



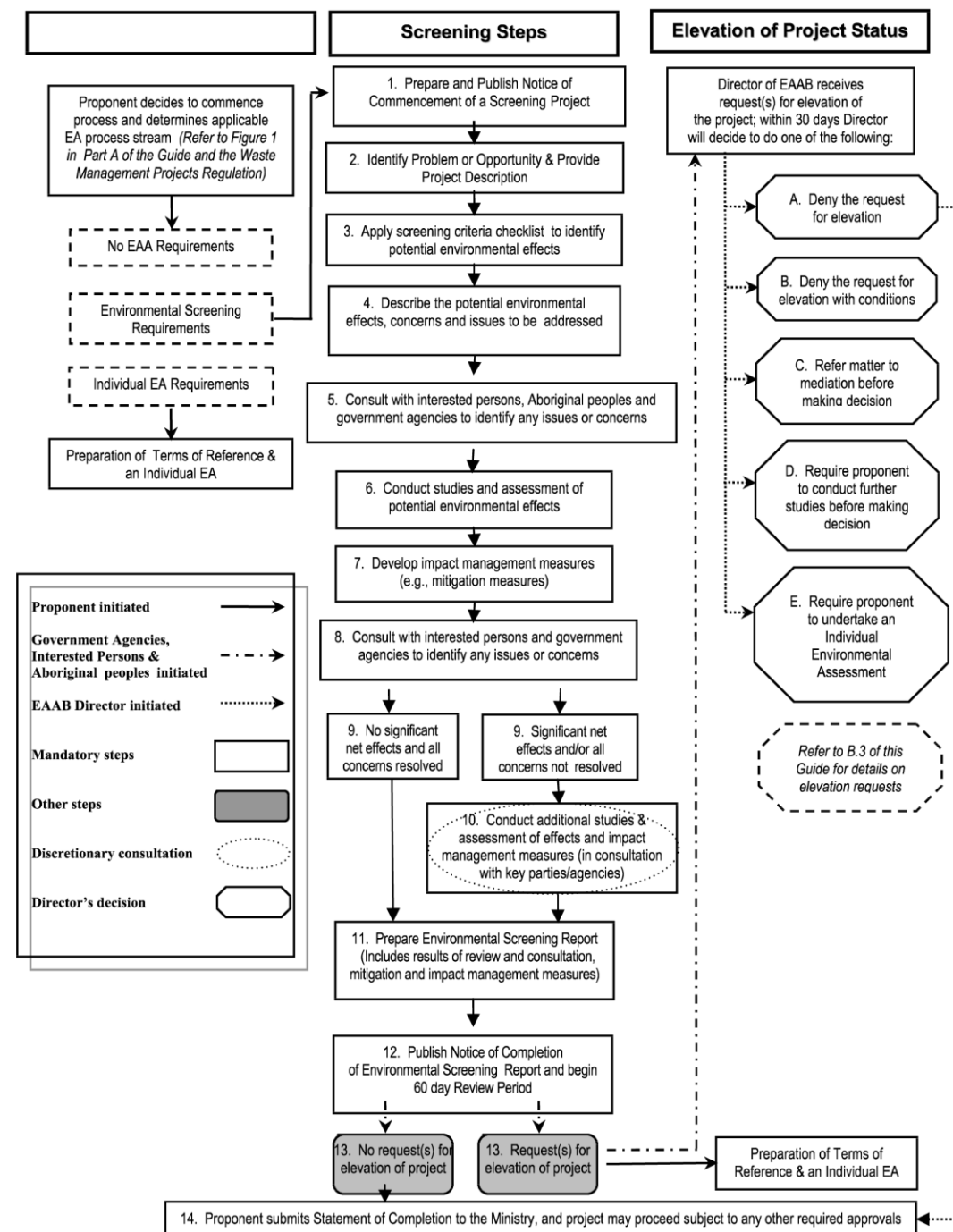
Township of Assiginack Chronology of Landfill Expansion Process

