

About Walker

Part of the Community for 136+ Years

At Walker, we strive to build a sustainable future by working alongside the communities we operate in. With this core vision, Walker has successfully operated in Niagara for over 136 years. Walker is a fifth-generation, Niagara based family-owned company with over 1,200 employees across North America.



Our Innovative Campus



Walker's Niagara Falls location has transformed into an integrated Resource Management Campus and is an important part of the region's waste management infrastructure. We have safely managed Niagara's waste for over 40 years.

Committed to Resource Recovery

We are continuously innovating and investing in solutions to recover and repurpose landfill-bound waste into sustainable materials and products to reduce society's environmental impact.



Learn more about Walker's Resource Management Campus:



Supporting Niagara

for over 136 years

Walker has a long history
of being an active community partner



Jobs & Employment

- Supporting approximately **500 jobs in Niagara** through our current waste management & resource recovery operations



Community Giving

- Donations and giving totalling over **\$1.4 million annually** to charities, community groups, and infrastructure in communities where Walker operates



Volunteering

- Providing employees **2 paid volunteer days** per year to support local community initiatives



Awareness & Education

- Supporting educational activities by participating in **community events, giving tours and presentations, and through partnerships**

Learn more about Walker's community partnerships:



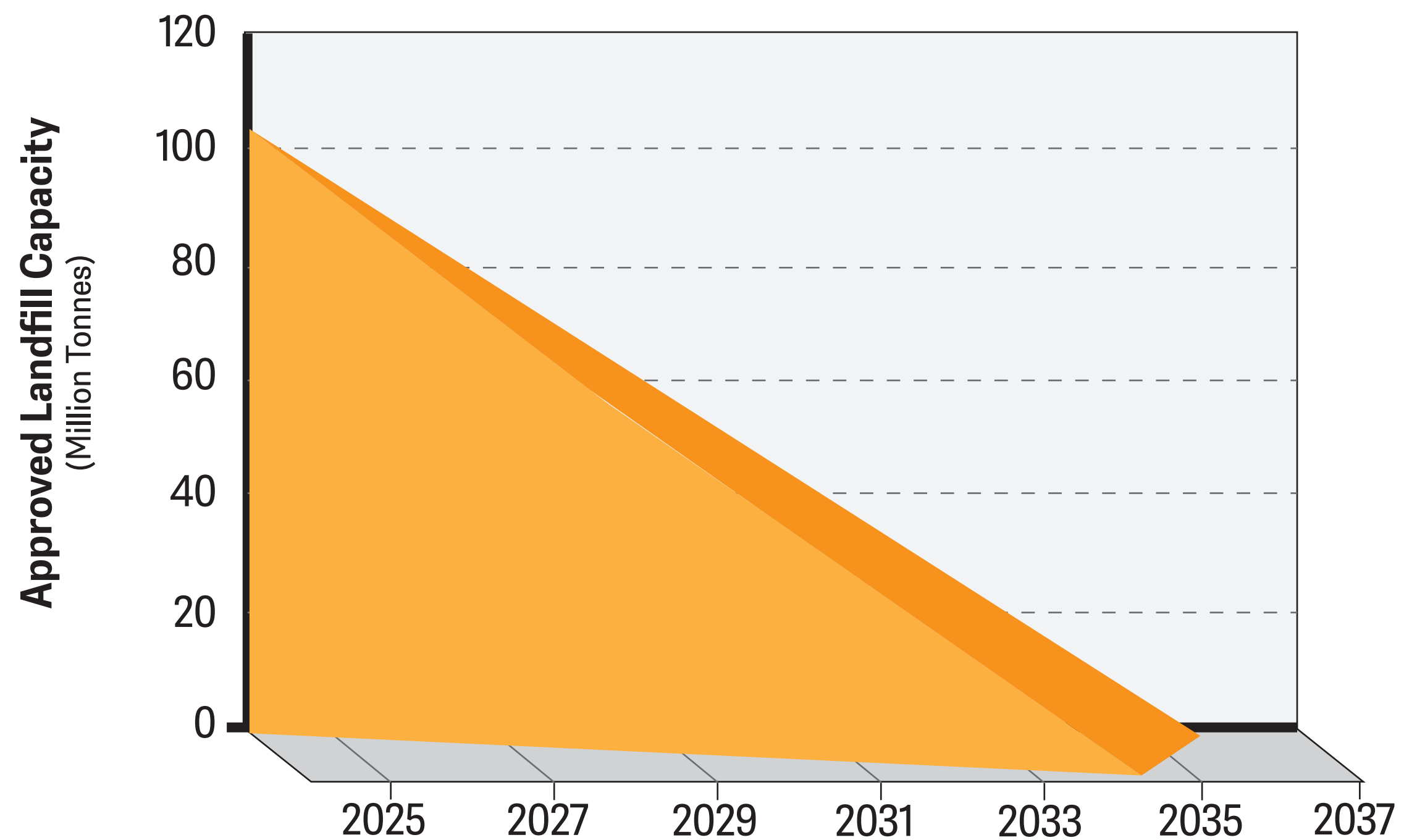
Niagara's Waste Disposal Solution

South Landfill Phase 2

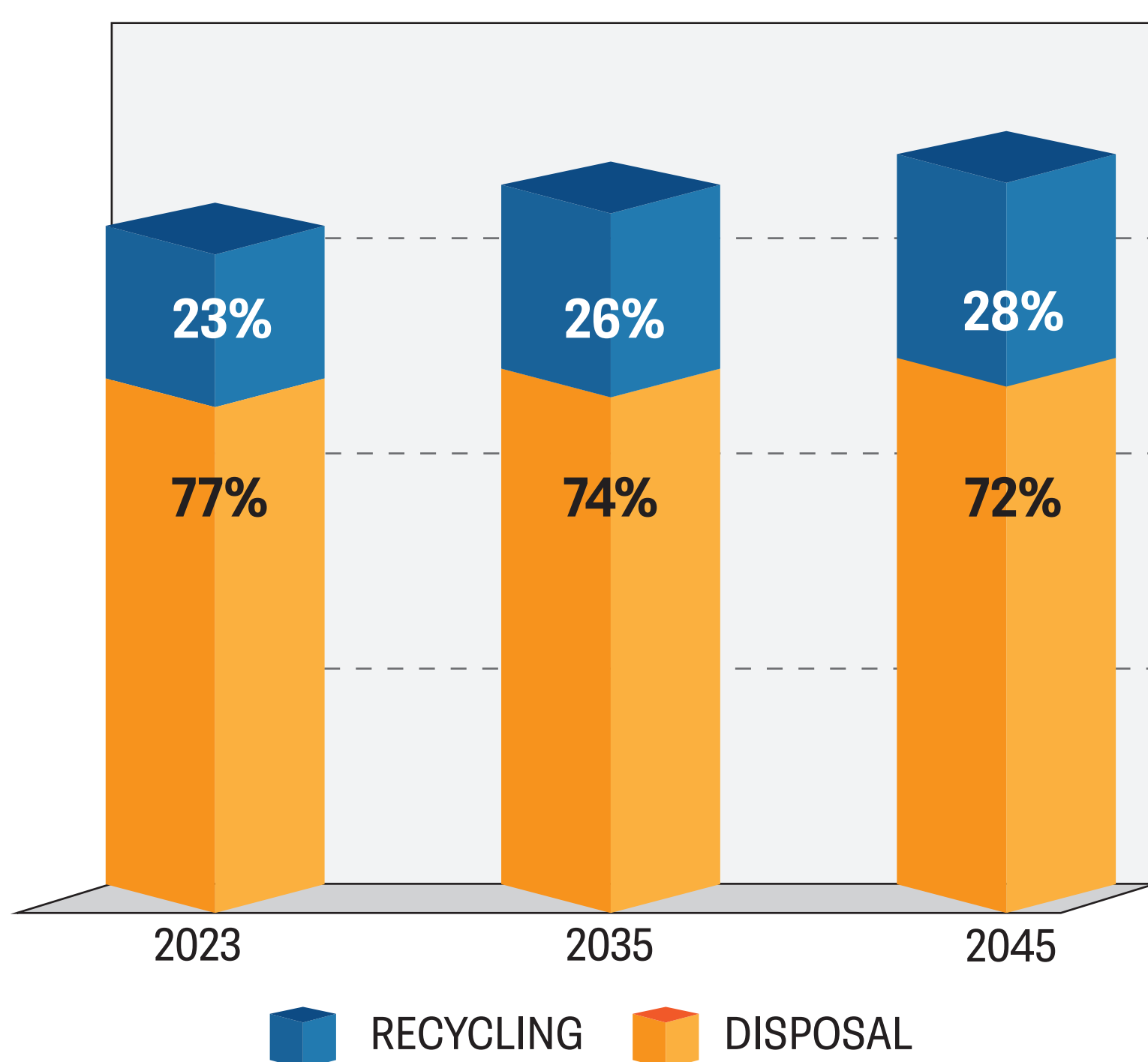
Ontario is expected to run out of landfill capacity by 2035

- Existing landfills are quickly filling up
- Population & waste generation are increasing
- It takes up to 10 years to develop new landfill capacity

