



**ENVIRONMENTAL COMPLIANCE APPROVAL
WASTE DISPOSAL SITE
AMENDMENT APPLICATION**

West Carleton Environmental Center
2301 Carp Road
Ottawa, ON K0A 1L0

Submitted to:



Waste Management of Canada Corporation

117 Wentworth Court
Brampton, ON L6T 5L4

Submitted by:

BluMetric Environmental Inc.

3108 Carp Road, PO Box 430
Ottawa, ON K0A 1L0

Project Number: 160486
December 22, 2016

SECTION 1

MOECC Application Form

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Reference Number	Payment Received \$	Date (yyyy/mm/dd)	Initials

Application Summary

Applicant Name 

Waste Management of Canada Corporation

Project Name 

West Carleton Environmental Centre, Ottawa - Soil Management

Project Description Executive Summary 

Waste Management of Canada Corporation (WM) is requesting an amendment to the current Solid Waste Management ECA (A461002 issued November 13, 2015) to allow for Soil Management activities at the West Carleton Environmental Centre (WCEC).

The proposed ECA amendment works to add Soil Management and Processing as an additional site operational function. Design and operational parameters around the Soil Management and Processing facility (location on-site, potential impacts to the natural environment, volume of soil to be received etc.) were evaluated within the context of the approved EA for the WDS.

The reason for the amendment to the ECA;

- 1- To allow stockpiling of clean soil for use on-site, including but not limited to activities such as berm construction, landscaping, maintenance materials (including existing landfill) or as determined to be needed on the site.
- 2- To allow for soil processing including the use and operation of a Soil Treatment Pad to process contaminated soil already received at the landfill site for use on-site, as defined above.

The overall objective of the Soil Management and Processing on the site is to allow for a reduction in waste going into landfill, with the diversion of soils in order to maximize capacity and life span as well as putting soils to good use in a controlled environment. The purpose of this supporting document is to provide the technical information required to support the amendment ECA Application. The proposed changes to soil management on-site, rational for the change as well as operational details are provided below.

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Required Information ?

Project Name & Description	Completed (yes or no)
Section 1: Applicant Information	Yes
Section 2: Project Information	Yes
Section 3: Regulatory Requirements	Yes
Section 4: Site Information	Yes
Section 5: Facility Information	Yes
Section 6: Supporting Documentation	Yes
Section 7: Payment Information	Yes

Fee Summary: ?

Administrative Processing	\$	200.00
Review of EPA s. 9 activities	\$	0.00
Review of EPA s. 27 activities	\$	3,600.00
Review of OWRA s. 53 activities	\$	0.00
Total Fee	\$	3,800.00

Calculate

Application Status Form Complete

The Ministry may request additional fees upon review of this application.

If you are submitting this form in print version only and are not using the smart calculation feature, please attach the fee calculation separately.

Supplemental Application Information

See help text on required information for this section. ?

The proposed start date for the Soil Management and Processing activities is May 2017. Consultation notices were provided to the Public Liaison Committee (PLC) established for the WCEC as per the current ECA and the City of Ottawa December 20, 2016.

A copy of this application has also been submitted to the MOECC District Office in Ottawa.

1 Applicant Information

Contents | General Information and Instructions | Application Summary | **1 Applicant Information** | 2 Project Information | 3 Regulatory Requirements | 4 Site Information | 5 Facility Information | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

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1.1 Applicant Information ?

Applicant Name (legal name of individual or organization as evidenced by legal documents)

Waste Management of Canada Corporation

Business Number

876294844

Business Name same as Applicant Name

Waste Management of Canada Corporation

Business Website Address:

www.wmcanada.com

Applicant Type:

- Corporation Federal Government
 Individual Municipal Government
 Partnership Provincial Government
 Sole Proprietor Other (describe):

Primary North American Industry Classification System (NAICS) Code ?

566210

Other NAICS codes (select all that apply)

Separate list attached? Yes No

Business Activity Description

Solid waste management

1.2 Applicant Physical Address ?

Civic Address – Street Information (includes street number, name, type and direction)

2301 Carp Road

Unit Identifier (suite or unit number)

Survey Address

Lot

Concession

Part

Reference Plan

Municipality/Unorganized Township or Territory Upper Tier/District

Ottawa

Province/State

Ontario

Country

Canada

Postal Code/ZIP Code

K0A1L0

Telephone Number (include area code & ext.)

613-831-3565

ext.

Fax Number (include area code)

613-831-8928

Mobile Number (include area code)

289-259-6504

E-mail Address

kdirenzo@wm.com

Geo Reference (required) ?

Description of location	Map Datum	Zone	Accuracy Estimate	Geo-Referencing Method	UTM Easting	UTM Northing
Southwest corner of property	NAD83	18	10 m	UTM	423785.00	5013930.00
Physical location of front door or main entrance	NAD83	18	10 m	UTM	424452.00	5015163.00

1 Applicant Information

Contents | General Information and Instructions | Application Summary | **1 Applicant Information** | 2 Project Information | 3 Regulatory Requirements | 4 Site Information | 5 Facility Information | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

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1.3 Applicant Mailing Address

Same as Applicant Physical Address? Yes No

Civic Address – Street Information (civic numbering and street information includes street number, name, type and direction)

Unit Identifier (suite or unit number)

2301 Carp Road

Delivery Designator

Delivery Identifier

Postal Station

Municipality/Unorganized Township or Territory

Province/State

Country

Postal Code/ZIP Code

Ottawa

Ontario

Canada

K0A1L0

1.4 Statement of the Applicant

I am authorized to prepare and submit this application and to make this certification. I have reviewed the complete application and I have made all inquiries that are necessary to declare to the best of my knowledge, information and belief:

- The information contained in this application is complete and accurate.
- The Technical Contact(s) identified in this application has/have been authorized to prepare certain technical material, and act on behalf of the applicant to discuss this application with the Ministry of the Environment and to provide additional information about this application to the Ministry on request.
- The information provided to the Technical Contact(s) in relation to this application is complete and accurate.

Name of Signing Authority (please print)

Title

Cleland, Reid

Area Dir Disposal Ops

Telephone Number (include area code & ext.)

Fax Number (include area code)

Mobile Number (include area code)

519-849-5810

ext.

(519) 381-6363

E-mail Address

Signature

Date (yyyy/mm/dd)

RCLELAND@wm.com

2017/01/10

1.5 Statement of the Municipality N/A

I, the undersigned hereby declare on behalf of the Municipality, that the Municipality has no objection to the construction of the works in the Municipality.

Name and Title (please print)

Name of Municipality

Signature

Date (yyyy/mm/dd)

2 Project Information

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2.3 Approval Information ?

Application initiated by:

- Applicant
 S. 20.18 Order (attach copy)
 Condition of existing approval
 Provincial Officer Order (attach copy)
 Inspection Report (attach copy)
 Other (specify):

Current Environmental Compliance Approvals that may be changed or amended by this application: N/A

Separate list attached? Yes No

Environmental Compliance Approval Number	Date of Issuance (yyyy/mm/dd)	Environmental Compliance Approval Number	Date of Issuance (yyyy/mm/dd)
A461002	2015/11/13		

Proposed Environmental Compliance Approvals related to this project: N/A

Separate list attached? Yes No

Project type	Ministry Reference Number (if applicable)	Have submitted	Have not submitted
		<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>
		<input type="radio"/>	<input type="radio"/>

2.4 Other Approval/Permits for Facility N/A ?

Separate list attached? Yes No

List all other instruments (approvals or permits) issued by the Ministry of the Environment or applied for under the Environmental Protection Act, Environmental Assessment Act, Ontario Water Resources Act and Safe Drinking Water Act, 2002 and any Environmental Activity and Sector Registrations that are relevant to this application.

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)	Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)
ECA - Air	0980-A4BMZY	2016/07/18			

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2.5 Technical Contacts ?

Technical Contact 1

Area of Responsibility (check all that apply) Air Noise/Vibration Sewage Waste

Name of Technical Contact

Michael Duchene

Company

BluMetric Environmental Inc.

Telephone Number (include area code & ext.)

519 742 6685

ext.

213

Mobile Number (include area code)

Fax Number (include area code)

E-mail Address

mduchene@blumetric.ca

Address Information: ?

Same as Applicant Mailing Address? Yes No (If no, please provide technical contact address information below.)

Civic Address – Street Information (includes street number, name, type and direction)

171 Victoria Street North

Unit Identifier (suite or unit number)

Delivery Designator

Delivery Identifier

Postal Station

Municipality/Unorganized Township or Territory

Kitchener

Province/State

Ontario

Country

Canada

Postal Code/ZIP Code

N2H 5C5

I have been authorized by the applicant to prepare the technical materials for the area(s) of responsibility identified above that are included in the application. I have reviewed those technical materials and I have made all inquiries that are necessary to declare to the best of my knowledge, information and belief:

- The technical materials contained in this application in respect of the area(s) of responsibility identified above are complete and accurate.
- I have the relevant education and experience necessary to provide this certification.

Signature

For ED

Date (yyyy/mm/dd)

2017 10 10

2 Project Information

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Technical Contact 2 ?

Area of Responsibility (check all that apply) Air Noise/Vibration Sewage Waste

Name of Technical Contact Company

Telephone Number (include area code & ext.) ext. Mobile Number (include area code) Fax Number (include area code) E-mail Address

Address Information: ?

Same as Applicant Mailing Address? Yes No (If no, please provide technical contact address information below.)

Civic Address – Street Information (includes street number, name, type and direction) Unit Identifier (suite or unit number)

Delivery Designator Delivery Identifier Postal Station

Municipality/Unorganized Township or Territory Province/State Country Postal Code/ZIP Code

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- The technical materials contained in this application in respect of the area(s) of responsibility identified above are complete and accurate.
- I have the relevant education and experience necessary to provide this certification.

Signature Date (yyyy/mm/dd)

2 Project Information

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Technical Contact 3 ?

Area of Responsibility (check all that apply) Air Noise/Vibration Sewage Waste

Name of Technical Contact

Company

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Telephone Number (include area code & ext.)

Mobile Number (include area code)

Fax Number (include area code)

E-mail Address

	ext.				
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Address Information: ?

Same as Applicant Mailing Address? Yes No (If no, please provide technical contact address information below.)

Civic Address – Street Information (includes street number, name, type and direction)

Unit Identifier (suite or unit number)

--	--	--	--

Delivery Designator

Delivery Identifier

Postal Station

--	--	--

Municipality/Unorganized Township or Territory

Province/State

Country

Postal Code/ZIP Code

		Canada	
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- The technical materials contained in this application in respect of the area(s) of responsibility identified above are complete and accurate.
- I have the relevant education and experience necessary to provide this certification.

Signature

Date (yyyy/mm/dd)

--	--

2 Project Information

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Technical Contact 4 ?

Area of Responsibility (check all that apply) Air Noise/Vibration Sewage Waste

Name of Technical Contact Company

Telephone Number (include area code & ext.) ext. Mobile Number (include area code) Fax Number (include area code) E-mail Address

Address Information: ?

Same as Applicant Mailing Address? Yes No (If no, please provide technical contact address information below.)

