going to use to say whether they are valid or not*? [translation] (a proponent)

… while citizens would like to see an enhancement of their power to act:

> *The committee is just "window dressing." It deals with a few localized problems, but there is never any in-depth debate.* [translation] (a citizen)

Here again, these fundamental debates, most of which are very time-consuming, illustrate the power plays indulged in by the various pressure groups.

4.3 Expertise

Several of the findings of our analysis fall under the heading of "expertise." M. Crozier and E. Friedberg demonstrate clearly how expertise, which can be defined as the mastery of specific skills or operational specialization, can be a source of power: "The expert is the only person who has the know-how, skills and situational experience that enable him to solve certain problems crucial to the organization" [translation] (1977: 84). As soon as the committee needs the expert's skills in order to function properly, this person is free to negotiate and use this asset. The expertise can be scientific, lay, operational or interpersonal.

4.3.1 Scientific Knowledge

The participants encountered dealt mostly with the scientific expertise of specialists in ecotoxicology, clean-up procedures, engineering, sediment contamination and epidemiology. For most, the need for scientific input to resolve the environmental problem was never in doubt. Moreover, one of the major weaknesses pointed out by citizens and environmental groups is the lack of scientific resources that would give them a better understanding of and a better ability to critique the various scientific papers and arguments introduced.

In the same vein, even representatives of environmental groups admit their lack of scientific knowledge:

> *Follow-up is possible for someone who really has the qualifications. We aren't architects or engineers or scientists*. [translation] (a representative of an environmental group)

Several citizens expressed disappointment in the committee members' lack of skills. Many felt that environmental groups have an expertise they can rely on to review the data and fuel scientific discussions. These players expressed a desire to recruit a neutral expert whom they could consult.

However, in two cases, respondents did not object to the only source of information being the company's experts. In their view, the expert has no reason to mislead them.

> *The information she was giving us seemed appropriate to me. She wasn't going to gain anything by leading us in directions that would have affected everyone adversely. So we felt "safe" with the information she was passing on to us*. [translation] (a citizen)

Despite this finding, it seems that the source of scientific information is of great importance. Several experts encountered complained that citizens and representatives of environmental groups rejected some of their statements but later accepted them when they came from a government representative. Some government experts complained of the same treatment when citizens and environmental groups accused them of being too close to a company. Although expertise seems to be important to the understanding of an issue, it seems much less essential to negotiations and deliberations.

However, several examples demonstrate that specialization, even scientific over-specialization, is not necessary to understand the issues. For example, some citizens have sufficient background to understand discussions because of their employment or general training. These persons can also more readily access resources outside the committee (Internet, university or government experts, acquaintances, etc.).

4.3.2 Lay Knowledge

Several players have an acute awareness of their environment that we call “lay knowledge”. This knowledge can be so specialized that it can contradict the scientists. For example, one citizen, affected daily for several years by disturbances caused by a proponent, was able to notify the proponent of certain deficiencies even before the company’s specialists would identify them. In another case, the residents of one region systematically record the proponent’s activities, which makes it difficult for the latter to deny certain actions. Moreover, in cases of social or human impacts on neighbours or affected groups, citizens are often the best informed and therefore the best able to describe them (for example, the stress caused by heavy transportation during a construction period).

This type of knowledge represents a definite asset, although it is often overlooked by those who possess it. When used judiciously, however, this knowledge gives participants valid ammunition with which to negotiate.

4.3.3 Operational Knowledge and Aptitude for Interpersonal Relations

Operational Expertise

Another type of expertise is observed in players who effectively master the operation of the committee. Some know how these types of meetings are conducted, although they have never been members of follow-up committees. Community group representatives who have experience as shop stewards can bring their expertise to the committee. Conversely, citizens have less mastery of committee operations. In fact, the strength of their arguments is sometimes lessened when they choose the wrong time to put them forward.

Aptitude for Interpersonal Relations

Several participants have an aptitude for interpersonal relations: the ability to convey scientific information in lay terms, a talent for settling conflicts or an aptitude for negotiation. A talent for negotiation can be used to influence power struggles among pressure groups, and those who possess it are often less affected by the weight of authority that others attempt to impose.

