

Fire Safety

Guide for
establishing
a fire safety
cover plan

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CONTENT AND CONDITIONS FOR ESTABLISHING

A FIRE SAFETY COVER PLAN

Québec 

**CONTENT AND CONDITIONS FOR ESTABLISHING
A FIRE SAFETY COVER PLAN**

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MESSAGE FROM THE MINISTER OF PUBLIC SECURITY

Development by the regional county municipalities of fire safety cover plans in accordance with the *Fire Safety Act* certainly constitutes the most crucial stage in the implementation of new conditions which should improve Québec's record when it comes to loss of human life and assets due to fires. As the Minister of Public Security, I committed myself in the work which led to the adoption of this new act, to the effect that the ministère de la Sécurité publique would work closely with the municipal authorities in their new responsibility. A first element in this context was the announcement, last June, of a financial assistance program intended to enable regional authorities to develop fire safety cover plans.

In this same spirit, I have the pleasure today of presenting to the municipal world the first of a series of guides for the project managers of the MRCs, as well as for the key partners associated with the planning of fire safety. This guide explains the diverse aspects of the step that they are getting ready to undertake. Dealing with the contents and conditions to establish a fire safety cover plan, this first guide will be followed by others, over the coming months, that will cover the different technical concepts related to optimization of fire safety resources.

These considerations are certainly important, but they should not take us away from the conditions for the success of this planning and consultation exercise: the human aspect and the political function which follows. Yet, on this, I again reiterate my confidence in the sense of duty and pragmatism of the elected municipal members and those in charge of fire safety. I, personally, remain convinced that the procedures carried out in each MRC will be primarily motivated by the dual concern for a better protection of the population against fire and a greater equity for the tax payers.

Minister of Public Security



Serge Ménard

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1 INTRODUCTION

In June 2000, the Québec government adopted Bill 112 entitled *Fire Safety Act*. This legislature piece crowns five years of consultation work on the part of the ministère de la Sécurité publique in collaboration with its main partners in the field. It constitutes the key piece in a reform which should change the perception that the various intervening partners (citizens, firefighters, municipal elected members, etc.) have on fire, by having them adopt conducts which conform closer to their respective responsibilities in matters of planning, prevention or fighting fires.

The main innovation in this Act consists in the implementation of a regional planning process for fire safety. Executed individually in each regional county municipality (MRC), the process suggests improved awareness of the fire risks in its territory, as its principal objective, in order to then determine a lay out of the resources that would favour an optimum protection for the population and the property. Based on dialogue between municipalities of the same region, this planning foresees a greater efficiency from the organizations, an enhanced use of resources and equipment as well as an increased recourse to preventive measures. Although this planning will be inspired by the main standards of quality and efficiency in effect in the field of fire safety, it leaves the matter of deciding the level of protection that they wish to offer in each sector of their territory, to the municipal elected members.

The regional planning process for fire safety is materialized in the fire safety cover plan that is elaborated by the regional county municipality in collaboration with the local municipalities. Although the fire safety cover plans could be compared, in some way, to the territorial development plans with which the regional county municipalities are

already familiar, it is an all-new responsibility for them. This is why the ministère de la Sécurité publique intends to use different means, and to conceive different tools to assist the regional and local authorities to assume this new responsibility and to execute the activities related to establishing fire safety cover plans.

This guide constitutes the first of these tools. It contains information on the questions that regional and local authorities might ask from the beginning of the elaboration process for the fire safety cover plan.

It therefore addresses the following subjects:

- the content of a fire safety cover plan: the regulations of the Act on this subject; the table of contents for a plan and the main sources of information to be consulted;
- the fire safety planning process: its characteristics and main constraints, the structure of its process, the responsibilities and respective roles of the various players, the conditions for the success of the operation;
- the elaboration process of the fire safety cover plan: the stages for the execution and programming of the work.

Even though its contents will certainly prove interesting to municipal elected members, especially those who are members of a MRC council, this document is, by priority, intended for individuals responsible to execute those activities that are related to the fire safety cover plan: managers and civil servants of the MRC, project managers, members of regional fire safety committees or representatives

from municipal fire safety services who are involved in the elaboration of the plan.

Other guides on specific aspects of a fire safety cover plan will be added over the coming months in order to meet the eventual needs of regional and local authorities on subjects such as: an inventory of the measures and municipal resources devoted to fire safety, use of the tax assessment roll to rank fire risks, contents of the implementation plans used by local municipalities, the establishment and use of performance indicators for fire safety, or the revision of the plan.

2 CONTENT OF THE FIRE SAFETY COVER PLAN

An instrument for risk management and decision taking for municipal elected members as well as a planning tool for those in charge of emergency operations, the fire safety cover plan, as its main goal, provides the procedures of the fire safety organization in a given territory. Essentially, as its name indicates, it is a risk management exercise, i.e. an analysis of the risks present in the territory, to provide the appropriate preventive measures to reduce the probability of a fire and plan the intervention procedures likely to limit the disastrous effects when a fire breaks out.

Sections 10 and 11 of the *Fire Safety Act* specify the different elements to include in a fire safety cover plan and the elaboration procedures to follow. They are:

- inventory, evaluation and classification of the fire risks present in the regional authority's territory;
 - inventory and evaluation of the existing or planned protective fire protection measures as well as the human, physical and financial resources allocated to fire safety by the local or regional authorities or by an inter-municipal board;
 - inventory of the infrastructures and water supply sources available for fire safety;
 - an analysis of the functional relationships that exist between these resources;
 - an evaluation of the operational procedures in force in the municipal fire safety service;
- for each risk category of the inventory or for each section of the territory defined in the plan, a determination of the optimum fire protection objectives that could be achieved, taking into account the measures and resources in place;
 - the actions that the municipal authorities and the regional authority should take to achieve these objectives, in the context of implementation plans that are incorporated to the fire safety cover plan;
 - a procedure to periodically verify the efficiency of the actions implemented and the extent to which the objectives were achieved;
 - analysis of other risks of disaster likely to require the use of the same resources.

Taking these elements into account, Table 1 offers an example of a table of contents for a fire safety cover plan and the various elements for each chapter as well as different sources of information likely to give substance to each part of the plan. By consulting the table, we can see that the regional or local authorities already have access to a substantial quantity of information, relating to the organization of fire safety and especially the situation of risks, in data banks or in their administrative documents: tax assessment rolls, territorial development plans, regional socio-economical profiles, economic promotion documents, etc.

TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information.