Civic Address – Street Information (includes street number, name, type and direction) Unit Identifier (suite or unit number)

Delivery Designator Delivery Identifier Postal Station

Municipality/Unorganized Township or Territory Province/State Country Postal Code/ZIP Code

I have been authorized by the applicant to prepare the technical materials for the area(s) of responsibility identified above that are included in the application. I have reviewed those technical materials and I have made all inquiries that are necessary to declare to the best of my knowledge, information and belief:

- The technical materials contained in this application in respect of the area(s) of responsibility identified above are complete and accurate.
- I have the relevant education and experience necessary to provide this certification.

Signature Date (yyyy/mm/dd)

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3.1 Environmental Bill of Rights (EBR) Requirements ?

Is this a proposal for a prescribed instrument under the EBR? Yes No

If yes, is this proposal exempted from the EBR requirements? Yes No

If yes, please check one of the following (Please provide supporting information.)

- This proposal has been considered in a substantially equivalent process of public participation. (EBR, 1993, s.30.)
- This proposal is for an emergency situation. (EBR, 1993, s. 29.)
- This proposal is for an amendment to or revocation of an existing Environmental Compliance Approval that is not environmentally significant. (EBR, 1993, s. 22 (3).)
- This proposal has been subject to or exempted from EAA Requirements or considered in a decision of a tribunal. (EBR, 1993, s. 32.)

3.2 Environmental Assessment Act (EAA) Requirements ?

Is the proposed undertaking subject to the requirements of the EAA? Yes No

If yes, please check one of the following:

- The undertaking has fulfilled the requirements of the EAA through an exemption provided under:
 - Section _____ of Ontario Regulation No. _____ or
 - Declaration/Exemption Order Number _____

If Regulation, Declaration Order or Exemption Order does not refer directly to this undertaking, please provide supporting documentation to explain why it applies to this facility.
- The proposed undertaking has fulfilled the requirements of the EAA through the completion of a Class EA process:
 - Name of Class EA: _____
 - Schedule/Group/Category (if applicable): _____

If applicable, please submit a copy of the proof of completion (for example, Notice of Completion).

Was the undertaking subject of a Part II Order request(s)? Yes No If yes, please submit a copy of the Director's or Minister's decision letter.
- The proposed undertaking has fulfilled all of the requirements for the EAA through:
 - completion of an Environmental Screening Process pursuant to O. Reg. 101/07 of the EAA
 - completion of an Environmental Screening Process pursuant to O. Reg. 116/01 of the EAA

Was the undertaking subject of an elevation request(s)? Yes No If yes, please submit a copy of the Director's decision letter. If an appeal was made of the Director's decision, please also submit a copy of the Minister's decision letter.

 - completion of an Environmental Screening Process pursuant to O. Reg. 231/08 of the EAA

Was the undertaking subject of an objection(s)? Yes No If yes, please submit a copy of the Minister's decision letter.
- The proposed undertaking has fulfilled the requirements of the EAA through the completion of an individual Environmental Assessment. Please submit a copy of the signed Notice of Approval.

3 Regulatory Requirements

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3.3 Consultation/Notification ?

Are there any consultation/notification activities that you have undertaken to fulfill requirements by other legislation or through voluntary efforts?

- Yes No

If yes, please:

- 1) describe the consultation/notification activities below; and
- 2) attach documents describing each of these consultation/notification activities, any changes to the project as a result of these activities and any planned consultation/notification activities in the future.

Consultation notices were provided to the Public Liaison Committee (PLC) established for the WCEC as per the current ECA and the City of Ottawa December 20,2016. Provided as part of supporting documentation to this application.

4 Site Information

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4.1 Site Address or Storage Location ?

Will the vehicles or equipment be stored at more than one location? Yes No

(If yes, please enter all vehicle or equipment storage locations below and attach separate list, as necessary.)

Same as Applicant Physical Address? Yes No

Primary Civic Address – Street Information (includes street number, name, type and direction) Unit Identifier (suite or unit number)

2301 Carp Road	
Additional Civic Addresses Separate list attached? <input type="radio"/> Yes <input type="radio"/> No	Unit Identifier (suite or unit number)

Primary Survey Address

Lot	Concession	Part	Reference Plan

Municipality/Unorganized Township or Territory	Upper Tier/District	Province/State	Country	Postal Code/ZIP Code
Ottawa		Ontario	Canada	K0A1L0

Non-address Information (includes any additional information to clarify the physical location)

--

Same as Applicant Physical Geo Reference? <input checked="" type="radio"/> Yes <input type="radio"/> No							Geo Reference (required) ?	
Description of location	Map Datum	Zone	Accuracy Estimate	Geo-Referencing Method	UTM Easting	UTM Northing		
Southwest corner of property	NAD83	18	10 m	UTM	423785.00	5013930.00		
Physical location of front door or main entrance	NAD83	18	10 m	UTM	424452.00	5015163.00		

4 Site Information

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4.2 Site or Storage Location Information ?

Site Name: West Carleton Environmental Centre
Days and Hours of Operation: 7 am to 7 pm Monday to Friday, 7 am to 6 pm Saturday
Ministry of the Environment District Office: Ottawa District Office

Is the site (property) that is the subject of this application owned by the applicant?

If no, please include the owner's name, address and a signed document indicating that the applicant has the authority to install and operate the proposed activity, or store vehicles or equipment on the land. Yes No

Is the applicant the operating authority of the site that is the subject of this application?

If no, please include the operating authority name, address and phone number. Yes No

Is the site located in an area of development control as defined by the Niagara Escarpment Planning & Development Act (NEPDA)?

If yes, please attach a copy of the NEPDA permit for proposed activity. Yes No

Is the site within an area covered by the Oak Ridges Moraine Conservation Plan?

If yes, please attach proof of municipal planning approval for the proposed activity/work (for example, zoning by-law, letter from municipality, etc.). Yes No

4.3 Site Zoning and Classification ?

Current Land Use: Agricultural, Forest, Industrial
Official Plan Designation: Carp Road Corridor Rural Employment Area
Current Zoning (Please attach zoning map, if available.): Industrial (RH), Mineral Extraction (ME), Rural (RU)

Adjacent Land Use (select all that apply)

- Industrial Commercial Residential
 Agricultural Recreational Other (specify):

Adjacent Land Zoning

Industrial (RH, RG), Mineral Extraction (ME), Rural (RU)

Vacant, Forestry, Quarry

Does the current zoning permit the proposed activity?

Yes No

Does the applicant have correspondence from the municipality to confirm that the current zoning of the property permits the proposed use?

Yes No If yes, please attach correspondence from the municipality.

Does the official plan designation support the proposed activity?

Yes No N/A

4 Site Information

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4.4 Point of Entry into Ontario (for waste management system vehicles that are stored at an address outside of Ontario) ?

City in closest proximity to the point of entry	Description of Point of Entry

4.5 Source Protection/Drinking Water Threats (sewage or waste disposal site applications only) ?

Check the source protection area(s) where the activity is/will be located:

- | | | | |
|---|--|--|---|
| <input type="checkbox"/> Ausable Bayfield | <input type="checkbox"/> Grand River | <input type="checkbox"/> Raisin Region | <input type="checkbox"/> Lower Thames Valley |
| <input type="checkbox"/> Maitland Valley | <input type="checkbox"/> Kettle Creek | <input type="checkbox"/> South Nation | <input type="checkbox"/> St. Clair Region |
| <input type="checkbox"/> Cataraqui Region | <input type="checkbox"/> Long Point | <input type="checkbox"/> Grey Sauble | <input type="checkbox"/> Upper Thames River |
| <input type="checkbox"/> Central Lake Ontario | <input type="checkbox"/> Lakehead | <input type="checkbox"/> Northern Bruce Peninsula | <input type="checkbox"/> Crowe Valley |
| <input type="checkbox"/> Credit Valley | <input type="checkbox"/> Mattagami | <input type="checkbox"/> Saugeen Valley | <input type="checkbox"/> Ganaraska |
| <input type="checkbox"/> Toronto and Region | <input checked="" type="checkbox"/> Mississippi Valley | <input type="checkbox"/> Sault Ste. Marie | <input type="checkbox"/> Kawartha-Haliburton |
| <input type="checkbox"/> Essex | <input type="checkbox"/> Rideau Valley | <input type="checkbox"/> Lake Simcoe & Couchiching/Black River | <input type="checkbox"/> Lower Trent |
| <input type="checkbox"/> Halton | <input type="checkbox"/> Niagara | <input type="checkbox"/> Nottawasaga Valley | <input type="checkbox"/> Otonabee-Peterborough |
| <input type="checkbox"/> Hamilton | <input type="checkbox"/> North Bay Mattawa | <input type="checkbox"/> Severn Sound | <input type="checkbox"/> Outside a source protection area |
| <input type="checkbox"/> Catfish Creek | <input type="checkbox"/> Quinte | <input type="checkbox"/> Sudbury | |

Is the proposed activity located or planned to be located in a vulnerable area identified in a local assessment report source protection plan under the Clean Water Act, 2006?

- Yes No

If yes, what is/are the vulnerable area(s)/zone(s)?

- Wellhead Protection Areas Surface Water Intake Protection Zones
 Highly Vulnerable Aquifers Significant Groundwater Recharge Areas

Is the activity being applied for identified as a significant drinking water threat in the assessment report for the local source protection area? ?

- Yes No

4 Site Information

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4.6 Receiver of Effluent Discharge (sewage applications only)

Intermediate Receiver Name



Watershed Name

Surface Water Groundwater Other (specify):

Has the facility received local Conservation Authority clearance? *(for stormwater management facility discharging to the natural environment)*

Yes N/A If yes, please include a copy of the Conservation Authority clearance.

Final Receivers N/A

Will the proposed activity discharge sewage to any of the following critical receivers?

Lake Simcoe Rideau River Detroit River Other (specify):

Great Lakes Rouge River Bay of Quinte

Is the receiver a Policy 2 receiver? Yes No

Do you have a Policy 2 deviation approval from the directors? Yes No If yes, please attach a copy of the Director's approval.

5 Facility Information

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5.1 Air

 IF YOUR APPLICATION DOES NOT HAVE AIR EMISSIONS PLEASE PROCEED TO SECTION 5.2

5.1.1 Summary of Equipment that Discharges Contaminants to the Air

(√)	Description	Number of Pieces of Equipment
<input type="checkbox"/>	Combustion equipment that uses natural gas, propane, no. 2 oil, landfill gas or sewage treatment gas for fuel for the purpose of providing comfort heating or emergency power, producing hot water or steam, or heating material in a system that does not discharge to the atmosphere (Total Heat input of all units ≤ 50,000,000 kJ/hr)	N/A
<input type="checkbox"/>	Storage tanks	N/A
<input type="checkbox"/>	Welding operations that use a maximum of 10 kilograms of welding rod per hour	N/A
<input type="checkbox"/>	Combustion equipment that uses waste-derived fuel for the purpose of providing comfort heating, burning ≤ 15 litres per hour	
<input type="checkbox"/>	Heat cleaning ovens used for parts cleaning and associated parts washers or degreasing equipment, other than solvent degreasing equipment	
<input type="checkbox"/>	Cooling towers	
<input type="checkbox"/>	Equipment used to control emissions of contaminants, other than a fume incinerator	
<input type="checkbox"/>	Laboratory fume hoods	
<input type="checkbox"/>	Paint spray booths and associated equipment that have a design capacity of up to 8 litres per hour of paint	
<input type="checkbox"/>	Grain dryers	
<input type="checkbox"/>	Any other equipment not listed above with a flow rate of less than or equal to 1.5 m ³ per second	
<input type="checkbox"/>	Any other equipment not listed above with a flow rate of greater than 1.5 m ³ per second	
<input type="checkbox"/>	Equipment that is subject to an Environmental Compliance Approval, and from which there is no proposed increase in the discharge of any contaminant that was previously reviewed by the Director.	N/A

5.1.2 Emission Summary and Dispersion Modelling (ESDM) Report

Is the review of an existing, approved ESDM required as part of this proposed application? Yes No

If yes, identify the number of emission sources described in the existing ESDM Report that emit contaminants in common with the sources forming the subject of the application (if none, enter zero).