ONTARIO'S REMAINING LANDFILL CAPACITY



ONTARIO'S RECYCLING & DISPOSAL RATES

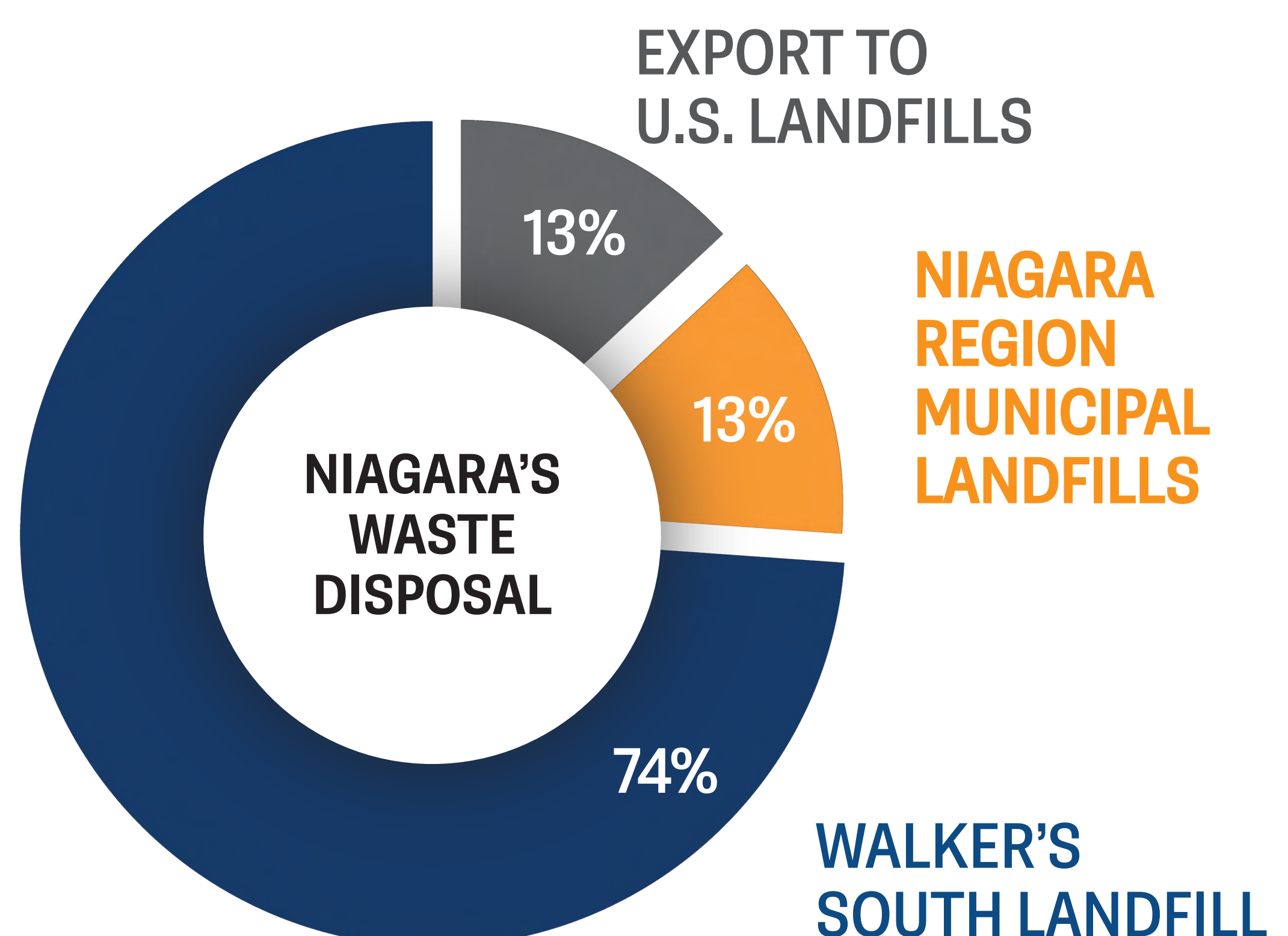


Despite recycling efforts, there will still be materials requiring safe disposal

- Even with increased recycling and Green Bin composting, landfills are still needed to safely manage residual waste

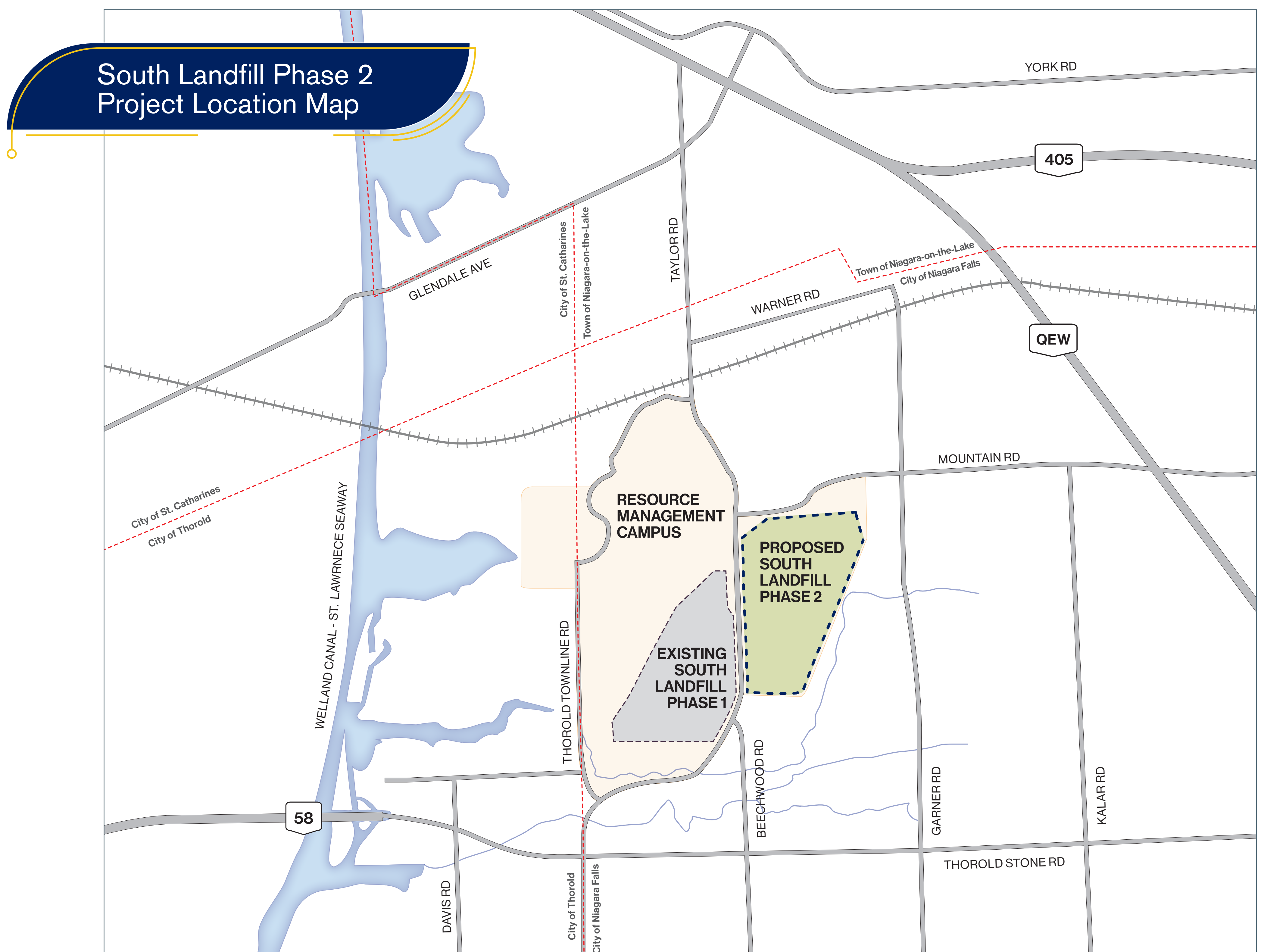
Niagara is no exception, additional disposal capacity is needed

- Over 2/3 of Niagara's waste is currently managed at the South Landfill, which is expected to reach capacity by 2030



Safe & Reliable Waste Management

- The existing phase of Walker's South Landfill on Taylor Road in Niagara Falls is soon approaching **capacity**, with approximately **5 years remaining**.
- As the Niagara region continues to grow, planning for long-term waste disposal capacity is increasingly important. Despite recycling and green bin composting efforts, **Niagara requires landfill space** to safely manage non-recyclable materials.
- Using existing waste management infrastructure, Walker is proposing to **continue to operate the South Landfill** by developing **Phase 2** on the eastern portion of our Resource Management Campus, as shown below.



The Future Development of the South Landfill

Walker is proposing the future development of its South Landfill, **a state-of-the-art engineered landfill**, designed with exceptional safety and environmental controls.

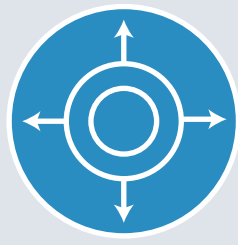


Image showing the construction of several layers of the engineered landfill liner

Key Facility Information



1.1 million tonnes of solid, non-hazardous waste per year



18 million m³ total capacity



20 years of safe disposal



~500 jobs supported in Niagara

Did you know?

Walker harnesses the **renewable energy** generated from its Niagara landfill

Walker harnesses enough renewable energy from its landfill to power ~16,000 homes annually.

Phase 2 is estimated to produce an additional 10,000 homes worth of green energy.



An Environmental Planning Process

The South Landfill Phase 2 project must undergo a **rigorous planning and decision making process** called an Environmental Assessment (EA).

This process is **regulated by the Ontario Ministry of the Environment, Conservation and Parks (MECP)** through the *Environmental Assessment Act* which is designed to protect, conserve, and wisely manage Ontario's environment.