In summary, there are various types of expertise, all of which can be assets to the participants and enable them to develop strategies. However, in order for the expertise to be useful to the one who possesses it, he or she must have the opportunity and the ability to use it. The complexity and multidimensional nature of environmental issues and the relationships that develop within a committee cannot be mastered by a single expert or by a single type of expertise. Thus, as was shown, scientific knowledge is not the sole source of expertise for persons involved in environmental follow-up committees.

4.4 Organizational Context

In working toward its objectives, an environmental follow-up committee is always relating to its external environment, or at least to the members that form it: the institutions (cities, government departments, semi-public corporations), environmental groups, companies, elected officials, journalists, citizens, etc. As M. Crozier and E. Friedberg point out, “an organization’s pertinent environments, i.e., the segments of society with which it has relationships, always and necessarily constitute a potential source of disruption for its internal operations and, thus, a major and inescapable area of uncertainty” [translation] (p. 86). These relationships will be discussed in this section. Our analysis has enabled us to identify three elements in connection with the external environment, namely the influence of external systems on the committee, the committee’s influence on other systems, and the external relationships among committee

members.

4.4.1 Influence of External Systems on the Committee

The committees are influenced by three external factors: activities outside the committees, social acceptability and perseverance.

Activities Outside the Committee

The first thing we observe is that activities outside the committee can create a great deal of uncertainty among committee members. For example, some citizens consider that company directives limit the flexibility of the proponent's representatives. For citizens and community groups, the proponent's representative is not the one making decisions.

> *He (the proponent's representative) can never commit to anything on the table. He is constantly saying that he has to talk to his boss and he cannot make a decision.* [translation] (a representative of a community organization)

The proponent's representative can make use of this situation, which constitutes an unknown for the other parties involved, to justify certain actions (or inaction).

Social Acceptability

A project's broad social acceptability to the community as a whole affects the committee's internal dynamics. In fact, several respondents, citizens, municipal representatives and ecologists, stated that they felt forced to restrict their actions out of fear of adversely affecting the smooth operation of the project or the company:

> *For almost a year that's what steered the discussions. People weren't comfortable, they didn't dare make a move.* [translation] (a representative of an association)

Conversely, as we saw in one of the cases in the study, a conflict that arises in the emergence phase of a committee can hinder cooperation among stakeholders.

Perseverance

In the absence of options for efficiently and promptly intervening in a problem situation, most participants feel they have no choice other than to participate in the follow-up committee. Hence, participation becomes a constraint that obliges participants to maintain harmony within the committee in order to ensure its continuity. This need generates a more respectful atmosphere and minimizes disputes. One proponent admits to having criticized a member less than he would have wished to because the committee's longevity depended on that member.

> *I'm the only one who stood up to them. Not too much, though; I didn't want them to leave.* [translation] (a proponent)

We therefore see that this perseverance has a direct effect on the committees' strategies, relationships and dynamics.

4.4.2 Influence of the Committee on Other Systems

Company Image

Participation in the work of the follow-up committee may also serve the interests of another system, that of the company. It can enhance a company's image as a "good corporate citizen." Almost all the representatives of proponents see their role from this perspective. However, this external environment can just as easily become a constraint. Indeed, the company's image can rapidly be threatened:

> *He (a citizen) threatened to organize a boycott of [our company's] products.* [translation] (a proponent)

> *If the company leaves the committee, it will make the papers.* [translation] (a government representative)

The company's image therefore constitutes a central factor in the discussions: the entrepreneur strives to preserve this image and citizens try to weaken it.

More Rapid Action in the Associated Organization

Some government and proponent representatives also use the follow-up committee to advance matters within their own organizations. Several of these representatives cited committee pressures to justify the need to expedite the handling of matters within their organizations.

> *The existence of the committee allowed me to push this file through thedepartment.* [translation] (a government representative)

Similarly, the presence of the public serves both to justify the need for rapid action and to legitimize certain steps.