Have all of these emission sources been described in an ESDM Report that was previously reviewed as part of an application for an existing Environmental Compliance Approval? Yes No

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5.1.3 O. Reg. 419/05 Requirements 

Which of the following sections of O. Reg. 419/05 applies to the facility?

s.19 (Schedule 2) s.20 (Schedule 3) Does not apply. Please indicate reason:

Has an instrument under O. Reg. 419/05 been issued? Yes No

If yes, what type(s) of instruments (including any notices, orders or approvals) has (have) been issued? (select all that apply)

- | | |
|---|---|
| <input type="checkbox"/> ss. 4(2) Adjacent Properties | <input type="checkbox"/> ss. 20(4) Speed-up Request |
| <input type="checkbox"/> ss. 7(1) Specified Dispersion Models | <input type="checkbox"/> ss. 20(5) Speed-up Order |
| <input type="checkbox"/> ss. 8(2) Negligible Sources | <input type="checkbox"/> s. 35 Site-specific Standard |
| <input type="checkbox"/> ss. 10(2) Operating Conditions | <input type="checkbox"/> ss. 35(14) Site-specific Standard Order |
| <input type="checkbox"/> ss. 11(2) Refined Emission Rates | <input type="checkbox"/> ss. 39(3) Technical Standard Registration (Industry Standard) |
| <input type="checkbox"/> ss. 13.1 Value of Dispersion Modeling Parameters | <input type="checkbox"/> ss. 39(4) Technical Standard Registration (Equipment Standard) |
| <input type="checkbox"/> ss. 13(1) Meteorological Data | |
| <input type="checkbox"/> ss. 14(6) Area of Modelling Coverage | |
| <input type="checkbox"/> Other (list all that have been issued): | |

Is an instrument under O. Reg. 419/05 being requested as part of this application? Yes No

If yes, what type(s) of notice, order or approval is (are) being requested?

- | | |
|---|---|
| <input type="checkbox"/> ss. 7(1) Specified Dispersion Models | <input type="checkbox"/> ss. 14(6) Area of Modelling Coverage |
| <input type="checkbox"/> ss. 8(2) Negligible Sources | <input type="checkbox"/> ss. 20(4) Speed-up Request |
| <input type="checkbox"/> ss. 10(2) Operating Conditions | <input type="checkbox"/> s. 32 Request for a Site-specific Standard Order |
| <input type="checkbox"/> ss. 11(2) Refined Emission Rates | <input type="checkbox"/> ss. 39(1)(a) Application for Technical Standard Registration (Industry Standard) |
| <input type="checkbox"/> ss. 13(1) Meteorological Data | <input type="checkbox"/> ss. 39(1)(b) Application for Technical Standard Registration (Equipment Standard). |
| <input type="checkbox"/> Other (list all that have been requested): | |

Please attach the form(s) requesting the notice(s) and/or order(s) and any additional supporting information.

Has an s.30 Upper Risk Threshold (Schedule 6) been exceeded? If yes, please include additional supporting information. Yes No

Is the facility located in a multi-tenant building? If yes, additional information may be requested. Yes No

Are all of the contaminants to which the application relates represented in the Ministry of the Environment publication titled "Summary of Standards and Guidelines to support Ontario Regulation 419: Air Pollution – Local Air Quality" or have they been screened out based on the publication titled "Jurisdictional Screening Level (JSL) List, A Screening Tool for Ontario Regulation 419: Air Pollution – Local Air Quality"? (If no, please attach Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit – Supplement to Application for Approval, EPA S.9 (PIBS 4872)). Yes No

5 Facility Information

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5.2 Noise

IF YOUR APPLICATION DOES NOT HAVE NOISE EMISSIONS, PLEASE PROCEED TO SECTION 5.3.

5.2.1 Noise Assessment

Have you completed an Acoustic Assessment Report (AAR) or Abbreviated Acoustic Assessment Report (A-AAR)? Yes No

If yes, please indicate the report you have completed:

AAR Please attach the Acoustic Assessment Report.

Does the AAR show that applicable limits are met? Yes No

If no, please attach the Acoustic Assessment Report including the Noise Abatement Action Plan.

A-AAR Please attach the Abbreviated Acoustic Assessment Report.

Does the A-AAR show that applicable limits are met? Yes No

Note that certain conditions must be met before using the A-AAR and that the A-AAR must show that the applicable limits are met otherwise an AAR may be required.

If no, is the application eligible for Primary or Secondary Noise Screening? Yes No

Note that if you are not eligible for either of the screenings, you must submit either an AAR or A-AAR.

If yes, is your proposed activity described with one of the NAICS codes that are eligible for the Primary Noise Screening? Yes No

If yes, is the actual separation distance between the facility and the noise sensitive point of reception (POR) greater than the minimum required separation distance calculated from the Primary Noise Screening? Yes No

If yes, please attach the Primary Noise Screening form and supporting documentation.

Note that if the Primary Noise Screening is not successful then you may attempt to proceed with the secondary noise screening.

If no, does the Secondary Noise Screening report show that the applicable sound level limits are met? Yes No

If yes, please attach the Secondary Noise Screening Report and supporting documentation.

Note that if you cannot demonstrate that the applicable sound level limits are met then you must submit either an AAR or A-AAR.

5 Facility Information

Print Form

Clear Form

Save Form

5.2.2 Equipment Subject to Noise Review ?

(√)	Description	Number of Pieces of Equipment
<input type="checkbox"/>	Arc Furnaces	
<input type="checkbox"/>	Asphalt Plants	
<input type="checkbox"/>	Blow-down Devices	
<input type="checkbox"/>	Co-generation Facilities	
<input type="checkbox"/>	Crushing Operations	
<input type="checkbox"/>	Flares	
<input type="checkbox"/>	Gas Turbines	
<input type="checkbox"/>	Pressure Blowers or Large Induced Draft Fans (flow rate > 47m ³ /second or static pressure > 1.25 kilopascals)	
<input type="checkbox"/>	Any other equipment not listed above that has not previously been reviewed by the Director in connection with an application for an Environmental Compliance Approval with respect to the facility	
<input type="checkbox"/>	Any other equipment not listed above that is identical to equipment for which a noise assessment was previously reviewed by the Director in connection with an application for an Environmental Compliance Approval with respect to the facility	

5 Facility Information

Print Form

Clear Form

Save Form

5.3 Sewage Works

? IF YOUR APPLICATION DOES NOT CONTAIN SEWAGE WORKS PLEASE PROCEED TO SECTION 5.4

5.3.1 Facility Type – Sewage Works

?

Select the type of facility that is the subject of the application (select all that apply).

Sewage Treatment Plant (STP)

Further information:

Primary

Secondary

Tertiary

Receives septage

Constructed/Engineered Wetlands

On-site system

Lagoons (check all that apply below)

Septage

Municipal

Other (specify):

Municipal or private facility

Category: New 1 2 3 4

Facility for the treatment of leachate

Category: New 1 2 3 4

Facility for the treatment of industrial process wastewater

Category: New 1 2 3 4

Facility for the disposal of non-contact cooling water

Subsurface disposal

Please indicate the maximum design capacity of the municipal or private sewage treatment plant:

$\leq 4,550 \text{ m}^3/\text{day}$

$> 4,550 \text{ m}^3/\text{day}$

Please indicate the design capacity of the subsurface disposal:

$\leq 15 \text{ m}^3/\text{day}$

$> 15 \text{ m}^3/\text{day}$ and $< 50 \text{ m}^3/\text{day}$

$> 50 \text{ m}^3/\text{day}$

Stormwater Management Facility

Category: New 1 2 3 4

Wet Pond

Dry Pond

Other (specify):

For the following, you must complete and attach the relevant sections of the pipe data form:

Storm Sewers

Ditches

Combined Sewers

Forcemains

Sanitary Sewers

Pumping Station

Is a Hydrogeological Assessment required? Yes No (If yes, please attach the hydrogeological assessment.)

Is a review of effluent criteria assessment for stormwater management, cooling water or soil remediation facilities required? Yes No

(If yes, please attach the final effluent criteria accepted by the Regional Office of the Ministry.)

Is a review of effluent criteria assessment for municipal or private sewage, industrial process wastewater or leachate treatment plant required? Yes No

(If yes, please attach the final effluent criteria accepted by the Regional Office of the Ministry.)

5 Facility Information

Print Form

Clear Form

Save Form

5.3.2 Servicing ?

The works will provide sewage servicing for (select all that apply):

- Residential Subdivision **Is there a Municipal Responsibility Agreement in place?** Yes No N/A
 Condominium If yes, please attach a copy of the Municipal Responsibility Agreement.
 Institutional
 Other (specify):
- Commercial Hotel, Motel, Inn Campground, Park Rental Cabins
 Resort Shopping Malls Other (specify):
 Restaurant Highway Service Station/Gas Bars
- Industrial Describe:

5.3.3 Sewage Servicing for Waste Disposal/Landfill Sites ?

Does/Will the sewage treatment facility receive waste disposal/landfill site leachate? Yes No If yes, please identify the site(s) below.

Name of Site Contributing Leachate	Environmental Compliance Approval Number	Volume of leachate (m ³)
1.		
2.		
3.		
4.		
5.		

5 Facility Information

Print Form

Clear Form

Save Form

5.4.2 Waste Transfer/Processing/Composting – Complete this information if waste transfer and/or processing and/or composting take(s) place at this facility ?

