

# 1. Introduction

## 1.1 Description of the Project

Waste Connections of Canada Inc. (Waste Connections) is seeking approval under the Ontario *Environmental Assessment Act* (the *Act*) for an expansion of its Ridge Landfill. This will allow Waste Connections to continue to provide long-term, residual waste disposal capacity to the company's Industrial, Commercial and Institutional (IC&I) customer base. According to the Ministry of Finance, the populations of central and southwestern Ontario are projected to grow by 27% and nearly 16% respectively, or over 1.1 million people by 2041. This population growth, combined with the government's commitment to grow the economy, supports the need for this proposed Undertaking for a regional and inter-regional waste management facility.

The Ridge Landfill is located at 20262 Erieau Road near Blenheim, Ontario in the Municipality of Chatham-Kent (**Figure 1-1**), and is operated by Waste Connections. The site is currently approved to receive waste from the IC&I sectors in Ontario, and residential waste from the Municipality of Chatham-Kent and the surrounding Counties of Essex, Lambton, Middlesex and Elgin. The proposed expansion includes a revision to reduce the service area to Chatham-Kent for residential waste, and to southern and central Ontario for IC&I waste. The proposed expansion, if granted, would maintain the annual waste intake rate of 1.3 million tonnes from 2021 to 2041.

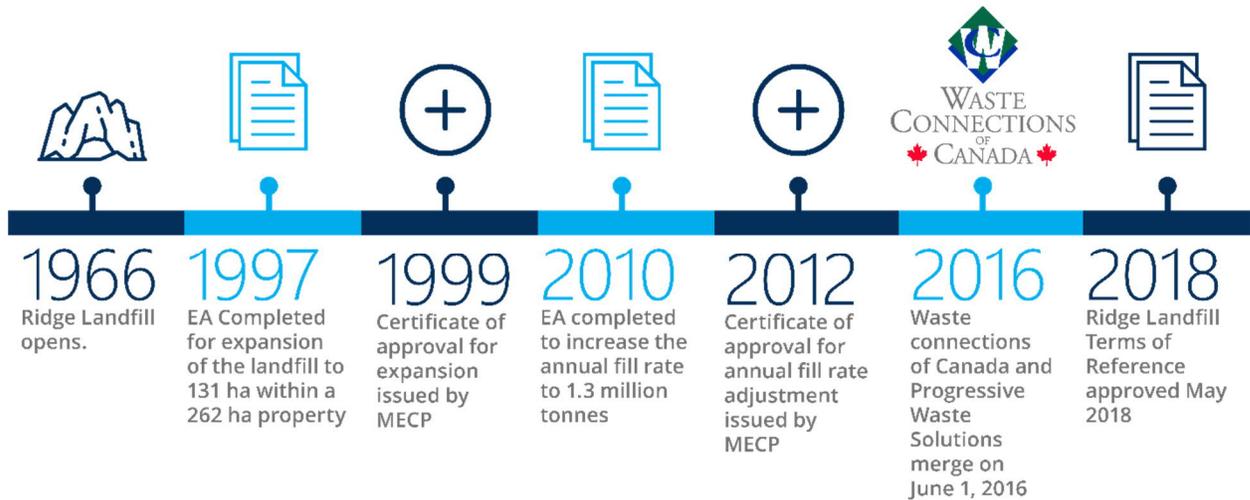
FIGURE 1-1: LOCATION OF RIDGE LANDFILL



## 1.2 Site History and Background

The Ridge Landfill has been in operation since 1966 and the site is a well-known business within the local community. It is one of Waste Connections' most important assets in Canada and is an essential component of the waste management infrastructure in Ontario. . **Figure 1-2** provides a timeline highlighting key changes to the Ridge Landfill site over the last 50 years.

FIGURE 1-2: HISTORY OF THE RIDGE LANDFILL



## 1.3 Overview of Current Operations

Waste Connections currently owns 340 hectares (ha) of land at the Ridge Landfill. This land includes the existing 262 ha Landfill Site Area of which 131 ha is the Waste Fill Area, in which disposal is permitted. The site operates under Environmental Compliance Approval No. A021601.

Landfilling operations started within the Old Landfill area in the 1960s. The waste footprint progressively increased with the development and operation of the West Landfill starting in 2000 and the South Landfill starting in 2016. The current approved capacity for the Ridge Landfill is 21 million cubic metres (m<sup>3</sup>) and the site is approved to accept a maximum annual fill rate of 1,300,000 tonnes of waste per year. As of April 2019, it is estimated that at the current fill rate (i.e., 1.3 million tonnes annually), the existing Waste Fill Area will provide waste disposal capacity until approximately 2021.