Ministry of Environment, Conservation and Parks Regulatory Guidelines

Ontario Regulations Governing Landfill Site Expansion

- **Environmental Assessment Act (EAA)**
 - Environmental Screening Process for landfill expansion up to 100,000m³
 - Individual Environmental Assessment for landfill expansions >100,000m³

EAA Screening Process



Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Assessment Act – Screening Process

- Notice of Commencement – Fall 2012
- Environmental Studies – 2012 to 2013
 - Geotechnical
 - Hydrogeotechnical
 - Natural Environment
 - Natural Heritage
 - Archaeological
 - Environmental Impact Assessment
 - Identification and Evaluation of Alternatives

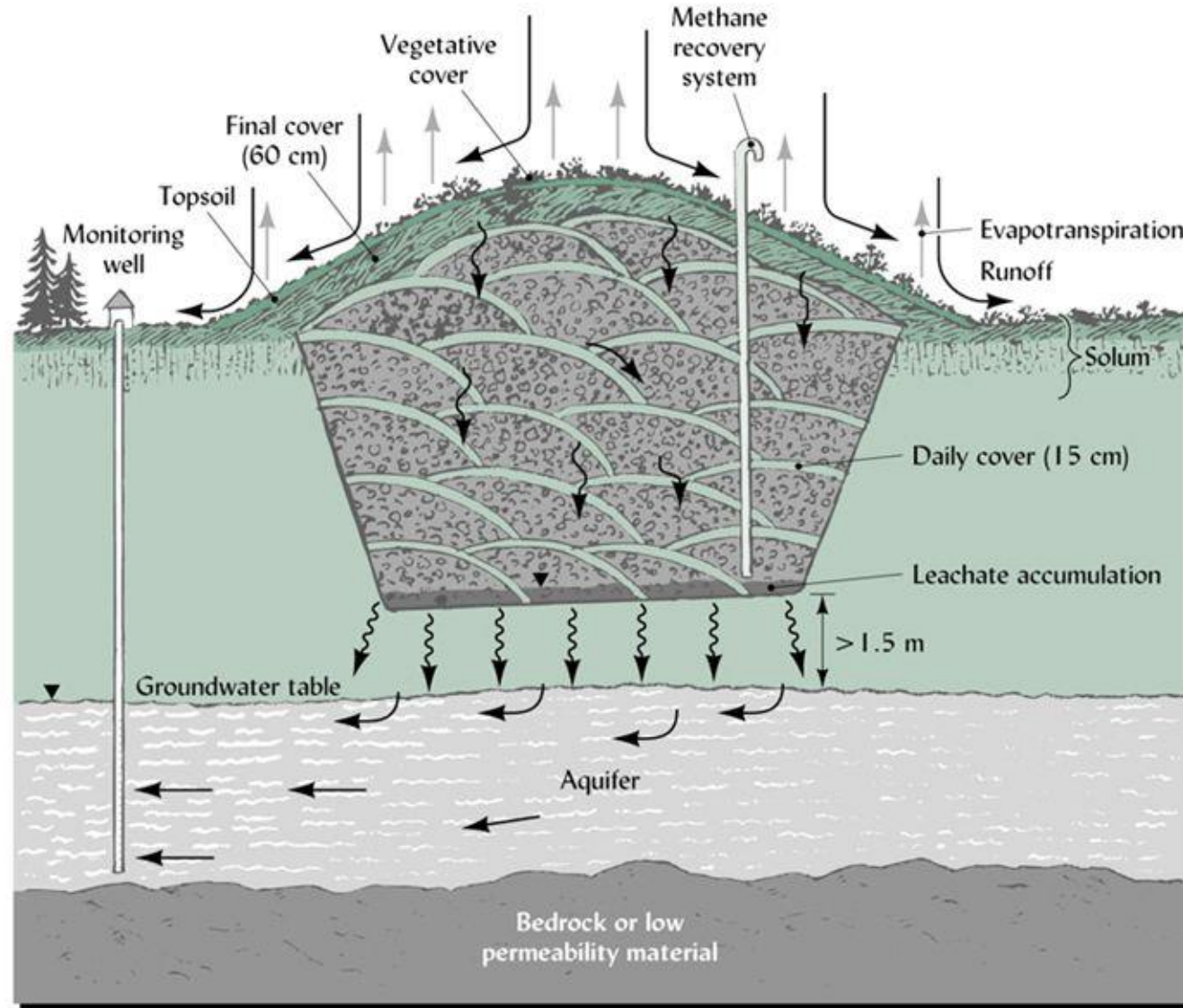
Ministry of Environment, Conservation and Parks Regulatory Guidelines

