

REPORT

MUNICIPAL EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS Issues and Resource Requirements

Prepared for:
The Federation of Canadian
Municipalities

October 18, 2004



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TABLE OF CONTENTS

EXECUTIVE SUMMARY	ii
INTRODUCTION.....	1
PURPOSE AND SCOPE	1
METHODOLOGY	2
LITERATURE REVIEW	3
1. Report by the Standing Senate Committee on National Security and Defence ...	3
2. The Canada West Foundation Report on Municipal Expenditures	5
3. Summit of the Ontario Association of Chiefs of Police.....	5
INTERVIEW FINDINGS	7
1. The Current State of Emergency Preparedness.....	7
2. Reactions to a Changing Risk Environment	9
3. Government Roles Relating to Emergency Preparedness	11
4. Sensitive or Critical Infrastructure.....	15
CONCLUSIONS.....	16
RECOMMENDATIONS	19
SUGGESTIONS FOR FURHTER RESEARCH.....	21
Annex A: TERMS OF REFERENCE FOR RESEARCH ON EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS.....	23
Annex B: RESEARCH DISCUSSION GUIDE EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS.....	25

MUNICIPAL EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS

Issues and Resource Requirements

EXECUTIVE SUMMARY

This study identifies and analyses issues affecting municipal governments in Canada related to emergency management. These issues were identified through a review of selected publications and reports, and a series of discussions with officials responsible for emergency management in thirteen municipalities.

The study demonstrates the critical role of municipal governments as first line responders in emergencies, and outlines challenges and opportunities faced in ensuring the security of Canadian communities. The findings establish that:

Risks are increasing in the new security environment

Respondents generally agree that that risks associated with natural disasters, human caused emergencies, and public health issues are increasing in frequency and severity. Many respondents stated that these concerns about the risk environment existed even before the terrorist attacks of September 11, 2001, particularly with respect to the frequency and severity of weather-related events, the resilience of the electrical power distribution system, public health risks and hazardous materials transportation.

Extensive media coverage has magnified the perception of risks associated with public health and terrorism, placing unrealistic public demand on municipal governments. Citizens are demanding higher levels of protection in a wide variety of areas.

The risk environment, both actual and perceived, has increased substantially and will continue to increase in the future.

The increased risk environment is placing additional strain on municipal governments, creating the need to revisit roles and responsibilities among all orders of government

These greater real and perceived threats are imposing increasing burdens on municipal budgets, human resources, and organizations to prevent and respond to emergencies. In most cases, this has resulted in an increasing share of a fixed per capita budget being devoted to disaster prevention and emergency services. Assistance from other orders of government to cope with these demands has been limited.

As pressures mount, the need to revisit specific roles and responsibilities among orders of government is growing. Standards need to be established to ensure compatibility of emergency plans across jurisdictions. Governments must ensure high quality and accessible emergency preparedness training for first line responders across the country. Federal programs such as the

Joint Emergency Preparedness Program (JEPP) and the Disaster Financial Assistance Arrangements (DFAA) must be reviewed to be responsive to the needs of municipal governments. These are just some of the opportunities that exist to strengthen coordination and cooperation among orders of government and ultimately to improve Canada's emergency management system.

Sensitive and critical infrastructure present additional implications for municipal governments

There are major emergency preparedness and financial implications for municipal governments that have international borders, airports, ports, power generation and distribution facilities, rail yards, nuclear facilities or other sensitive infrastructure within or near their boundaries.

The need to examine roles and responsibilities is particularly evident in the protection of unique infrastructure such as embassies, consulates, and federal and provincial government buildings. In many cases, compensation in the form of Payment in Lieu of Taxes (PILT) is not adequate to cover the costs of protecting these facilities.

This report presents several recommendations related to planning and standards, funding, coordination, programs, training, information sharing, and federal leadership to improve the effectiveness of comprehensiveness of emergency management systems among all orders of government.

This is merely a preliminary research exercise to begin to understand the risks present in Canadian municipalities. Further research will be necessary to fully comprehend the magnitude of emergency management and security in a changing risk environment.

MUNICIPAL EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS

Issues and Resource Requirements

INTRODUCTION

Security and emergency preparedness are important responsibilities for municipal governments to ensure the safety and protection of their residents and property. There are growing concerns that these responsibilities and their associated costs are increasing rapidly.

This research was initiated by the Federation of Canadian Municipalities' (FCM) to obtain a better understanding of the increased municipal responsibilities and costs that could be attributed to or related with natural and human-caused emergencies and disasters and public health-related emergencies from a cross section of municipalities. The information will be used to more effectively represent municipal governments on issues of emergency preparedness and security.

PURPOSE AND SCOPE

The purpose and scope of the research was to conduct a survey to gain an understanding of the issues related to the following:

- Emergency events especially those related to:
 1. natural emergencies;
 2. human-caused emergencies, including threats of terrorism; and
 3. public health emergencies.
- How municipalities rank hazards and how municipal services including police, fire, paramedic, public health are affected.
- The implications of international borders, airports and ports and other sensitive infrastructure within or near the municipal boundaries.
- How responsibilities for emergency preparedness and management are changing for municipal governments.
- How costs associated with these responsibilities are changing.
- How municipalities consider the responsibilities related to the above belong at the federal, provincial/ territorial and municipal governments.
- Recommend where further research is needed in order to develop comprehensive information as a basis to consult with other orders of government.

The detailed Terms of Reference at for the project are attached as Annex A.

METHODOLOGY

FCM sources and other literature related to emergency management were reviewed. A discussion guide or questionnaire for municipal governments was developed based on the information gathered from the literature. The discussion guide (see Annex B) was reviewed by FCM and tested with municipal service providers. A cross section of medium and large municipalities with balanced geographic representation and a range of sensitive infrastructure was selected for interviews by FCM. The thirteen municipalities selected for consultation were:

- Abbotsford, BC
- North Battleford, SK
- Calgary, AB
- Edmonton, AB
- Halifax, NS
- Montreal, QC
- Niagara Falls, ON
- Ottawa, ON
- Prince Rupert, BC
- Thunder Bay, ON
- Toronto, ON
- Windsor, ON
- Winnipeg, MB

Telephone and face-to-face discussions were held with officials who were responsible for the emergency management process in their municipality covering the following subjects:

1. Current community hazards and preventative or mitigation plans and emergency preparedness plans that had been made to deal with them.
2. Changes to the risk environment and whether these resulted in more attention and expenditures on emergency services, health care services, municipal emergency preparedness, systems for water and energy or other related services and the order of magnitude of the changes.
3. Changes to roles and responsibilities among federal, provincial and municipal governments for dealing with emergencies and disasters including prevention, preparedness and recovery.
4. Implications for municipalities of unique infrastructure such as international borders, airports, ports etc.
5. Other comments about changing municipal emergency responsibilities and burdens.