Waste Types to be Transferred or Processed	Design Capacity
<input type="checkbox"/> Hazardous waste or liquid industrial waste	<input type="radio"/> ≤ 100 tonnes per day <input type="radio"/> > 100 tonnes per day
<input checked="" type="checkbox"/> Waste other than hazardous waste and liquid industrial waste	<input checked="" type="radio"/> ≤ 100 tonnes per day <input checked="" type="radio"/> > 100 tonnes per day

Change to Operations ?		
<input type="radio"/> No Change Proposed	<input type="radio"/> Change does not require fundamental design review	<input checked="" type="radio"/> Change requires fundamental design review

Liquid Waste								
Maximum Storage Capacity (m³)			Maximum Residual for Final Disposal (m³)					
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous		Liquid Industrial		Other Liquid Waste	
			Daily	Annually	Daily	Annually	Daily	Annually
		0.00					0.00	0.00

Solid Waste					
Maximum Storage Capacity (tonnes)		Maximum Residual for Final Disposal (tonnes)			
Hazardous	Non-hazardous	Hazardous		Non-hazardous	
		Daily	Annually	Daily	Annually
	120000.00			4000.00	120000.00

Maximum Amount of Waste to be Received Daily					
Liquid (m³)			Solid (tonnes)		
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous	Non-hazardous	
		0.00		4000.00	

5 Facility Information

Print Form

Clear Form

Save Form

5.4.3 Thermal Treatment Facility – Complete this information if thermal treatment takes place at this facility



Waste Type for Thermal Treatment		Design Capacity	
<input type="checkbox"/>	Hazardous waste or liquid industrial waste	<input type="radio"/> ≤ 100 tonnes per day	<input type="radio"/> > 100 tonnes per day
<input type="checkbox"/>	Waste other than hazardous waste and liquid industrial waste	<input type="radio"/> ≤ 100 tonnes per day	<input type="radio"/> > 100 tonnes per day

Change to Operations ?		
<input type="radio"/>	No Change Proposed	<input type="radio"/> Change does not require fundamental design review <input type="radio"/> Change requires fundamental design review

Liquid Waste								
Maximum Storage Capacity (m³)			Maximum Residual for Final Disposal (m³)					
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous		Liquid Industrial		Other Liquid Waste	
			Daily	Annually	Daily	Annually	Daily	Annually

Solid Waste					
Maximum Storage Capacity (tonnes)		Maximum Residual for Final Disposal (tonnes)			
Hazardous	Non-hazardous	Hazardous		Non-hazardous	
		Daily	Annually	Daily	Annually

Maximum Amount of Waste to be Received Daily					
Liquid (m³)			Solid (tonnes)		
Hazardous	Liquid Industrial	Other Liquid Waste	Hazardous	Non-hazardous	

Maximum Daily Feed Rate (tonnes/m³)			
Hazardous Waste (tonnes)	Non-hazardous Waste (tonnes)	Liquid Industrial Waste (m³)	Other Liquid Waste (m³)

5 Facility Information

Print Form

Clear Form

Save Form

5.4.4 Landfill Site – Complete this information if this facility operates as a landfill site



Waste Types to be accepted at the Landfill	Design Capacity		
<input type="checkbox"/> Hazardous waste or liquid industrial waste	<input type="radio"/> ≤ 40,000 m ³	<input type="radio"/> > 40,000 m ³ ≤ 3 million m ³	<input type="radio"/> > 3 million m ³
<input type="checkbox"/> Waste is only uncontaminated tree stumps, leaves, branches, concrete and rocks	<input type="radio"/> ≤ 40,000 m ³	<input type="radio"/> > 40,000 m ³ ≤ 3 million m ³	<input type="radio"/> > 3 million m ³
<input type="checkbox"/> Waste other than hazardous waste and liquid industrial waste, other than uncontaminated tree stumps, leaves, branches, concrete and rocks.	<input type="radio"/> ≤ 40,000 m ³	<input type="radio"/> > 40,000 m ³ ≤ 3 million m ³	<input type="radio"/> > 3 million m ³

Change to Operations		
<input type="radio"/> No Change Proposed	<input type="radio"/> Change does not require fundamental design review or hydrogeological assessment	<input type="radio"/> Change requires fundamental design review or hydrogeological assessment

Maximum Landfilling Capacity (m ³)			
Hazardous Waste	Non-hazardous Waste	Liquid Industrial Waste	Other Liquid Waste

Maximum Amount of Waste to be Received							
Hazardous Waste (tonnes)		Non-hazardous Waste (tonnes)		Liquid Industrial Waste (m ³)		Other Liquid Waste (m ³)	
Daily	Annually	Daily	Annually	Daily	Annually	Daily	Annually

Landfill Information				
Area to be Landfilled (hectares)	Total Site Area including Buffer Area (hectares)	Estimated Date of Closure (yyyy/mm/dd)	Population Served	Control Types (select all that apply)
				<input type="checkbox"/> Leachate Collected and Treated Off-site <input type="checkbox"/> Leachate Collected and Treated On-site <input type="checkbox"/> Landfill Gas Collected and Flared <input type="checkbox"/> Landfill Gas Collected for Energy Generation <input type="checkbox"/> Other (describe):

5 Facility Information

Print Form

Clear Form

Save Form

5.5 Waste Management Systems (Except Mobile Waste Processing) ?

IF YOUR APPLICATION IS NOT FOR A WASTE MANAGEMENT SYSTEM PLEASE PROCEED TO SECTION 5.7.

5.5.1 Fleet List (all vehicles and equipment to be used in the operation of the Waste Management System) ?

Separate list attached? Yes No

Year	Make	Model	Vehicle Identification Number (VIN)	Licence Plate Number	Province/State

5.5.2 Vehicle Information ?

Are all the vehicles to be used owned by the applicant? Yes No

If no, please include additional information about ownership arrangements for each vehicle not owned by the applicant.

Has a minimum of \$1,000,000.00 liability insurance been obtained for all vehicles for which it is required? Yes No

Describe any additional insurances that are held (for example, environmental impairment liability insurance).

5 Facility Information

Print Form

Clear Form

Save Form

5.5.3 General Waste Management System ?

Type(s) of Waste to be Transported by the General Waste Management System (select all that apply)

Subject:

- Hazardous Waste
- Liquid Industrial Waste

Non-subject:

- Municipal (non-hazardous)
- Other Liquid Waste

Non-subject Categories to be Transported by the General Waste Management System (select all that apply)

- Blue Box Materials
- Domestic Sources
- Commercial
- Non-Hazardous Solid Industrial
- Asbestos Waste in Bulk
- Dewatered Catch Basin Clean-out Material
- Leaf/Yard Waste
- Wood Waste
- Spill Cleanup Material
- Contaminated Soil
- Waste from Food Processing/Preparation Operations
- Tires
- Waste Wash Water
- Processed Organics (not for land application)
- Grease Trap Waste
- Others (specify):

Subject Waste Categories to be Transported by the General Waste Management System

Separate list attached? Yes No

Hazardous Waste / Liquid Industrial Waste								
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code

- All drivers are/will be trained in accordance with O. Reg. 347 and all pertinent environmental legislation.
- Each vehicle used to transport a specific subject waste class is suitable for that waste transportation in order to protect the health and safety of the public and the natural environment.

Note: For transporters of pathological waste and PCBs (waste classes 243 and 312) Operations Manual and Driver Training Manual must also be attached and Financial Assurance must be provided.

5 Facility Information

Print Form

Clear Form

Save Form

General Waste Management System – Disposal Site Information

What is the Final Destination of Waste to be Transported by the General Waste Management System? (select all that apply)

- A disposal site in Ontario approved by the Ministry of the Environment
- Disposal sites outside of Ontario approved by another regulatory agency

List the destination province(s)/state(s):

5.5.4 Soil Conditioner Waste Management System ?

(includes non-agricultural source material (NASM) that is waste and processed organic waste (biosolids) destined for land application only)

Has the applicant received recommendation from Biosolids Utilization Committee (BUC) for land application of processed organic waste (biosolids) or NASM?

- Yes If yes, please provide a copy of the BUC recommendation.
- No If no, please clarify:

Spreading equipment (land application only)

Separate list attached? Yes No

Equipment Type	Make & Model	Description

5 Facility Information

Print Form

Clear Form

Save Form

Method of system operation (land application only) ?

Estimated quantity to be handled on an annual basis (cubic metres/litres/tonnes):

Please describe the loading procedures:

Please describe the spreading methods:

Please describe the storage facilities (tanks, lagoons, etc.):

Soil Conditioner Waste Management System – Land Application Sites

What is the final destination of waste to be transported by the soil conditioner waste management system? (must include for land application only)

- Non-agricultural land Agricultural land Both agricultural and non-agricultural land

5.5.5 Hauled Sewage (Septage) Waste Management System ?

Type(s) of hauled sewage (septage) to be transported

- Portable toilet waste Septic tank waste Holding tank waste Other (specify):

Spreading Equipment (land application only)

Separate list attached? Yes No

Equipment Type	Make & Model	Description

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4 Site Information | **5 Facility Information** | 6 Supporting Documentation and Technical Requirements | 7 Payment Information

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Does this system include in-transit storage? Yes No ?

If yes:

a) What is the duration of storage? Please specify (Maximum period of in-transit storage should not exceed more than two weeks):

b) Is the storage tank a prefabricated tank with the capacity < 100,000 L, designed and constructed in accordance with a Class 5 Sewage System under the Ontario Building Code or CAN/CSA B66-05?

Yes No If no, please provide a copy of the design of the storage tank signed and dated by a professional engineer.

Does this system include in-transit processing? Yes No ?

If yes:

a) Location of in-transit processing:

In Vehicle In-storage Tank

b) Describe the method of in-transit processing:

Does this system use barge/boat to transport hauled sewage (septage)? Yes No ?

If yes,

a) Has a minimum of \$1,000,000.00 liability insurance been obtained for the barge/boat for which it is required?

Yes No

b) Does the barge/boat have an engine of 10 horsepower (hp) or more, for which a commercial vessel licence is required from Transport Canada?

Yes No If yes, please include a copy of the commercial vessel licence.

Note: For in-transit storage or processing the applicant must include with the application the consent of the landowner, if the landowner is different than the applicant. A financial assurance estimate must be provided by applicants using in-transit storage or using in-transit processing where processing is conducted in the in-transit storage tanks.

5 Facility Information

Print Form

Clear Form

Save Form

Hauled Sewage (Septage) Waste Management System – Land Application Sites N/A 

List the Environmental Compliance Approval Number(s) of all disposal site(s) approved by the Ministry of the Environment for land application of hauled sewage in association with this waste management system.

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)

Instrument Type	Instrument Number	Approval or Application Date (yyyy/mm/dd)

5 Facility Information

Print Form

Clear Form

Save Form

5.6 Waste Management System – Mobile Waste Processing ?

5.6.1 Mobile Waste Management System Process and Equipment Description ?

Type(s) of Waste to be Processed (select all that apply)

Subject:

- Hazardous Waste
- Liquid Industrial Waste

Non-subject:

- Municipal (non-hazardous)
- Other Liquid Waste

Number of Units	Type of Waste to be Processed by the Unit(s)	Financial Assurance (per unit)	Financial Assurance Required
	Non-hazardous Solid Waste	\$5,000	
	Hazardous Waste	\$20,000	
	Liquid Industrial Waste	\$20,000	
	Other Liquid Waste	\$20,000	
	Multiple Types of Waste from the Categories Above	\$20,000	
Total Financial Assurance			\$0

Municipal (non-hazardous) Waste Categories to be Processed (select all that apply)

- Contaminated Soil at Cleanup Site
- Wood Waste
- Construction & Demolition Waste
- Asbestos Waste
- Tires
- Domestic Waste
- Other (specify):

Other Liquid Waste Categories to be Processed (select all that apply)

- Hauled Sewage
- Waste from Food Processing/Preparation Operations
- Processed Organic
- Other (specify):

Hazardous/Liquid Industrial Waste Types to be Processed							
Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code	Class Code

5 Facility Information

Print Form

Clear Form

Save Form

5.6.2 Equipment Information – Please attach a separate list if more space is required.

Separate list attached? Yes No

Unit No.	Unit Type	Process Description	Equipment List				
			Equipment Type	Make	Model	Serial Number	Equipment Capacity (including unit of measurement)
Unit 1							
Unit 2							
Unit 3							
Unit 4							

5 Facility Information

Print Form

Clear Form

Save Form

5.7 Cleanup of Contaminated Sites

IF YOUR APPLICATION IS NOT FOR A CLEANUP OF A CONTAMINATED SITE PLEASE PROCEED TO SECTION 6.