4.4.3 Relationships Outside the Committee

Some members' external relationships are also likely to disrupt the committees' operations and dynamics.

Neutrality Questioned

Several players had had dealings with each other prior to the creation of the follow-up committee. Furthermore, since governments have to conduct environmental follow-ups on projects, representatives of environmental agencies, municipalities, development agencies and companies often maintain steady relationships, sometimes even for many years. This gives other members the impression that some decisions are made without their knowledge. Our interviews show that this inspires great uncertainty, especially among citizens, in most cases fueling a certain skepticism regarding the neutrality of government representatives.

> *We can't trust the Department because they are in cahoots with the company. The Department is in a situation of flagrant conflict of interest.* [translation] (a citizen)

Similarly, we discovered that economic ties exist between the proponent and certain stakeholders. Citizens and environmental groups feel that these individuals are in a conflict of interest situation and that they cannot claim to represent another group. In the last two examples, the representation of many players was challenged. For several, a stakeholder in a conflict of interest presents only the interests of the proponent. One person mentioned certain members of the committee who have vested interests in a project's implementation or in the activities of the company subject to follow-up. That person questioned the objectivity and independence of the individuals in question.

> *It's important to have people on the committee who have no personal interests in [the company]. Because if you have personal interests, youlose your objectivity. You tell yourself that if you speak poorly of or criticize this or that, it will be your contract that suffers as a result… In short, members of the committee must not be in conflict of interest situations.* [translation] (a citizen)

Other respondents feel that municipal representatives (elected officials or government employees) are in conflict of interest situations because of the fiscal benefits resulting from the project. These benefits can amount to a significant percentage of the host municipality's budget.

In summary, many external systems affect follow-up committees. Like any organization, committees are affected by their environments: they are influenced by them and exert influence on them in turn. Mastery of this area of uncertainty confers a definite advantage.

4.5 The Changing Action System and Lessons Learned

The fifth theme of the analysis relates to the changing action system and the lessons learned. Some of the changes in the dynamics among players do indeed seem to be a function of a committee's longevity.

4.5.1 Citizens' Investment

In terms of their experience on follow-up committees, some members say they were not discouraged by the scientific and technical aspects of understanding the activities of a company and their potential repercussions on the physical and human environment. However, many hours of work are required. One citizen even expressed reservations about the possibility for everyone to do as he did:

> *It takes a lot of work [the respondent mentions frequent, sometimes weekly meetings]. The work we do, I'm not sure I want to hold that up as a model for all of Quebec, as a way for people to get involved. In some ways, it's crazy. It makes no sense. In human terms, it's ridiculous.* [translation]

In this regard, another citizen points out that committees must have the necessary resources they need to do their work:

> *It can be done, but we need to delegate. We need to find staff who will always be there to take care of the writing side and keep files up to date.Some continuity would make up for the absence of certain members.* [translation]

For example, some long-time committee members talk about "personal investment." Because they have devoted many hours to a matter, often more than the time asked of them, they are anxious that the work accomplished be productive. For several citizens sitting on the follow-up committees studied, the personal investment exceeds what is asked for by the organization. Indeed, it is not unusual for a citizen to devote several hours a week to preparing files or researching topics related to a committee's activities. However, several regret the fact that, in addition to their voluntary participation on the committee, they have to cover certain costs (meals, transportation, etc.) as well.

> *Paying for gas to go to meetings, meals at restaurants after meetings, thetime I spend, parking meters … it's starting to add up.* [translation] (a citizen)

The need for so much personal investment can make committee membership difficult because it is voluntary.

4.5.2 Evolution of the Action System

We find that the acquisition of certain knowledge has encouraged changes in a committees' dynamics. Indeed, several committees experienced an initial period of confrontation. Based on the statements we collected, it appears that the atmosphere of the committee was calmer when stakeholders understood each other's positions and adopted a mode of operation acceptable to all.