LITERATURE REVIEW

A number of studies and reports that were germane to this project were reviewed. The relevant aspects are summarized below:

1. Report by the Standing Senate Committee on National Security and Defence¹

The Standing Senate Committee on National Security and Defence began an examination of the nation's capacity to respond to large-scale emergencies and disasters in mid-2001 following a series of major events that included floods in Manitoba, the eastern Canada ice storm and forest fires in BC. The work was made more urgent by the September 11, 2001 attacks on the United States, water safety issues, SARS, "mad cow" disease and a host of other large emergencies. The purpose of the study was to determine where federal government leadership was most needed "to ensure that the nation provide[d] its citizens with the best protection possible at a reasonable cost."² The report was based on information and documents from a variety of national and international sources, testimony given at Committee hearings (which included, extensive interviews with key emergency preparedness officials at federal, provincial and municipal levels) eighty-six responses to a survey of municipal governments and visits to field locations. The report focussed special attention on the needs of first responders.

From a municipal perspective the Senate study found that:

- Larger cities are generally better prepared than smaller communities to deal with emergency or disaster situation.³
- Almost all medium and large communities had designated a full-time official to be responsible for emergency preparedness.⁴
- More than half medium and large cities said that they were able to respond effectively to an emergency.⁵
- Few smaller communities said that they were able to respond effectively to an emergency.⁶
- The major issues related to communications and coordination among response agencies, communications with the public, access to critical supplies and training.⁷

¹ Parliament of Canada, Senate Standing Committee on National Security and Defence, "*National Emergencies: Canada's Fragile Front Lines, An Upgrade Strategy*" Volume 1, March 2004.

² P.2.

³ P. 81.

⁴ Pp. 82-83.

⁵ P. 86.

⁶ P. 86.

⁷ Pp. 87-92.

The report found that there was need for improvement in the federal government's support and coordinating particularly on the part of Public Safety and Emergency Preparedness Canada (PSEPC)⁸ and Health Canada. Some of the specific findings areas that required attention:

- Funding assistance mechanisms such as the Joint Emergency Preparedness Program (JEPP)⁹ should be improved.
- Many municipalities were unaware of or displeased with PSEPC's programs.¹⁰
- Most municipalities were unaware of Health Canada's emergency caches of medical supplies and their contents.¹¹
- Leadership and coordination provided by PSEPC should be improved.¹²
- There was a strong desire for better linkages on emergency preparedness matters among municipal, provincial and federal governments and for the large cities, between municipal and federal governments.¹³

The report made the following recommendations to improve coordination with municipal governments:

- Health Canada should develop a national plan for critical public health emergencies. The report also implied that municipalities should be fully informed about the plan.¹⁴
- Better mechanisms should be developed for providing additional police support to municipal police forces when needed.¹⁵
- More capacity should be developed within the Canadian Forces for providing support to municipalities in large emergencies.¹⁶
- More funding should be provided for chemical, biological and radio-nuclear (CBRN) response equipment and associated training.¹⁷
- Funding assistance should be provided for additional communication devices for first responders.¹⁸

⁸ At the time of the study, the emergency preparedness function was the responsibility of the Office of Critical Infrastructure Protection and Emergency Preparedness.

⁹ Pp. 99-100.

¹⁰ Pp. 101-103.

¹¹ Pp. 93-95. Note a function funded by provincial and federal governments to ensure that local communities knew about and were trained to assemble elements of the emergency medical stockpile was discontinued several years ago.

¹² Pp. 101-103.

¹³ Pp. 105-106.

¹⁴ P. 107.

¹⁵ P. 107.

¹⁶ Pp. 107-108.

¹⁷ P. 108.

¹⁸ P. 110.

- PSEPC should recognize the differing emergency preparedness needs of municipal governments.¹⁹

2. The Canada West Foundation Report on Municipal Expenditures

This report concerned the financial health of large western cities.²⁰ This study provided useful insights and analyses of big city spending related to emergency services and response activities and the policy implications arising therefrom. The municipal spending sector most closely related to this project is the protection sector that includes police, fire and emergency medical services (but does not include areas such as water supply or public health.)

Of all municipal expenditures, “protection is the single largest growing expenditure”, representing between 25 and 50% of municipal expenditure growth.²¹ “The [financial] impact of downloading and offloading of services to the cities, [such as emergency preparedness training]...is difficult to [quantify].”²² The report makes the important conclusion that:

“overall spending levels have not increased substantially relative to population and inflation...” but that emergency services spending is taking up an increasing proportion of municipal budgets. At the same time, revenues are not being allowed to increase and transfers from senior governments are decreasing (except in Alberta).²³

3. Summit of the Ontario Association of Chiefs of Police

The Ontario Police Chief’s Association held a summit shortly after the September 11, 2001 attacks in the United States to consider what short and long-term responses should be taken to improve security.²⁴ The meeting reached several important conclusions relating to staffing, training, technology, funding and security policies:

- Staffing. Police staffing levels should be immediately reviewed for additional responsibilities, part-time policing should be implemented, a grant for the investigation of terrorism should be provided and a police recruitment drive should be initiated.
- Training. Standards should be developed for coordinated terrorism response, integrated training for all emergency services for terrorism and biological incidents should be improved and police training facilities should be expanded.
- Technology. Improved technology to support police intelligence and better record management and surveillance capabilities were essential.

¹⁹ P. 111.

²⁰ Big Spenders? An Expenditure Profile of Western Canada’s Big Six, Canada West Foundation, June 2004.

²¹ P. 21.

²² P. 21.

²³ Pg 21 and Executive Summary.

²⁴ See Ontario Association of Chiefs of Police Summit report: Terrorism and Related Activities in Ontario, October 31, 2001.

- Financial. Emergency funds should be provided to offset the costs of terrorism investigations, and substantial additional long-term funding should be provided for improved intelligence, recruit training and force expansion.
- Policies. Protocols should be established to improve national security at airports, ports and waterways, legislation relating to immigration security should be tightened, and there should be improved information sharing among law enforcement agencies at all levels.

4. US Reports

Several reports from the United States also provide insight into the changing security environment in North America, and may provide important lessons for emergency management in Canada.

US Conference of Mayors' Report on increased security costs to American cities following the attacks on September 11, 2001²⁵. This report is based on a survey of 192 US cities of the increased costs of heightened security activities put into place following the events of September 11, 2001.