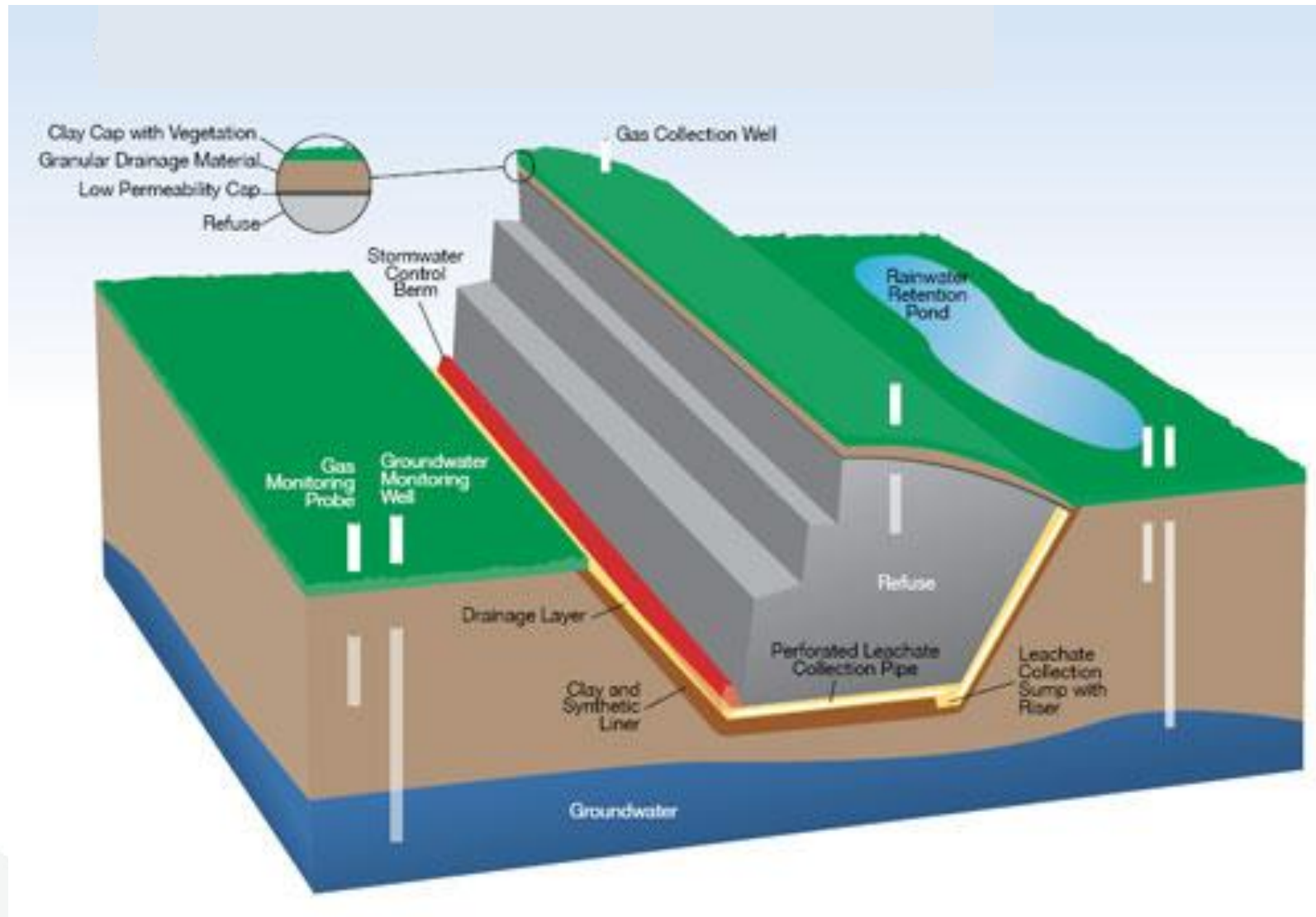
Environmental Assessment Act – Screening Process