A Two-Step Process

Step 1 Terms of Reference (TOR)

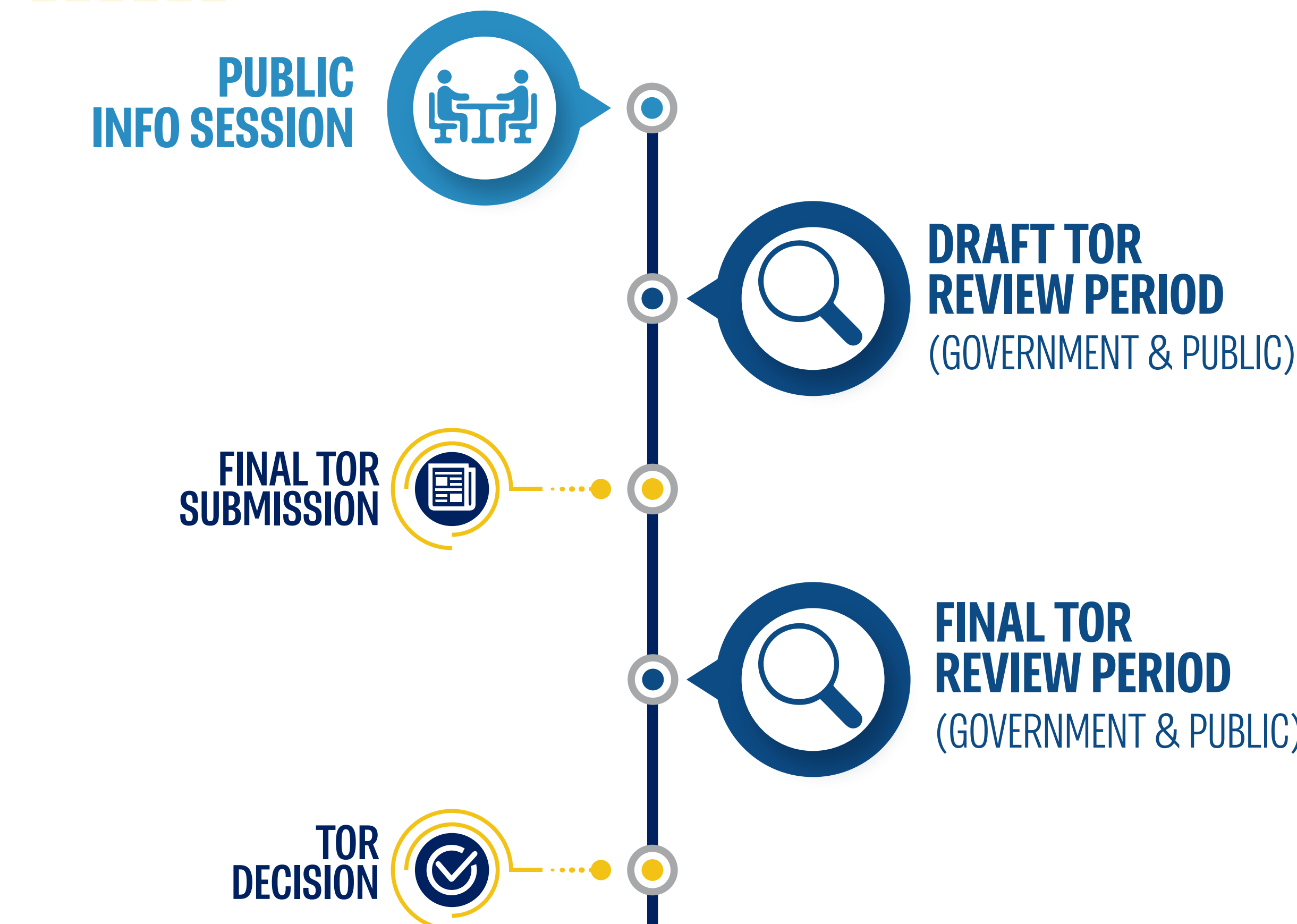
This is the initial step in the EA process. It is a document that serves as the roadmap for what will be studied in the EA and outlines the public consultation that will take place.

Step 2 Environmental Assessment (EA)

This is where the scientific studies occur. These studies identify the effects of the project, both positive and negative, and proposed mitigation measures where needed.

EA Process

TERMS OF REFERENCE



ENVIRONMENTAL ASSESSMENT



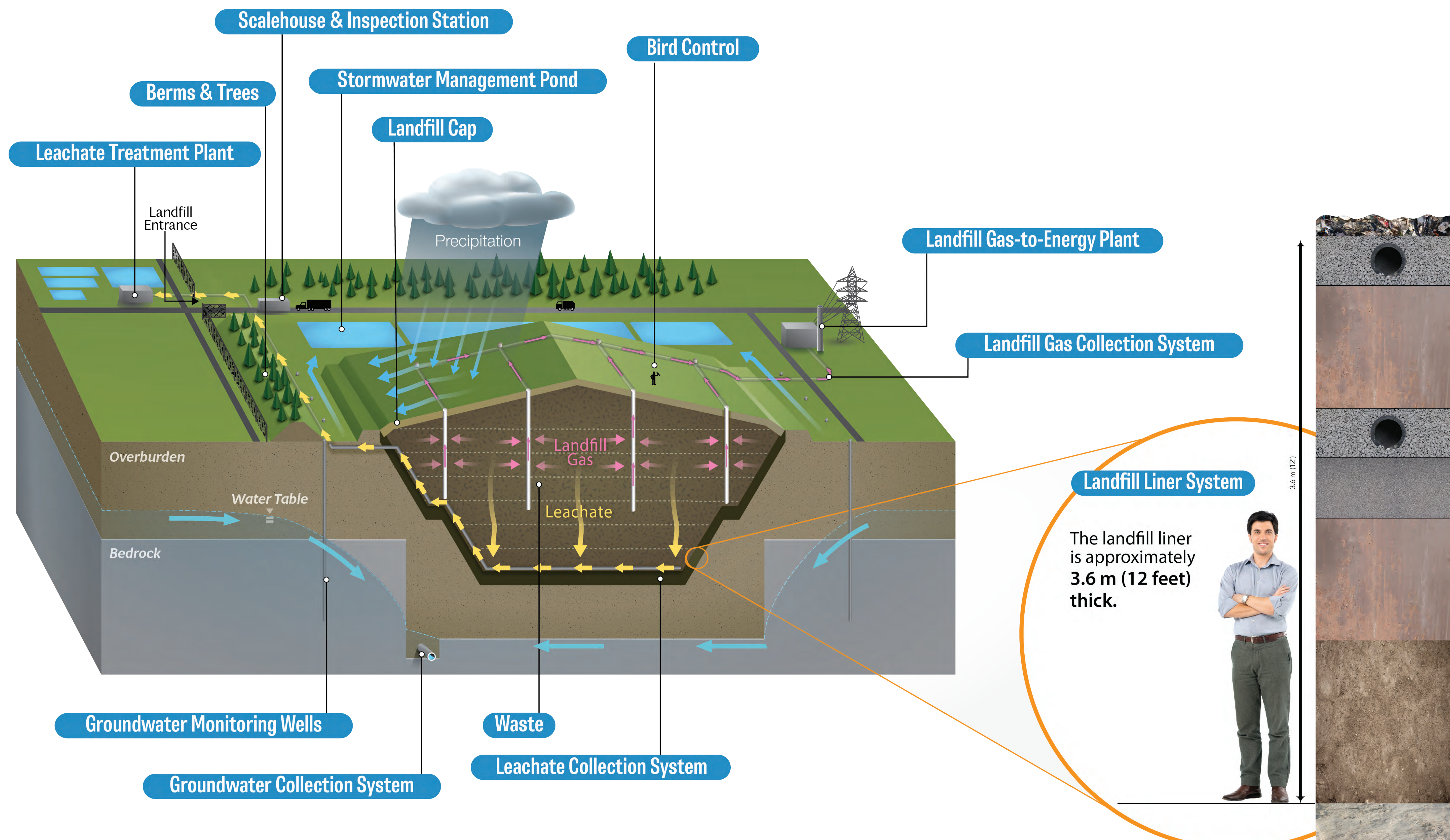
Learn more about the EA process:



Designed & Operated to the highest standard

Key Features

- Sophisticated **12-foot multi-layer liner** that creates a barrier between waste and the environment
- **Leachate collection & treatment system** for removal & treatment of water that comes into contact with waste
- **Landfill gas collection system** & renewable natural gas production to reduce emissions
- **0.75 m thick final landfill cap** to prevent water infiltration and control odour



* Liner system currently used at the South Landfill.

Existing Conditions

To ensure South Landfill Phase 2 can be developed safely, existing environmental conditions are being studied to understand what changes could be expected.