For the 192 cities, that average population was 82,000, and the average additional cost per city balance of 2001 (111days) was \$457,000 or about \$5.57 per capita. The increased costs were for overtime wages (43%), equipment (31%), additional personnel (10%), training (3%) and other miscellaneous expenses (13%). For all of 2001 the average additional cost per city was \$1.84 million or about \$22.41 per capita. These expenditures were for equipment (50%), overtime (23%), additional personnel (13%), training (3%) and other miscellaneous expenses (11%).

Although the report did not estimate the increases as a percentage of the average municipal budget, assuming that the average total annual expenditure by a municipality is between \$1,000 and \$1,500 per capita per year the 2001 increase for US cities would be 1.5% – 2.2%.

A report on municipal leaders' level of satisfaction with the state of emergency preparedness was prepared in the United States by the Cities United for Science Progress a partnership between the US Conference of Mayors and DuPont.²⁶ A survey of 600 mayors (122 returned) found, in summary, that:

- The level of concern for a terrorist-related attack remained very high especially related to detection capability and chemical and biological threats.
- Emergency preparedness planning was considered satisfactory among first responders but needed to be expanded regionally and include health care providers, business and the general public.
- Additional funds should be provided directly to cities for counter-terrorism preparations especially for threat detection, overtime costs, training, equipment and communications.

²⁵ The Cost of Heightened Security in America's Cities: a 192 City Survey, the United States Conference of Mayors, January 2002.

²⁶ HOMELAND SECURITY: MAYORS ON THE FRONTLINE, Cities United for Science Progress, 2002.

- Mechanisms for sharing “best practices” among practitioner should be encouraged.

INTERVIEW FINDINGS²⁷

The interview findings are presented in the sequence that they were obtained during the discussions with municipal officials, using the following themes:

- How the municipality is dealing with the current situation relating to the hazards existing in the community.
- How the risk environment is changing and how the municipality is responding to those changes.
- Whether the current roles of municipal, provincial and federal governments are appropriate for the changing risk environment.
- The effect on the municipality of having to deal with risks to critical or sensitive infrastructure.

The common themes from the findings will be identified and summarized as significant issues for resolution with other orders of government.

1. The Current State of Emergency Preparedness

Hazard Identification. All the municipalities surveyed had identified the hazards and analyzed that were prevalent in their geographic regions. Natural hazards, particularly extreme weather events, and situations involving hazardous materials were considered to be the highest risks. Public health hazards, particularly pandemic influenza, and risks associated with water or food were considered to be of somewhat less priority²⁸. Municipalities that had recent experience with public health emergencies tended to view these as higher risks. Almost without exception events related to terrorist activities were ranked quite low although again, those municipalities that had recent experiences with suspicious packages, airport closures, border crossing congestion or other similar emergencies were more sensitive to this type of hazard.

Hazard Analysis. A variety of methods were used to analyze the hazards and to rank them in some sort of priority. Some used advanced risk assessment methodologies and consultations with experts and the public to produce a convincing ranking of the hazards that presented the highest risk to the community. For example, in Ontario the government had recently introduced a standard process called Hazard Identification and Risk Assessment (HIRA). This provided a standardized technique for assessing the risk to the community and created a solid foundation for the development of emergency plans.

²⁷ The findings are based on interviews with municipal officials and do not reflect the official view of the Federation of Canadian Municipalities or any municipal government.

²⁸ The officials that were interviewed were mostly from the emergency preparedness functions and may not be entirely reflective of the views of public health officials.

In other regions, the larger cities integrated a sound assessment of hazards and their potential consequences into a broader risk management process. Not only did this provide very useful and convincing briefings for councils and senior officials, but it also helped to identify preventative and mitigation actions, in addition to effective emergency response, that could reduce the risk. Most found that the identification and analysis of hazards was the key starting point for their emergency preparedness plans.

- It was clear that there is no common method for analyzing hazards and ranking risks to communities. Also, smaller and medium-size municipalities with fewer resources were not able to undertake comprehensive analyses.

Emergency Plans. All the municipalities interviewed had emergency plans. Some were hazard specific for the highest risks to the community and others “all-hazard” or generic plans. Most municipalities had recently revised and updated emergency plans or were in the process of doing so.²⁹ Most communities had set up emergency preparedness coordinating committees with members from the emergency services and many of the line departments of the municipality. These committees were important for coordinating emergency response training and preparations to ensure that the emergency plans were workable and effective.

Most communities did not have sufficient resources for training key responders and testing their emergency plans. The large cities said that they could mount an effective response to all but the largest emergencies. Fewer than half the smaller centres said that their emergency response would be effective. It should be noted that the Senate Report cited earlier also found that less than half of municipalities surveyed for that study thought that they were capable of responding effectively to major or even minor emergencies.³⁰

All the municipalities surveyed were major centres in their geographic areas and they promoted regional emergency planning and co-operative or partnership arrangements. Most said that the smaller centres in their regions were having significant problems with the emergency planning and preparedness functions because of insufficient financial and human resources that did not permit employing specialized emergency planners, disinterested councils and lack of assistance from regional or provincial sources.

In cases where several orders of government must respond during an emergency event, such as in port cities, some municipalities considered having the federal, provincial and municipal emergency centres co-located to improve easy communications during an emergency situation. One had actually done so and has found that it was a major success and facilitated informal and formal planning.

Prevention and Mitigation. Most municipalities had identified preventative or mitigation actions to reduce the risk of an emergency occurring or to reduce the impact. In many cases lack of

²⁹ Most provinces require that municipalities have emergency preparedness plans and as well lay down the format for these plans. Until very recently Ontario did not require emergency plans but since new legislation was passed in 2001 and 2003 that situation has been addressed, although with no additional funds to assist municipalities.

³⁰ *National Emergencies: Canada's Fragile Front Lines*, March 2004, pg. 86.

funding and staff severely limited these efforts. Most municipalities had high levels of property taxation and thus found it difficult to enlarge municipal budgets for preventative activities. There were minimal additional funds available from provincial or federal sources to support prevention or mitigation activities.

Costs are increasing for municipalities faster than their traditional tax base can handle. For example, the CanWest study previously discussed states, "For six western cities, spending for Protection Services (police, fire, EMS) rose 53% from 1990 - 2002, taking an increasing share of overall operating budgets, which declined per capita (constant dollars) in half of the cities. Only Calgary and Edmonton, which received a share of provincial fuel taxes, showed significant per capita overall budget growth, while Vancouver held steady."³¹ This budget squeeze makes it increasingly difficult for municipalities to fund effective first line emergency response forces let alone find additional resources for prevention or mitigation actions even though they are highly desirable.

- Prevention and mitigation actions are the long-term keys to reducing risk and funding must be provided to take appropriate actions.