> *In the beginning, we didn't really understand the disturbances the citizens were experiencing and, similarly, they didn't know much about what was happening on our side. We got to know each other and began to understand the realities faced by the other side.* [translation] (a proponent)

The stakeholders also acknowledge that, over time, they discover each other's strategies as well as the informal alliances that exist between certain participants. In this way, they learn to establish alliances themselves and to anticipate certain tactics with which they disagree:

> *It was the first time I was faced with such a situation. I didn't see anythinggoing on, but the next time I won't be duped; I understand the tactic.* [translation] (a citizen)

Through its activities, a follow-up committee can help the various players learn a great deal about the different aspects of an environmental issue. Without having to become specialists in the field, individuals acquire a large amount of knowledge over time. The acquisition and sharing of knowledge affects the relationships between players since experts are less able to create uncertainty and confusion by using specialized terms. In one case, the competency acquired by certain citizen members changed the relational dynamics within the committee and promoted greater respect between the citizens and the company. The citizens became valuable spokespeople for the proponent:

> *At the first meetings, we asked questions … and now we are proving thatwe don't have to be experts. We can equip ourselves with tools to reach our goals.* [translation] (a citizen)

Thus, the analysis shows how volunteer civic action has an impact on the changing action system.

5. Evaluation of Effectiveness and Recommendations

The analysis we have just presented makes it possible to better situate stakeholders in the context of the follow-up committee's operations. In addition to describing such aspects as the multiple interests represented by the stakeholders, our analysis shows that a stakeholder involved in a follow-up committee is part of a specific set of dynamics. Understanding these dynamics makes it possible to more accurately evaluate the true effectiveness of the follow-up committee.

Several authors use the integrated environmental management (IEM) concept (Barouch, 1989; Born and Sonzogni, 1995; Cornford et al., 1985; Lang, 1986; Gardner, 1990; Mermet, 1992; Margerum and Born, 1995; Margerum, 1999) to describe and analyze new environmental management procedures. These procedures are based on integrating the planning, assessment and implementation phases into a consensus-building process that involves various players with divergent and even contradictory interests. According to R.D. Margerum, the operationalization of IEM is defined as a diverse group of stakeholders coming together to share information and perspectives, to harmonize their efforts and collaborate in order to manage the environment.[37] Moreover, IEM is based on a holistic approach in which the system (environmental, social, organizational) is considered in its entirety rather than as isolated components. A holistic approach also means that the interrelationships between the system's components are recognized.[38] This definition of IEM clearly describes the situation of the environmental follow-up committees observed in our survey.

Drawing on a comparison of 23 case studies from the United States and Australia (all multiple watershed management committees), a survey of 285 Australian stakeholders and a literature review, R.D. Margerum established 20 conditions for the successful operationalization of IEM. These 20 conditions, presented in Table 3, relate to institutional and organizational structuring, effective and operational management and implementation. The author does specify, however, that these conditions do not constitute a universal model for a successful IEM committee. The conditions for success relate instead to a generic set of attributes identified as a foundation for effective practice. While heeding the author's warnings, we use these criteria to provide a framework for our analysis and seek to verify its accuracy and make it more practical. To this end, we assess our field observations and our analysis of the action system against Margerum's criteria in order to make recommendations that might enhance the effectiveness of the follow-up committees. We present our recommendations under the following broad categories defined by R.D. Margerum:

1. institutional and organizational framework,
2. operational and effective management,
3. implementation.

We will also refer, but not limit ourselves, to the subcategories developed by the author when they relate to analysis of the operation of the follow-up committees under study.

37 - "A diverse group of stakeholders comes together, shares information and perspectives, fosters mutual understanding, and develops a collaborative approach to managing an environmental system" (Margerum, 1999 : 151).

38 - Ibid.

