



BULLETIN - December 3, 2025

CIQS: National Infrastructure Assessment

On November 28th, 2025, the Canadian Infrastructure Council released its first National Infrastructure Assessment, as tasked by the federal Minister of Housing and Infrastructure. This undertaking received support from across industry and government, with a mandate to focus on public infrastructure needed to build more homes. Specifically, water and wastewater, waste management, and public transit and active transportation systems, and the challenges facing these systems due to population growth and climate change.

Completion of a National Infrastructure Assessment report was a key component of CIQS's advocacy, and we are pleased to see that government is following through on their commitment to complete this important review. CIQS provided input into this assessment, and we are also pleased to see the inclusion of quantity surveyors as part of project management teams beginning in the early stages of projects to unlock opportunities for efficient financial planning.

While this report is an important step in providing a comprehensive review of the current barriers and potential solutions to Canada's infrastructure needs, it is essential that the Government of Canada put these recommendations into action. Following two successful advocacy days this fall, CIQS will be working to ensure that the federal government, as well as provincial governments, adopt the key recommendations included in this assessment.

Below is a summary compiled by CIQS outlining the key takeaways from the first National Infrastructure Assessment:

EXECUTIVE SUMMARY

Key Findings

- Infrastructure needs to be tailored to Canada's diverse regional realities, shaped by different climates, population pressures, and local conditions.
- Building new infrastructure is increasingly challenging due to workforce shortages, supply-chain disruptions, and an uncertain investment environment.
- Better planning, asset management, and the use of new technologies can deliver more cost-effective and resilient solutions to today's infrastructure challenges.

Recommendations

- Maximize infrastructure that already exists by optimizing built and natural assets, managing demand, and prioritizing multi-benefit projects so communities ensure every dollar spent maximizes value, before building new.
- Tighten coordination across governments, Indigenous partnerships and the private sector to reduce regulatory friction, align investments, and create a predictable project pipeline that accelerates delivery and maximizes impact.
- Plan and build for long-term resilience by grounding decisions in standardized data, transparent risk assessments and climate-smart design, ensuring today's investments remain durable, cost-effective, and forward-looking.

CONTEXT

The Canadian Infrastructure Council (CIC) was established by the Minister of Housing and Infrastructure in 2025 as an arm's-length, expert advisory body composed of eleven independent experts. The CIC was tasked with producing a report that assesses the public infrastructure needed to build more homes and communities across Canada, amidst increased challenges owing to population growth and climate change. This is the first report of its kind.

ENABLING HOUSING THROUGH INFRASTRUCTURE

Canada's core infrastructure systems, including water, transit, waste, and others, are aging and unable to meet current and future demands. Many assets lack the capacity to support recent and projected population growth, and more than \$126 billion in housing-enabling infrastructure is already in poor or very poor condition, putting it at risk of failure in the near term. These strains are amplified by climate change, rising demand, and longstanding funding gaps across Canada, particularly in Northern and Indigenous communities. Without new, climate-resilient systems built in tandem with new housing, Canada risks deepening today's housing challenges and triggering a broader infrastructure crisis.

Housing demand is rising sharply. The Parliamentary Budget Officer estimates that 290,000 additional units are needed to close the national gap, resulting in the requirement of 65,000 more homes per year than currently projected. Yet the infrastructure needed to support this growth - including solid waste systems, transit systems, and water management facilities - is already strained.

These challenges are only more severe in Indigenous and Northern communities, where historical underinvestment and climate conditions have produced major infrastructure gaps. As of August 2025, 39 long-term drinking water advisories remained in place across 37 First Nations communities, and an estimated \$350 billion is required to bridge the infrastructure deficit on these reserves. Complications from permafrost thaw, limited transportation networks, and short construction seasons add further barriers. Overall, Canada's existing systems cannot absorb future growth without coordinated, long-term planning.

TAILORING INFRASTRUCTURE TO REGIONAL REALITIES

Canada's infrastructure needs differ sharply across regions, making tailored planning essential. Large urban centers are struggling with housing shortages, congestion, and aging systems, while many smaller communities still lack basics like clean drinking water, reliable roads, or the capacity to plan for future risks. Indigenous communities face the most severe gaps.

Climate impacts and population are highly regional in Canada. Coastal areas face rising sea levels and stronger storms; the North is grappling with rapid permafrost thaw and the predicted loss of more than half its winter roads by 2050; the Prairies face drought, wildfires, and worsening water-management challenges; and Central and Eastern Canada are experiencing more frequent flooding and extreme heat in Southern regions. These climate pressures layer onto population challenges, such as, fast growth in the prairies, moderate but aging growth in Atlantic Canada, and consistent growth in Ontario and Quebec. This emphasizes the importance of infrastructure solutions that reflect local realities, both now and in the future.

Across all regions, a major barrier is the lack of consistent, publicly available data on infrastructure capacity and system usage. Better data is essential to guide planning, avoid reinforcing vulnerabilities, and ensure that infrastructure investments keep pace with both climate risks and demographic changes.

NAVIGATING PRESSURES IN INFRASTRUCTURE PLANNING AND DELIVERY

A complex regulatory environment, labour shortages, supply chain disruptions, high costs, climate risks, domestic and international concerns, and economic pressures represent compounding challenges for Canada's infrastructure planning. Municipalities, in particular, struggle with limited and unpredictable funding that is inadequate to meet the scale of infrastructure responsibilities. Innovative financing tools and private sector investment are promising alternatives to historical reliance on property taxes, user fees, development charges, and government funding, but are currently underutilized.

