Emergency Management and Disaster Mitigation

Planning

CPWA recognizes that the federal government is dedicated to working collaboratively with provinces and territories to support communities when disasters strike and that Public Safety Canada provides oversight and guidance in the setting of exercise priorities and co-sponsors key activities with lead departments through the Emergency Management National Exercise Program. It is also important to consider the role of local governments.

Public works agencies operate and maintain critical infrastructure services that are vital to communities, such as transportation networks, energy and water supplies, sewage and refuse disposal systems, and public facilities. Public works agencies are also responsible for many aspects of emergency planning and disaster response, including assessing damage to buildings and infrastructure; clearing and disposing of debris; removing snow in blizzard conditions ahead of police and fire services; securing critical facilities and restoring lifeline services; managing traffic and coordinating municipal vehicles, equipment and manpower; and ensuring a safe public water supply. In 2017, the American Public Works Association (APWA) announced the creation of a “Public Works First Responder” symbol for use throughout North America to identify public works agencies, as well as First Nations, Inuit and Métis, for their contributions to emergency management by including them in education and training efforts, task forces and study groups responsible for all-hazards education, training exercises and development of best practices.

Funding

Funding for disaster mitigation and adaptation must be available to communities of all sizes, and rural communities in particular. Small and rural communities have fewer resources for planning and delivering services is more expensive.

According to Public Safety Canada, floods are the costliest natural disasters in Canada in terms of property damage. To restrict development in areas of high flood risk, federal, provincial and territorial governments have designated a number of flood prone areas in Canada. But according to a 2019 Insurance Board of Canada report, A Primer on Severe Weather and Overland Flood Insurance in Canada, flood hazard maps are either unavailable or outdated in many areas of Canada. Budget 2019 proposed $151.23 million over five years, starting in 2019–20, and $9.28 million per year ongoing, to improve emergency management in Canada, including enhancing our understanding of the risks posed by floods, wildfires, and earthquakes. Given that public works agencies rely on flood hazard maps to plan and manage their infrastructure investments, it is critical that these resources effectively communicate all current flood hazards.

Communications

Communication is increasingly recognized as a critical component of operating public infrastructure and public works agencies must be able to depend on reliable interoperable emergency communications systems that connect them during preparedness, response and recovery operations to other first responders, including law enforcement, fire, emergency medical professionals, and other public works agencies. Communications interoperability is particularly critical when emergency responders provide mutual aid to other communities.

Efforts to establish a public safety broadband network (PSBN) in Canada are underway and it is important that public works be part of this effort. A Temporary National Coordination Office (TNCO) was established in 2018 with the support of Federal, Provincial and Territorial (FPT) Ministers responsible for emergency management to develop recommendations for the potential development of a PSBN across the country. The TNCO published a Progress Report on a National Public Safety Broadband Network in 2019 and a policy paper to FPT ministers
responsible for emergency management is forthcoming.

In the United States, nationwide wireless broadband network FirstNet was launched in 2018 through a public-private partnership between the U.S. federal government and AT&T. APWA is a member of FirstNet’s Public Safety Advisory Committee (PSAC), whose mission is to assist FirstNet in carrying out its duties and responsibilities and consists of members representing all disciplines of public safety.

Recommendations:

• Establish and support a dedicated Canadian Public Safety Broadband Network (PSBN) to provide communications interoperability to first responders and public safety personnel and ensure that public works agencies have access.

Data Collection and Privacy
Inadequate and inaccessible data hinders the government, regulators and users from understanding the total costs of infrastructure – and therefore the affordability of infrastructure services. Partnering with data owners to support the collection of detailed, up-to-date data, will allow better decision making – but will require the management and protection of data privacy.

Cybersecurity
Municipalities continue to be attractive targets for hackers and cyber-attacks. Public works agencies are responsible for many of the cyber systems that control traffic management, water and sewage treatment facilities, emergency services/communications, and other vital operations and services. It is important that these cyber systems are hardened and resilient to the increasing threat of malicious acts, as well as to damage and disruption from natural or technological disasters. It is essential that the federal government develop comprehensive cybersecurity standards and best practices and to work with provincial, territorial and local governments to share threat information and provide training programs, testing and technical support to protect computer networks and other related critical infrastructure.

Recommendations:

• Work with provincial, territorial and local governments to develop comprehensive cybersecurity standards and best practices to support public works agencies that deliver services 24 hours a day, 365 days a year.
• Work with provincial, territorial and local governments to share threat information and provide training programs, testing and technical support to protect computer networks and other related critical infrastructure.