Table 3: Conditions for the Successful Operationalization of Integrated Environmental Management According to R.D. Margerum

	I. Institutional and organizational framework	
1.	Legal and regulatory framework supporting the integrated approach	A framework of formal constraints that permits the establishment of the ground rules for collective action.
2.	Availability of human and financial resources to support the collaborative process	A minimum of strategic resources (expertise, budgetary, informational, etc.) enhances the collaborative process.
3.	Commitment and involvement of the key players	The participants must want to devote a lot of effort to the collaborative process.
4.	Diversity and representativeness of all the stakeholders affected by the issue	Openness to all the interested parties enhances the committee's legitimacy in the community.
5.	Availability of skilled players to steer the committee's efforts	It is very important to have a coordinator with skills in communication, conflict resolution and planning, and with environmental, sociological and economic knowledge. The coordinator also needs support staff.
	II. Operational and effective management	
6.	Need to develop some processes and tools for clear and effective communication	The players ask to participate in developing discussion rules and procedures.
7.	Clear procedures for making decisions	Agreement difficult to secure; however, consensus promotes trust and solidarity among members.
8.	Ability to identify and manage conflicts	The coming together of different participants inevitably creates some conflicts. They often attribute their committee's success to its ability to spot problems and resolve conflicts.
9.	Duty to consult the populations involved	The committee members must value the information coming from the public during the various steps of the follow-up.
10.	Decision-making process based on an ecosystemic understanding	The participant' diagnosis and thinking must be predicated on information that permits an ecosystemic view of the problem and the possible solutions.
	III. Implementation	
11.	Development of an atmosphere of agreement, common objectives and mutual understanding	Collusion among the participants must be minimized.
12.	Development of a strategic, flexible and adaptive vision to guide the implementation	The committee's success will be enhanced by planning and prioritizing objectives. The planning must, however, permit adaptation to a changing external environment.
13.	Development of an approach integrating environmental, social and economic factors	An integrated approach allows for a better view of the problem and a better understanding of organizational operations.
14.	Diligent follow-up of the implementation	The committee members must be present throughout the implementation process.
15.	Management by clearly defined objectives	The accomplishment of broad goals is enhanced by a clear view of the achievement process and the sphere of activity.

16.	Participants must claim their role in managing the problem	Participants must be able to earn regional recognition for the work accomplished.
17.	Creation of structures and mechanisms ensuring participation in the decision-making process	The committee members must feel they can influence the decision-making process.
18.	Support for implementation through information and awareness campaigns	An education and information program is publicity for the committee, allows for short-term action and often becomes a goal acceptable to all the members.
19.	Need for resources to support implementation	The high implementation costs require the availability of sufficient resources.
20.	Prompt action to maintain participants' interest	Initial successes ensure long term success. It is therefore necessary to encourage short projects or divide up larger ones.

5.1 Institutional and Organizational Framework

Our survey showed us that the regulatory framework of the federal and Quebec environmental assessment processes rarely structured the work of follow-up committees, with the occasional exception concerning their creation and composition. Moreover, the Commissioner of the Environment and Sustainable Development reached similar conclusions (Canada, 1998). We also note that this lack of formal structuring creates uncertainties that delay the achievement of the committees' objectives. Like the regional environmental councils, the responsible agencies should establish a policy for recognizing and funding follow-up committees in order to increase their effectiveness. Such a policy would help to resolve a large portion of the committees' financial difficulties.

Our case studies show that discussions concerning composition, mandates and objectives, mission, key activities and operating procedures are very time-consuming and generate numerous conflicts. A regulatory framework that imposes a structure on the committees' operations should help them reduce the amount of time spent debating these issues.

At the same time, this regulatory framework should encourage follow-up on the committees' activities by requiring that an annual report be produced. As we have seen, several committees have undergone changes as they developed. For example, some members left their committees, while others modified mandates and objectives. There is currently no formal mechanism that supports and monitors the evolution of follow-up committees.

However, a legal and regulatory framework should take into account the characteristics of each project. As we have seen, the interests at stake in the various issues and the contexts vary greatly depending on the project. Moreover, the context and emergence of each committee have a unique dynamic that is based on varying parameters. For example, some projects require the involvement of several levels of government, while others must bring in regional development organizations because of the economic uncertainty in the region. Overly strict regulation would therefore adversely affect the representativeness of stakeholders in terms of the diversity of the sectoral interests or divergent positions as well as in terms of the areas (local, microregional, regional, etc.) represented.