The NIA recommends streamlined governance to better navigate Canada's regulatory processes and local pressures, more predictable investment and project pipelines, workforce development, and diversified infrastructure funding to address existing pressures and appropriately plan for future needs. Catalyzing private investment is further critical for the expansion of available infrastructure funding and strategic allocation of public funding to areas where private financing is too risky or not viable.

PLANNING FOR RESILIENT AND LIVABLE COMMUNITIES

The increasing pressure on Canada's infrastructure has been driven by aging systems, population growth, and climate change. To adequately address these pressures, integrated and sustainable strategies, rooted in thoughtful land use planning, investment in natural infrastructure, urban densification, and the creation of inclusive public spaces, are required. The NIA emphasizes that the alignment of infrastructure development with environmental and social priorities is critical to ensure communities are more efficient, livable, and better equipped to adapt to future demands and climate change.

The CIC believes that addressing this increasing pressure on Canadian infrastructure requires a move from traditional, siloed approaches towards more holistic, sustainable strategies. By developing infrastructure in a deliberate manner along with environmental and social priorities, improving livability and resiliency of Canadian communities can be pursued in tandem.

As cities expand and grow in population, there is the potential to build up rather than out, reusing existing infrastructure and maximizing economies of scale. Higher population density lowers the marginal cost of supplying every additional resident with essential services. This improves the efficiency of critical and costly infrastructure. Likewise higher density is a natural fit with public transit, enabling a virtuous cycle of increased reliability and sustainability of transport. In these ways densification supports objectives of promoting growth, reducing greenhouse gas emissions, and minimizing costs.

The council identifies "natural infrastructure" - i.e. wetlands, forests, rivers, etc. - as key assets for enhancing resiliency. They often serve multiple separate objectives at once. For example, a marsh acts as a carbon sink, reduces flood risk, and improves air quality all at once. Furthermore, it is typically cheaper to build and maintain than "grey" infrastructure. Despite this, it is not considered a default option for many projects, even though green spaces boost public health and resiliency. They can play a role in making the human experience of public areas much more enjoyable, reducing noise and providing shade.

Another cost consideration for climate-resilient infrastructure is that it pays for itself, due to their increased performance in extreme weather events. Proactive approaches are typically less costly than repair and maintenance expenses required by foregoing them. However, the additional upfront costs may be difficult for smaller communities to afford, and fully integrate, into their planning. This type of smart asset management is another idea the Council highlights as an important approach. By centering the risks and issues a given project might see in its lifetime within the planning process, it reduces maintenance costs in the long-term and mitigates risk. Helping municipalities - especially smaller communities with fewer resources - develop Asset

Management Plans will deliver significant savings down the line, if the funding gap to develop them is bridged.

BUILDING FOR WHAT LIES AHEAD

Over the next 25 years, Canada will need major investments in housing and infrastructure. These needs will vary, with larger cities expected to grow while smaller communities shrink and face greater climate-related risks. The CIC advocates for focusing on preserving the use of existing built and natural infrastructure, while using a data-led approach with improved coordination between partners to increase resiliency.

With Canada's population expected to expand to somewhere between 43 and 55 million people in the coming decades, there will be a general demand for increased housing across the country. Every new unit will need to be provided with a suite of essential services like wastewater management, electricity and heating, as well as supporting infrastructure like roads, schools, and hospitals. Meeting these demands will not be simple, especially as the increased burden will fall mostly on already well-developed cities, while smaller municipalities contract. To avoid widening the gap between housing development and infrastructure capacity, the Council has made three key recommendations:

1. **Make the most of our existing built and natural infrastructure before building new.**
 - With the high costs of construction, governments should prioritize maintenance and optimization projects of existing assets before building new infrastructure
 - Where possible, designing infrastructure or improvements that address multiple objectives at once should be leveraged
 - Conservation and restoration practices that preserve natural infrastructure are crucial
 - Demand-management strategies that reduce usage and wear-and-tear can play a key role
2. **Strengthen coordination across all partners.**
 - Fragmented governance and strategic thinking impairs the timely, cost-effective delivery of key infrastructure
 - Coordinated thinking and action improves performance and minimizes risk
 - A purposeful, broad approach to reducing regulatory barriers will deliver benefits across the country
 - Innovative, made-in-Canada practices across design, procurement, and delivery should be promoted and shared
 - Establishing clear project guidelines will align public and private sector players, mobilizing capital and labour more predictably
3. **Build for the future with resilience and data at the forefront.**
 - As the global climate continues to change, impacts will vary across regions and biomes, and individual communities will vary in the risks they face and their ability to adapt
 - Infrastructure built today must be able to stand the coming decades, and so must be climate-resilient, regionally tailored, and future-ready
 - This can be facilitated through better and more accessible data on infrastructure usage, capacity, and risk
 - Improved data strengthens long-term planning by closing knowledge gaps
 - Standardized terminology and methods for asset management and risk assessment should be adopted
 - Data systems to inform long-term planning need focused investment
 - Infrastructure must be designed to withstand coming changes
 - Small communities with limited resources should be supported with technical capacity and planning tools