

PUBLIC POLICY PRIORITIES 2020

The Government of Canada has, with its provincial/territorial and municipal partners, embarked on an ambitious and much-needed program to invest considerable sums in public infrastructure. The CPWA believes it is imperative that these significant infrastructure investments are built to last, are managed effectively, and that funding formulas and application innovations for infrastructure recognize the unique nature of small and mid-size jurisdictions. In order to achieve these objectives, while at the same time improving individual and commercial productivity by providing sustainable, safe and healthy places to live, work, play and invest, the CPWA recommends that attention be focused on:

Emergency Management and Disaster Mitigation

CPWA Priorities

- Provide dependable, predictable funding for long-term emergency management and disaster mitigation strategies that encourage collaboration amongst all levels of government and Indigenous communities
- Encourage a collective approach to emergency management, including the participation of public works agencies and professionals in all-hazards education, training exercises and development of best practices
- Encourage the development and coordination of timely information and tools to enhance and support the emergency management capabilities of municipalities, including coordination of Incident Management Teams
- Establish and fund a dedicated Canadian Public Safety Broadband Network (PSBN) to provide communications interoperability to first responders and public safety personnel
- Develop national cybersecurity guidelines/best practices and work with provincial, territorial and local governments to share threat information and provide technical support to protect computer networks and other related critical infrastructure

Asset Management and Natural Assets

CPWA Priorities:

- Encourage infrastructure investment strategies that recognize the value, and include the management and sustainability, of natural assets
- Fund training and technical support for communities that are challenged to develop asset management programs that integrate natural asset into plans and operations

Sustainable and Climate Resilient Infrastructure

CPWA Priorities:

- Provide dependable, predictable funding for climate resilient infrastructure and capacity building for climate change adaptation
- Direct public funds towards public infrastructure projects that have been planned and executed in accordance with sustainability principles through the use of sustainability rating systems such as Envision®

Direct Funding to Municipalities

CPWA Priorities:

- Continue funding local communities through an increase to the federal Gas Tax Fund

Public Rights-of-Way Management and Universal, Affordable Access to Broadband and Cellular Services

CPWA Priorities:

- Implement a national strategy to ensure universal, affordable access to broadband and cellular services
- Provide dependable, predictable funding for broadband and cellular services, as well as training in the management of public rights of way, to rural, remote and northern communities
- Ensure the authority of public agencies to regulate and manage public rights-of-way

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Emergency Management and Disaster Mitigation

BACKGROUND AND RATIONALE

CPWA Priorities:

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The scientific evidence is clear that one of the effects of our changing climate is an increase in the number and severity of natural disasters, including floods and forest fires. When Canada's public infrastructure is threatened by such disasters, public works joins other First Responders to safeguard lives and protect and repair Canada's damaged critical infrastructure. **This is why dependable, predictable funding for long-term emergency management and disaster mitigation strategies that encourage collaboration amongst all levels of government and Indigenous communities is essential.**

CPWA was pleased that Budget 2019 committed to investing more than \$150 million over five years to improve emergency management across Canada, including in Indigenous communities. It is our hope that future governments will continue this important commitment to preparing for and dealing with the aftermath of natural disasters, supporting the efforts of public works officials in their capacity as First Responders.

Although some First Responders may be more visible than others during emergency response operations, no single discipline functions totally independent of the others. Interagency coordination, support and cooperation are vital. For example, fire departments suppress fires, but public works ensures that there is water to put out the fires – and often maintains fire department buildings, vehicles and communications. Speed of re-entry is vital for citizens displaced by natural disasters. Public works professionals are responsible for re-establishing essential infrastructure. **Therefore, a collective approach to emergency management, including the participation of public works agencies and professionals in all-hazards education, training exercises and development of best practices, is essential.**

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 professionals at the local level are 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.