Furthermore, as our case analysis revealed, few formal measures frame the composition of the committees. Similarly, we note that a consensual selection process may result in the exclusion of certain stakeholders. Agencies should therefore evaluate the interests at stake in each project and adopt regulations that will ensure the broadest representation possible. Such a legal framework should also prevent the over-representation of certain interests.

In one case studied, the current legal framework prevented a stakeholder, who was essential to the follow-up committee, from participating. We also noted that certain proponents took it upon themselves to set or reduce the frequency of meetings. Moreover, we observed that certain operating procedures (e.g. time and place of meetings) discouraged the attendance of all the stakeholders potentially required for a project follow-up. The regulatory framework should therefore encourage the participation of all players, both by defining those who are essential, and by proposing operating conditions that are acceptable to all.

This study also shows that follow-up committees require financial and human resources in order to operate (secretariat services, offices, telephones, etc.) and carry out their activities (information evenings, leaflets for the public, etc.). In

addition, members of citizens' and environmental groups, who are usually not in a position to analyze and critique scientific reports, noted the absence of resources for obtaining a second opinion.

Several players also stressed the importance of having a competent committee coordinator. According to the stakeholders we met, the coordinator must possess effective communication skills and a sound scientific and technical understanding of the subject in question. Such individuals usually have university degrees and valuable experience with the issue and with joint action.

We also note that project proponents are usually involved in funding follow-up committees. The stakeholders we met considered that financial dependence on the proponent was a key factor in compromising a committee's independence. Regulation of funding should therefore ease the power struggle between the proponent and other committee members.

Committee funding is unquestionably a major issue. One way of overcoming the problem would be to create a support fund that would provide follow-up committees with basic funding. Using the regional environmental councils' recognition and funding policy as a model, the agencies responsible for the procedure should set up a support fund that would provide the follow-up committees with a statutory annual amount. Supplementary financial assistance could also be made available to offset direct funding by proponents.

Lastly, with respect to the institutional and organizational framework, committee members have few benchmarks with which to guide their actions. Indeed, follow-up committees are a new type of public environmental initiative. Because they are thus far relatively unstudied, it is difficult for these committees to learn from the experiences of other models.

Recommendations

1. The responsible agencies should establish a legal and regulatory framework that:
   - covers the establishment and operation of follow-up committees;
   - makes it possible to evaluate the activities of follow-up committees;
   - promotes a flexible approach that takes into account the details of each environmental issue and the unique features of each community and geographic areas to which the follow-up applies;
   - fosters a broad representativeness that accommodates the stakeholder groups involved, the geographic areas at issue and the various positions and interests;
   - provides committees with the necessary funding and resources;
   - defines a funding procedure that guarantees committees independence from the proponent;
   - defines the composition of committees in such a way as to ensure the participation of as many stakeholders as possible and to set the number of representatives from each pressure group;
   - includes the stakeholders who are essential to the follow-up of each issue. This framework should both encourage stakeholders to participate in the follow-up and ensure accessibility for as many stakeholders as possible.
2. Agencies responsible for the environmental assessment process should set up a support fund to ensure that follow-up committees do not find themselves financially dependent on proponents.
3. The legal framework and financial resources should facilitate the presence of essential stakeholders, such as coordinators and experts.
4. The responsible agencies should promote the establishment of a network of environmental follow-up committees by creating a directory of existing committees. Such a network will enable stakeholders to compare their work with that of other joint-action groups.

5.2 Operational and Effective Management

A few of the committees that we studied had academic support teams. The discussions that took place in this context were profitable for both parties: the academics had access to a rewarding area of study and committee members were able to profit from the expertise of the academics and their knowledge of follow-up committees. It would therefore be worthwhile for committees, who have not already done so, to develop relationships of this type.

We also believe in the need to provide opportunities for open and continuous debate: forums, workshops, focus groups,[39] etc. In this way, citizens would be able to express themselves and the committee could disseminate and convey the results of the follow-up in lay terms. We are of the opinion that it is essential to provide members with training in both the specifics (waste management in Quebec, sediment contamination, etc.) and the generalities (teamwork, communication, etc.). This would equip them with the necessary knowledge to fulfill their mandate and would give them greater credibility in the eyes of the public, the authorities involved and the proponent.