Type of cleanup:

- In-situ
- Ex-situ
- Both

Contaminated media to be treated:

- Groundwater
- Surface water
- Sediment
- Soil

Waste Type:

Subject:

- Hazardous Waste
- Liquid Industrial Waste

Non-subject:

- Municipal (non-hazardous)
- Other Liquid Waste

Type of discharge:

- Air
- Groundwater
- Storm or sanitary
- Surface water
- Noise

6

Supporting Documentation and Technical Requirements

Contents | General Information and Instructions | Application Summary | 1 Applicant Information | 2 Project Information | 3 Regulatory Requirements | 4 Site Information | 5 Facility Information | **6 Supporting Documentation and Technical Requirements** | 7 Payment Information

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6.1 General — THIS IS A LIST OF SUPPORTING INFORMATION TO THIS APPLICATION AND IS SUBJECT TO THE FIPPA AND EBR. ?

Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* (✓)
<input checked="" type="checkbox"/> Proof of legal name	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Enhanced EBR description	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Provincial Officer Notice	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Inspection Report	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Detailed project and process description	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Pre-application Consultation Record	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Legal Survey(s)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Site Plan(s)	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Scaled area location plan(s) with geo-referencing points identified	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Documentation in support of EBR Exception	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Proof of Compliance with EAA Requirements	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Proof of Consultation/Notification	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Financial Assurance Estimate	<input type="radio"/> Yes <input checked="" type="radio"/> No	please reference FA from current ECA No. A461002	<input type="checkbox"/>
Name, address and consent of land/site owner for the installation and operation of the proposed activity or storage location of equipment or vehicle	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Name, address and phone number of the Operating Authority	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy of NEPDA Permit	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy/Proof of Municipal Planning Approval (ORMCA, general)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Municipal Zoning Confirmation Letter	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Zoning map	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Conservation Authority Clearance	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Director's approval for Policy 2 Deviation	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Application Fee	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6 Supporting Documentation and Technical Requirements

Print Form

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Save Form

Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* (✓)
<input checked="" type="checkbox"/> A copy of this application has been sent to the Ministry Local District Office	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Explanation for confidentiality	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.2 Air

Emission Summary and Dispersion Modelling (ESDM) Report prepared in accordance with s.22 and of O. Reg. 419/05 (including signed checklist – PIBS 5357e)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Electronic copy of the Dispersion Modelling input and output files prepared in accordance with s.26 of O. Reg. 419/05	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Supporting Information for a Maximum Ground Level Concentration Acceptability Request for Compounds with no Ministry POI Limit – Supplement to Application for Approval, EPA S.9 (PIBS 4872)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copies of forms requesting O. Reg. 419/05 instruments and supporting documentation	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.3 Noise and Vibration

Primary Noise Screening	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Secondary Noise Screening	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Abbreviated Acoustic Assessment Report including signed checklist (A-AAR)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Acoustic Assessment Report including signed checklist (AAR) (PIBS 5356e)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Vibration Assessment report	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6 Supporting Documentation and Technical Requirements

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Clear Form

Save Form

Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* (√)
Noise Abatement Action Plan	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.4 Sewage

<input type="checkbox"/>	Signed Municipal Responsibility Agreement	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Detailed description of the proposed activities/works	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/>	Notice of Completion for the Environmental Study Report (ESR)	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No		<input type="checkbox"/>
	Design Brief	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/>	Preliminary Engineering Report	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No		<input type="checkbox"/>
	Final Plans	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Engineering Drawings and Specifications	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Sewage quantity and quality characteristics	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Stormwater Management Report	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Stormwater Management Plan	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Hydrogeological Assessment	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/>	Environmental Impact Analysis	<input checked="" type="radio"/> Yes <input checked="" type="radio"/> No		<input type="checkbox"/>
	Final effluent criteria accepted by regional office of the Ministry	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Sewage Works Limited Operational Flexibility Requirements				
	1. Engineer's Report	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	2. Declarations	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Pipe Design Data Form	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
	Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6 Supporting Documentation and Technical Requirements

Print Form

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Save Form

Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* (√)
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6.5 Waste Disposal Sites

<input checked="" type="checkbox"/> Design and Operations Report	<input type="radio"/> Yes <input checked="" type="radio"/> No	See D&O report for current ECA No. A461002 WSP, 2015	<input type="checkbox"/>
<input checked="" type="checkbox"/> Stormwater Management Report	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Hydrogeological Assessment	<input type="radio"/> Yes <input type="radio"/> No		
<input checked="" type="checkbox"/> Assessment of Physical and Water Use Conditions	<input type="radio"/> Yes <input checked="" type="radio"/> No	See EA report for current ECA No. A461002	<input type="checkbox"/>
Waste Limited Operational Flexibility Requirements			
1. Engineer's Report	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
2. Declarations	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Copy of notification to adjacent landowners	<input checked="" type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.6 Waste Management Systems

Proof of vehicle and/or equipment ownerships	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Complete Fleet List (list of all vehicles, trailers and equipment used)	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy of the Liability Insurance for all vehicles for which insurance is required	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy of BUC recommendation	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy of the storage tank design	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Copy of commercial vehicle licence	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
<input checked="" type="checkbox"/> Description of the physical location where the vehicles transporting biomwederal waste are being disinfected	<input type="radio"/> Yes <input checked="" type="radio"/> No	Not applicable	<input type="checkbox"/>
<input checked="" type="checkbox"/> Drivers Training Manual (for PCB/Biomwederal Waste)	<input type="radio"/> Yes <input checked="" type="radio"/> No	Not applicable	<input type="checkbox"/>
<input checked="" type="checkbox"/> A copy of the applicant's Operation Plan including detailed packaging and biomwederal waste handling methods	<input type="radio"/> Yes <input checked="" type="radio"/> No	Not applicable	<input type="checkbox"/>
<input checked="" type="checkbox"/> Contingency and Emergency Procedures Plan (for PCB/Biomwederal Waste/Hauled Sewage (Septage))	<input type="radio"/> Yes <input checked="" type="radio"/> No	Not applicable	<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6 Supporting Documentation and Technical Requirements

Print Form

Clear Form

Save Form

Attachment	Attached	If no, provide explanation, (include referenced attachment if more space is required for rationale)	Confidential* (✓)
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6.7 Mobile Waste Processing N/A

Design and Operations Report – Mobile Waste Processing of General Waste	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Design and Operations Report – Mobile Waste Processing of Liquid Waste	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.8 Cleanup of Contaminated Sites N/A

Design Report for Cleanup of Contaminated Sites	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>
Other (please describe): <input type="text"/>	<input type="radio"/> Yes <input type="radio"/> No		<input type="checkbox"/>

6.9 Other Attachments N/A

Title	Reference	Confidential* (✓)
<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
<input type="text"/>	<input type="text"/>	<input type="checkbox"/>
Are you attaching an additional list of attachments? <input type="radio"/> Yes <input checked="" type="radio"/> No	If there is not enough space to list all of the attachments included in this application package, please include an additional listing of these attachments.	

*Please note: The collection of personal information in this application is necessary to administer the Ministry's approvals program, which is authorized pursuant to the Environmental Protection Act and the Ontario Water Resources Act. The personal information collected in this application will be used to administer the program, including for the purposes of the Ministry's compliance and enforcement activities under the aforementioned acts, and for the purposes of making information in respect of Environmental Compliance Approvals available to the public with the exception of payment information. Questions about the collection of the information can be directed to a Client Service Representative, Environmental Approvals Access and Service Integration Branch, 135 St. Clair Avenue West, 1st Floor, Toronto ON M4V 1P5; Telephone outside Toronto 1-800-461-6290 or in Toronto 416-314-8001 or Fax 416-314-8452.

This page has been intentionally left blank, please proceed to page 45 for Payment Information.

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Payment Information: Application for an Environmental Compliance Approval ?

Please Note:

1. If you are completing this form by hand, you must complete and attach your fee calculations separately. You do not need to include the supplemental fee calculations if you are filling in this form electronically.
2. If you are completing this form electronically, the fees for this application have been calculated based on the information you have provided. The Ministry may require additional information during the review of your application that could impact the total fee required.
3. All fees should be paid in Canadian funds, payable to the *Minister of Finance*, except fees for *Transfer of Review*, which are payable to the local municipality.
4. Credit card payments are accepted for payments under \$10,000 only.
5. If you are paying by certified cheque or money order, please staple your payment to this page.
6. The information collected in this section of the form is considered confidential and will only be used to process your application fee.

Do not include this page in the copies of your application that are being provided to the Local Ministry District Office.

Amount Enclosed	Method of Payment
\$ 3,800.00	<input checked="" type="checkbox"/> Certified Cheque <input type="checkbox"/> Money Order <input type="checkbox"/> VISA <input type="checkbox"/> MasterCard <input type="checkbox"/> American Express

Credit Card Information (if paying by VISA, MasterCard or American Express)

Name on Card (please print)	Credit Card Number	Expiry Date (mm/yyyy)
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Cardholder Signature	Date (yyyy/mm/dd)
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If paying by certified cheque or money order, please attach it here.

ontario.ca/environment



SECTION 2

Environmental Compliance Approval
Waste Disposal Site Amendment Application Report

**ENVIRONMENTAL COMPLIANCE APPROVAL
WASTE DISPOSAL SITE AMENDMENT APPLICATION
WEST CARLETON ENVIRONMENTAL CENTRE**

Submitted to:



WASTE MANAGEMENT OF CANADA CORPORATION

117 Wentworth Court
Brampton, ON L6T 5L4

Site Location:

West Carleton Environmental Center
2301 Carp Road
Ottawa, ON K0A 1L0

Submitted by:



BluMetric Environmental Inc.
3108 Carp Road, PO Box 430
Ottawa, ON K0A 1L0

Project Number: 160486

December 23, 2016

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Appendix D:	Pre-application Consultation Record
Appendix E:	Consultation / Notification Documentation



1. INTRODUCTION

BluMetric Environmental Inc. (BluMetric™) was retained by Waste Management of Canada Corporation (WM) to assist with an application to the Ontario Ministry of Environment and Climate Change (MOECC) to amend the current Environmental Compliance Approval (ECA) for a Waste Disposal Site (WDS) No. A461002, issued November 13, 2015 (Appendix A) for the West Carleton Environmental Centre (WCEC), herein referred to as the “site”. The WDS is subject to O.Reg. 347, Regulation 347, R.R.O. 1990, made under the EPA, as amended from time to time. The property is owned and operated by WM. The proof of legal name is provided in Appendix B.

The site is located adjacent to Carp Road and Highway 417 at the westerly end of Ottawa at 2301 Carp Road in Ottawa, Ontario or on Parts of Lots 2, 3, and 4 Concession 2 and Parts of Lots 3, 4, and 5 Concession 3 located in the former Township of Huntley, formerly the Township of West Carleton and now the City of Ottawa (Figure 1). For reference, a site location map with the location (with UTM coordinates) of the main entrance and southwest corner of the property are indicated on Figure 1. A site plan is provided as Figure 2. According to Zoning Map the subject land is labelled as Industrial (RH), Mineral Extraction (ME) and Rural (RU). The land adjacent to the site is mostly rural, industrial, with some mineral extraction. The nearest rural residence is located to the west of the site. A zoning map is provided in Figure 3. The zoning is consistent with that of the ECA application.

