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# Environmental Compliance Approval Regulations

Universal Key Takeaways

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The new Consolidated Linear Infrastructure Environmental Compliance Approval (CLI-ECA) process governed by the Ministry of Environment, Conservation and Parks (MECP) affects all municipalities in Ontario and must be understood by municipal staff and their stakeholders in order to be effectively followed. This article is the first of three articles in a series that was created to promote awareness of the new regulations and provide insights that will ideally help municipalities be proactive, identify risks, and set up programs to manage costs and optimize their systems.

5 Key Insights have been identified and are presented below:

Insight 1 | Streamlining of the ECA Process

The new CLI-ECA process governed by the MECP aims to streamline future ECA applications by pre-authorizing certain low-risk sanitary and stormwater infrastructure works. These works include alterations to existing infrastructure as well as the addition of new infrastructure to the system, given they fall within the criteria set out by the MECP. Pre-approval and authority to alter/add infrastructure will be allowed for municipalities and developers, as long as certain criteria are met. In the short-term, municipalities will need to go through the CLI-ECA application process, which may cause some challenges for municipalities as system information and separate ECA files may be difficult to obtain.
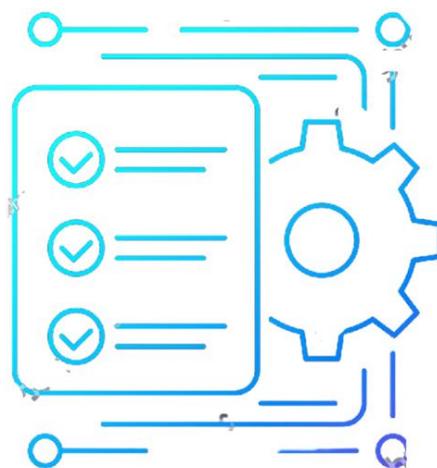
Many municipalities have infrastructure that dates to a time before digital record keeping and those responsible for related files and information are likely no longer with the organization. Systems and processes will likely need to be created to help facilitate the collection and management of this information, ideally in a geospatial format, and studies/projects may need to be undertaken to obtain relevant system information (i.e., data collection in the field). In the long-term, however, the CLI-ECA will reduce the time and resources required by municipalities and the MECP through the elimination of the transfer of review process for relatively straightforward undertakings and will streamline low-risk infrastructure projects for municipalities and developers. This will ultimately lead to additional benefits including reduced regulatory burden, enhanced environmental protection, improved oversight on property development, and a refined compliance process.

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Insight 2 I **Standardization Across the Province**

The MECP has taken a systematic and well-thought-out approach to creating the CLI-ECA regulations and have included feedback from numerous stakeholders including non-governmental organizations (NGOs), municipalities, members of the public, industry associations, industry professionals and conservation authorities. This engagement has led to a clear application process and the creation of a CLI-ECA template for sanitary and stormwater systems that will standardize the type of information required from all municipalities across the province. Furthermore, the MECP has also established clear and transparent design criteria for municipalities and developers to follow for certain types of collection system additions/alterations. The impact of these regulations should help to improve the safety and resiliency of infrastructure across the province, as municipalities will be required to comply with these design criteria for any alterations or new infrastructure added to their sanitary or stormwater systems.

Uptake from municipalities to comply with the design criteria will grow, as the CLI-ECA regulations will be mandatory following a rollout to municipalities in a phased approach based on multiple factors, including size (i.e., population). This standardization will help to reduce uncertainty for municipalities and consultants/contractors that work on these systems, as sanitary and stormwater systems will become more uniform across the province. While every municipality and every system has its own nuances and challenges, this standardization will ultimately reduce uncertainty of inspection, monitoring, upgrades, addition of new infrastructure, etc. and therefore the relative cost of this work should be lower over time while creating a higher degree of reliability and accuracy.