**Figure 1-3** shows the current layout of the Ridge Landfill (a more detailed version of this figure is included in **Appendix A – Approved Amended ToR and Associated Work Plans**).

FIGURE 1-3: EXISTING LAYOUT OF THE RIDGE LANDFILL



To ensure long-term management of the Ridge Landfill, Waste Connections has an extensive and rigorous environmental management system in place that follows stringent Ministry of Environment, Conservation and Parks (MECP) regulations. Regular independent groundwater and surface water monitoring is conducted with annual reports submitted to the MECP. Approximately 35 years of groundwater monitoring through an extensive network of 48 wells at the Ridge Landfill site has confirmed the effectiveness of the landfill design and operations for groundwater protection. There are also 15 private groundwater monitoring wells that make up the off-site annual monitoring program.

Leachate generated from the waste is collected from the fill areas and conveyed to an on-site storage tank where it is periodically released to the sewer trunk main for treatment at the Blenheim Wastewater Treatment Lagoons (BWTL). Landfill gas generated from the waste is collected and flared on-site. Operations at the landfill are continuously reviewed, updated and staffed to protect the environment and minimize potential effects such as litter, birds, dust, noise and odour.

## 1.4 Purpose and Rationale for the Proposed Undertaking

Waste Connections is proposing an expansion of its Ridge Landfill in order to continue playing an essential role in Ontario's waste management infrastructure. The proposed expansion will allow Waste Connections to provide long-term residual waste disposal capacity for its large customer base and for the Ridge Landfill to continue serving as a regional and inter-regional waste management facility. This is crucial to help manage waste volumes associated with the current and projected increases in population and related economic growth in southern and central Ontario.

There is an overall projected disposal capacity deficit for IC&I residual waste from southern and central Ontario over the planning period 2021 to 2041. This presents an opportunity for Waste Connections to continue to be in a position to offer an efficient integrated collection, recycling/processing and disposal service to its IC&I customers in southern and central Ontario during this planning period. To fulfill this opportunity, Waste Connections must address the impending exhaustion of the currently approved capacity of the Ridge Landfill, which is projected to occur by the end of 2021. As such, the purpose of this Undertaking is to maintain and continue Waste Connections' role in providing IC&I residual waste disposal capacity in the service area of southern and central Ontario. Specifically, Waste Connections is proposing to maintain the existing annual waste disposal rate of 1.3 million tonnes over a 20-year period (total of 26 million tonnes by 2041). A reduction in the IC&I service area is being proposed from an all Ontario IC&I customer base to a southern and central Ontario customer base. The residential service area is proposed to be reduced from the Municipality of Chatham-Kent and surrounding Counties of Essex, Lambton, Middlesex and Elgin to only the Municipality of Chatham-Kent.

Originally established in the ToR, the rationale for the opportunity was revisited during the EA and it was confirmed that there continues to be a need for disposal capacity in southern and central Ontario over the 20-year planning period (see **Appendix F – Other Supporting Documents**).

## 1.5 Summary of Need to Expand the Ridge Landfill

As the sector and regulators are aware, Ontario is nearing a landfill capacity crisis. The "*Landfill Management and Planning in Ontario Study*" (2018); measured the current and future landfill capacity needs of Ontario and found that Ontario has just 12-15 years of disposal capacity remaining if the current rates of waste disposal, diversion and exportation remain the same. It went on to state that even with goals of increasing diversion rates, southeastern and

southwestern Ontario will run out of currently approved landfill capacity by 2030 and 2035, respectively.

This waste capacity situation becomes more tenuous when factors like increased demand from population and economic activity increases and the uncertainty pertaining to the US border, where nearly a third of Ontario's waste crosses into the US for final disposal, are factored in. Constant political commitments to ban Canadian waste and visa issues for drivers and employees make shipping waste to states like Michigan a less reliable option going forward.

Additionally, the Ridge has had an excellent environmental track record and is perceived positively by the host community and those that it serves. Positive attributes like the environmental track record and host community relations, combined with the uncertainty associated with the transportation and disposal of waste to the US, a projected landfill capacity shortage in Ontario and overall Provincial economic growth, confirm the essential role the Ridge Landfill plays in the Province's waste management infrastructure.