2. Reactions to a Changing Risk Environment

Increasing Risks Municipalities perceive that all categories of risk are increasing. Many respondents said that concerns about increasing risks existed before the terrorist attacks of September 11, 2001, particularly the frequency and severity of weather related events, the resilience of the electrical power distribution system, public health risks and hazardous materials transportation³². Several Ontario officials expressed concern about floods from heavy rain events such as those recently afflicting Peterborough.

All municipalities surveyed stated that since September 11 concern about increasing risks had grown markedly. This was particularly true in the larger cities and border cities (Windsor, Niagara Falls, Abbotsford) where there had been many bogus events related to suspicious packages, increasing delays and traffic congestion, security concerns related to international travel, building access and similar situations. This created substantial additional costs, particularly to police and fire (dangerous goods) services. As indicated in the CanWest report for Western cities, and validated by all respondents, costs for police, fire and emergency medical services have increased³³ more rapidly than other areas of municipal budgets and now are consuming a larger portion of the total than ever before.

Media and Public Perceptions. Extensive media coverage has magnified perception of increasing risks to unrealistic levels. Public concern is especially growing over public health and terrorism-based risks.

³¹ Canada West Foundation, *Big Spenders?* Executive Summary.

³² The frequency and severity of extreme weather related events are increasing and diseases that had been found only in more southerly latitudes are moving northward.

³³ Can West study indicated a 26% increase in fire and EMS, and 39% increase in police budgets from 1990 to 2002.

The emergency planners of some of the medium-sized municipalities thought that the actual risks to their communities were increasing but not as much as media and public opinion suggested. Respondents said that some of the increased concern over emergency issues has been generated by the extensive news media coverage of SARS, West Nile Fever, terrorist activities, hurricanes and other natural disasters.

With respect to the risk environment in the future, all municipalities were very much aware of increasing risks resulting from growing populations, climate variability and public health issues. Except for the largest cities and border communities, most did not think that they were terrorist targets, or would be affected by U.S. security measures, and they thought that this was unlikely to change in the future.

- Clearly the risk environment, both actual and perceived has increased substantially for municipalities and will continue to increase in the future. The general public has demanded higher levels of protection in a wide variety of areas.

How Councils Have Reacted. The councils of all municipalities interviewed have shown increased interest in the emergency preparedness process and in many cases provided additional resources for specific projects such as, improved emergency operations centres, upgraded water treatment facilities, upgraded emergency plans, special studies, training or simulation exercises. Without exception, additional attention has also been focussed on public health concerns such as West Nile Fever, water quality and potential epidemics. Many municipalities began to improve their emergency preparedness and response plans and undertook additional preventative and mitigation measures before the terrorist attacks of September 11, 2001 and since then have struggled to make the further improvements that higher risks and the public have demanded.

The increased costs of these functions were found from within existing municipal budget envelopes because, as noted earlier, there was little appetite anywhere for tax increases. Just how much of these increases were the direct result of increased security and emergency preparedness activities is not known and all respondents were unable to break these out from their existing financial records.³⁴ All municipalities indicated that very tight operating budgets have precluded across-the-board increases in emergency preparedness activities or emergency services³⁵. In spite of increased pressure on municipal emergency services few little additional resources has been provided from provincial or federal governments.

Municipal Councils in Calgary, Edmonton and Ottawa have reallocated substantial resources to emergency management. The results of risk-based assessments of municipal exposure to certain

³⁴ This reluctance to attempt to break out specific emergency service and emergency preparedness costs from regular line budgets is borne out by the responses to earlier FCM attempts to survey municipalities for these costs.

Winnipeg estimated that EMS costs increased by about 40% over the past 5 years.

³⁵ Those municipalities who had regular contact with US cities (for example, Windsor, Niagara Falls and Abbotsford) were struck by the large amounts of US Federal dollars provided to municipalities for security related expenses and emergency preparedness functions in contrast to the situation in Canada. Some of these Canadian municipalities were included in US training courses at no cost.

hazards convinced councils to provide substantial increases to the emergency preparedness budgets³⁶.

However, municipalities have reacted, under very tight budget constraints, by providing where possible capital funds for special projects in high-risk areas, such as improvements to flood protection systems³⁷, upgrading emergency preparedness functions in health units and including public health as one of the municipality's core emergency preparedness functions, improving water treatment systems, updating building codes for hazardous material set-backs and flood considerations and other similar projects.

One important area that had received additional support in many municipalities was public education either through schools or the news media. The focuses of public education attention were preparations for power outages, evacuations, water shortages and water quality issues and hygiene issues related to concerns such as West Nile Fever or SARS.

Where most municipalities are working hard to find resources to improve emergency preparedness functions, Prince Rupert is a notable exception. Disastrously deteriorating economic conditions in that community have resulted in substantial decreases in police and fire services budgets over several years and no additional resources have been directed to emergency preparedness activities in spite of growing port, rail and air terminal concerns.³⁸

- Municipalities are struggling to react to increased risks in almost every area and are receiving little assistance from provincial or federal governments.

3. Government Roles Relating to Emergency Preparedness

Municipalities said that overall the roles of the municipal, provincial/territorial and federal governments with respect to emergency preparedness and response were appropriate and have not changed significantly. However, in light of the greatly increased risk environment and the additional strain on municipal budgets and emergency services several new issues have emerged.

Standards for Emergency Plans and Training. The increased risk faced by municipalities has demanded more risk assessment, more rigorous emergency preparedness plans and more training not only for emergency services personnel³⁹ but also for emergency preparedness officials. Most, if not all, provinces and territories now require that municipalities conduct hazard analyses and prepare municipal emergency plans.

Provincial governments, together with the federal government, should establish the standards and mandatory requirements and the format for emergency plans and provide resources required for

³⁶ Edmonton's emergency preparedness budget was increased by 300% in 2003. Both Ottawa and Calgary provided additional capital funds over a five year period (\$3.1 mil. and \$7.1 mil. respectively) for special projects to improve emergency preparedness, such as additional training, special studies and upgraded emergency operation centres.

³⁷ Winnipeg, Montreal and Abbotsford.

³⁸ Montreal and Halifax also reported extremely tight budgets and even reductions to some emergency services.

³⁹ The Canadian Association of Fire Chiefs stated that there is a need for national minimum training standards for firefighters in Canada.

implementation. Without a common approach and format, municipal hazard analyses and emergency plans will rely on individual approaches by municipal governments and they are likely to be inconsistent and incompatible. It would be a great benefit to municipalities to have common approaches and formats established for all such plans⁴⁰. Other areas where standards were identified as being needed are risk management techniques, and critical infrastructure protection or assurance measures.