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
1. INTRODUCTION	<p>Scope of the fire safety cover plan</p> <p>Context and key stages of its elaboration</p> <p>Summary introduction of the document's contents</p>	<ul style="list-style-type: none"> • <i>Fire Safety Act</i> • <i>Fire Safety Policies of the Minister of Public Security</i>
2. GENERAL INTRODUCTION TO THE TERRITORY	<p>Geographic situation</p> <p>General characteristics of the territory: surface area; topography; hydrographic resources; climate; land occupation etc.</p> <p>Demographics: population; territorial repartition; recent and foreseeable development; breakdown by age groups; evolution in the number of households; consequences on property development; etc;</p> <p>Economy: respective importance of the activities and employment in the various economic areas; impact on the risk of fire; etc.</p> <p>Territorial organization: means of communication (road links, railways or waterways, air traffic); urban water distribution network; energy transport and distribution network (electricity, gas); communication networks; developments anticipated (major private or public investment projects); etc.</p>	<ul style="list-style-type: none"> • MRC and local municipalities: development plan; urbanism plans; economic promotion projects; Internet sites; etc. • Statistics Canada • Institut de la statistique du Québec • Centre de recherche industrielle du Québec (CRIQ) • Ministère des Affaires municipales et de la Métropole • Société d'habitation du Québec • Canada Mortgage and Housing Corporation • Ministère de l'Emploi et de la Solidarité sociale • Ministère du Revenu • Ministère de l'Industrie et du Commerce • Ministère des Transports • Hydro-Québec • Gaz Métropolitain
3. FIRE SAFETY SITUATION 3.1 PRESENT ORGANIZATION	<p>General organization of fire safety services</p> <p>Allocation of services: organization of the municipalities served; jurisdiction of the municipal fire safety services; inter-municipal agreements and terms of mutual aid; other emergency or rescue activities; etc.</p>	<ul style="list-style-type: none"> • Inventory of the municipal measures and resources for fire safety • <i>Operation Guide Intended for the Use of Fire Safety Services</i> • Municipal by-laws • Inter-municipal agreements

TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information (continued).

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
	<p>Private brigades and services: industrial or institutional brigades and services; specialized services or equipment available to the community; agreements and terms of mutual aid; etc.</p> <p>Resources allocated to fire safety</p> <p>Financial resources: expenditures for fire safety by municipality; recent developments; main reasons for expenditures, etc.</p> <p>Human resources: level and distribution of fire safety workforce in different parts of the territory; status (firefighter, officer, civilian) and length of service of the personnel; degree of qualification; postings (prevention, inspection, intervention, etc.) and availability; modes and levels of remuneration, etc.;</p> <p>Material resources: number, location and condition of fire stations, vehicles and fire fighting equipment; maintenance or replacement programs; capital assets programs; etc.</p> <p>Informational resources: existing mechanisms for planning fire safety; information and control systems; performance indicators used; etc.</p> <p>Water availability: extent, condition and performance of the aqueduct network; existence of supply points in rural environments and ease of access; location of dry water hydrants; distribution of tanker trucks in the territory; etc.</p> <p>Alarm and mobilization systems: equipment used, equipment compatibility, intervention delays logged for different areas of the territory; etc.</p>	<ul style="list-style-type: none"> • Municipal fire safety service, treasury, human resources, urban development, police (annual reports and current activities) services • Budgetary forecast and triennial capital assets programs for municipalities and regional municipalities • L'Institut de protection contre les incendies du Québec (IPIQ); assessment of the operation to recognize the prior learning of the municipal fire safety service members • Ministère des Affaires municipales et de la Métropole • Sûreté du Québec • Contracts or service agreements with providers of emergency communication services or 9-1-1

TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information (continued).

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
	<p>Protection and prevention measures</p> <p>Prevention measures: inventory of the municipal by-laws; methods of enforcement; types, methods and frequency of building inspections; reference to codes in effect; public education activities; programs to evaluate incidents or to determine the causes; etc.</p>	
3.2 HISTORICAL REVIEW OF FIRES	<p>Fire statistics: human and material losses suffered over the past five years in the territory of each municipality; comparisons and trends.</p>	<ul style="list-style-type: none"> • Intervention reports by the fire safety services • Police services statistics (crime) • Direction de la sécurité incendie of the ministère de la Sécurité publique • Bureau du coroner (deaths)
3.3 RISKS ANALYSIS	<p>Inventory and characteristics of present risks: generalities on the total number of buildings; value, age, condition and layout of buildings according to their use (residential, commercial, industrial, institutional, agricultural, etc.); level of spread or concentration; main findings made during recent inspections; etc.</p> <p>Classification of risks present in the territory: according to the classification proposed in <i>Fire Safety Policies of the Minister of Public Security</i></p> <p>Inventory and characterization of other risks of disaster likely to require the use of the fire safety resources: road accidents, railway, maritime or aviation accidents; floods; landslides; etc.</p> <p>Evaluation of operational procedures: planning and coordination of activities; presence of pre-fire planning procedures or directives applicable under certain circumstances; etc.</p>	<ul style="list-style-type: none"> • <i>Fire Safety Policies of the Minister of Public Security</i> • <i>Operation Guide Intended for the Use of Fire Safety Services</i> • Municipal tax assessment roll • Inspection reports from town planning or fire safety services • Territorial development plan • Town planning • Ministère des Transports • Société de l'assurance automobile du Québec • Commission de la santé et de la sécurité du travail • Bureau de la sécurité dans les transports • Railway companies • Cable and telephone companies • Guides and information documents published by the Direction de la sécurité incendie, ministère de la Sécurité publique

TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information (continued).

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
	<p>Evaluation of the present level of fire safety coverage: proportion of the population and of the total number of buildings protected, according to the actual and theoretical (by road or as the crow flies) range from each fire station and the different specialized fire fighting equipment; measure the differences between the level of risks observed and the level of coverage.</p>	
<p>4. PLANNING: OPTIMIZATION OF RESOURCES</p>	<p>Express the major objectives of protection against fire, of reduction of losses or of the optimization of resources for the entire regional territory</p> <p>Establishing a level of protection against fire, for each risk category or for each part of the territory defined in the plan: keeping in mind the parameters contained in <i>Fire Safety Policies of the Minister of Public Security</i></p> <p>Establishing a level of protection for other risks (optional)</p> <p>List of the special resources to be mobilized and the steps to take in order to achieve each objective</p> <p>Recommended strategies: minimum rules of prevention; operational procedures; shared use of services; etc.</p> <p>Recommended actions expected to attain the objectives: prevention; public information; training of personnel; preparation for interventions; organization and deployment of assistance; etc.</p>	<ul style="list-style-type: none"> • <i>Fire Safety Policies of the Minister of Public Security</i> • <i>Operation Guide Intended for the Use of Fire Safety Services</i> • Guides and information documents supplied by the Direction de la sécurité incendie, ministère de la Sécurité publique • System of classification of municipalities in order to price insurance (Insurers' Advisory Organization (IAO)) • NFPA standards • <i>National Fire Code of Canada (NFC)</i> • <i>Building Act and Construction Code (Québec)</i>

TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information (continued).