It is noteworthy that, in almost all the committees studied, consensus is the preferred mode of operation. In fact, in a context that brings together a host of stakeholders with differing interests, consensus seems to offer a way of preserving a healthy work atmosphere and encouraging the participation of all. It is easy to imagine the difficulties a decision by vote would cause if the representatives of one group found themselves in the majority. Moreover, we have shown that the only committee that chose voting as its instrument of decision making never actually used it.

39 - The focus group is an interview technique that brings together 6 to 12 participants and a facilitator for a structured discussion on a specific topic (P. Geoffrion).

Our analysis also establishes that it is difficult to attribute the opinion of one citizen to the population as a whole,

especially when no feedback mechanisms exist. The public does not constitute a precisely defined organization that its representative can easily consult. Although including citizens on committees is intended to encourage them to take part in the follow-up process, a more efficient approach would be for committees to equip themselves with public consultation mechanisms. Such mechanisms would make it possible to gather the opinions of a broader and more representative sampling of people.

Most committees attempt to reduce or eliminate the harmful effects of industrial facilities. These disturbancess constitute visible social problems that inconvenience or annoy citizens and neighbours. It is therefore important that such disturbances be documented and assessed scientifically and with equal thoroughness as the biophysical repercussions. Hence, ongoing surveys of quality of life, for example, are an excellent means of helping a committee in its work and of measuring changes that occur in the community or communities. These surveys are as useful to the municipality and the proponent as they are to the community.

In an integrated management approach, follow-up committees would benefit by grouping the social, economic and biophysical repercussions of change; this would ensure that follow-up is not limited to enforcement of the environmental standard, but that it encompasses the changes and repercussions as a whole. Since social impact assessment is the poor but unruly child of environmental assessment, including this type of impact in the follow-up can make changes and their causes more socially acceptable during the operating phase of a facility.

Recommendations (continued)

5. Support for the follow-up committees should be fostered through a multidisciplinary team from academic circles, and training should be provided for members.
6. Follow-up committees should adopt consensus as a mode of operation.
7. In addition to having a citizens' representative, follow-up committees should develop effective mechanisms for consulting the public.
8. It is important that follow-up committees acquire the means and resources necessary to scientifically document and thoroughly follow up on impacts.
9. It is important that follow-up committees pay very special attention to the follow-up and assessment of social and human impacts in cases where new social impacts are felt or where they were not evaluated at the time of the impact assessment.

5.3 Implementation

According to our findings, informing the public was almost always part of the committees' mandates. This mission often seems to be supported by a large number of members. The achievements associated with this bring great satisfaction: they take little time to accomplish and they encourage members to continue their involvement. Committees would therefore benefit from developing more systematic mechanisms of conveying information, thereby fulfilling their mandate and reaching the maximum number of people.

The analysis of the 10 cases selected reveals the weariness of participants who conduct long-running projects. One way to remedy this would be to encourage rapidly achievable objectives. Projects that stretch over many months should be subdivided by setting short-term objectives or be given to subcommittees. In this way, it would be easier to sustain participants' interest and avoid the sense of discouragement generated by an unwieldy project that stretches over a long period of time.

Since the follow-up committees are part of a system of stakeholder groups, their work establishes an explicit or implicit link between three major spheres: civil society, the government and the marketplace. In order for their actions and achievements to be effective and for the lessons learned to enhance the viability of their communities and areas, it is absolutely essential that they not work in isolation. As many observers have already noted, sustainable development requires a phase of spatial planning.

Recommendations (conclusion)

10. Committees should devote some of their efforts to information and education programs.

11. Committees should divide their work by setting reasonable short-term objectives. In the case of long-term or highly complex projects, objectives should be subdivided or subcommittees formed.

12. In all the implementation phases of urban and regional development, especially the spatial planning phase, follow-up committees should institute mechanisms and cooperative relationships that allow for convergence and feedback between their actions and those of local communities (municipality, regional county municipality, urban community).

