

THE DRAINAGE ACT AS A TOOL TO FACILITATE THE AGGREGATION AND WIDE-SCALE IMPLEMENTATION OF GREEN, LOW IMPACT DRAINAGE INFRASTRUCTURE ON PRIVATE PROPERTY

Note: This document is the summary of a technical white paper on the topic of low impact drainage and the use of the Drainage Act. Interested readers are encouraged to access the full document [here](#).

Credit Valley Conservation (CVC), Toronto Region Conservation Authority (TRCA) and Lake Simcoe Region Conservation Authority (LSRCA), through the STEP Water partnership, carried out a critical analysis of Ontario's Drainage Act. We reviewed the Act with one question in mind: ***Can the Drainage Act serve as a suitable vehicle to facilitate the wide-scale adoption of communally-owned, low impact drainage infrastructure on both public and private property?*** We believe the answer to this question is 'yes', subject to further analysis of our own urban drainage report by a Provincial referee.

Stormwater Management in Ontario: The Challenges

A business-as-usual approach to stormwater management is not adequate for dealing with the challenges posed by rapid urbanization, climate change and water quality degradation. Aging legacy infrastructure, mostly built during the post-war era, has created a pressing need for investment. Despite such needs, a multi-billion-dollar infrastructure deficit exists and continues to grow. We need an innovative and reliable path forward that aims for both economic and environmental sustainability. More than three-quarters of our urban areas – those lands which are privately held – are not normally considered for stormwater management purposes. The Drainage Act can help open up this largely untapped land resource.

The Drainage Act: A Powerful Partnership Framework

The Drainage Act allows for the development of economically sustainable, mutually-beneficial public-private drainage infrastructure. It encourages landowners to contribute to the problem-solving process, and it brings public and private landowners together to design, construct and maintain communal infrastructure – a novel approach to stormwater infrastructure management in Ontario.

Suitably incentivized, landowners can choose to use the Drainage Act's legal petitioning process to press for improved drainage. Such infrastructure can be cost-effective, since it would not require municipalities to purchase land dedicated to stormwater works. Providing incentives to landowners can be much cheaper than buying new property. Communal ownership of such works – whether public-private or private-private – would also realize economies of scale. Building one drainage system at the neighbourhood-level allows project partners to use one design engineer, one contractor, one set of permits, etc.

Since the Drainage Act is administered by municipalities, it provides ample room for local knowledge, context and priorities to be incorporated within green, low impact drainage infrastructure designs. This implementation framework helps to ensure that the best possible outcome is achieved for all parties without requiring a command-and-control approach to infrastructure implementation.

A major advantage the Drainage Act possess over other policies, bylaws or articles of legislation is that drainage features designed and constructed using the Act are protected, with appropriate recourse in instances where contraventions occur. This provides guarantees to municipalities not available via simply registering features on property titles. It also serves as an effective approach to implementing and protecting green low impact drainage infrastructure in retrofit scenarios. Importantly, the Drainage Act guarantees right-of-access to presiding municipalities for inspecting and maintaining drainage infrastructure on private property.

Sharing Responsibility: Leveraging Public and Private Resources for Optimized Infrastructure Investment

Through the development of Assessment and Maintenance Schedules, the Drainage Act also ensures that the cost of constructing and operating drainage works is funded by public and private users in perpetuity. This contrasts with much of Ontario's current stormwater infrastructure, which tends to lack permanent funding sources for maintenance. Furthermore, all Assessment and Maintenance schedules are transparent in their allocation of costs and rigorous in the methodology of their development, minimizing opportunities for disagreement. Drainage features constructed under the Act are subject to a "user pay" system which does not exempt private property owners from paying municipal property taxes, stormwater utility fees or other charges which help to cover the costs of infrastructure. Infrastructure deficits and public funding shortfalls have resulted in Ontario's current stormwater infrastructure predicament. Since the current situation is not likely to change, municipalities need to get creative. Necessity breeds innovation – even when the innovation in question is a Provincial Act with precursors dating back to 1835!

Public Consultation

While it may seem unconventional for conservation authorities to advocate for using the Drainage Act, STEP Water's interest in using it speaks to the current state of urban stormwater management in Ontario. A recent workshop focused on scrutinizing the Drainage Act brought together nearly 100 municipal stormwater management, Drainage Superintendent and engineering staff, Provincial regulators, academic experts, drainage industry practitioners and conservation authority personnel. 95% of all workshop attendees agreed that there is a need for improved stormwater management. 96% of the municipal staff in attendance reported that they regularly receive drainage complaints from the public, while 82% of the total delegation reported regularly receiving such complaints. With respect to the Drainage Act specifically, 81% of the workshop delegates agreed that low impact development (LID) meets the definition of 'drainage works' defined under Section 1 of the Act. Lastly, 88% of professionals surveyed agreed that the installation of LID features as part of existing drainage infrastructure comfortably fits the definition of "Improvement" as it is used in Section 78 of the Act. Clearly, there is broad agreement that applying the Drainage Act to improve the current state of urban stormwater management is not a radical idea and that such mechanisms are needed.

Making People's Lives Better

The above summary provides insight into the reasons why STEP Water believes the Drainage Act is a suitable vehicle for the broad-scale implementation of communally-owned drainage infrastructure. A new way forward is required in order to improve the current state of stormwater management in developed areas across Ontario. Policies and tools made in Ontario to meet the needs of Ontarians will help us chart the best course forward and will ensure the best possible outcome for all residents, thereby protecting our

cities, our environment and our quality of life. In this respect, the use of existing legislation – the Drainage Act – can help to realize a better quality of life through improved stormwater infrastructure across Ontario. To this end, the STEP Water partners have assembled a project team including LID design professionals, drainage engineers and a former municipal drainage superintendent. This team is working with municipal partners and landowners to apply the Drainage Act process in a highly developed urban area. The intention is to demonstrate the flexibility and utility of the Drainage Act process. In addition to a shovel ready – and shovel worthy – low impact drainage design, this flagship project will result in an aggregation handbook which will provide a process for replicating this innovative, exciting work in other urban areas in need of improved drainage solutions.

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