- There should be provincial or national requirements for emergency preparedness plans and also for hazard analysis with a standard format.
- There should be national training standards for emergency preparedness and emergency services personnel.
- National standards should also be implemented for risk management techniques and critical infrastructure protection or assurance measures.

Training and Conferences. Assistance with emergency preparedness training has been reduced by federal and in some cases also by provincial governments leaving municipalities to develop and deliver it themselves or provide it by contract. Most of the large cities are doing this successfully at considerable cost but smaller municipalities have great difficulty. Municipalities have obtained training support from a variety of sources including internal training resources (for example within the police or fire services), community colleges, other contractors, and some have even sent people to neighbouring U.S. states where training facilities were available (often at no cost). This has created problems for municipalities of accessing sufficient training courses for the numbers of people that require training and not having the standards established for such training. In addition, by not having federal or provincial training courses municipal officials are missing opportunities for information and technology transfer, networking among emergency preparedness officials and the mentoring that these courses used to provide.

Respondents noted the absence of any significant national or regional conferences focussed on emergency preparedness. The need to have a forum for discussing issues, lessons learned, best practices, providing new information, learning about and discussing new policies, training and exercises and to facilitate networking among emergency preparedness officials was thought to be most important.

- Provincial and federal governments should provide emergency preparedness training courses for municipal officials.
- Provincial and federal governments should provide common standards for courses that are delivered by municipalities themselves, or by educational institutions or private contractors so that those who completed training have skill levels at known levels.
- Provincial and federal governments should assist in providing national and regional conferences and seminars for the sharing of experiences, technologies, techniques and best practices related to emergency preparedness.

⁴⁰ Some provinces, such as Ontario have established a common format for municipal plans and a hazard identification and risk assessment as noted earlier in this report.

Infrastructure Funding. The federal government has stated in the past that its role in emergency preparedness should be strong in the prevention and mitigation areas. As discussed earlier in this report, municipal emergency planning often highlights the need for long-term investments in mitigation or prevention activities such as larger wastewater pipes, more resilient power distribution systems, better water treatment facilities, better flood plain management, etc. This federal role should be reflected in increased infrastructure funding programs being available to municipalities.

- The federal government develop mechanisms to improve its funding of prevention and mitigation infrastructure.

Special Capabilities. A Chemical, Biological and Radio-nuclear (CBRN) response capabilities was recognized as vital to counter the risk from industrial activities and, more recently, from terrorism. A federal program to assist in the establishment of regionally based CBRN response teams was begun but has not been completed. Funds were provided to some centres for a “one-time” purchase of essential CBRN equipment, however the staffing of CBRN positions, doctrine for deployment, training, exercises, provision of associated equipment such as vehicles, storage facilities and on-going maintenance have not been funded or addressed. This has left municipalities without a much need capability and confused about the federal assistance program.

Similarly the establishment of regionally based Heavy Urban Search and Rescue (HUSAR) teams began several years ago to provide an important rescue capability for earthquake or major destruction disasters. These teams have not been completed. Further, the federal aims and objectives of this program are not well understood by the municipalities. Municipalities also do not understand how to access this capability or for what other municipal purposes the teams may be available.

The Canadian Association of Fire Chief’s commented that their role in emergency response would be made much more effective if there was a national computerized network linking fire services and other key response elements. Also, creating a national integrated records management system could make a further improvement.

- The federal government should complete its HUSAR and CBRN programs ensuring that municipalities are kept fully informed about them.
- A national initiative should create a link among the fire services and other response agencies.

Existing Federal Funding Programs. In the 1980’s the federal government established the Joint Emergency Preparedness Program (JEPP) to provide shared funding for key emergency preparedness activities and equipment. Over the years, much useful and important equipment was obtained for municipal emergency preparedness programs, such as emergency operations centres, communications equipment and training facilities. However, the amount of funding now available through this program is insufficient for the large amount of special equipment needed

by municipalities. Municipalities also noted that JEPP is not meeting their needs for eligibility and it takes too long to obtain the grants.

The federal government has maintained a long-standing program for sharing the cost of disaster recovery with the provincial and municipal governments. The Disaster Financial Assistance Arrangements (DFAA) is triggered by recovery costs that exceed one dollar per capita based on a province's population and provides an escalating proportion of the funds needed for eligible recovery expenses. Several respondents had recent events that qualified, through the province, for federal recovery assistance under DFAA. They said that they were disadvantaged in recovering their out of pocket costs because the rules were complex and difficult to understand, some were unfair⁴¹, and reimbursement was extremely slow, sometimes several years after the event. These added unfairly to their real out-of-pocket costs of an event. Municipalities found that while the concept of sharing the recovery costs for large-scale disasters among the three orders of government is appropriate, the eligibility rules and timeframe for payments need urgently to be improved⁴².

- The federal JEPP and DFAA funding programs should be changed to improve the eligibility rules, increase municipal access and shorten payment times.

Federal Leadership. Most municipalities stated that terrorism was an area in which the federal government must take stronger leadership to identify the threats, ensure that essential information is passed to communities and that appropriate response action is taken. Municipalities do not have the intelligence, information or specialized manpower to undertake any of these tasks and they viewed it as urgent that they be informed and involved in this very sensitive area.

Similarly, as noted above there is great public and municipal concern about the potential for public health emergencies. While municipal hospitals, public health and emergency medical staffs are doing what they can, the federal government has the major responsibility for detection, analysis and response actions. Also, as noted by the Senate Report, municipalities should be informed about the contents of the federal emergency medical stockpile and should know how to obtain access to urgently needed supplies.

There was a strong sentiment among the large cities that many of their concerns relating to additional funding, special infrastructure, prevention and mitigation policies and public health issues were beyond the purview of the provincial governments. Lack of direct access to the federal government on a number of these issues hindered cooperation and information passage. The most effective approach was to ensure that the big cities had direct access to federal authorities on these matters and that they were directly represented at meetings dealing with these issues.

⁴¹ Recovery rates for the use of municipal equipment was cited as being too low at 16% of billing rates and payment staff was only allowed for overtime in spite of the fact that replacements for regular staff were often required to be hired temporarily.

⁴² For example, Calgary is still awaiting final payment for its costs related to the 2000 G8 Conference.

- The federal and provincial governments should take a stronger leadership role in dealing with public health emergencies and provide information about the national emergency medical stockpile.
- Large cities want direct access to the federal government on emergency preparedness matters.

4. Sensitive or Critical Infrastructure

There are major emergency preparedness and financial implications for municipalities that have international borders, airports, ports or other unique infrastructure within their boundaries or nearby.