- Conceptual Design
 - Landfill Design Options
 - Natural Attenuation site relies on the groundwater to mitigate impacts from landfill leachate
 - Engineered lined site includes a natural clay or synthetic liner system at the bottom of the cell to collect leachate

6

Natural Attenuation Landfill





Lined Landfill Site

Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Assessment Act – Screening Process

- Conceptual Design

- 3 Conceptual Design Options Reviewed

- Option 1: Extension of existing landfill cell to west (attenuation cell)
 - 35,000 cubic metres of disposal capacity/28 year site life (not including final cover material).
 - Option 2: New cell to west of existing landfill cell (attenuation cell)
 - 17,700 cubic metres of disposal capacity/14 year site life (not including final cover material)
 - Option 3: New HDPE lined cell to west of existing landfill cell
 - 35,000 cubic metres of disposal capacity/28 year site life (not including final cover material)

Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Assessment Act – Screening Process

- Consultation – Spring to Summer 2014
 - Public
 - First Nations
 - Regulatory Agencies
- **Draft and Submit EAA Screening Document – Fall 2014**
 - Notice of Completion
 - 60 day public and agency review
 - MECP review
- **Ministry review completed Fall 2015**

Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Compliance Approval

- **Regulation 347 and Regulation 232/98**

- The general waste management regulation under Part V of the Environmental Protection Act. and provides definitions of waste management terms, defines different classes of waste, and provides standards for the design and operation of landfilling sites as well as post closure care.

- **Investigations/Reports**

- Topographic Survey
- Geotechnical
- Contaminant Attenuation Modelling
- Preliminary Design
- Design and Operations Report

Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Compliance Approval

- **Preliminary Design**

- Natural attenuation site
- The height of the refuse mound is 6 m above existing grade
- Shallow swale along West 30 metre buffer zone
- Requires clearing and grubbing of site
- Removal of topsoil for waste placement
- Regrade existing landfill top to provide drainage
- 35,000 cubic metres of disposal capacity/28 year site life (does not account for final cover).
- Estimated construction cost = \$160,000



No.	Revision	Chd. By	Date

PRELIMINARY

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	Chd. By:
Designed By:	
Date Printed:	
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Project Title