For example, the municipality of Rigaud, Quebec, suffered extensive flooding in 2017. In preparation for flooding again in 2019, Rigaud entered into agreements with nearby municipalities that were at low risk of flooding to provide back-up support. The City of Calgary, with help from the Government of Alberta, has undertaken numerous projects to improve flood resilience since severe flooding in 2013. Projects include upgrades to the Glenmore Dam, Bonnybrook Wastewater Treatment Plant and Roxboro Sanitary Lift Station, as well as adding new pump stations, stormwater outfall gates and flood barriers. Additional efforts by the provincial government that are assisting communities vulnerable to flooding are wetland restoration, new flood maps, improved flood forecasting models and an emergency managers' portal connecting municipalities directly to the provincial River Forecast Centre. **This demonstrates that the development and coordination of timely information and tools to enhance the emergency management capabilities of municipalities, including coordination of Incident Management Teams, is essential.**

Budget 2014 earmarked \$200 million over five years to establish the [National Disaster Mitigation Program \(NDMP\)](#) as part of the Government of Canada's commitment to build safer and more resilient communities. The NDMP and its four funding streams – Risk Assessments, Flood Mapping, Mitigation

Planning, and Investments in Non-structural and Small-Scale Structural Mitigation Projects – were established to address flooding but the program will sunset on March 31, 2020 and does not address other types of disasters such as wildfires. Budget 2017 earmarked \$2 billion over 10 years to establish the [Disaster Mitigation and Adaptation Fund \(DMAF\)](#), supporting large-scale infrastructure projects to help communities better manage the risks of disasters triggered by natural hazards. But the minimum of \$20 million threshold in eligible expenditures makes it difficult for small communities to apply.

CPWA also supports recommendations made in a 2016 Report by the Office of the Auditor General of Canada that focused on the federal government's actions to support Canada's long-term mitigation efforts "Report 2—Mitigating the Impacts of Severe Weather", including:

- Environment and Climate Change Canada should work with partners to determine how intensity-duration-frequency curves should be produced for decision makers.

- Public Safety Canada, working with key stakeholders, should develop guidelines and standards for floodplain maps and encourage their consistent application in all provinces and territories.
- National Research Council Canada should incorporate climate change trends into the National Building Code's structural design provisions, to take into account the expected increase in frequency and severity of weather events that can directly affect buildings.
- Public Safety Canada should coordinate consultations with decision makers to better understand the information needed to support their disaster risk reduction efforts, including those related to severe weather.

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. **It is crucial that the federal government establish and fund a dedicated Canadian Public Safety Broadband Network (PSBN) to provide communications interoperability to first responders and public safety personnel.**

Public works agencies are also 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. These cyber systems must be hardened and resilient to the increasing threat of terrorism, as well as to damage and disruption from natural or technological disasters. **Therefore, it is essential for the federal government to develop national cybersecurity guidelines/best practices and to work with provincial, territorial and local governments to share threat information and provide technical support to protect computer networks and other related critical infrastructure.**

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Asset Management and Natural Assets

BACKGROUND AND RATIONALE

CPWA Priorities:

- Encourage infrastructure investment strategies that recognize the value, and include the management and sustainability, of natural assets
- Fund training and technical support for communities that are challenged to develop asset management programs that integrate natural asset into plans and operations

Natural assets have rarely been viewed as providing core municipal services, so their value rarely appears on local government balance sheets. Wetlands that improve water quality and provide protection from storm surges or vegetated spaces and forests that stabilize soil, absorb stormwater and replenish aquifers are not typically factored into municipal infrastructure capital and operations plans. When they fail or disappear, they are typically replaced with more expensive – and often unbudgeted – engineered solutions.

Integrating natural assets into infrastructure management policy has the potential for significant benefits. All engineered assets have a defined lifespan, after which they must be repaired or replaced. Natural assets, when recognized for their value and protected, may provide services in perpetuity. They may also become more valuable as the climate changes.