Airports. Major airports are the most common sensitive infrastructure. Airports have their own security forces and crash, fire, rescue first line response forces. Municipalities act as back-up for airport security forces and emergency response forces and mutual cooperation plans were in place and tested to accomplish this. Municipalities also were front line support for medical emergencies at airports. Again cooperative emergency medical plans were in place and tested. Most municipalities were satisfied with the effectiveness of airport emergency preparedness plans and the cooperation that currently exists. The only area of additional burden created by airports was in the possibility of terrorists arriving through the airport and infiltrating into the community or security alerts that required participation by municipal forces. To date this had not created any major concerns.

Border Crossings: Those municipalities close to border crossings have experienced numerous disruptions due to security delays at crossing points. Traffic congestion, long lines of trucks and additional security alerts caused substantial additional overtime costs for police forces and major disruptions of traffic on municipal streets. Municipalities need some form of compensation or offset for these additional costs.

- Additional costs to municipal police forces caused by border crossings should be compensated.

Harbours and Port Facilities. While there is excellent cooperation between local authorities and harbour and port facilities, confusion exists about some roles and responsibilities. These should be clarified as soon as possible to the satisfaction of all involved parties.

- Clarify roles and responsibilities of all parties involved in harbours and ports

Other Infrastructure. Power generation and distribution facilities, embassies and consulates, major rail yards, nuclear facilities, federal government buildings and other sensitive infrastructures are also major concerns for municipalities. Problems arise where there are special emergency preparedness needs associated with these infrastructures that generate additional costs for municipalities. Respondents said that federal and provincial governments should be prepared to offset these additional costs where they arose. It was generally felt that Payments in Lieu of Taxes (PILT) which were intended to offset the costs of municipal services for federal

infrastructure did not adequately compensate municipalities for the additional emergency preparedness costs now associated with some infrastructure. It was noted that emergency preparedness activities and good cooperation are on-going among all levels of government at these facilities.

- Municipalities should be compensated for additional financial or emergency preparedness costs to the municipality created by critical infrastructure that is primarily the responsibility of the federal or provincial governments.

International Events. International events such as G-8 meetings, major conventions and sporting events create special emergency preparedness concerns and costs for the municipality, especially in the terrorist and public health areas, that have increased enormously. Municipalities said that senior governments should compensate municipalities with the full costs of these activities.

- Additional costs to the municipality of special events arranged by the federal or provincial governments should be compensated.

CONCLUSIONS

The extensive discussions that were held with the participating municipalities produced a wealth of data on the municipal view of emergency preparedness and management regime in Canada in an environment of increasing risks and extreme budget pressures. The major conclusions are listed below.

1. *General Overview.* The information obtained from interviews with municipal officials generally agreed with the key findings of the recently published Senate Report⁴³ as they related to municipalities, particularly:
 - That larger cities are generally better prepared than smaller communities to deal with emergency or disaster situations.
 - That almost all medium and large communities had designated a full-time official to be responsible for emergency preparedness.
 - That most medium and large cities were able to respond effectively to an emergency.
 - That less than half of all communities were able to respond effectively to an emergency.
 - In most cases, the development of response capability has used an increasing share of the municipal budget resulting in less funds for other municipal functions.
 - Very few funds for responding or preparedness have trickled down from senior levels of government to first responders (except in Alberta).

⁴³ Parliament of Canada, Senate Standing Committee on National Security and Defence, "National Emergencies: Canada's Fragile Front Lines, An Upgrade Strategy" Volume 1, March 2004.

- Major issues were raised related to funding, communications and coordination among response agencies, communications with the public, access to critical supplies, training, and need for standards for risk management assessments.
2. *Hazard Analysis and Emergency Plans.* All of the municipalities contacted had identified the major hazards affecting their communities, most had used some process to analyze and rank these hazards and used the results as a foundation for developing emergency preparedness plans.
- The hazard identification processes used ranged from a sophisticated risk assessment process to quite simple estimating processes.⁴⁴ Natural hazards, particularly extreme weather events, and situations involving hazardous materials were considered by most to be the highest risks followed by public health hazards, particularly pandemic influenza, and risks associated with water or food. Most respondents ranked events related to terrorist activities quite low.
 - Emergency plans were generally up to date and comprehensive. Some were hazard specific, for high risks but most were generic, “all-hazard” plans.
 - Most municipalities had taken some preventative actions⁴⁵ but they were severely limited because of very tight municipal budgets and minimal additional funds from provincial or federal sources.
 - Most municipalities said that they would be able to mount an effective response to the hazards that existed in their areas. They promoted regional emergency planning co-operative or partnership arrangements. Many commented that the smaller municipalities in their region were having significant difficulty developing an effective emergency plan.
 - There was no mandated format for emergency plans and no standardized process for conducting a hazard or risk assessment.
3. *Increasing Risks and Municipal Responses.* Municipalities stated that their politicians and citizens believe that all categories of risk are increasing and there is growing concern over public health and terrorism-based risks. There was concern over increasing risks before the terrorist attacks of September 11, 2001, but it has been reinforced since those events. Municipal responses to increasing risk levels includes:
- Because of extremely tight municipal budgets, only modest increases on resources were allocated to emergency preparedness activities, at the expense of other municipal services.⁴⁶
 - In many cases, additional funding was provided for specific projects such as, improved emergency operations centres, upgraded water treatment facilities, upgraded emergency plans, special studies, training and simulation exercises.

⁴⁴ Ontario was the only province to mandate a standard Hazard Identification and Risk Assessment (HIRA) process.

⁴⁵ These preventative actions included, improvements to flood protection systems, upgrading the emergency preparedness function in health units, set-back for dangerous good transportation routes and public education and outreach programs.

⁴⁶ Calgary, Edmonton and Ottawa are exceptions to this and these cities have substantially increased resources flowing to their emergency preparedness functions.