The WDS ECA was amended in 2015 to include a new landfill footprint. For the ECA amendment the site was subject to a full review under the Environmental Protection Act. Components included but were not limited to; a full Environmental Assessment (EA) for the site (approved, 2013 as provided in Appendix C), a Design and Operations (D&O) report (WSP, 2015), Financial Assurance (FA) (WSP, 2015); Environmental Impact Study (EIS) report (AECOM, 2015), Facilities Characteristics Report (AECOM, 2012) as well as additional permits and approvals (ECA – Air 0980-A4BMZY etc.). The amendment proposed here is not intended to change or alter any of the WDS operations, as approved in the ECA and detailed in the supporting documentation (Schedule A). The proposed ECA amendment is for the addition of soil management and processing as an additional site operational function. Design and operational parameters around the Soil Management and Processing Facility (location on-site, potential impacts to the natural environment, volume of soil to be received etc.) were evaluated within the context of the approved EA for the WDS.



The reasons for the amendment to the ECA are:

- 1- To allow stockpiling of clean soil for use on-site, including but not limited to activities such as berm construction, landscaping, maintenance materials (including existing landfill) or as determined to be needed on the site.
- 2- To allow for soil processing including the use and operation of a Soil Treatment Pad to process contaminated soil received at the landfill site for use on-site, as defined above.

The overall objective of the Soil Management and Processing on the site is to allow for a reduction in waste going into landfill, with the diversion of soils in order to maximize capacity and life span as well as putting soils to good use in a controlled environment. The purpose of this supporting document is to provide the technical information required to support the amendment to the ECA. The proposed changes to soil management on-site, rational for the change as well as operational details are provided in Section 2. The proposed operational layout of the Soil Management and Soil Processing is provided in Figure 4. Detailed design of the Soil Processing Facility and associated Storm Water Management Brief are provided in Section 3 of this document.

2. SOIL MANAGEMENT ON-SITE

2.1 DESCRIPTION OF THE EXISTING SOIL MANAGEMENT ON-SITE

A detailed description of the existing soil management on-site is provided in the D&O Report (AECOM, 2015) in support of the site ECA. As per the current ECA:

- *Clause 5.22 states “Contaminated soil shall be stockpiled in areas of the Site that have a base liner and leachate collection system installed below.” This clause is to remain in the ECA but is not to apply to the Soil Processing Facility / Soil Treatment Pad.*
- *Clause 6.15 of the ECA allows contaminated soil to be used as daily cover material in accordance with the Development and Operations Report. This clause is to remain in the ECA.*
- *Clause 6.19 of the ECA states that only native clean soil or soils that meet Table 7 SCS shall be used for intermediate and final cover. This clause is to remain the ECA but amended to be “Only native clean soil or soil that meets Table 7 of the “Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act” shall be used for intermediate and final cover, or anywhere on the site.*



2.1 PROPOSED CHANGES TO SOIL MANAGEMENT

Contaminated Soil

Contaminated soil to be defined as soil impacted with petroleum hydrocarbons (PHC), as well as other compounds associated with PHC impacts including but not limited to benzene, toluene, ethylbenzene and xylenes, polycyclic aromatic hydrocarbons, and MTBE. The soil is defined as contaminated if concentrations exceed Table 7 in the Ministry of the Environment document “Soil, Ground Water and Sediment Standards for Use Under part XV.1 of the EPA”, herein referred to as the SCS.

All other impacted soil maybe processed on-site or deemed a residual waste and be managed and disposed of in accordance with the EPA and O.Reg. 347.

Volumes

The maximum amount of soil to be brought to the site is proposed to be 120,000 tonnes per year with an overall storage of up to 120,000 tonnes of contaminated soil stockpiled (being processed or un-processed) at any given time.

The soils accepted are not to take away from the overall approved capacity for the site and soils can be used anywhere on-site (as per the definition of site in the ECA), as per the Soil Management Plan / Fill Management Plan for the site (as developed by the QP).

Site Operations

The site will be operated in accordance with the defined General Operations (Section 5.0 of the ECA). Namely Section 5.1, with all waste managed and disposed on in accordance with the EPA, O.Reg. 347, the requirements of the ECA, and at no time shall the discharge of a contaminate that causes or may cause an adverse effect is permitted. Only non-hazardous soil that was generated in the Provinces of Ontario and/or Quebec shall be accepted at the site.

Soil Management Operations

The process of soil management to be implemented on-site is outlined in the flow chart as provided as Figure 5. In addition, a Soil Management Plan (SMP) and Fill Management Plan (FMP) for the receiving site will be finalized prior to the start of operations. Initial SMP and FMP developed was completed under the direction of a Qualified Person (QP) as per the definition under O.Reg. 153/04, and in accordance with the MOECC Proposed Excess Soil Management



Policy Framework and Management of Excess Soil – A Guideline for Best Management Practices (January 2014).

For the development of the SMP and FMP, the QP took into account the level of contamination, as per the definition of contaminated soils detailed above, of the incoming excess soil and assesses the proposed site for the soil management (stockpiled and/or used on-site) and determines the suitability of the receiving site. It was determined by the QP that the WCEC property could be used as a receiving site for the management of excess soil. The development of the SMP took specific site characteristics including geological, hydrogeological, hydrological and natural heritage features into consideration in completing a risk based approach for the design and documentation for the proposed site. Risk evaluation looked at potential location and design to mitigate potential impacts to the natural environment by using the existing site infrastructure (purge well system, groundwater and surface water monitoring network etc.). Based on the SMP plan developed for the WCEC a FMP for the receiving sites was also established. The FMP sets out how excess soils are to be reused at the WCEC. The FMP describes the procedures for the on-site placement and management of materials, as well as audit sampling, tracking and contingency requirements.

The SMP and FMP will be finalized within three months of issuance of the amended ECA and all soils will be managed in accordance with the plans developed.

Handling of Clean Soils:

Soils coming onto the site that are determined to be clean will be handled in accordance with the SMP for the site and used on-site as per the FMP.

Two designated areas on the site have been established for the stockpiling of clean soils as identified on Figure 4.

Handling of Contaminated Soils:

Soils for which PHC do not meet Table 7, as per O.Reg 153/04 but meet O.Reg. 347 Schedule 4 will be accepted on-site as per the amended ECA and SMP established for the site for soil processing. Contaminated soils will be stored within the landfill foot print (as per Clause 5.22 of the ECA) or within a designated Soil Processing Area. The soils will be processed to reduce the concentrations to below Table 7.



The location of the Soil Processing Area is identified on Figure 4. The Soil Processing Area will be comprised of a pad for soil storage and processing. The pad will be impermeable and consist of a gravel surface underlain by an impermeable liner. Runoff of stormwater from the pad will be contained in a storm water management (SWM) pond located along the west, south and east sides of the pad.

The runoff contained in the SWM pond will be pumped through a force main to the existing leachate collection system in the general location shown on Figure 4. The discharge rate to the leachate collection system will be controlled and restricted to the capacity of the system. The runoff will combine with the leachate and flow by way of the force main for ultimate disposal to the City of Ottawa sewer under the site discharge agreement.

A design and associated Storm Water Management Brief is provided in Section 3 of this supporting documentation report.

Operations for Soil Processing

Soil handling will be completed on-site in accordance with the SMP. The soil processing of the contaminated soil will be completed using equipment operated under a separate Mobile ECA. Operations manual(s) will be prepared and if required provided to the MOECC as per the terms of the Mobile ECA(s).

Compliance sampling (confirmation that contaminated soil has been remediated) will be defined in the SMP for the site.

Use of Soil On-Site

The soils will be used on-site in accordance with the FMP. The uses for the soil in on-site activities included but are not limited to berms, landscaping, maintenance materials (including existing landfill) or as determined to be needed on the site.

2.3 RATIONAL FOR CHANGES TO SOIL MANAGEMENT

As detailed above, the key objective to Soil Management and Processing at the WCEC is to reduce waste going into landfill in order to maximize capacity and life span as well as putting soils to good use in a controlled environment. The rational for the addition of Soil Management and Soil Processing has been based on the requirement for soil on-site (infrastructure construction, site maintenance etc.) and has been designed taking Soil Processing requirements into consideration (working area) as well as site constraints (traffic, natural heritage etc.).



Volume Justifications

The volume of soils being brought onto the site is required based on some key points as follows;

As per the ECA;

“...only accept and deposit waste for landfilling at the Site as long as the total...capacity for waste and waste cover does not exceed 15,244,400 cubic metres, the capacity for the Landfill Expansion Area does not exceed 6,500,000 cubic metres...”

This Clause allots for 8,500,000 m³ closed landfill and therefore there is 244,400 m³ left over.

The ECA also states;

“The Site can receive up to 4,000 tonnes of waste per day”

And,

“The Site can receive up to a maximum of 400,000 tonnes per year of waste.....”

As per the Facility Characterization Report (Section 7.2);

The new landfill construction will utilize both on-site and imported materials. The soils balance relating to preparatory earthworks is summarized as:

Purpose / Activity	Volume (m ³)
Soil Generated	
Base Grading Cut	340,000
Soil Required	
Base Grading Fill	55,000
Fill Required for Perimeter Berms, Roads, and SWM Ponds	570,000
<u>Net Imported Fill</u>	<u>285,000</u>
<u>Daily Cover</u>	<u>920,000</u>
Total	<u>1,253,000</u>

A total of 1,253,000 m³ of fill will be required or approximately 2,500,000 tonnes. The soil Processing Facility will therefore handle an estimated 60,000 tonnes a year over the estimated 10 year operating span of the facility for a total of 600,000 tonnes.



Area Required

The soil management pad will be approximately 12,000 m² in area. The pad will be used for temporary storage and processing of contaminated soils.

Traffic

The traffic impact assessment (AECOM, January 2014) considers 73 trips/hr (or about 36 loads/hr) during the “routine Phase 1 Operations” which includes landfilling and construction of future landfill cells and considers trucks hauling construction materials for base grading earthworks. Given that the soil will be used for future landfill construction, the Soil Management and Processing operation has been already accounted for in this assessment.

Based on the site conditions, the calculated volume to be received at the site in a day is approximately 4000 tonnes). The calculation was done using the traffic impact assessment referenced above. As a worst case scenario, if assumed 73 (1-way) trips/hr = 36 loads/hr and assume an operation, even at reduced Saturday hours of 11 hrs/day, this will equal 396 loads. If assume, worst case, these are all dump trucks of soil (@22tonnes/truck), this will mean an inbound of 8712 tonnes/day. Based on the Site conditions, a worst case of 50-60% of the calculated volume would be received at the site in a day (about 4000 tonnes).

Natural Heritage Features

The locations of the Soil Treatment Pad as well as the Soil Storage Areas were considered based on the Natural Heritage Features identified on the site. The Environmental Impact Assessment (AECOM, 2015) was consulted and the proposed areas found not to be in areas of significance on the site (wetland, wood lots etc.). Considerations were also taken during the design of the Soil Treatment Area to ensure that any potential impacts to the naturel environment are mitigated. Measure include but are not limited to; a 10 m buffer between the Soil Treatment Area and identified significant wood lot, a berm around the Soil Treatment Area to capture / contain sediment, impermeable Soil Pad design to allow for management of sediment etc.