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
5. IMPLEMENTATION	<p>In matters of prevention:</p> <p>Regulations: programming activities with a view to the adoption or modification of municipal regulations for construction, security in public buildings, industries and hazardous materials, smoke alarms, chimney sweeping, noise pollution, priority parking, etc.; duration and distribution of tasks; resources allocated to this function; etc.</p> <p>Inspection: methods for the application and control of the regulation; goals and objectives of the inspection programs; types, methods and frequency of inspections; category of properties targeted; objectives and methods of preventive visit programs; distribution of responsibilities amongst the municipal levels; recourse to the services of fire prevention technicians; etc.</p> <p>Public Education: programming educational or public awareness activities; goals and objectives; public targeted; resources allocated to this function; etc.</p> <p>Evaluation and analysis of incidents: programming; information collected; respective responsibilities of the intervening parties; use of the information gathered; resources allocated to this function; etc.</p> <p>In matters of preparation:</p> <p>Fire safety service: abolishment, maintenance, integration or establishment of a fire safety service; municipalities or territories served; inter-municipal agreements; mutual aid or mutual assistance mechanisms; etc.</p> <p>Workforce: number and categories; qualifications; measures of human resources development; etc.</p> <p>Fire stations: location, territory covered; layout; etc.</p> <p>Intervention equipment: description; localization, maintenance, renewal; anticipated acquisitions; etc.</p>	<ul style="list-style-type: none"> ◆ <i>Fire Safety Act</i> ◆ <i>Regulation respecting the training of members of fire departments</i> ◆ <i>Fire Safety Policies of the Minister of Public Security</i> ◆ <i>Operation Guide Intended for Fire Safety Services</i> ◆ Guides and information documents supplied by the Direction de la sécurité incendie, ministère de la Sécurité publique ◆ NFPA standards ◆ <i>National Fire Code of Canada (NFC)</i> ◆ Models of municipal regulation on fire safety ◆ <i>Building Act and Construction Code (Québec)</i>

■ **TABLE 1 - Example of a table of contents for a fire safety cover plan and useful sources of information (continued).**

SECTION	CONTENT ELEMENTS	SOURCES OF INFORMATION
	<p>Water supply: description and location of infrastructures, existing and to come; maintenance and verification programs; etc.</p> <p>Other equipment</p> <p>In matters of intervention or fight against fires:</p> <p>Alert and mobilization systems: mechanisms for the alert and distribution of calls</p> <p>Operational procedures</p> <p>In matters of research into the causes and circumstances of fires:</p> <p>Respective responsibilities of the fire safety service and police force; requirements for appealing to the fire investigation commissioner; resources allocated to this function; etc.</p>	
<p>6. FOLLOW UP PLANNING</p>	<p>Mechanisms for the follow up of the objectives.</p> <p>Procedure for periodic assessment of the effectiveness of actions taken and the degree to which the objectives have been attained</p> <p>Performance indicators in use or to be developed.</p>	<ul style="list-style-type: none"> • Documents from the ministère des Affaires municipales et de la Métropole (MAMM) and the Corporation des officiers municipaux du Québec (COMAQ) on performance indicators for municipal organizations.
<p>7. CONSULTATION RESULTS</p>	<p>Consultation with the population in the MRC territory, local authorities and contiguous regional authorities</p>	<ul style="list-style-type: none"> • Opinion of the municipalities and regional authorities affected • Minutes of consultation sessions

3 MANAGEMENT OF THE FIRE SAFETY PLANNING PROCESS

In addition to distinguishing from their current activities, the development of a fire safety cover plan generally constitutes, for the MRC, a first significant activity in the field of fire safety. In this context, it might be advantageous to envision this exercise following an approach and work methods inspired by project management. In effect, this exercise presents the main characteristics that permits to call it a "project", that is the "complexity", the "novelty", the "uniqueness" and the "importance". As with all projects of the largest scale, in the construction or computer systems for example, the development of a fire safety cover plan is otherwise subject to the triple constraints of **time**, **cost** and **quality**.

3.1 Characteristics of a project

According to literature on project management, a project is a "**relatively complex series of activities and tasks**, all driven towards a precise objective which is known at the beginning¹". Thus, the execution of a fire safety cover plan can certainly be compared to a complex operation since it assumes activities from an inventory of environment, data gathering, maps, regulated planning, analysis and simulation, as well as public consultations. Spread over a period of two years, these activities will call on an interdisciplinary expertise, generally scattered amongst numerous public or private organizations.

Not having existed in the past, the plan constitutes **an innovation** for the responsible organization, in this case the

¹ Bernard-André Genest and Tho Hau Nguyen, *Principes et techniques de la gestion de projets*, Montréal, Les Éditions Sigma Delta, 1995, p. 2.

MRC, whether it is on the procedure strategy or the work method, the means of implementation, the resources to mobilize or the results to achieve.

Even though the plan will eventually be subject to modifications, and be revised every five years, we may otherwise consider that its initial development is a **unique activity** and not a repetition. Finally, all these characteristics comprise **an important operation** for the MRC, an operation that will regularly solicit the attention of political authorities and administrators.

3.2 Constraints

As a general rule, a project is subject to a **time constraint**; it must be finished by a certain date, normally known from the start and often determined in relation to factors outside the organization responsible for its execution. The *Fire Safety Act* gives regional authorities two years to elaborate their fire safety cover plan. It is the Minister of Public Security, though, that determines the date when each MRC must undertake the elaboration of its plan.

In addition, the agreement concluded between the ministère de la Sécurité publique and the regional authorities specifies certain intermediate deadlines that the parties responsible for the elaboration of the plan, within the MRC, must take into account in their progress. Some of these deadlines are critical as they can not be exceeded without jeopardizing subsequent deadlines, perhaps even the execution of the plan within the time allotted. These deadlines are:

- within 90 days of notice from the Minister, presentation of a work plan to the Ministry;
- within five months of the notice from the Minister, presentation to the Ministry of the results of the Inventory of municipal measures and resources allocated to fire safety;
- within fifteen months of the notice from the Minister, presentation to the Ministry of a progress report (whose content will be specified later);
- before the second anniversary of the notice, submission of a draft of the fire safety cover plan to the Minister.

Inasmuch as the execution of plans will require human, technical and material resources, **costs** will inevitably be related. The planning should among other things consider the availability of the resources needed, particularly when these are coming from external sources or are assumed by organizations other than the MRC: local municipalities, for example.

Under the terms of a financial aid program established under Section 137 of the Act, each MRC may receive \$40,000 annually from the ministère de la Sécurité publique, during the first two years devoted to the elaboration of its plan. This program also foresees granting a further sum of \$40,000 for the third year in order to support implementation of the measures specific to the region, contained in the plan, particularly those that concern pooling of resources, equipment, and fire safety services.