- The emergency services budgets of most municipalities have increased faster than other sectors and have become an increasingly large portion of the total budget. It is not known how much of these increases were the direct result of increased security and emergency preparedness activities and respondents were not easily able to break these out. There are little or no funds from senior governments and no appetite to increase taxes to offset these increases. This makes it very difficult to find additional resources to improve emergency preparedness.
 - All municipalities were very much aware of increasing risks resulting from growing populations, climate variability and public health issues. Except for the largest cities and to a lesser extent border communities most did not think that they were terrorist targets or that this was likely to change in the future.
4. *Government Roles.* Most respondents said that the traditional emergency preparedness and response roles of the municipal, provincial/territorial and federal governments were appropriate and have not changed significantly. However, a number of important issues were identified:
- Critical federal or provincial government infrastructure that lies within municipal boundaries should not create an additional emergency preparedness liability for the municipality.
 - Senior governments should set standards and mandatory requirements for emergency plans and their format, risk management and risk assessment and critical infrastructure protection or assurance.
 - The reduction of emergency preparedness training by federal and provincial government has left municipalities to develop and deliver it in a limited manner and at their cost. The need for additional training capacity and common standards should be addressed by the federal government.
 - One of the only federal funding mechanisms that addresses emergency preparedness issues, the Joint Emergency Preparedness Program (JEPP) provides shared funding for key emergency preparedness activities or equipment. Municipalities said that JEPP was not meeting their needs in terms of eligibility, amounts and timeliness of the funds. The federal JEPP funding programs should be changed to improve the eligibility rules, increase municipal access and shorten payment times.
 - Municipalities said that they were disadvantaged in recovering their out of pocket disaster response costs under the Disaster Financial Assistance Arrangements (DFAA) because the rules were complex and difficult to understand, some were unfair, and reimbursement was extremely slow, sometimes several years after the event.
 - The federal government should complete the establishment of regionally based Heavy Urban Search and Rescue (HUSAR) and Chemical, Biological and Radio-nuclear (CBRN) response capabilities and provide for on-going maintenance, training and logistics.
 - The federal government should assume leadership in anti-terrorism activities and public health emergencies.
 - Municipalities noted the absence of any significant national or regional conferences focussed on emergency preparedness. There is a need to have a forum for discussing

issues, lessons learned, best practices, providing new information, learning about and discussing new policies, training and exercises and to facilitate networking among emergency preparedness officials.

5. *Critical Infrastructure.* There are major emergency preparedness implications for municipalities that have international borders, airports, ports or other unique infrastructure within their boundaries or nearby, and a number of other issues identified:
 - Most were satisfied with the effectiveness of emergency preparedness and cooperation that currently exists with the agencies responsible for airports.
 - Border crossings created considerable additional costs for municipalities in terms of overtime to deal with congestions and traffic jams at the crossing points and within the municipality.
 - Respondents said that senior governments should be prepared to offset the additional municipal costs for associated with emergency preparedness activities for these infrastructures.⁴⁷
 - Municipalities said that senior governments should assist municipalities with the full emergency preparedness and security related costs of international events such as G-8 meetings, major conventions and sporting events. These create special emergency preparedness concerns and costs, especially in the terrorist and public health areas that have increased out of all proportion to other costs.

6. *Jurisdictional Issues* There was a strong sentiment among the respondents from the large cities that many of their concerns relating to additional funding, special infrastructure, prevention and mitigation policies and public health issues were beyond the purview of the provincial governments. Lack of direct access to the federal government on a number of these issues hindered cooperation and information passage. The most effective approach was to ensure that the big cities had direct access to federal authorities on these matters and that they were directly represented at meetings dealing with these issues.

RECOMMENDATIONS

1. Planning and Standards

- Federal and provincial governments should mandate emergency preparedness plans and hazard assessments for all municipalities and provide guidance on their preparation, and provide associated resource requirements.
- There should be national training standards for emergency preparedness and emergency services personnel.
- National standards should also be implemented for risk management techniques and critical infrastructure protection or assurance measures.

⁴⁷ It was generally thought that Payments in Lieu of Taxes (PILT) which were intended to offset the costs of municipal services for federal infrastructure did not adequately compensate municipalities for the additional emergency preparedness costs now associated with some infrastructure.

- Federal assistance for infrastructure projects should be designed explicitly to cope with hazards and should move towards the taking into account of increasing risks of various hazards, such as intense rain and threats to water quality.

2. Funding

- Incentives and cost recovery should be provided for major regional centres to mentor smaller communities in emergency planning and preparedness.
- For smaller and more isolated communities, federal and provincial governments should consider how to provide direct assistance to produce mandated emergency preparedness plans.
- Provide enhanced Payments in Lieu of Taxes to offset additional costs to municipalities that deal with security and emergency preparedness associated with critical and sensitive infrastructure, especially federal and provincial infrastructure.
- Redesign the Disaster Financial Assistance Arrangements (DFAA) to improve clarity and eligibility, reduce payment times, and provide an appeal process.
- Federal and Provincial governments should consider more equitable arrangements with municipalities for security and emergency preparedness associated with major provincial, national and international events.
- Provide legislative clarity to compel private sector participation in critical infrastructure protection programs, including punitive implications for non-participation.

3. Coordination

- Open discussion between the federal government, large cities and provincial governments on mechanisms to improve funding for municipal emergency services recognizing that the front line response forces of municipalities are the backbone of the national emergency response system not just the municipal system.
- Initiate and promote a range of regional and national conferences for emergency preparedness official from all disciplines to facilitate information sharing, communication of lessons learned and best practices, and networking among the emergency preparedness community.
- Where several orders of government will be involved with incident response, consider developing a joint emergency operation center where it is appropriate to do so.

4. Programs

- Improve the Joint Emergency Preparedness Program (JEPP) so that it better meets the needs of municipalities, enhances eligibility, increases amounts and timeliness of the funds and include an appeal process.
- Review the Heavy Urban Search and Rescue (HUSAR) program so that it is serviceable and sustainable as soon as possible. Consider involving the engineering and medical resources of the Canadian Forces Reserves in this program.
- Review the Chemical Biological and Radio-Nuclear (CBRN) program so that it is serviceable and sustainable (including training, vehicles, travel costs, replacement equipment etc.) as soon as possible. Consider involving major cities and/or industry in this program.

5. Training

- Give high priority to a review of options for a much improved national training system for emergency preparedness, recognizing that training is one of the keys to an effective emergency response and security system. Consider delivery through community colleges or other mechanisms that will ensure easy, local access and certification.

6. Information Sharing and Federal Leadership

- Consider providing access to information and data by municipalities through shared IT systems with the provinces and federal government/agencies (i.e. creating a syndromic surveillance system for Canada).
- Provide strong federal leadership for terrorism-related events including threat analysis and early warning, training.
- Provide strong federal leadership for public health emergencies, warning, analysis, training and emergency response.

SUGGESTIONS FOR FURTHER RESEARCH

1. Initiate a series of case studies to gain a more in-depth, multi-faceted understanding of emergency management by fully engaging all emergency management actors within municipalities, including public health and police departments.
2. Develop proposals to achieve open discussions more effective coordination between the three orders of government on emergency preparedness and response, ensuring that municipalities are effective participants.
3. In consultation with municipalities, provide data and detailed rationale as a basis for funding and policy discussions with other levels of government. The following issues are among those that could be covered:
 - Increased security at major public and international events
 - Payments in lieu of taxes for federal infrastructure protection
 - Enhanced cooperation in emergency management centres
 - Enhanced cooperation on hazardous materials and “suspicious package” response
 - Assistance to reduce traffic hazards and improve management at border crossings
 - Clarification of responsibilities for improved security and response capabilities at ports, airports and border crossings.
 - Protection of water supplies, utility services and electric power generation facilities.
4. Determine, more specifically increased costs for emergency preparedness and response as a portion of police and fire costs and total costs, for selected representative municipalities.