Range of Technical Studies Underway



Agriculture



Air Quality



Archaeology



Cultural Heritage



Ecology



Economic



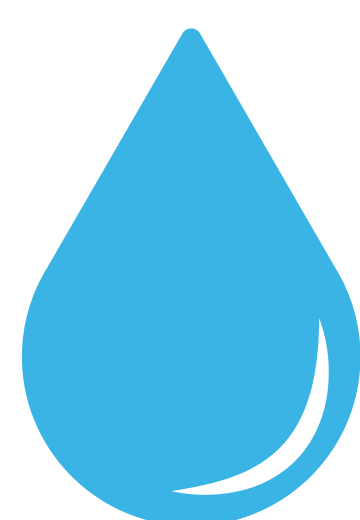
Land Use



Noise & Vibration



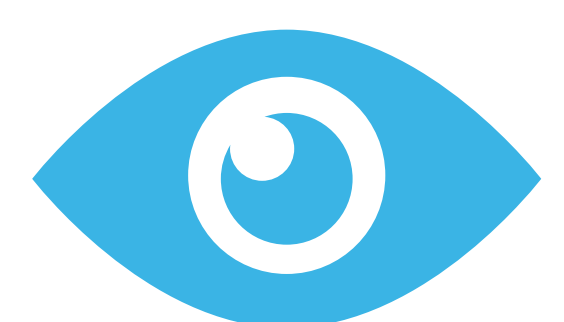
Social



Surface Water & Groundwater

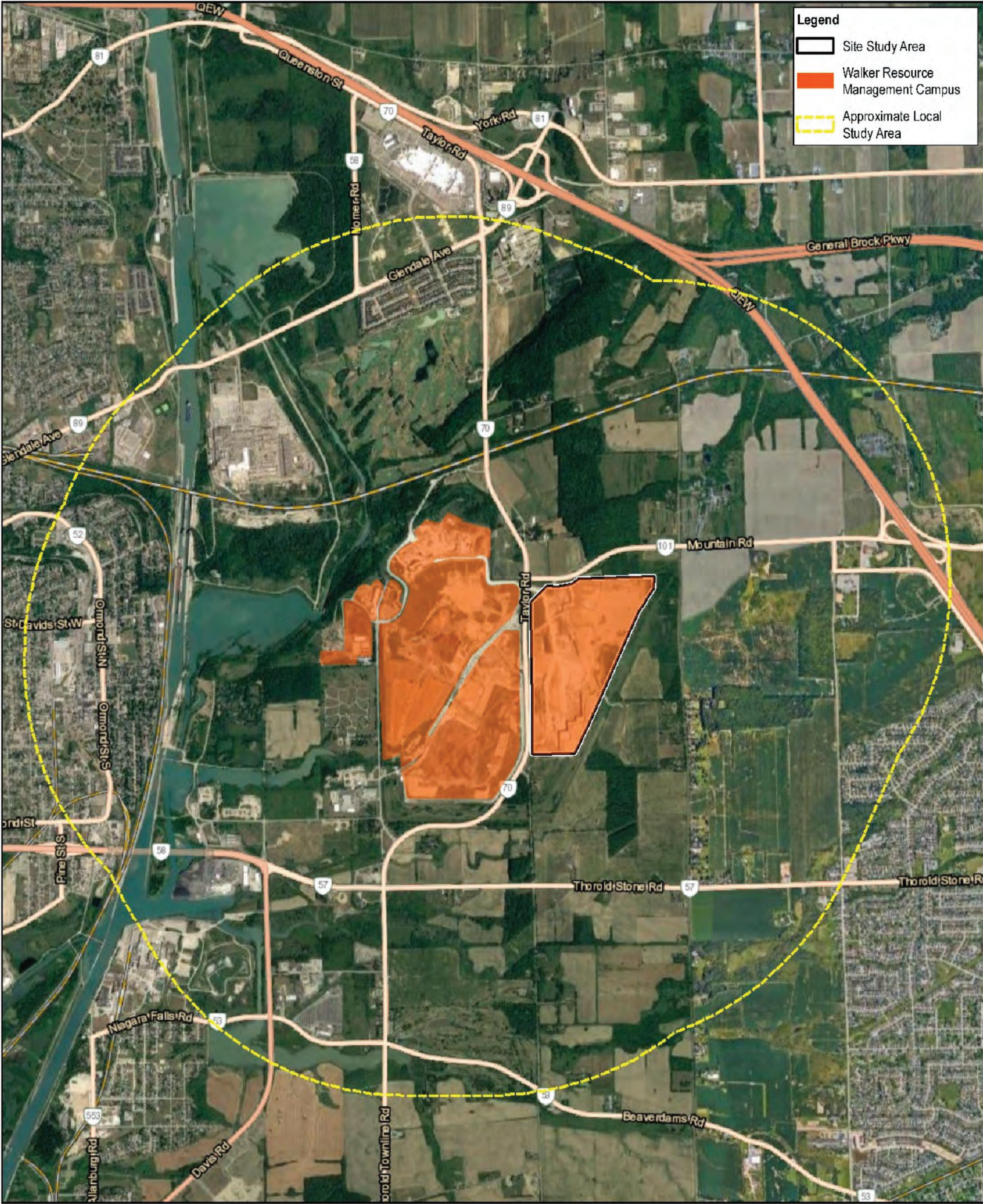


Traffic



Visual

Study Area



Paper Size ANSI A
0 0.25 0.5 0.75 1
Kilometers

Map Projection: Transverse Mercator
Horizontal Datum: North American 1983
Grid: NAD 1983 UTM Zone 17N



WALKER INDUSTRIES
2800 THOROLD TOWNLINE RD, NIAGARA FALLS, ON
SOUTH LANDFILL PHASE 2 ENVIRONMENTAL ASSESSMENT
TERMS OF REFERENCE

SOUTH LANDFILL PHASE 2
PRELIMINARY STUDY AREA

Project No. 12567140
Revision No. -
Date Feb 23, 2024

FIGURE 6.1

Evaluation Criteria & Indicators

The Evaluation Criteria & Indicators are used by technical experts and scientists to identify potential effects on the environment. They help evaluate how existing conditions may or may not change.

What are Criteria and Indicators?



Criteria

Identifies **areas of interest** that will be evaluated.



Indicators

Identifies **what** will be studied.

A full list of criteria and indicators is provided on the next board.

Example



"I'm concerned about water quality."

Criteria

Effect on groundwater quality.

Effect on groundwater flow.

Indicator

- Predicted effects to groundwater quality at property boundaries and off-site
- Predicted effects to groundwater flow at property boundaries and off-site



Evaluation Criteria and Indicators

Criteria		Indicators
Geology & Hydrogeology	▪ Effect on groundwater quality	▪ Predicted effects to groundwater quality at property boundaries and off-site
	▪ Effect on groundwater flow	▪ Predicted effects to groundwater flow at property boundaries and off-site
Surface Water Resources	▪ Effect on surface water quality	▪ Predicted effects on surface water quality on-site and off-site
	▪ Effect on surface water quantity	▪ Predicted change in drainage areas and land use ▪ Predicted occurrence and degree of off-site effects
Atmospheric Environment	▪ Effect of air quality on off-site receptors	▪ Predicted off-site point of impingement concentrations (µg/m³) of indicator compounds ▪ Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions) ▪ Frequency of any exceedance of applicable standards, limits, or guidelines at identified receptors
	▪ Effect of odours on off-site receptors	▪ Predicted off-site odour concentrations (µg/m³ and odour units) ▪ Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions) ▪ Frequency of any exceedance of applicable standards, limits, or guidelines at identified receptors
	▪ Effect of noise on off-site receptors	▪ Predicted off-site noise level ▪ Number of off-site receptors potentially affected (residential properties, public facilities, businesses, and institutions) ▪ Predicted sound from traffic
Terrestrial & Aquatic Environment	▪ Effect on terrestrial ecosystems	▪ Predicted impact on vegetation communities ▪ Predicted impact on wildlife habitat ▪ Predicted impact on vegetation and wildlife including rare, threatened or endangered species
	▪ Effect on aquatic ecosystems	▪ Predicted impact on aquatic habitat ▪ Predicted impact on aquatic biota
	▪ Effect on culturally significant species to Indigenous peoples, and rare (vulnerable), threatened or endangered species of flora or fauna or their habitat	▪ Predicted impact on culturally significant, rare, threatened, or endangered flora and fauna species and their habitat
	▪ Effect on wetlands	▪ Predicted impact on wetlands
	▪ Effect on wildlife habitat, populations, corridors or movement	▪ Predicted impact on wildlife habitat, populations, corridors or movement
	▪ Effect on fish or their habitat, spawning, movement or environmental conditions (e.g., water temperature, turbidity, etc.)	▪ Predicted impact on fish, fish habitat, spawning behaviour, movement or environmental conditions
	▪ Effect on locally important or valued ecosystems or vegetation	▪ Predicted impact on locally important or valued ecosystems or vegetation
Land Use	▪ Effect on existing and proposed planned future land uses and associated infrastructure	▪ Current and planned future land use ▪ Proximity to off-site sensitive land uses(e.g., dwellings, churches, parks) and features (e.g., wetlands, woodlots, etc.)
	▪ Effect on views of the facility	▪ Predicted changes in views of the facility from the surrounding area ▪ Visibility of project features from selected receptor locations ▪ Level of visual contrast of project features from selected receptor locations
Transportation	▪ Effect on traffic	▪ Operational Level of Service at intersections around the Campus
	▪ Road Safety and Geometry	▪ Traffic collision assessment ▪ Vertical and horizontal sightlines

Criteria		Indicators
Social	▪ Displacement of Residents from Houses	▪ The number of households/residents (property owners and tenants) to be displaced (i.e., forced relocation) by the project itself regardless of whether their property has been purchased or not ▪ The potential for or likelihood of voluntary out-migration of residents for consideration of the indirect effects on community character and cohesion
	▪ Disruption to use and enjoyment of residential properties	▪ The number of existing residential households and / or future households that are located at specific receptor locations and potentially affected by noise, dust, odour, traffic, agricultural and visual effects; and the potential for and likelihood of changes in the presence of vermin and gulls ▪ The number of existing residential households fronting/backing onto a haul route and potentially affected by changes in project related traffic and traffic noise ▪ Potential for or likelihood of changes in peoples' use of residential property
	▪ Disruption to use and enjoyment of public facilities and institutions	▪ The number of existing public facilities and institutions that may be affected by nuisance factors such as noise, dust, odour, traffic and visual effects; and the potential for and likelihood of changes in the presence of vermin and gulls ▪ Potential for or likelihood of changes in operations of public facilities and institutions ▪ Potential for or likelihood of changes in use and enjoyment of public facilities and institutions
	▪ Loss / Disruption of Recreational Resources	▪ The number/nature of existing recreational resources and/or future features potentially affected by noise, dust, odour, visual effects and changes in project-related traffic; and the potential for the likelihood of changes in the presence of vermin and gulls ▪ Potential for or likelihood of changes in operations of recreational features ▪ Potential for or likelihood of changes in use and enjoyment of recreational resources
	▪ Changes to community character	▪ Compatibility of landfill operations with the existing and likely future character of the community ▪ Compatibility of the proposed end use with the existing and likely future character of the community
	▪ Changes to community cohesion	▪ The extent of displacement ▪ The potential for or likelihood of voluntary out-migration ▪ Loss and the extent of disruption of recreational resources, public facilities and institutions, and the use and enjoyment of residential properties
Agriculture	▪ Effects on existing Agricultural Land Base	▪ CLI Soil Capability classification ▪ Soil suitability classification ▪ Climate ▪ Level of Fragmentation ▪ Proximity to non-farm land uses
	▪ Effects on Agri Food Network	▪ Type(s) and proximity of agricultural operations ▪ Type(s) and proximity of agricultural related facilities ▪ Predicted impacts on surrounding agricultural operations & agricultural related facilities
Economic	▪ Effect on local economy	▪ Impact on businesses ▪ Disruption/displacement of businesses (including tourism and farms) ▪ Business opportunities ▪ Labour market impacts ▪ Impact on direct, indirect, and induced employment ▪ GDP Impacts ▪ Impacts on direct, indirect and induced GDP ▪ Retention of economic benefits within local economy
	▪ Effect on Real Estate	▪ Property value impacts
	▪ Effect on public finance	▪ Impact on municipal revenue ▪ Impacts on municipal cost ▪ Impact on assessment base
	▪ Cost of services	▪ Impact on customer cost of waste services
Cultural Heritage Resources	▪ Effect on archaeological resources and areas of archaeological potential	▪ Number and type of archaeological sites affected ▪ Area (ha) of archaeological potential (i.e., areas with the likelihood to contain archaeological resources)
	▪ Effect on known or potential built heritage resources and cultural heritage landscapes	▪ Number of known and potential built heritage resources and cultural heritage landscapes displaced or disrupted

Alternative Methods (Options)

Alternative Methods (Options) are different ways the project can be built.