Beyond the objectives related to time and budget, the effect of which will determine, to a large measure, the degree of success for the exercise, the elaboration of the fire safety cover plan should lastly take into accounts the constraints of **quality**, regulated in a large part by the new Act. Thus, the contents of the plan must, at least, include elements to this effect provided for in the *Fire Safety Act*. The objectives and measures that it contains must also conform to the *Fire Safety*

Policies of the Minister of Public Security, published in the *Gazette officielle du Québec* on May 30, 2001. Particular attention should then be given to this last element, the confirmation of compliance with the *Fire Safety Policies* of the Minister of Public Security constituting a sine qua non condition to its adoption and implementation.

3.3 Structure of the process

In light of this information, each MRC should determine the manner in which it will carry out its task, by giving itself a management structure for its planning procedure. In this perspective, it should especially keep account of the respective responsibilities of the regional level and of the local authorities in matters of fire safety as well as the procedure provided for in the Act for the establishment of the plan and strategies for its implementation. In addition, the structure of the procedure must respect the administrative practices of the MRC, by taking into account the procedures and working methods tried and tested in other sectors of activity.

Figure 1, on the following page, presents a sample project organizational chart adapted to a regional authority fire safety planning procedure. This example illustrates the working relationships between the different players in the project.

The MRC Council

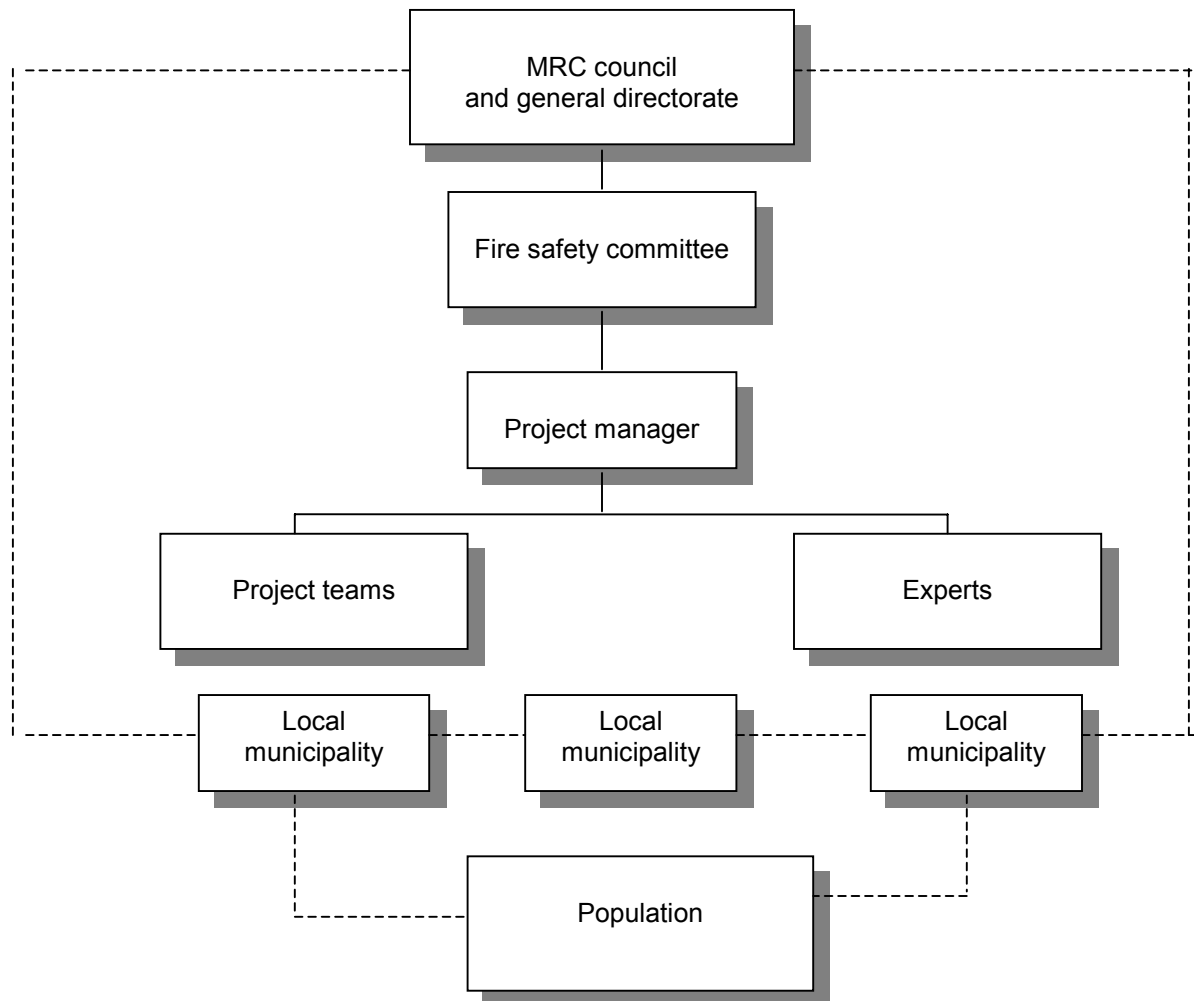
The *Fire Safety Act* entrusts the responsibility for establishing a fire safety cover plan to the regional authority. As the deciding body for the regional authority, the MRC council must rule on the contents of the draft plan being submitted to the Minister of Public Security, and, upon receipt of a certificate of compliance with the *Fire Safety Policies*, proceed with its adoption. Responsible for the results of this exercise, whether it be with the regional population or the Minister of Public Security, the Council then has an interest in ensuring the adequate

execution of the different tasks encompassing its elaboration.

In practice, the Council should be involved, from the start, in defining the respective mandates of the general director or secretary-treasurer, the project manager as well as the other resources that he may decide to allocate to the exercise. If they deem it advisable, they may appoint a fire safety committee, determine its composition and define its mandate.

In the course of the process, it is at this level that the major directions are formulated, as much for the activities that will lead to the adoption of the plan as for the contents of the document. The MRC Council will have to propose objectives for optimum protection and strategies to achieve them. It is also the Council that will assess the opinions expressed by the local municipalities on the initial propositions and that will decide of the final objectives.

■ **FIGURE 1 - Management of the fire safety planning process**



Fire Safety Committee

With the new responsibilities that are entrusted to the regional authority as a result of the fire safety reform, municipal elected members should perfect their knowledge of fire safety files. In this context, a fire safety committee could constitute an excellent tool to go deeper into these files and support the Council of the regional authority in the establishment of a fire safety cover plan. In project management, such a committee is generally referred to as a “steering committee”; since it represents the body responsible for the project (in this case the MRC council), it is usually made up of members from the MRC council or operational personnel from the upper levels of the organization (general director, senior personnel).