**ASSIGNACK
LANDFILL EXPANSION**

Dep. Title

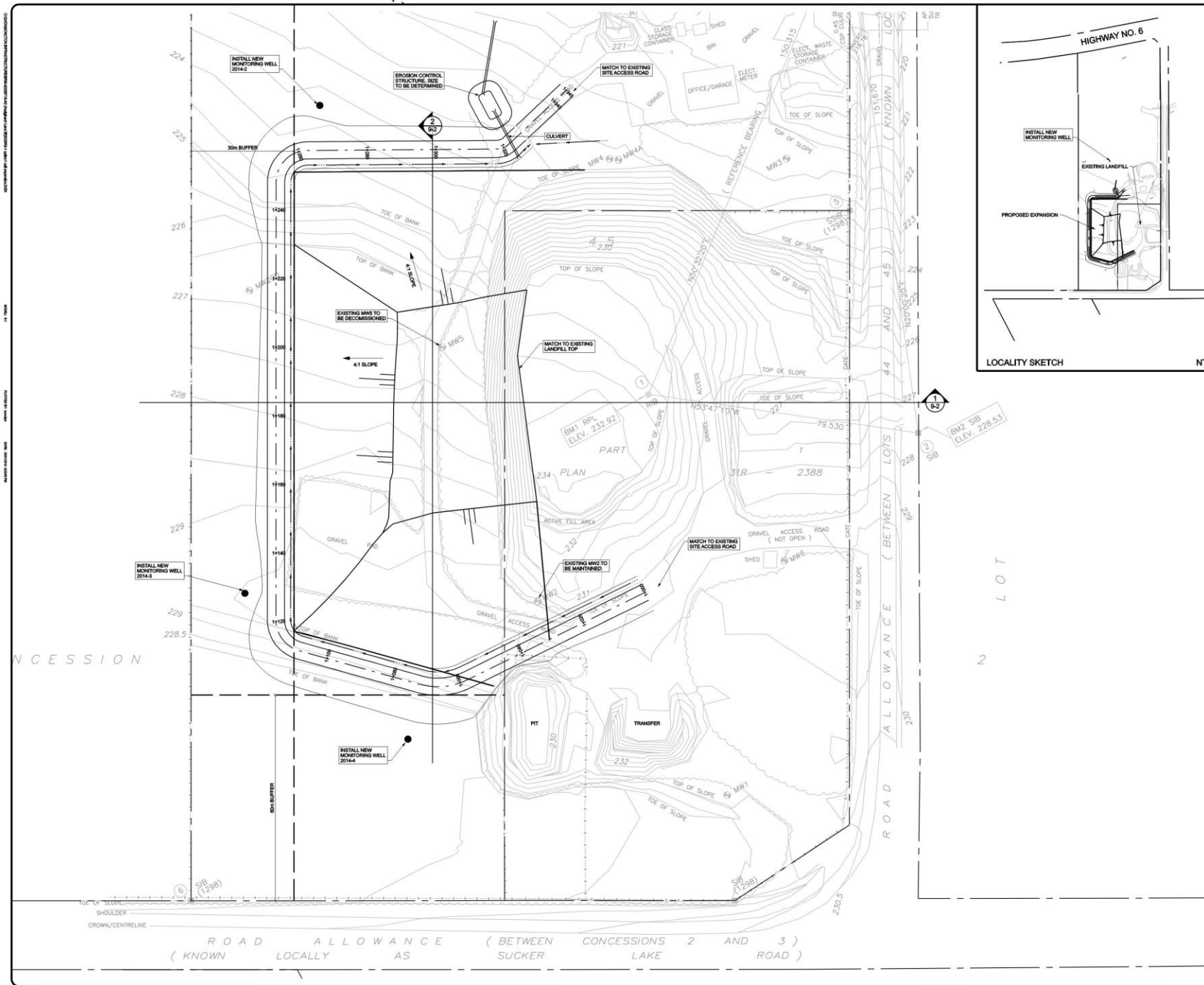
**MONITORING WELL
LOCATION PLAN**

Project No. **BRM-00289716-A0**

Dep. No. **9-1A** Rev. No.

Scale **1:1000**
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LOCALITY SKETCH

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Project Title

ASSIGNACK
 LANDFILL EXPANSION

Dep. Title

OPTION1
 EXTENSION OF
 EXISTING LANDFILL

Project No.

BRM-00289716-A0

Dep. No.

9-1

Rev. No.

0

Scale

1:500

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Ministry of Environment, Conservation and Parks Regulatory Guidelines

Environmental Compliance Approval

- ECA application for landfill expansion submitted July 2016
- Ministry review comments received November 2016
 - MECP recommended installation of additional monitoring wells and minimum 1 year of sampling
 - Re-slope existing landfill contours
 - Legally register current site on title
 - Complete a Hydrogeological report
- Resubmitted ECA application September 2018
- December 2019 Ministry amends current ECA to allow 3 years of disposal
 - Recommends approval based on either a lined landfill site, or
 - Expansion of the CAZ through land acquisition, or a groundwater use agreement on adjacent property

Environmental Compliance Approval – Expansion Options

- Ministry review comments December 2019
 - Lined landfill site
 - 35,000 – 40,000 m³ of disposal capacity/28 – 32 years of disposal capacity
 - Estimated construction cost \$1.4 – 1.5M
 - Expansion of the CAZ through land acquisition, or a groundwater use agreement on adjacent property
 - Estimated cost ?



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