The Approved Terms of Reference identifies Alternative Methods (Options) that will be evaluated during the Environmental Assessment.

It also identifies the options that were evaluated and determined not viable. Options no longer being considered include:

- ▶ Landfill Location
- ▶ Site Entrance
- ▶ Incineration
- ▶ Haul Route
- ▶ Export to the USA

There are two (2) Alternative Methods being considered for further evaluation.

Alternative Methods for Consideration

1 Landfill Site Configurations

Site Configurations are different concepts of the design for the landfill.

Concepts being explored include:

- Peak elevation & height
- Slopes / Contours of the final cover

2 Leachate Management Options

Leachate is water (typically precipitation) that comes into contact with waste.

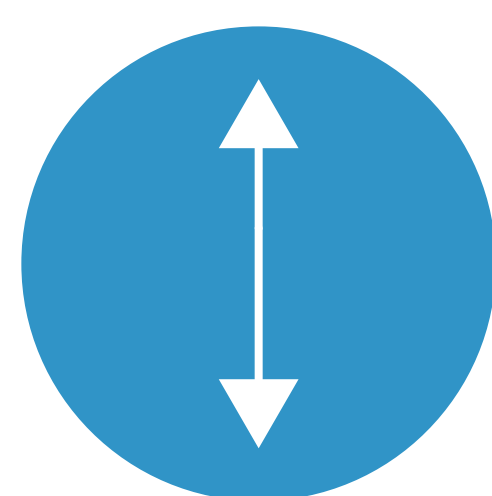
Options being explored include:

- Continued use of existing municipal waste water treatment infrastructure
- Development of a waste water treatment plant on Walker's campus.

Site Configurations - Reference

Site Configurations are different concepts of the design for the landfill. The configurations being explored include elements such as height, slope and capacity.

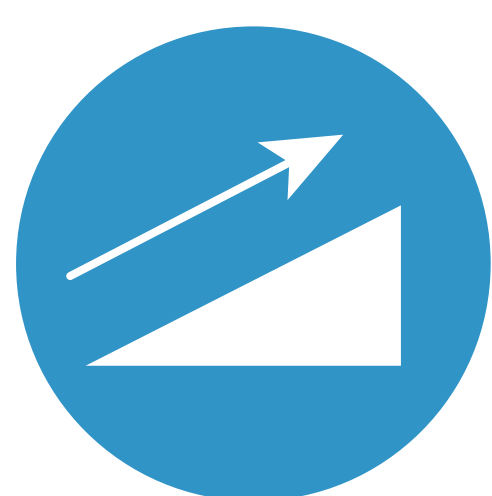
Site Configuration Considerations



Maximum Height

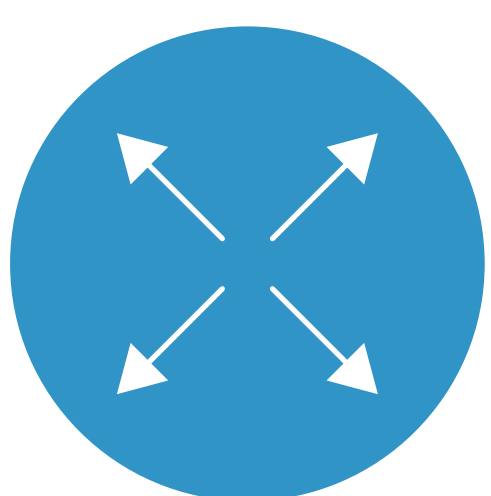
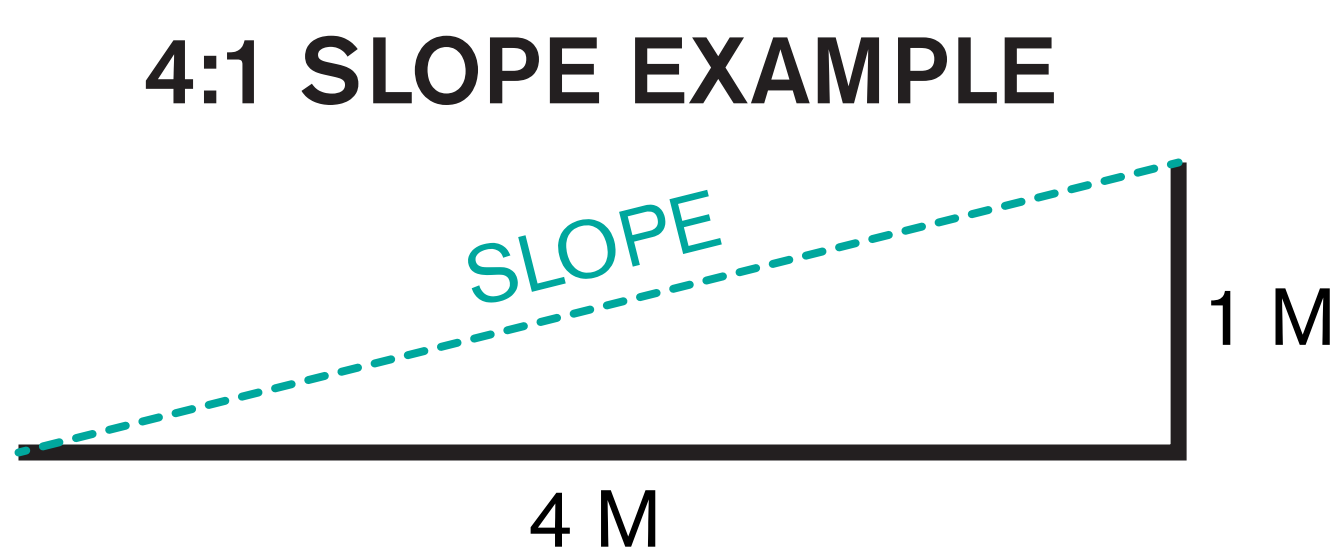
The maximum height identifies the highest point of the landfill.

masl = meters above sea level



Slope Steepness

The slope identifies how steep or flat the sides & top of the landfill will be.