5. Determine the most effective means for collaboration between the federal government and large cities on issues that extend beyond the purview of provincial governments.
6. Investigate methodologies municipalities use for assessing risks of emergencies, and develop “standard” risk assessment and risk management procedures for use by municipalities.
7. Determine and document more completely the training needs of municipalities.
8. Determine needed modifications to design criteria for infrastructure in light of changing risks.

Annex A: TERMS OF REFERENCE FOR RESEARCH ON EMERGENCY PREPAREDNESS AND MANAGEMENT COSTS

Background

FCM has identified security and emergency preparedness as key concerns for municipal governments. Over the past few years, FCM members have reported increased burden for security responsibilities. In order to address heightened security responsibilities, governments collectively require a better understanding of the issues and associated resource requirements.

In December 2002, the FCM Standing Committee on Community Safety and Crime Prevention asked staff to initiate a survey to determine municipal safety and security costs attributed to increased responsibilities since September 11, 2001. In the last year, FCM has also dealt with resolutions for other municipal issues relating to security, including training for firefighters in terrorist environments, and controlling public health epidemics.

Terms of Reference

The purpose of the research is to:

- Investigate the implications to municipal governments of:
 1. natural emergencies
 2. human-caused emergencies
 3. public health emergencies
- Recognizing the distinct threats posed by the situations listed above (for example, threats to energy systems), analyze how municipal services including police, fire, paramedic, public health are affected
- Consider implications for municipal governments with international borders, airports and ports within or near their boundaries
- Analyze if and how responsibilities for emergency preparedness and management are changing for municipal governments
- Outline costs associated with changing responsibilities 4
- Describe which responsibilities belong at the federal, provincial/ territorial and municipal orders of government
- Provide a basis to consult with the federal government on municipal roles and resources with respect to public safety and emergency preparedness

Research Plan

Phase One: Preliminary "Scoping" Issues

- Formulate a questionnaire to identify municipal issues categorized into three themes: natural emergencies, human-caused emergencies and public health epidemics
- Survey should address all relevant municipal services, including police, fire, paramedic and public health, and consider specific threats attributed to international borders, airports and ports.
- Areas for exploration would include: how long can municipal governments provide services to their citizens without external assistance?; are there concerns about standards imposed externally on municipal governments?
- The communities represented within the FCM Standing Committee on Community Safety and Crime Prevention is a sample of municipal governments that is representative in terms of size and region
- Determine methodology including type of questionnaire and follow-up mechanisms
- Distribute survey to municipal governments in sample
- Collect responses and identify common themes
- Compile results into a written report, with recommendations for [more in depth research in] phase two

**Annex B: RESEARCH DISCUSSION GUIDE EMERGENCY
PREPAREDNESS AND MANAGEMENT COSTS**

In order to comprehensively represent important municipal issues to federal authorities, the FCM Standing Committee on Community Safety and Crime Prevention wants to obtain facts about increased municipal responsibilities and costs that could be attributed to or related with natural and human-caused emergencies and disasters and public health-related emergencies. A cross section of municipalities has been selected and discussions will be held with responsible officials using the following questions as a guide. This discussion guide is provided in advance of the interview to allow time for preparation, data to be collected if needed, and to assemble additional participants if that is desired by the responsible official.

1. For the period 1999 to 2002, Statistics Canada lists many types of disasters that have caused major impacts in municipalities across Canada. These include: train derailments, multiple vehicle accidents, avalanches, landslides, earthquakes, explosions, fires, forest and grass wildfires, floods, hurricanes, tornadoes, snowstorms, flood-producing rains, droughts, heat waves and smog episodes, pipeline and water-main breaks, public health emergencies of several kinds, ice storms, extended power outages and other emergency and disastrous events. In addition, since the events of September 11, 2001 in the U.S.A., the threats of terrorist attacks of various kinds have been an important concern. The resilience of infrastructure, including energy and health care systems, to operate effectively in the circumstances created by these threats concerns many.

Please consider:

- a) Which of the above types of hazards are significant in your community?
 - b) Do you have preventative or mitigation plans to minimize damages, injury or loss of life due to these hazards?
 - c) Do you have preparedness plans to cope with the event as it occurs and immediately afterwards?
2. Evidence indicates that the frequency of weather-related disasters is increasing. In addition, public concern is growing about health care and public health threats such as, SARS, West Nile fever, contaminated water diseases, and others including the increasing awareness of terrorist threats.
 - a) Have these real or perceived changes to the risk environment resulted in more attention and expenditures in your municipality?
 - b) If yes, can you provide additional details about the impacts of these concerns on:
 - i. Emergency services (police, fire and ambulance),
 - ii. Health care services (including public health facilities),
 - iii. Municipal emergency preparedness services (if not a part of emergency services),

Annex B
Report on Municipal Emergency Preparedness and Management Costs
October 18, 2004

- iv. Systems for water and energy services,
 - v. Other new or affected services.
- c) With respect to the resources required to be committed to these services:
- i. In your opinion are the costs changing?
 - ii. If yes, can you provide an idea of the order of magnitude of these changes such as a percentage increase or the change in the percentage of total municipal budget?
- d) What is the view of your municipality about how the risk environment will change in the future, in terms of threats, public perceptions, preparedness activities, resources and costs to meet these responsibilities?
3. Canada has long-established roles among federal, provincial and municipal governments for dealing with emergencies and disasters of all types. In the current risk environment:
- a) In your opinion, have these roles and responsibilities respecting public safety and emergency preparedness changed?
 - b) Again, in your opinion, should there be changes in prevention (or mitigation), preparedness, response or recovery responsibilities among the federal, provincial or municipal orders of government (please be as specific as possible)?
 - c) Other comments respecting roles and responsibilities.
4. What are the implications for your municipality of having, within your boundaries or nearby, international borders, airports, ports or other unique infrastructure?
- a) Are these included within your emergency preparedness responsibilities at this time?
 - b) In your opinion, should there be changes in prevention (or mitigation), preparedness, response or recovery responsibilities for these facilities among the federal, provincial or municipal orders of government (please be as specific as possible)?
 - c) Other comments with respect to these kinds of infrastructure?
5. Are there any other comments that you wish to make with respect to changing municipal responsibilities and burdens related to natural and human-caused emergencies and disasters and public health emergencies?