

**Topic:**

EFN policies - opportunities and barriers

**Title:**

A Critical Review of Stormwater Regulations and Guidelines: Making a Case for Promoting LID Alternatives in Canada

**Description:**

During the past decade, the use of Low Impact Development (LID) alternatives is becoming increasingly popular in urban stormwater management. However, the large-scale use of these alternatives requires the establishment of appropriate regulations and guidelines to guide on acceptable practices and develop consensus among stakeholders, thus assuring the rights of each of the water-users and conflict resolution.

This literature review aimed to examine whether stormwater regulations and guidelines are promoting the use of LID alternatives, and compare the state of practice in the context of Canadian provinces and territories. For this purpose, a list of eight core criteria relevant to the implementation of LID at all levels of urban development was identified and an ordinal scale was used to evaluate and compare provincial regulations against each criterium. Based on the content analysis of provincial/ territorial regulations and guidelines, *highly*, *moderately* and *slightly* LID-friendly groups were identified.

Content analysis shows that stormwater regulations in Canada are evolving and have incorporated LID alternatives at various level of urban planning. LID has become the mainstream technology for stormwater management in Alberta, British Columbia, Ontario, and Quebec, which are categorized as *highly* LID-friendly provinces. The provinces where LID alternatives have gained considerable acceptance are defined as *moderately* LID-friendly, which includes Manitoba, Newfoundland & Labrador, Nova Scotia, Prince Edward Island, and Saskatchewan. Lastly, the province of New Brunswick and three Canadian territories are classified as *slightly* LID-friendly because of very limited use of LID alternatives in the regional stormwater management regulations. These findings are of significant value to regulatory agencies and would strengthen their efforts to extend the benefits of LID in stormwater quality management and sustainable water resource management.

**Keywords:** Stormwater, LID, regulations, states, and territories.

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