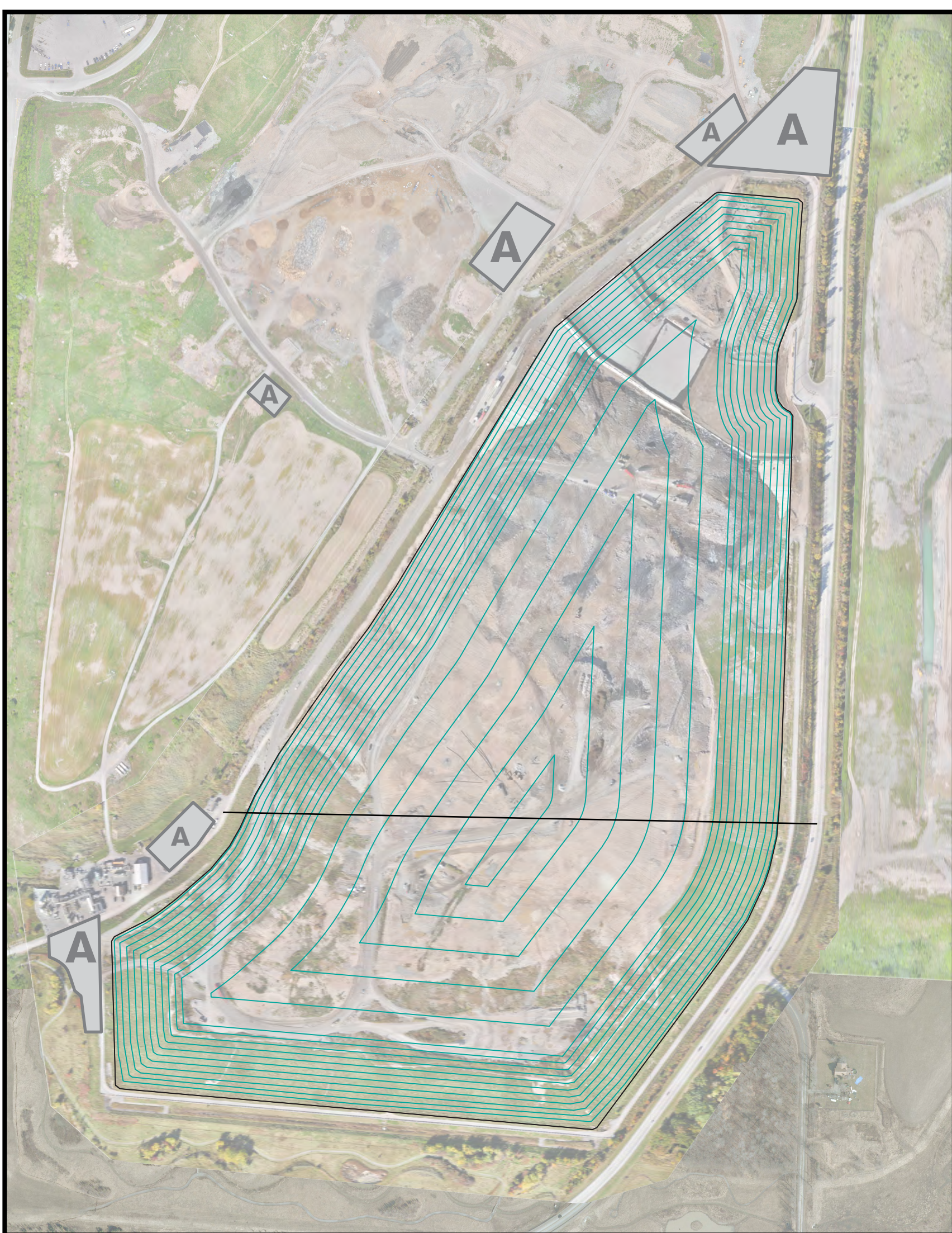


Landfill Capacity

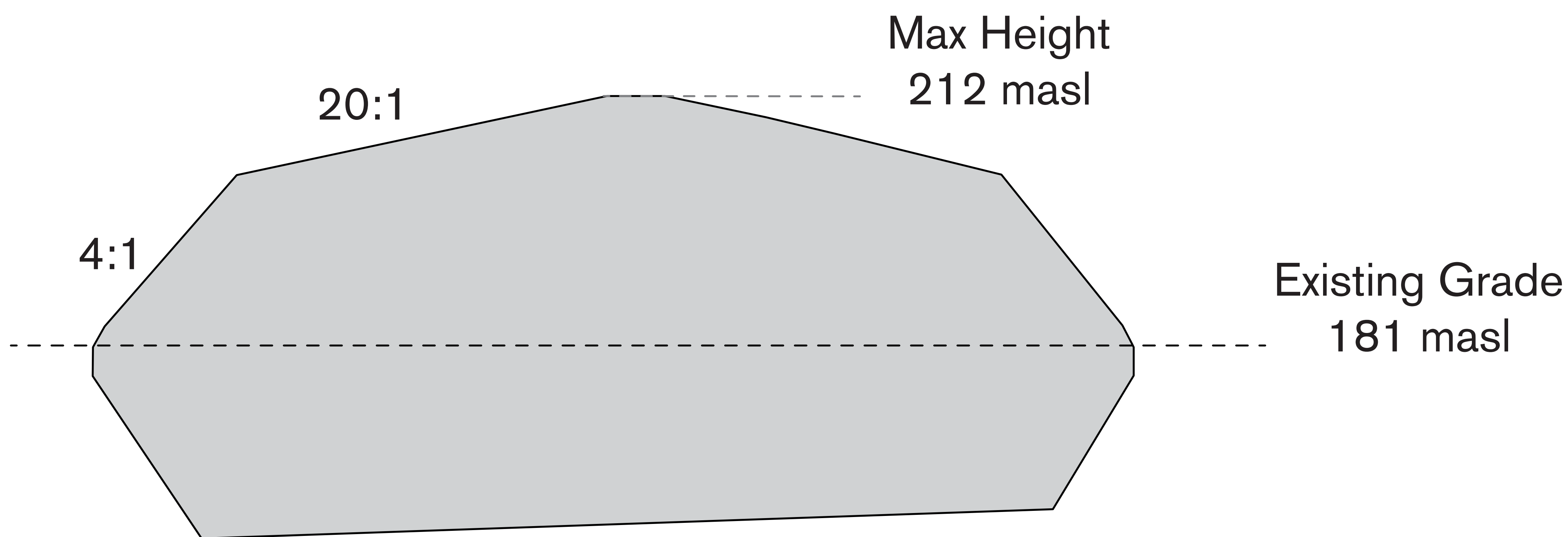
The landfill capacity is the total amount of waste the landfill can accept before it is closed.

To help compare South Landfill Phase 2 site configuration options, below is the current South Landfill Phase 1 configuration.

Example - Current South Landfill Phase 1



TEAL LINES REPRESENT A BIRDSEYE VIEW OF THE LANDFILL CONTOUR LINES



Landfill Capacity: 17,700,000 m³ Agricultural End Use Area: 76.0 acres (30.8 ha)

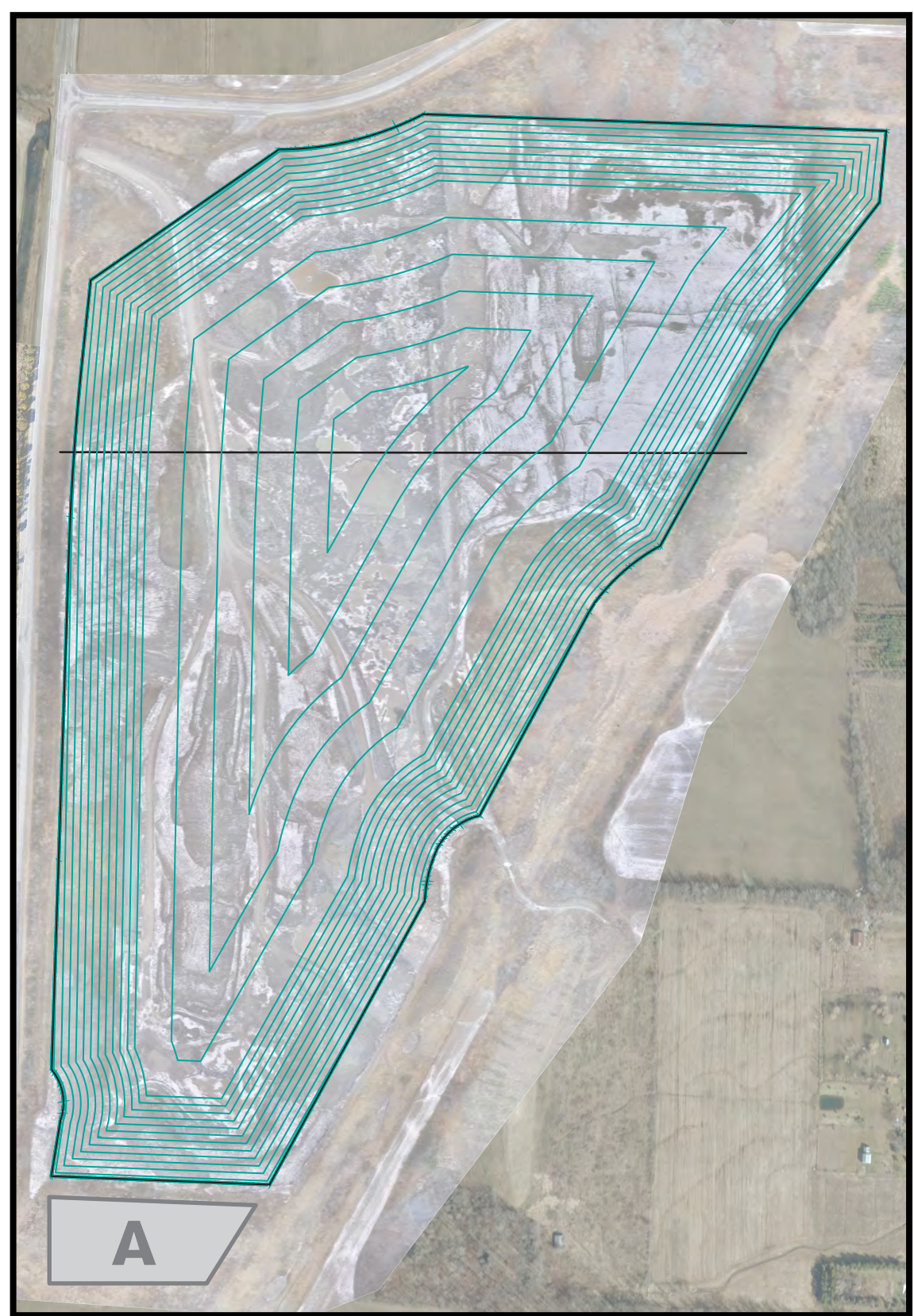
1 Landfill Site Configurations

South Landfill Phase 2 Options

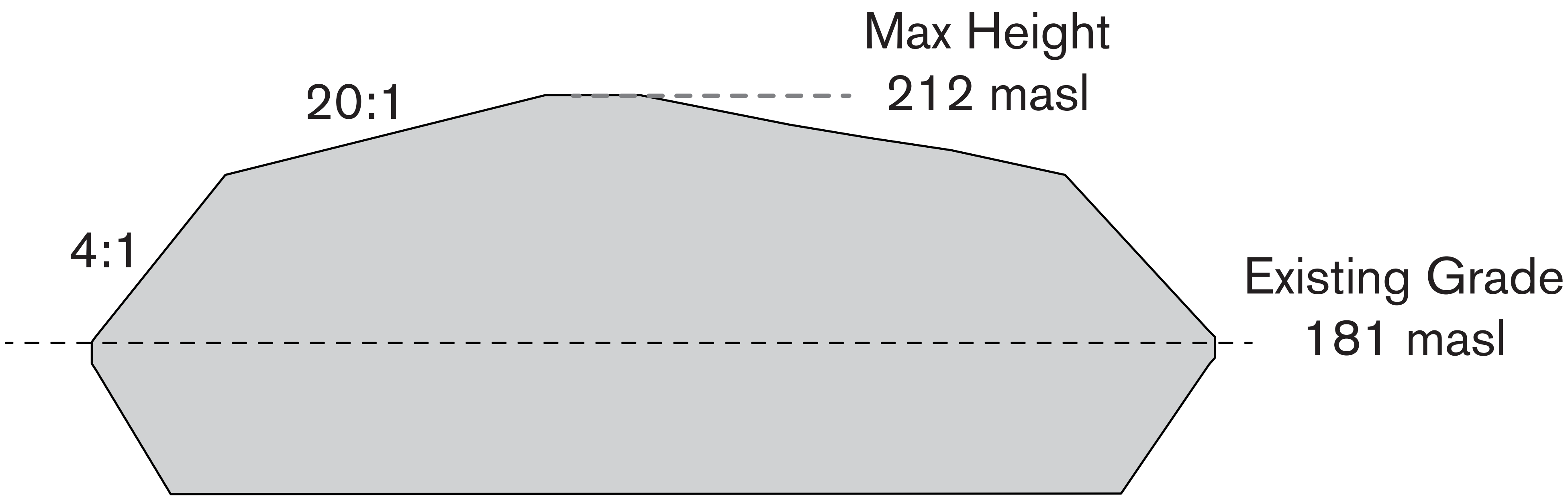
Three Landfill Site Configuration options are presented below showing different concepts for height, slope/contour, waste capacity, and area available for agricultural end use.