The fire safety committee is a work group that may be composed of elected members, the general director or secretary-treasurer of the MRC, as well as representatives from the municipal fire services and local administrations. Certain regional authorities may favour a two-tiered structure made up firstly of a management or policy committee, exclusively with municipal elected members, and secondly a technical committee grouping representatives from the fire safety field or other municipal services (public works, urbanism, inspection, etc.). In this case, the technical committee, by virtue of its composition and the nature of its mandates, is actually a project team.

The MRC council will entrust the fire safety committee with a mandate to follow up, coordinate and recommend. This committee has no decision powers. Committee members may discuss all municipal concerns in matters of fire safety. However, this committee is not appointed to do the duties of the municipal officials, the project manager or the experts. The opinions of the committee may prove complementary to technical

and administrative advice given by those parties.

The extent of the committee’s work varies according to the context of each regional authority. Notably, the committee may:

- participate in the defining of the mandate and the choice of the project manager;
- participate in discussions on the different elements of the fire safety cover plan;
- study the relevance of the proposals from the project manager or the experts and submit recommendation based on those studies to the council of the regional authority;
- ensure adequate execution of the mandates entrusted to the project manager;
- develop a procedure for consultation with the municipalities on the fire safety cover plan, for example by submitting a copy of the draft to each municipality in the regional authority’s territory and by holding work sessions with the local authorities in order to obtain their opinions;
- organize a public awareness campaign, for example by distributing information pamphlets on the draft fire safety cover plan, by holding public assemblies, or by other means which enable them to sound out the population on the actions considered under the plan and in their implementation plans;
- analyze, at the request of the MRC council, all cases related to fire safety.

The term of the fire safety committee’s mandate may initially be for two years, this being the time allowed to the regional authority to submit a draft of the fire safety cover plan to the Minister of Public Security. This mandate may be renewed, at the discretion of the MRC council, in order that the committee may coordinate or ensure the follow-up of the

implementation of the measures contained in the plan.

The mandates described below may, where such a structure already exists, be entrusted to a commission or a public safety committee.

The regional authority generally entrusts these authorities with responsibility in the fields of police organization, prevention of crime, planning and coordination of emergency measures, or planning the coordination of pre-hospital emergency services. Proceeding in this manner will fully conform to the concerns expressed in the ministerial policies in fire matters, aimed at promoting, in each region, the coordination of resources and organizations dedicated to public security.

Project manager

Establishment of a fire safety cover plan represents an all-new responsibility for the MRCs. They certainly have an advantage to gain an expertise in the field of fire safety, in a manner which readily fits their role as planners. Those MRCs who, today, act as service cooperatives in matters of development and urbanism for their local municipalities are generally the ones who, when they were formulating a rural development plan for the territory, chose to develop in-house skills in this field. This is why it is strongly recommended that the regional bodies consider hiring a project manager to develop their fire safety cover plan, particularly if they also wish, after the two year term, to provide certain specialized duties in the field of fire safety, for the benefit of the local authorities in their territory.

Even though they generally have a variety of professional resources, who may favourably contribute to the plan elaboration, the MRCs are however invited to entrust the coordination of this new case to a person whose only, or at least main, function will be this one. The financial aid program established for the regional authorities therefore encourages

the hiring of a project manager in each MRC, assigned specifically to fire safety. That said, recourse to professional skills already within a municipality, through shared services might likewise be considered.

Whatever the MRC chooses, the question remains: what are the skills required amongst the eventual candidates for the position of project manager in fire safety? What are the professional and personal skills of such a person? What management skills should be required from the candidates? Can we envision a sharing of tasks between professionals already in the service of the regional authority or the local administrations? So many question that the regional authority must answer. In this situation, it would be best to first consider the skills already in place within the MRC and the local municipalities, in order to appeal to a resource whose expertise may fill any eventual gaps. At minimum, we are looking for a person who, under the authority of the general manager or secretary-treasurer of the regional authority, could develop a work program and achieve or coordinate the execution of the following activities:

- list, evaluate and classify the fire risks;
- list and evaluate the existing or projected protection measures as well as the human, material, and financial resources allocated to fire safety by the local and regional authorities or by inter-municipal boards;
- analyze the functional relationships between these resources;
- make an inventory of the infrastructures and water supply sources available for fire safety and assess their efficiency;
- assess the operational procedures in force in the municipal fire safety services;
- based on the preceding facts and diagnosis recommend fire protection objectives as well as the actions that

the municipal authorities should take to achieve them;

- assist the local municipalities in elaborating their implementation plans;
- establish a procedure to periodically verify the efficiency of the actions implemented and the extent to which the objectives of the plan were achieved;
- analyze any other risk of disaster likely to require the use of the same resources.

In concrete terms, the project manager should prepare the files to be presented to the different parties (fire safety committee, work committees, MRC council, municipal councils, etc.) and, more generally, bring technical support to the fire safety committee or to the MRC council.

Annexed hereto, is an example of an employment offer to be used during a call for candidates advertised through the media. It is up to each regional authority to adapt the content to suit their situation and actual needs.

Project teams

The diversity of activities to elaborate the plan may, in some cases, necessitate setting different work teams in order to go deeper into particular aspects of fire safety, such as classification of risks, municipal by-laws, inter-municipal agreements, intervention procedures, budget planning, etc.

Made up of individuals from the various services of the MRC or local authorities (fire safety, territory development, tax assessment, town clerk, financial administration, building inspection services, etc.), these work groups should ordinarily be placed under the responsibility of the project manager. They essentially have an execution role. Their mandates are defined by the fire safety committee, under recommendation of the

project manager, in accordance with the work program adopted at the beginning of the process.

The number of project teams, as well as the duration of activity for each, may vary according to the priorities or needs defined by the MRC council or by the fire safety committee. Except for a team composed of representatives from local fire safety services, whose existence may be necessary throughout the exercise, most of the other project teams are likely to be given *ad hoc* mandates, issuing recommendations on only a single or a few aspects of the file.

Experts

As a rule, inasmuch as care has been taken to mobilize the professional skills appropriate to the needs of the environment, the project manager as well as the individuals that he is able to enlist into the work groups should be able to elaborate the fire safety cover plan. It may nevertheless happen, for various reasons, that the MRC council seeks external opinions on particular subjects. For example, the inspections of the networks supplying water for fire protection may necessitate relying on specialized expertise and equipment, mostly found in engineering-consulting firms. Assessment of the municipality's fire safety assets prior to a merger of services is also a situation when it may prove appropriate to seek the opinion of an external consultant, as much to ensure the quality of the work as to guarantee the neutrality of the results.

In these cases, a MRC may then call on experts. Even if, as mentioned earlier, the financial assistance intended for regional authorities does not encourage using private firms to elaborate the fire safety cover plan, it does not totally exclude this possibility, giving the choice to each MRC to allot a portion of the government subsidy to grant mandates to external consultants.