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Insight 3 | Funding, Assistance and Internal Advocacy to Comply with Regulations

While the estimated cost for the CLI-ECA application fee is only $100, there may be resource challenges for municipalities in collecting the information required for the application. The information required to complete the ECA application may also identify data gaps and areas where municipalities need to focus time and attention to collect additional data. Funding mechanisms, such as grants, are frequently available to municipalities and are worth exploration. For example, the Federation of Canadian Municipalities (FCM) has an asset management grant for municipalities that can fund projects related to asset-related data collection and reporting, among other asset management-related activities.

The CLI-ECA regulations also highlight the importance and need for increased advocacy of sanitary and stormwater system projects within municipalities with the support from the province and industry associations. Sanitary and stormwater infrastructure projects often compete for support and budget against higher-profile infrastructure projects, such as transportation, community buildings, and parks. Therefore, support from the highest levels within a municipality in addition to community education are key to ensuring enhanced levels of service to protect the water resources of communities in Ontario. Industry organizations and advocacy groups such as the Water Environment Association of Ontario (WEAO), Ontario Municipal Water Association (OMWA), Centre for Advancement of Trenchless Technologies (CATT), and Canadian Water and Wastewater Association (CWWA), among others, need to continue collaborating with various levels of government to put sanitary and stormwater system initiatives in the spotlight.

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Insight 4 | A Deeper Understanding of Sanitary and Stormwater Assets are Needed

Falling in line with the Asset Management Planning for Municipal Infrastructure (O.Reg 588/17) regulations, the CLI-ECA regulations highlight a need for a deeper understanding of sanitary and stormwater system assets. Information regarding the type of assets, locations, replacement costs, age, condition, and lifecycle assessment for collection system features and pumping stations are important but often can be onerous to collect. Procuring and executing asset management plans, wastewater master plans, and other studies enable the collection of this information in a systematic fashion, identifies data gaps, and helps create a road map for municipalities to plan for future studies and asset needs.

Insight 5 | A Smart City Approach to Meeting ECA Requirements

Document management, asset inspection, and asset monitoring are all key components of the CLI-ECA requirements. These activities create vast amounts of data, which various software platforms can leverage to manage and provide stakeholder's access to the collected data in near real-time. Such systems are usually integrated with geographic information systems (GIS) that capture, store, and display information about the network using a "Smart City" approach. As an example, centralized cloud-based platforms can be used for all flow monitoring activities, utilizing dashboard displays to show various KPIs and can display sensor status, operational performance, and flag areas of concern within a system. GIS-integrated platforms enable users to view inspection and monitoring activities (among others) that link geographic information with detailed displays of relevant documents and asset management activities

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As a result, these GIS systems improve data management workflows while processing extensive data with high quality results displayed to decision makers in a near-instantaneous manner. Web-based software in cloud environments have demonstrated a real advantage when compared to conventional desktop computer programs. Cloud computing uses a series of external computing resources such as servers, databases, and networks to run applications and programs. Cloud computing enables users to access, manage and deliver services on multiple networks with just a simple internet connection. Such advantageous systems increase efficiency and utilization by load balancing through multiple applications, providing a large range of data storage and processing. Wireless sensors are also an integral part of the "Internet of Things" (IoT), with the expanding interconnection of smart devices ranging from appliances to tiny sensors. In addition, IoT is the core component of today's Smart City vision. Collecting sensor data and delivering it to a cloud network for further analytics is a continuous process of today's modern municipal planning and operations, including smart flow monitoring and infrastructure inspection data.

The integration of a Smart City approach to infrastructure operation, maintenance, and planning is vital to the future decision-making process for municipalities. Digitization of existing ECA records, management of new records, tracking future infrastructure building/upgrades, as well as monitoring and inspection activities can all benefit from a shift to a digital landscape. This shift will ultimately facilitate better decision making, allowing municipalities to focus on the efforts that will best protect and preserve the natural environment while promoting sustainable growth in our communities.

Want to learn more? Reach out to a professional in Civica Today!

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