In 2014, the Town of Gibsons, British Columbia, building on work to understand the value of its most important natural asset, the Gibsons Aquifer, established a municipal asset management policy that:

- Defines and recognizes natural assets as an asset class
- Creates specific obligations (well-defined asset management strategies and financial resources) to operate, maintain and replace natural assets alongside traditional capital assets

In one illustration of this approach, the town determined that its woodlands, creeks and ponds provide the vital service of conveying and treating rainwater run-off but that a one-time fee of \$45,000 to assess and model these natural services, as well as \$15,000 for general maintenance and pond dredging every three years, was required to maintain these services. In contrast, providing the same stormwater management services through engineered assets would cost an estimated \$3.5 - 4 million. **We recommend infrastructure investment strategies that recognize the value, and include the management and sustainability, of natural assets.**

Implementing this approach requires local governments to rethink how they manage assets and plan for and deliver services. Many communities are already challenged in adopting asset management programs; including natural assets adds a layer of complexity. In addition to inventorying both engineered and natural assets, communities must define the services they provide, assign a monetary value to these services, and model how they perform under various development and climate change scenarios. **We recommend training and technical support for communities to develop asset management programs that integrate natural asset into plans and operations.**

PUBLIC POLICY PRIORITIES 2020

Sustainable and Climate Resilient Infrastructure

BACKGROUND AND RATIONALE

CPWA Priorities:

- Provide dependable, predictable funding for climate resilient infrastructure and capacity building for climate change adaptation
- Direct public funds towards public infrastructure projects that have been planned and executed in accordance with sustainability principles through the use of sustainability rating systems such as Envision®

Public infrastructure is increasingly vulnerable to a changing climate and yet civil engineering infrastructure projects are falling behind the societal and functional expectations of today and the future. Failing infrastructure disrupts essential services, results in economic loss, and can lead to loss of life. **Dependable, predictable funding for climate resilient infrastructure and capacity building for climate change adaptation is essential.**

The principles of sustainable development are fundamental to how civil engineers and the public can more successfully address critical societal needs, environmental pressures and climate change impacts, and the return on investment in infrastructure. This led three associations – the American Public Works Association (APWA), the American Council of Engineering Companies (ACEC), and the American Society of Civil Engineers (ASCE) – to launch a not-for-profit organization dedicated to sustainable infrastructure, the Institute for Sustainable Infrastructure (ISI). ISI's sustainability rating tool Envision® is a holistic framework for evaluating and rating the community, environmental and economic benefits of all types of infrastructure projects. Envision® also recognizes infrastructure projects that use transformational, collaborative approaches to assess sustainability indicators over the course of a project's life cycle.

The Grand Bend Area Wastewater Treatment Facility, located in Ontario on the shoreline of Lake Huron, was the first project to earn Envision® verification in Canada. Key sustainable features include:

- a constructed wetland to support native wildlife species and further buffer treated effluent
- flexible design that makes the facility responsive to changing sewage flows
- reduced construction and operational costs through a focus on efficiency
- constructing the project within the boundaries of the original facility's footprint to protect prime farmland
- trails and interpretive signage to encourage community visitors

The project design addresses projected changes in population and service area growth and increases in frequency and severity of extreme rainfall events in southern Ontario. The design is also consistent with recommendations incorporated into the "Ontario Adaptation Strategy and Action Plan" based on provincial analysis of expected climate impacts. **Directing public funds towards public infrastructure projects that have been planned and executed in accordance with sustainability principles through the use of sustainability rating systems such as Envision® is key to ensuring safe, healthy communities provide citizens with a high quality of life.**

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Direct Funding to Municipalities

BACKGROUND AND RATIONALE

CPWA Priorities:

- Continue funding local communities through an increase to the federal Gas Tax Fund

Local governments rely on the federal [Gas Tax Fund \(GTF\)](#) to deliver public works and infrastructure projects across 18 different categories, including roads and transit, drinking water and wastewater infrastructure, solid waste management, disaster mitigation and broadband. Though GTF funding flows through provinces and territories, this permanent source of funding provided up front, twice-a-year enables municipalities to better plan capital infrastructure investments and more quickly and effectively deliver necessary projects and services than application-based funding programs.