3. ENVIRONMENTAL IMPACT ANALYSIS

The environmental impact analysis was performed in the original ECA Application (AECOM, 2015). The analysis included and assessment of the existing natural environment conditions, significance of the environment potentially affected, impacts to the terrestrial environment and mitigation to minimize environmental impacts. The proposed Soil Management



and Soil Processing was considered in the context of the environmental impact analysis that was completed. For the Soil Management Areas, no potential impacts to the natural environment conditions. In addition, no areas of significance were noted directly in the area proposed for Soil Processing. A significant wood lot was identified along the edges of the proposed area and a 10 m set back was established to mitigate any potential impacts. A berm has also been proposed around the perimeter of the proposed Soil Processing area to mitigate any surface water runoff.

4. ENVIRONMENTAL CONTROLS AND CURRENT MONITORING PROGRAM

Environmental controls will be put in place around the protection of land and water. Steps will be taken to minimize dust and if it is found to be an issue measures will be put in place (tarps, covers, watering etc.). Once the soil meets Table 7 it is to be stockpiled in designated location off pad (Figure 5). Run off water will be minimized and soil treatment pad designed to manage surface water (proper drainage etc.).

Environmental controls have also been considered;

Fugitive Dust: Dust will be handled in accordance with Clause 5.19 of the ECA. The following measures are proposed to enhance the plan with respect to aspects specific to soil management (stockpiles, processing etc.) at the WCEC, if dust is found to be an issue;

- soil piles to be tarped/covered when piles not in use;
- use of mechanical barriers (wind screens etc.); and,
- application of water suppressants to exposed, frequently disturbed or erodible surfaces.

The current Best Management Practices around Dust (RWDI, 2014) will be up-dated to include the Soil Management and Processing, within three months of issuance of the amended ECA.

ECA Air/Noise: Based on the addition of the Soil Management and Soil Processing on-site, the ESDM for the site will require up-dating as per O. Reg 419. The current ECA- Air for the site No. 0980-A4BMZY was issued on July 18, 2016. The up-date of the ESDM will assess the impacts and establish mitigation with respect to the proposed Soil Management and Processing on-site. Within 60 days of the ECA issued, the ESDM will be completed.

Vermin: Vermin is not considered an issue for the Soil Management and Soil Processing operations.



Surface Water: All surface water runoff will be directed to the leachate collection system. No specific sampling of the runoff from the soil processing facility will be completed. Monitoring and sampling of the leachate that is discharged will be completed as per the current approved plan.

Reporting: Monitoring to be completed as part of the Soil Processing Facility will be incorporated into the current Environmental Monitoring Program (EMP) that has been established for the site. Results from the monitoring are submitted annually to the Regional Director by March 31 of each year, as required by Section 15.0 (Annual Reporting) of the ECA.

5. TRIGGER MECHANISM AND CONTINGENCY PLAN

Trigger mechanisms and contingency plan is outlined in Section 12 of the ECA and further outlined in the EMP for the site (BluMetric, 2015). Additional measure, specific to the Soil Management and Soil Processing Facility will be detailed in the SMP and FMP for the site.

6. CONSULTATIONS

Pre-consultation meeting with the MOECC took place on August 16, 2016 to discuss the proposed Soil Management and Processing at the site. A summary of the meeting can be found in Appendix D. The MOECC confirmed that an amendment to the approval and full documentation regarding the proposed works will be required.

In addition, consultation notices were provided to the Public Liaison Committee (PLC) established for the WCEC as per the current ECA and the City of Ottawa, December 20, 2016. A copy of the notification and a meeting summary is provided in Appendix E.



7. CLOSING

Please do not hesitate to contact the undersigned if you have any questions regarding this information.

Respectfully submitted,
BluMetric Environmental Inc.



Karen Greer, M.Sc., P.Geo.
Senior Hydrogeologist



Michael L. Duchene, M.A.Sc., P.Eng.
Senior Environmental Engineer

8. REFERENCES

Best Management Practices (Dust), West Carleton Environmental Centre dated July 30, 2014 prepared by RWDI Air Inc.

Design & Operations Report West Carleton Environmental Centre dated July 2014 prepared by WSP Canada Inc.

Environmental Assessment Act Section 9 Notice of Approval to Proceed with the Undertaking, An Environmental Assessment for a New Landfill Footprint at the West Carleton Environmental Centre (Amended January 21, 2013). Ministry of the Environment August 28, 2013.

Environmental Compliance Approval (ECA) for a Waste Disposal Site (WDS) No. A461002, issued November 13, 2015.

Environmental Compliance Approval (ECA) for Air No. 0980-A4BMZY, issued July 18, 2016.

Environmental Impact Statement for the Plan Stage of the West Carleton Environmental Centre Landfill Expansion prepared by AECOM dated September, 2015.

Environmental Monitoring Plan prepared by BluMetric Environmental Inc. dated October 2015.

Facilities Characteristics Report prepared by AECOM dated August, 2012.

Financial Assurance Report, West Carleton Environmental Centre dated April 2015 prepared by WSP.

MOECC Proposed Excess Soil Management Policy Framework and Management of Excess Soil – A Guideline for Best Management Practices (January 2014).

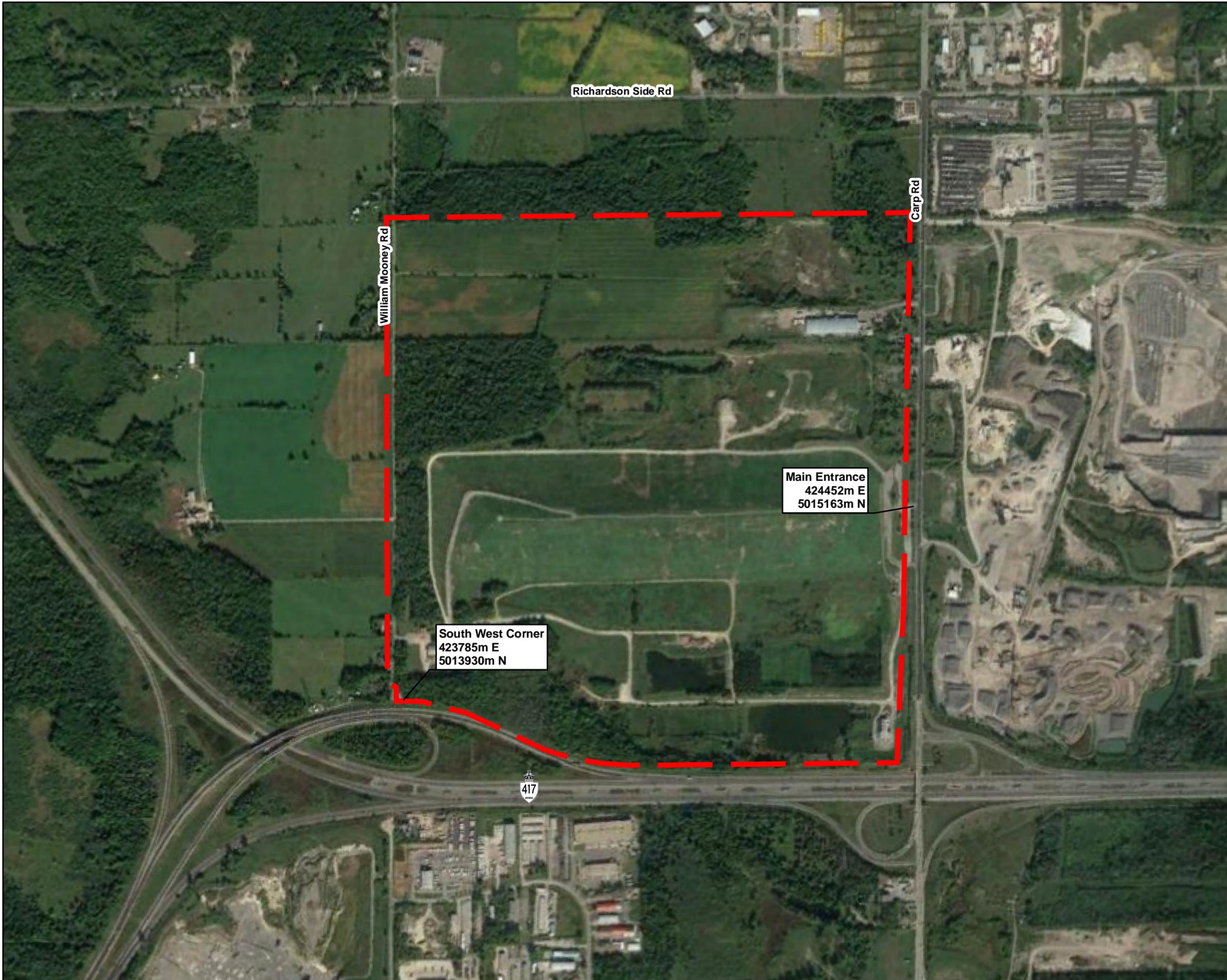
O. Reg. 153/04: Records of Site Condition – Part XV.1 of the Act under *Environmental Protection Act, R.S.O. 1990, c. E.19*.

R.R.O. 1990, Reg. 347: General - WASTE MANAGEMENT under *Environmental Protection Act, R.S.O. 1990, c. E.19*.



FIGURES





LEGEND

 Property Boundary

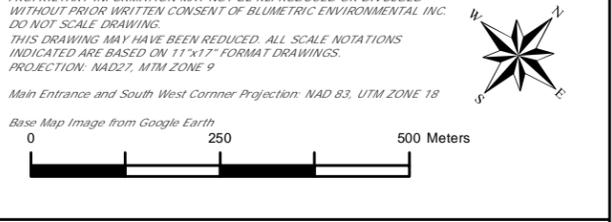
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REV.	DESCRIPTION	YY/MM/DD	BY	CHK
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REFERENCES
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 THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11" X 17" FORMAT DRAWINGS.
 PROJECTION: NAD27, MTM ZONE 9