Local municipalities

If it entrusts the responsibility of establishing a fire safety cover plan to regional authorities, the *Fire Safety Act* expressly specifies that this exercise be done “in liaison with the local municipalities”. Thus, the project organizational chart should demonstrate this situation. Beyond the obligations, although quite limited, contained in the Act on the subject of the contribution by local authorities (see Sections 13, 15 and 16 especially), it is up to each MRC to define the extent and the participation modes of the local authorities in the elaboration of a fire safety cover plan.

This said, it might prove advantageous for the MRC to closely involve the local municipalities in their fire safety planning process. Activities in this sector having always been fulfilled at the local level, the municipal officials, (general directors, secretary-treasurers, fire safety services chiefs, etc.) are, to this date, the main source of information on the subject. Their contribution in establishing an organizational diagnostic may turn out to be precious. The fire safety committee and the project teams are bodies to which the technical, professional or administrative expertise found in local authorities may be contributed.

On the political plan, it is also expected that the local municipal councils will formally participate in the planning process carried out by the regional authority. In effect, Section 15 of the Act provides that each municipality shall convey their opinion to the regional authority on both the protection objectives proposed herein as well as on the strategies suggested to achieve these objectives. This action may take the form of a resolution or a report adopted by the municipal council, or of any other official document. This document should identify the impact that the regional authority's proposal will have on the organization of

human, physical and financial resources allocated to fire safety at the local level.

The preparation and adoption of an implementation plan will materialize the contribution of each local municipality to the elaboration of the fire safety cover plan. The implementation plan consists of a recording of all the activities that each local municipality should perform to meet the objectives of the fire safety cover plan. As a planning document, the implementation plan does not give the results of these activities but rather the description and due date of the actions to be done. For example, a municipality that chooses to revise its by-law on chimney sweeping does not have to include its new regulation in its implementation plan but should include its intent and due date therein. Mindful of the importance of implementation plans, and the time that should be devoted to them by the local municipalities, it goes without saying that the organizational chart and recording of the procedure should mention the means and methods anticipated and the estimated duration for their conception.

Population

Every project is designed and executed for one or more beneficiaries. In this case, it comprises the total population of the municipalities of each regional authority. It is normal that this also figures on the project organizational chart and that the population be consulted about the objectives and the protection measures that will be contained in the fire safety cover plan and in the implementation plans. Section 18 of the Act therefore provides that the draft plan be subject to consultation with the population of the territory of the regional authority, during a public assembly.

3.4 Some conditions for success

In addition to knowing the legislative clauses that frame the contents and the establishment process of the fire safety cover plan, the regional authority should be aware of both the strategic and

prospective nature of this project. The local and regional authorities will implement conditions that will facilitate the execution of the project and that will promote its success. The planning process for fire safety should notably rely on:

- the full and diligent participation of all the authorities involved, whether it be on the political, administrative or operational plan;
- a clear and dynamic coordination, on the part of the fire safety committee, the project manager or the general director of the regional authority.
- a multidisciplinary expertise and professionally qualified resources, whether these be employed by the regional authority, by the local administrative service or come, in a timely fashion, from the private sector;
- regular information from various partners, most particularly from local municipal councils, who remain in charge of the fire safety organization in their territory, and the members of the fire safety services (management and firefighters), who are the key architects for all the changes to come.

4 PROCESS FOR ESTABLISHING A FIRE SAFETY COVER PLAN

4.1 The execution steps provided in the Act

Figure 2 illustrates the steps to realize the fire safety cover plan as they are provided in the *Fire Safety Act*.

4.2 The work program

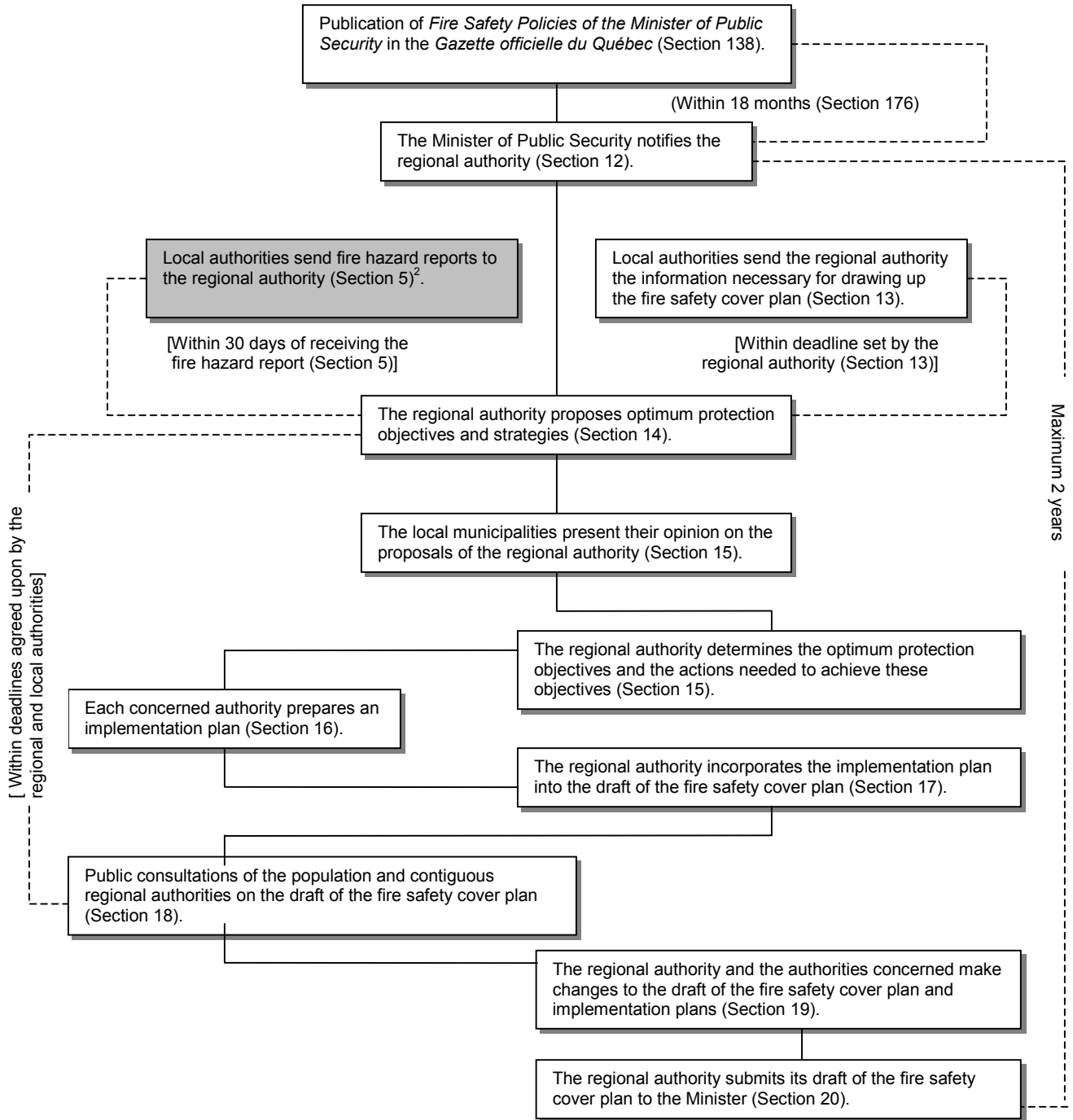
Before establishing a fire safety cover plan, elaborating a work program is an indispensable step to determine the path to follow. In accordance with the agreement that should be concluded between the Minister of Public Security and each MRC, the work program should be submitted to the Minister no later than 90 days after the notice that stipulates the establishment of a fire safety cover plan. In addition to its value for the planning and follow-up of the different activities associated with the establishment of the plan, the work program represents an interesting communication tool with the different players of the project on the evolution of the work and their respective role.