masl = meters above sea level

Option A

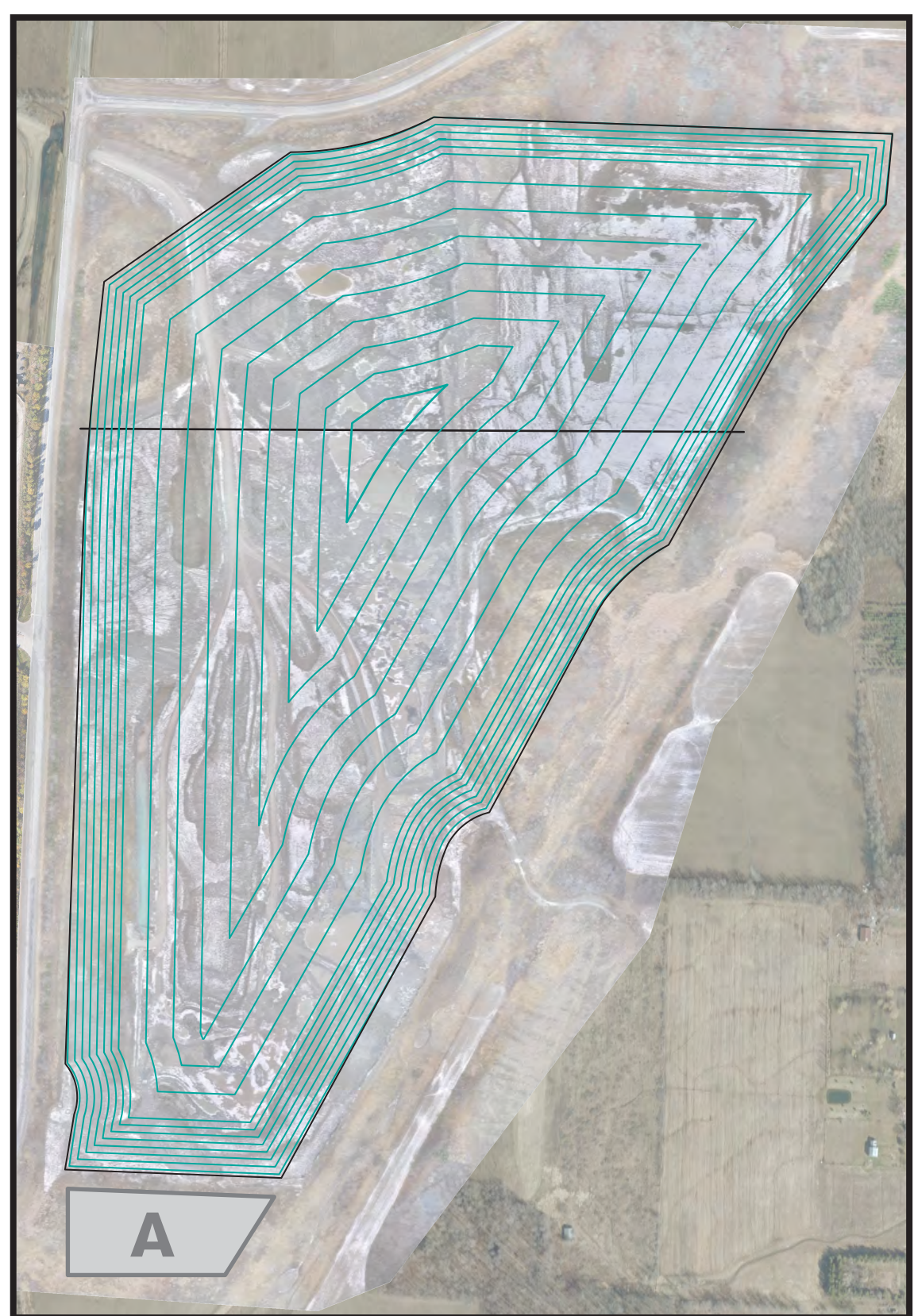


Same Height & Slopes As Current South Landfill Phase 1

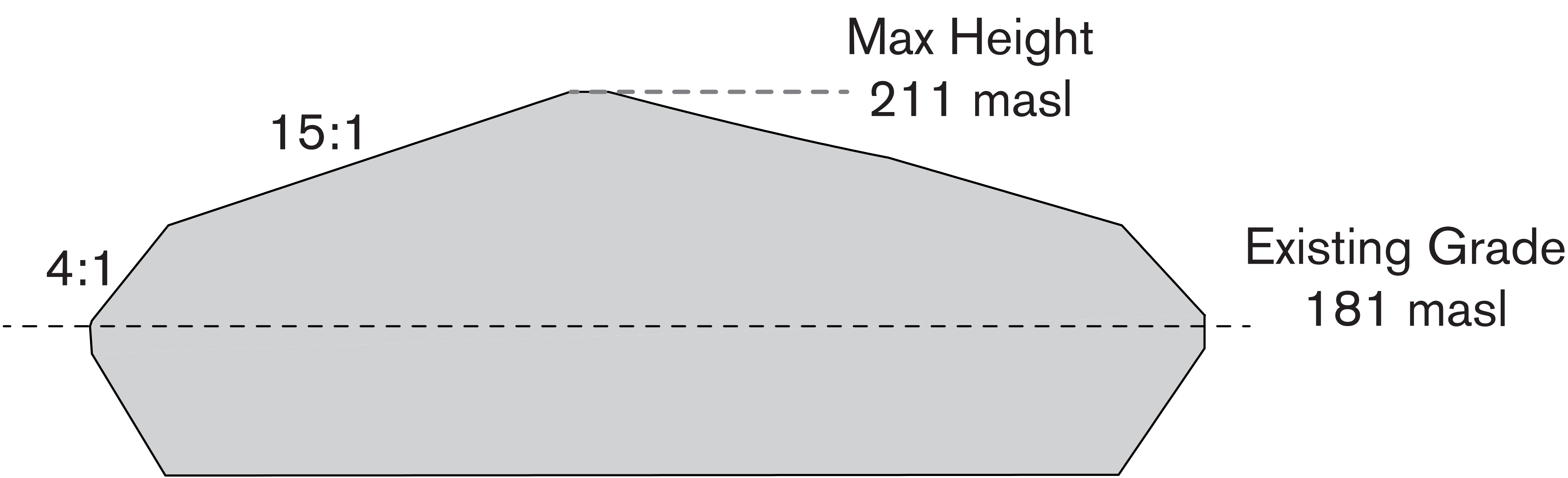


Landfill Capacity: 20,205,000 m³ Agricultural End Use Area: 90.6 acres (36.7 ha)