6. Conclusion

As a step in the environmental assessment process whose importance has long been underestimated, environmental follow-up seems to be increasingly in favour and now extends beyond the formal environmental assessment framework. At an initial level, follow-up makes it possible to verify the accuracy of the assessment of a project's environmental impacts. However, based on the mandates and accomplishments of the committees studied, it also surpasses this objective. It can be regarded as an integrated land and environment management tool. It can also serve as a basis for consensus-building, perhaps even mediation, between productivist industrial development and the quality of life of citizens and their environment. As our exploratory field study shows, this approach is becoming increasingly essential. Despite the fact that the committees are inadequately equipped to fulfill their mandates and achieve their many objectives, in practice it seems as if their operation and overall action anticipate the environmental, land-use planning and legal components of the process!

This lack of direction and support on the part of the authorities involved complicates the work of the committees or at least limits their effectiveness. It will be recalled that, unlike Australia and a number of European countries, neither Quebec nor Canada has yet adopted relevant follow-up regulations.

Despite their relative newness, follow-up committees, if well equipped and directed, have a promising future as a part of the collective quest for sustainable development. The committees work toward improved integration of environmental quality and land-use planning and development operations; improved assessment of disturbances; ongoing dialogue among local stakeholders with convergent and divergent interests; transparency and adaptation of the information required for informed decision-making; and integrated environmental management based on social and other types of repercussions. The stakeholders who participate in these new joint-action forums are helping to build a novel approach to the environment, which requires closer examination.

The Limits and Potential of the Study

In focusing on 10 environmental follow-up committees, this study explores a relatively unstudied and little-known area. It should be part of a series of studies aimed at better understanding the structure and the operation of follow-up committees as well as their actual contribution to the environmental assessment process. Better knowledge of the subject would enable the researchers and all the stakeholders involved to learn some valuable lessons in taking action. This study will advance efforts in this direction by shedding light on the key issues raised by the committees and the context in which they evolve. An additional benefit of this research is that it will make it possible to develop a standard questionnaire aimed at listing all practices. It will also encourage discussions with both the responsible authorities and the follow-up committees themselves.

Eventually, this study will be expanded to allow for comparisons in other Canadian provinces and countries. However, in view of the limitations of this research and the shortage of data available to us, we feel it is difficult to assess the effectiveness of the follow-up committees. As we have shown, several authors have attributed functions to the committees that have never been verified in the field. Although our study does not allow us to judge the truth of these assumptions, it does show us that functions develop unevenly in each committee, that various factors affect their development, and that they need a legal framework. We believe that this study should foster the development of integrated criteria for evaluating the effectiveness of follow-up committees.

Appendix I

Interview Grid

Professional occupation:
Academic background:

Your Role

1. How did you become a member of the cooperation committee?
2. How would you describe your role? (What is your mandate?)
3. Are you satisfied with your involvement?

The Committee's Mandate and Composition

4. In your opinion, why was the committee created?
5. What do you think of the committee's composition?

The Committee's Work

6. Do you feel that the committee has contributed to the follow-up of the site activities? How?
7. Do you feel that the committee's activities have tangibly influenced the decisions of the company and public authorities?

Relationships

8. With whom are you required to collaborate on the committee?
9. With which partners do you have relationships (easy or difficult) and why?
10. What are the basic problems you encounter in achieving the objectives the committee set for itself?
    - At the procedural level (conduct of the meetings, decision-making process, etc.)
    - At the content level (topics addressed, issues dealt with, etc.)

Information

11. Do you feel you have the information you need to carry out your mandate?
    - In your opinion, did the information provided by the company allow the committee to conduct an environmental follow-up of the project?
12. In your opinion, are the residents of the area well informed about the follow-up of the site's activities?

The Committee's Independence

13. In your opinion, does the committee have enough independence with respect to its funding?

Improvement

14. In your opinion, what would have to be changed to increase the effectiveness of the consultative committee?
15. Are there questions that received little or no attention during discussions but that you would have liked to see addressed at committee meetings?

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