The establishment of a fire safety cover plan is a project comprising a certain number of tasks to execute, in a given time, and in a determined arrangement. It consists then of determining the critical path, that is the series of tasks to accomplish throughout the process. For each of the tasks, the regional authorities choose realistic time limits, in other words time periods that are reasonable to consider. The sum of all these task times laid out on the critical path gives the overall time needed to complete the project.

The work program example contained in this document is intended as a guide for the regional authorities who are preparing

to establish a fire safety cover plan. It describes the principal steps and activities that the regional authorities must complete in order to submit a draft of the fire safety cover plan to the Minister in the time allowed. It proposes realistic duration for the different steps and activities. It is up to each regional authority to learn from this example by adapting the elements to its own situation and by determining the delays which are applicable to the particular conditions of each.

Figure 2 – Execution steps for a fire safety cover plan



² Applicable only after adoption by the Government of Québec and the effective date of a regulation to this effect.

The MRCs are invited to consider the use of project management software, (such as *Project 2000* from Microsoft) to plan their activities, establish their due dates, organize their tasks and allocate the various resources associated to the establishment of their plan. The example that can be found in the annex and central page of this document was designed using such software. The electronic version of this model may be obtained from the Direction de la sécurité incendie.

Here, in summary form, is a brief description of each of the tasks contained in the work program example.

1. Notice from the Minister

Even though each MRC has to establish its own fire safety cover plan, the Act provides that this obligation only exists after notification by means of a notice from the Minister of Public Security to this effect. Section 176 of the *Fire Safety Act* specifies, in addition, that the Minister shall send these notices to regional authorities within eighteen months of the publication of ministerial policies that are intended for them. The *Fire Safety Policies of the Minister of Public Security* having been published in the *Gazette officielle du Québec* on May 30, 2001, the Minister has until November 30, 2002 to forward a notice to each regional authority.

2. Signing of the agreement

The notice from the Minister is accompanied by an agreement, the signing of which must be authorized by the council of the regional authority. This agreement sets the conditions for eligibility for the financial aid anticipated in the *Programme d'aide financière aux municipalités régionales de comté et autres autorités régionales pour l'établissement et la mise en œuvre de schémas de couverture de risques*. This program, attached as an annex to the agreement, sets the terms of payment of financial assistance in return for documents delivered at different steps of the plan elaboration process.

3. Nomination of a project manager

Once the agreement has been duly signed, and if it is their intention to entrust the coordination of the fire safety file to a new resource, the regional authority initiates the process of recruiting a project manager.

The ministère de la Sécurité publique will arrange training sessions for MRC project managers throughout the process to elaborate a fire safety cover plan. The programming includes a first session within the first weeks of the hiring of a project manager. This session deals especially with the general planning and framework of the exercise to elaborate a plan.

4. Creation of a fire safety committee

It is recommended that a fire safety committee be formed at the beginning of the process so that this committee might assume the leadership required, from the very first steps, even if these are more administrative and less operational by nature.

5. Meetings of the fire safety committee

If the committee wishes to carry-out a regular follow up of the process, and be in a position to make periodical reports to the MRC council, the committee should consider meeting on a monthly basis. The work program thus anticipates a meeting of the committee every month. The frequency of these meetings should however be adapted to work programs and to the particularities of each MRC.

6. Elaboration of a work program

The agreement concluded between each regional authority and the Minister of Public Security includes the transmission, to the latter, of a work program within 90 days of the notice. The example in the annex foresees two weeks for the development of this program. In addition to being a calendar of activities and various tasks that flow from these, the work program includes an example of a project organizational chart as well as a job description and the responsibilities of each

intervening party or group that will be involved in the execution of the procedure: MRC council, fire safety committee, project teams, experts, local municipalities.

It is suggested that in conjunction with the work program, a communication plan be prepared, in which could be found a list and a schedule of the measures that will be deployed over the two year elaboration of the fire safety cover plan in order to inform – and eventually involve – the key partners from the municipalities and the fire services (municipal elected members, fire department chiefs, firefighters associations and unions, etc.). Clear and regular communication with the different partners count, in effect, among the factors of success for all operations with a scope similar to that which should lead to the establishment of a fire safety cover plan by a regional authority.

7. Inventory of municipal measures and resources for fire safety

Once the work program is written, the project manager inventories the municipal resources and fire safety measures. The local authorities forward the information required for the inventory to the regional authority, and this within time set by the latter. It is at this step that forming project teams may be advantageous in order to ensure the uniformity of the data gathered and of a certain diligence to accomplish this activity. It is important to note that the regional authority has five months to submit the inventory of the measures and resources dedicated to fire safety by the municipalities in its territory. The Direction de la sécurité incendie of the ministère de la Sécurité publique will offer tools to the local authorities to facilitate the gathering of information. Intended for local authorities and fire safety services, these tools consist notably in questionnaires as well as computing application enabling the data to be gathered in a format that will facilitate processing later.

Depending on the time of the year in which this step is undertaken, it may happen that certain activities may have to be postponed. This would include gathering data on the

capacity or discharge flow of the water supply network, which is likely to require testing at certain hydrants during the summer season. If needed, the time allowed for this task will be broken up in order take this situation into account.

Likewise, the inventory could require mapping activities to locate resources in the area and subsequently superimpose them on the sectors of the territory according to the degree of risks found there.

8. Historical review of the regional situation in matters fires

In parallel to the inventory, it is certainly timely to establish a portrait of the regional situation on fires. Such a historical review can be collected from reports produced annually by the fire safety services on fires that occurred in the territory. Particular importance shall be attached to data on major fires in the course of the last five years.