Option B

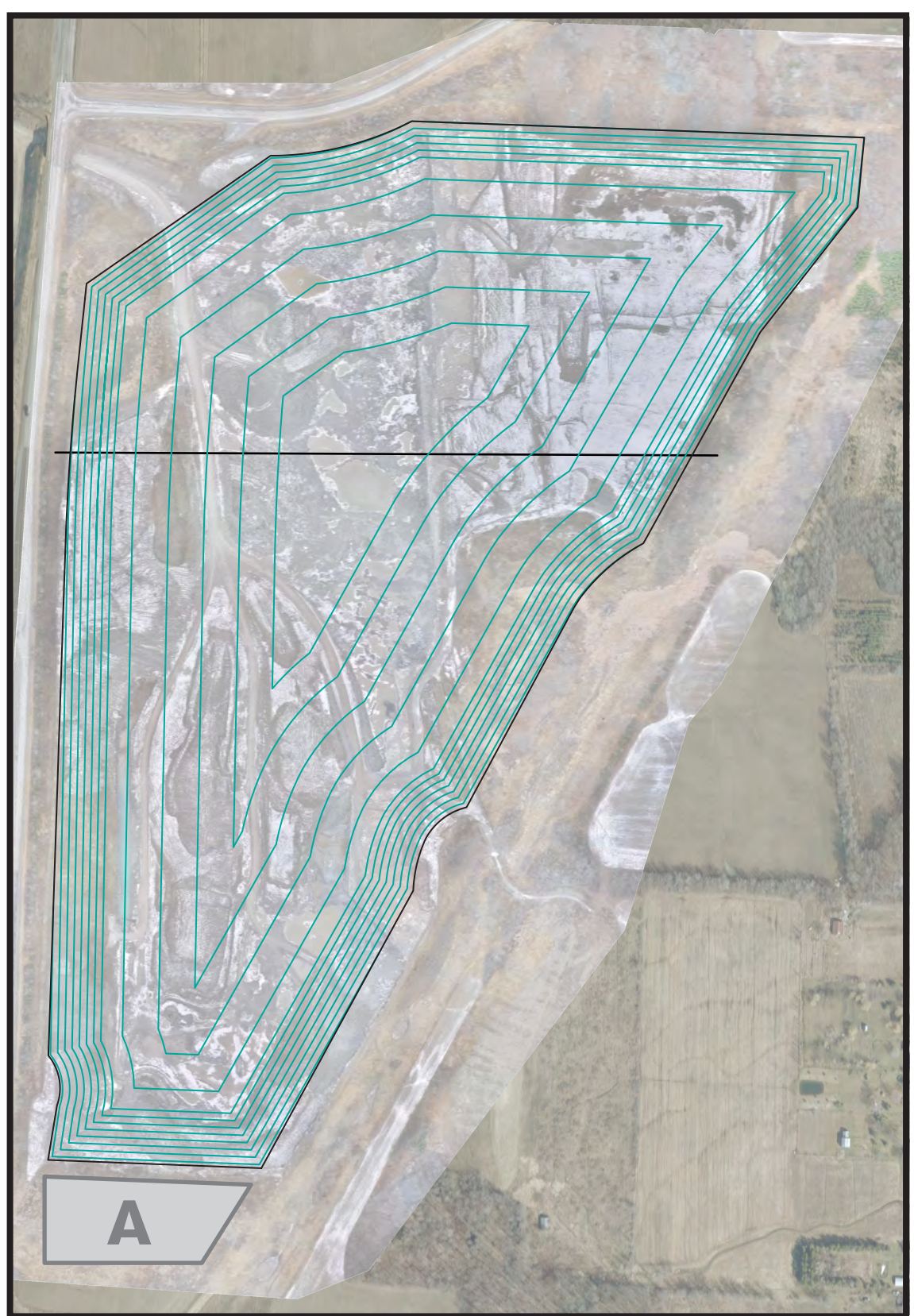


Maximized Agricultural End Use Option

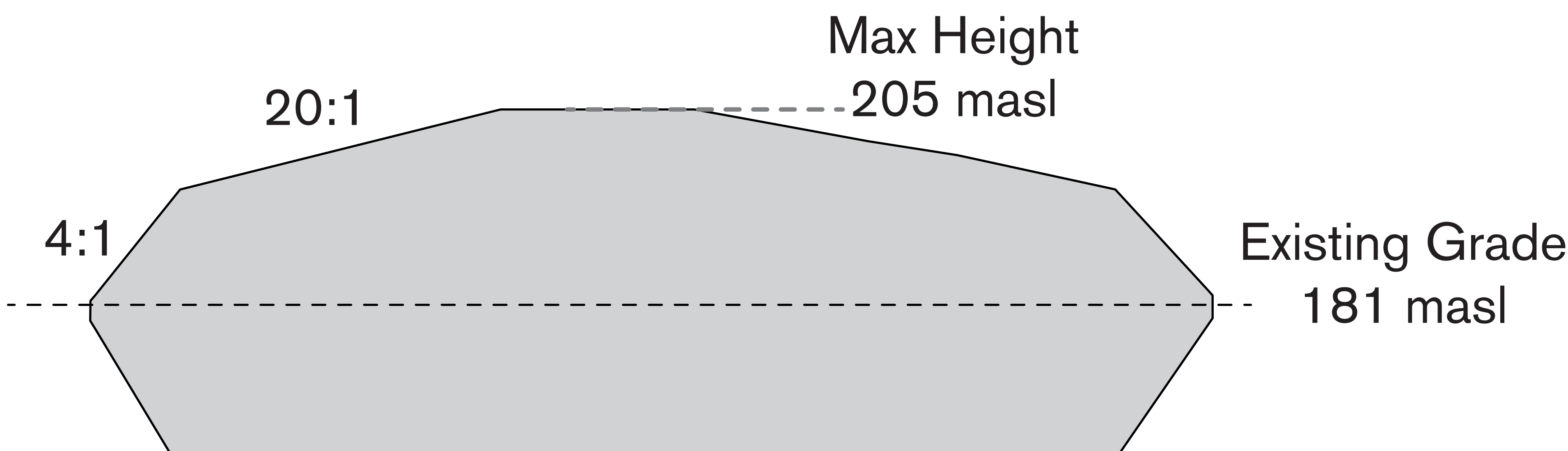


Landfill Capacity: 18,277,400 m³ Agricultural End Use Area: 130.0 acres (51.4 ha)

Option C



Average Agricultural End Use Option



Landfill Capacity: 17,893,000 m³ Agricultural End Use Area: 111.0 acres (45.0 ha)

Leachate Management - Reference

There are two **leachate treatment** options being explored.



Leachate is water (typically precipitation) that comes into contact with waste. The water is contained within the landfill liner and pumped out of the landfill for treatment.

Things to consider when evaluating Leachate Treatment Options



**Economic /
Financial
Impacts**



**Social
Impacts**



**Environmental
Impacts**
(Visual, Odour,
Water Quality, Noise)

Leachate Treatment Options will be evaluated using the **Criteria and Indicators**.

2

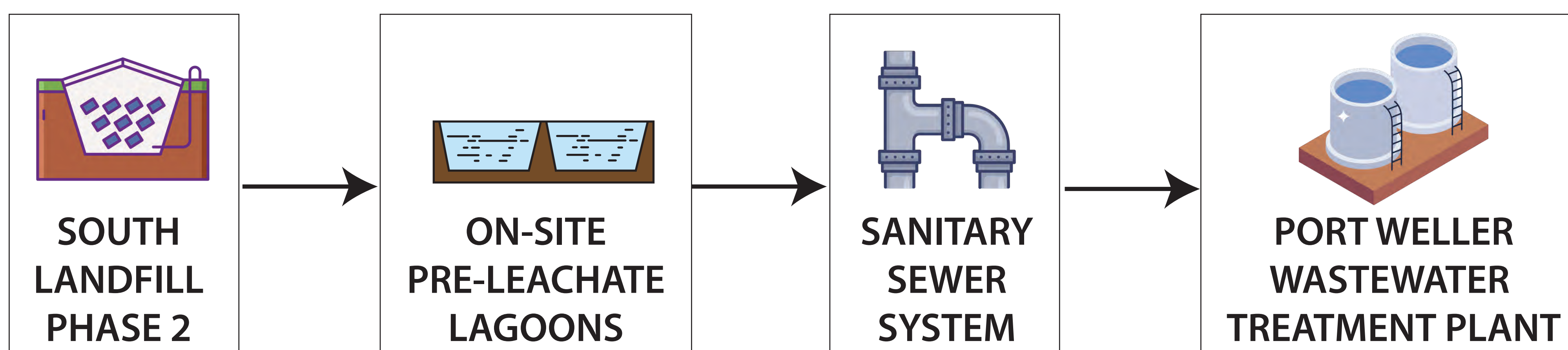
Leachate Management

South Landfill Phase 2 Options

Option A

Continued & Expanded Use of the Municipal Wastewater Treatment System

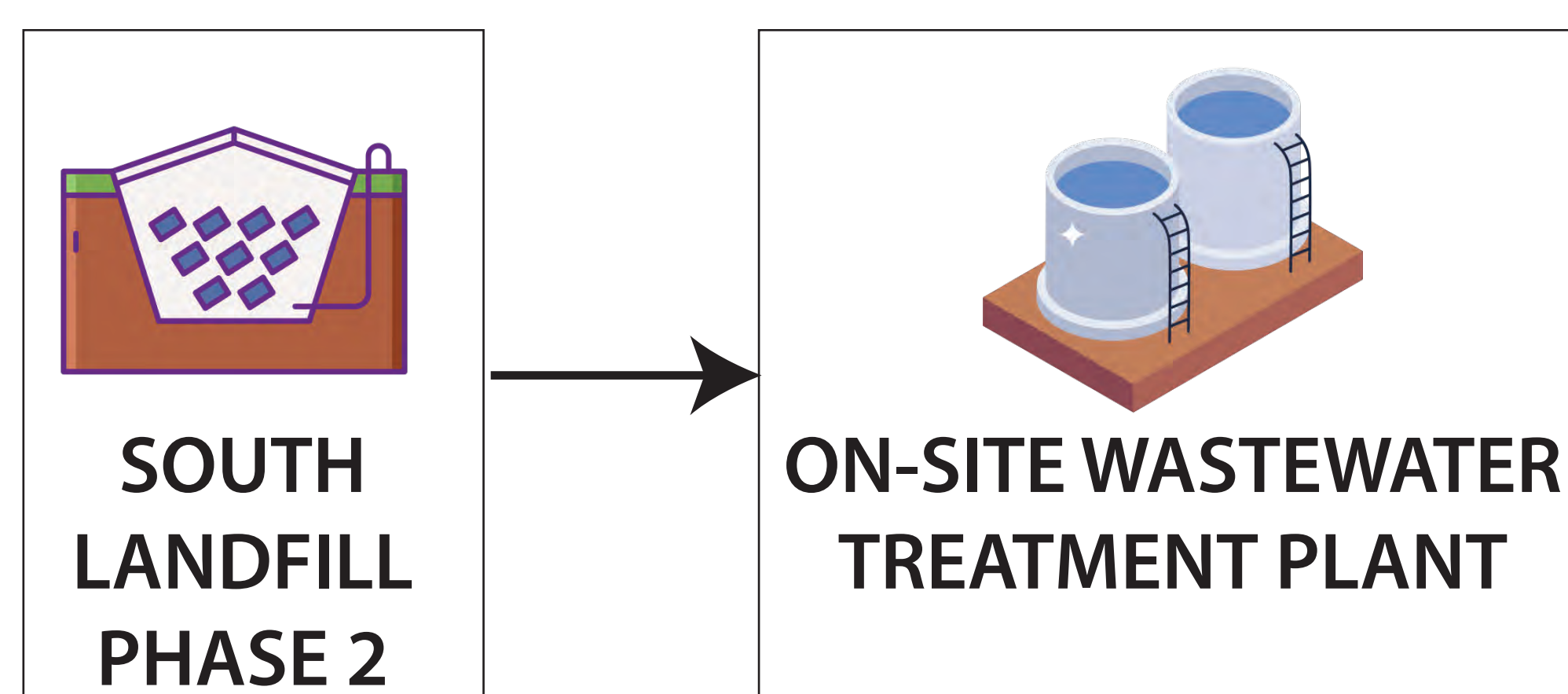
- ▶ Current form of treatment for South Landfill Phase 1.
- ▶ Would utilize unused capacity in the municipal system (if available).
- ▶ May include upgrading existing infrastructure.




Option B

Development of an On-Site Wastewater Treatment Plant

- ▶ Development of a treatment plant at the Walker Resource Management Campus.
- ▶ Feasibility of this option requires further analysis.



We Want to Hear from You



Your feedback is **valuable** and **community input** will be considered so that we can put forth a **Niagara-based solution**.

Connect With Us & Stay Involved



PROJECT WEBSITE

Visit to learn more &
sign up to receive notifications
southlandfillphase2.com



PHONE

Call us at
1-866-699-9425



EMAIL

Send us an email at
info@southlandfillphase2.com



EVENTS

Attend public
information sessions