CPWA members have pointed to challenges with application-based funding programs, particularly when projects require multiple approvals, including:

- Not enough advance notice of program requirements and timelines
- Limited time to apply
- Complicated and time-consuming application process
- Unclear or changing program requirements
- Delays in project approval
- Inability to modify applications
- Onerous reporting requirements

CPWA welcomed the Government of Canada's one-time doubling of the Gas Tax Fund announced in Budget 2019. Such direct funding recognizes the needs of local governments across Canada, particularly as they meet the challenges of managing aging public infrastructure in an era of increased and severe weather events. **We recommend continued funding of local communities through an increase to the federal Gas Tax Fund.**

Direct funding can be devoted to initiatives promoting the transition to a low carbon economy. Such initiatives might include investments in:

- clean energy for rural and remote communities, including Indigenous communities
- alternative fuel vehicles and alternative fuel vehicle infrastructure
- audits of energy use in buildings for the purpose of retrofits
- the construction of energy efficient buildings

There are numerous examples of municipalities doing just that.

Raymond, Alberta powers nine municipal buildings and all of its street lights with 729 kW of solar panels installed with help from a grant obtained through the [Municipal Climate Change Action Centre](#). The panels are currently leased from Calgary power utility Enmax, but when the 15-year lease expires, the town will own its own power utility.

Eden Mills, Ontario is working toward becoming Canada's first carbon-neutral community. A five-year \$500,000 retrofit of the village's 100-year-old community hall included a 10-kW rooftop solar-panel array and received funding from the Canada 150 Community Infrastructure Program.

Fisher River Cree Nation in Manitoba's utility-scale solar farm is not only providing a revenue generation opportunity for the community – it has helped people in the community develop specialized skills. The project was designed and managed by an Indigenous-owned firm that specializes in solar, wind and renewable energy systems and construction included members of Fisher River Cree Nation. An agreement with Manitoba Hydro enables Fisher River to sell the energy generated by the array to the energy utility. Fisher River Cree Nation received a \$1 million grant from [Western Economic Diversification Canada](#) for the \$2.4 million project.

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Public Rights-of-Way Management and Universal, Affordable Access to Broadband and Cellular Services

BACKGROUND AND RATIONALE

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- Implement a national strategy to ensure universal, affordable access to broadband and cellular services
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- Ensure the authority of public agencies to regulate and manage public rights-of-way

Telecommunications, including broadband internet and cellular services, are essential utilities, critical to public safety, economic development and quality of life. Most telecommunications infrastructure is located within a public right-of-way (ROW) – land acquired and developed by public agencies for transportation routes, water supply, waste disposal, power distribution, means of communications and similar services provided for the common good. Even wireless communications depend on physical equipment and connections, often located within ROWs. Accommodating both public and privately-owned utilities in ROWs has long been recognized to be in the public interest.

Public agencies must have the authority to regulate and manage ROWs on behalf of their citizens, including the ability to:

- Establish permit, location, inspection and pavement restoration controls
- Encourage cooperation among, and develop scheduling and coordination mechanisms for, all ROW users
- Obtain and maintain accurate information for locating existing and new facilities in ROWs
- Approve third-party access agreements for equipment located in ROWs
- Hold responsible parties accountable for restoration of ROWs to ensure structural integrity, availability, safety and accessibility

- Charge and receive fair and reasonable compensation for the use of ROWs

Under Section 43 of the Telecommunications Act, telecommunications carriers must obtain the consent of municipalities to install their equipment, but municipalities do not currently have the ability to charge and receive fair and reasonable compensation ('rent') for use of ROWs. Municipalities, particularly in rural, remote and northern communities, are eager for services and unlikely to charge unreasonable rent. However, public agencies, who have a limited tax base, face challenges when striving to keep ROWs in a state of good repair and free of unnecessary encumbrances – including the abandonment of obsolete equipment – while business demands grow faster than can be accommodated by infrastructure capacity and the number of players working in ROWs increases. The budgets of public agencies are directly impacted by the requirements for administration, traffic control and re-routing, and inspections related to the construction, installation, repair and maintenance of these systems.

Public agencies, particularly in rural, remote and northern communities, must also be free to innovate in closing the connectivity gap by becoming carriers themselves or investing in open access networks that can be leased to an internet service provider (ISP).