9. Fire risks analysis

After completing the inventory of resources and fire safety measures and doing the historical review of the regional situation on fires, the regional authority analyzes the risks in accordance with the classification proposed in the *Fire Safety Policies of the Minister of Public Security*. Realizing the technical aspects attached to this task, the Ministry anticipates training the project managers at the beginning of this step.

Since these elements will be presented at greater length in an explanatory document covering the steps to follow to analyze the risks, this activity consists at first, in laying out the risks according to the uses of buildings listed on the tax assessment roll. The results of this first exercise are improved, in the case of the highest risks, by considering a number of variables (number of stories, occupation density, presence of hazardous materials, etc.) obtained from other sources or resulting from an inspection done following a sampling.

A total term of ten weeks appears realistic to complete the fire risk analysis, especially if we

take into account that a similar period is foreseen to list and analyze the other risks likely to require the use of resources dedicated to fire safety. Incidentally, the regional authorities may allot a duration more suited to their real needs to each of these steps.

10. Analysis of other risks (optional)

As provided in Section 11 of the Act, the analysis of other risks likely to require the use of resources in fire safety is optional and may focus on a limited number of events. Note, however, that the MRCs and the municipalities that choose to include clauses related to these events into their fire safety cover plan and implementation plan may benefit, at the time of intervention by their fire service, from an exemption from the liability foreseen by Section 47 of the Act.

This step may be done in parallel with the fire risk analysis or it can be pushed back to the end of this first task.

11. Optimization of resources/fire risks

The optimization of resources is the operation by which we analyze the resources allocated to fire safety in relation to fire risks in a given territory. After this analysis on the level of coverage, the parties proceed with simulations in order to find the scenario which offers the optimum level of protection. From this scenario flow the objectives, strategies to implement, as well as specific actions and measures.

Considering that the different work hypothesis must be documented on the technical plan before being debated politically, a period of twenty weeks seems reasonable for this activity. The choice of one scenario may in effect require studies that establish the costs/benefits ratio of different options developed in the study as well as the detailed examination, or even the simulation of several hypotheses.

12. Optimization of resources/other risks (optional)

If suitable to the regional authority, an identical exercise may be carried out following the analysis of other risks likely to require use of the resources dedicated to fire safety.

13. Consultations with the local authorities in the MRC territory

The results of the precedent steps lend to the first official consultation, that with the local authorities. The regional authority invites them to give their opinion on the scenarios favoured, by indicating the effect of each on their resources. The Act does not provide any particular method for this consultation. In this context, the Ministry estimates a maximum eight-week period to hold the information and consultation sessions in the regional authority's territory. Four additional weeks should be sufficient for the local authorities to give their opinion on the proposals of the regional authority.

14. Elaboration of a progress report

Although it is a marginal activity in the overall elaboration of a fire safety cover plan, the preparation of a progress report has been integrated into the work program. The agreement in effect provides that the regional authority produces, within fifteen months of the Minister's notice, a report on the steps of elaboration of the plan. The Ministry will subsequently set the contents of this report.

15. Writing the fire safety cover plan

Upon receipt of the opinions of the local authorities, the MRC council determines the optimum protection objectives for each risk category or each part of the territory as well as the actions needed on the regional level, local level or in a part of the territory, to achieve these objectives. Eight weeks are allowed to complete this task.

Following this, each authority involved has eight weeks to elaborate and adopt an implementation plan which is integrated into the draft fire safety cover plan, after the

regional authority verified that it is in compliance with the objectives determined and the actions needed. In parallel, the regional authority determines a procedure for periodical verification of the efficiency of the actions implemented and the degree to which the chosen objectives have been achieved, specifically with the mechanics to follow-up the objectives, verification and control procedures and performance indicators to be developed. The time required for this task, as with the time required to integrate the implementation plans, is estimated at four weeks.

The draft plan is next submitted to consultation with the population and contiguous regional authorities. The Ministry has estimated six weeks for this consultation. As it may be necessary to make modifications to the draft plan as well as to the implementation plans, as a result of these consultations, a further four weeks are foreseen for the work program.

The proposed schedule allows the regional authorities a working margin of ten weeks to deal with the unforeseen that never fail to come up during such a project. Remember that if the regional authority feels it cannot meet the deadline, it must request additional time from the ministère de la Sécurité publique at least 120 days before the expiration date of the two years allowed to elaborate the fire safety cover plan. Likewise, the Minister may extend the deadlines provided for in the financial aid program for the payment of the different installments of the subsidy, for a period not to exceed six months; the regional authority should have already shown that it is unable to meet its obligations.

ANNEX

EMPLOYMENT OFFER

FIRE SAFETY PROJECT MANAGER

The Regional County Municipality of () seeks to fill a temporary position of project manager in order to establish a fire safety cover plan according to the terms provided in the *Fire Safety Act*. For a minimum term of () years, the employment may be extended as the case evolves.

Summary description of the position

Under the authority of the General Director and Secretary-Treasurer of the regional authority, the person appointed to this position will develop the work program and coordinate all activities relating to the establishment of the fire safety cover plan. He/she will work in close cooperation with the municipal representatives in order to gather and analyze information on the existence of fire risks and on the organization of fire safety in the territory of the MRC. The project manager may be called upon to execute or coordinate the execution of the following activities:

- inventory and evaluation of the existing or proposed protection measures, including the human, material and financial resources allocated to fire safety by the local and regional authorities;
- inventory of the infrastructures and water supplies available for fire safety;
- inventory, evaluate and classify the fire risks, and analyze other risks of disaster that are likely to require use of the same resources;
- evaluation of operational procedures in force in the municipal fire safety services and analysis of the functional relationships between the resources for each service;
- drafting of recommendations in determining the objectives for optimum protection against fires in the territory and as to the actions that the local authorities should take to achieve these objectives;
- the proposal of periodical verification procedure, to determine the efficiency of the actions implemented and the level of achievement of the chosen objectives;
- the writing of a draft fire safety cover plan and support for local authorities in the elaboration of draft implementation plans;
- preparation for the consultation between the population and the municipal authorities.

The project manager prepares the files to be presented and brings technical support to the fire safety committee or the MRC Council.

Requirements for the position

To qualify for this position, a person must hold a degree or a diploma (bachelor's degree/college diploma/other diploma) in a discipline that is related to the field of employment. She must demonstrate computer knowledge, leadership, planning and coordination skills, and attest to a good knowledge of the municipal environment. She also has to possess excellent analytical, organizational and writing skills.

Training in fire safety or prevention, practical knowledge in project management as well as experience in a municipal fire safety service are important assets.

Employment conditions

Salary is established according to the training and pertinent experience, in accordance with the salary policy in effect in the Regional County Municipality. The standard work week is () hours. All interested individuals should submit their candidacy by forwarding a resume no later than () to:

Fire Safety Project Manager Employment Offer

Regional County Municipality ()

Mailing address

Electronic address

Telephone: () - - Fax: () - -