Main Entrance and South West Corner Projection: NAD 83, UTM ZONE 18

Base Map Image from Google Earth



CLIENT



PROJECT

WCEC ECA Waste Disposal Site Amendment Application

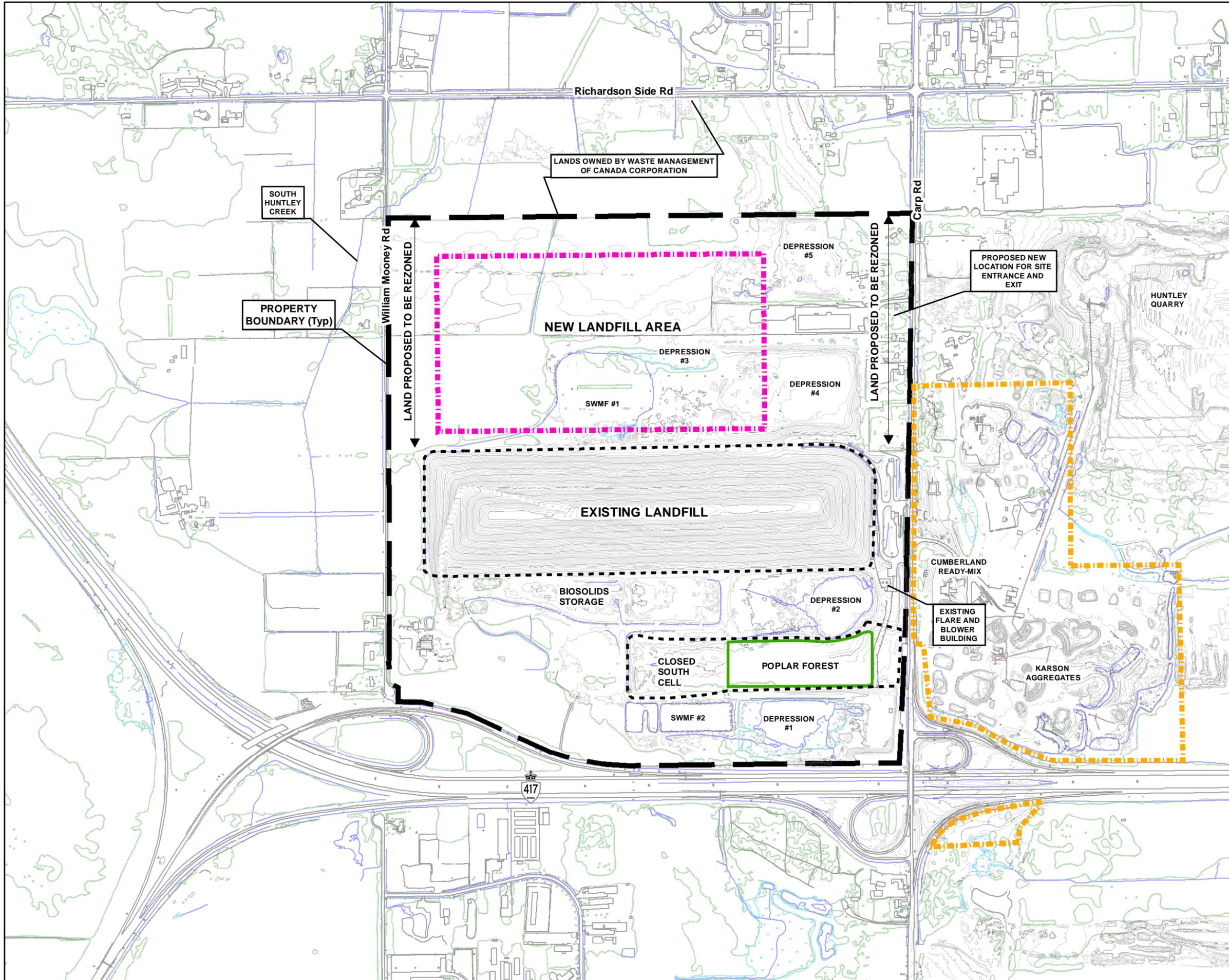
TITLE

Site Location with Georeferencing Points



3108 Carp Road PO Box 430
 Ottawa, Ontario K0A 1L0
 TEL: (613) 839-3053
 FAX: (613) 839-5376
 Email: info@blumetric.ca
 Web: http://www.blumetric.ca

PROJECT #		DATE	
160486		2016-12-19	
DRAWN	CHECKED	FIG NO.	REV
IB	KG	01	0



- LEGEND**
- Property Boundary
 - New Landfill
 - Property Boundary (CAZ)
- Topographic Features From UAV (2013)**
- Major Contour (5m)
 - Minor Contour (1m)

1				
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

REFERENCES
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING.
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 PROJECTION: NAD27, MTM ZONE 9




CLIENT



PROJECT

WCEC ECA Waste Disposal Site Amendment Application

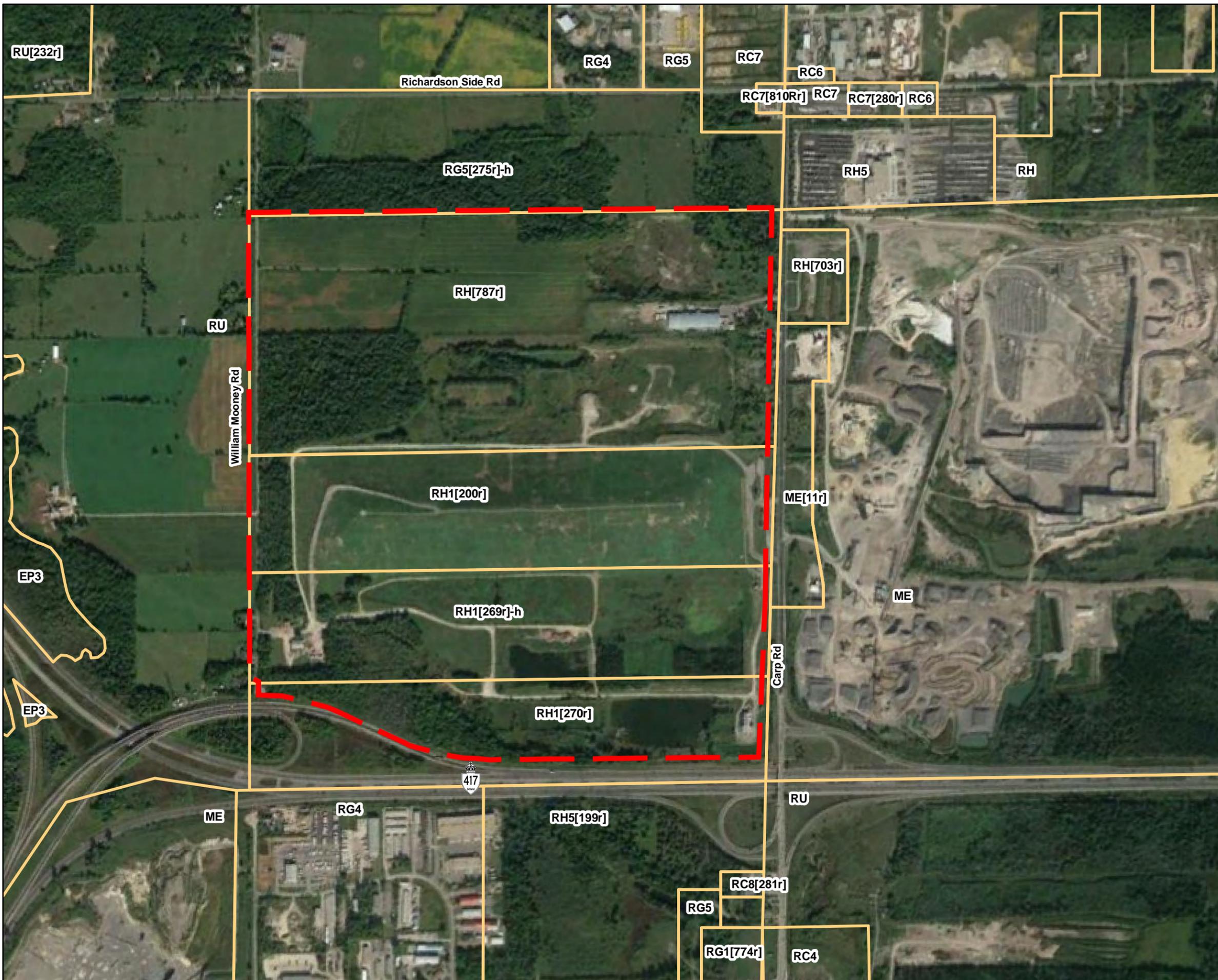
TITLE

Site Plan



3108 Carp Road PO Box 430
 Ottawa, Ontario K0A 1L0
 TEL: (613) 839-3053
 FAX: (613) 839-5376
 Email: info@blumetric.ca
 Web: http://www.blumetric.ca

PROJECT # 160486		DATE 2016-12-19	
DRAWN IB	CHECKED KG	FIG NO. 02	REV 0



LEGEND
 Property Boundary
 Zoning

1				
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

REFERENCES
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 PROJECTION: NAD27, MTM ZONE 9
 Main Entrance and South West Corner Projection: NAD 83, UTM ZONE 18

Base Map Image from Google Earth
 0 100 200 Meters

CLIENT

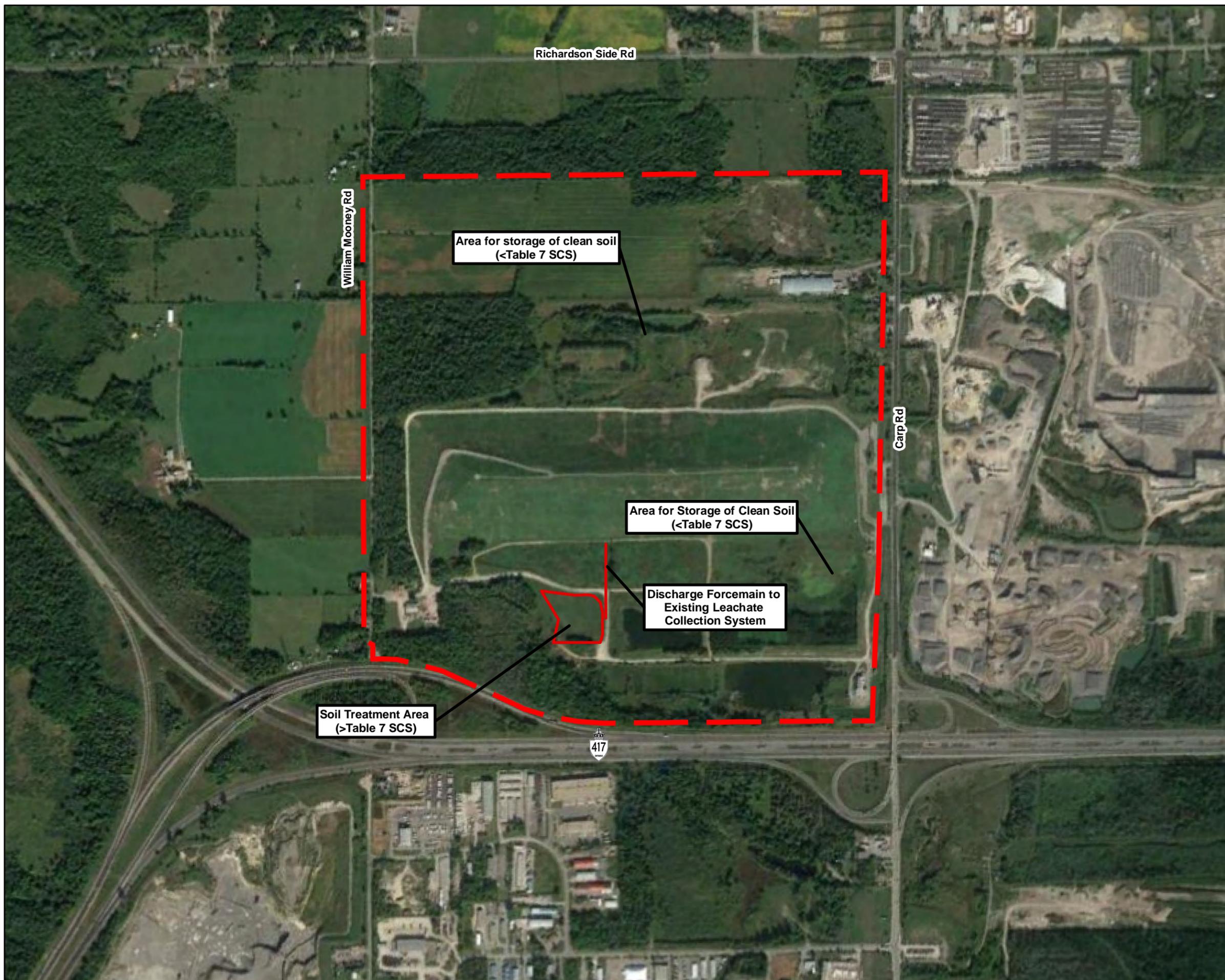
PROJECT
 WCEC ECA Waste Disposal Site Amendment Application

TITLE
 Zoning Map

3108 Carp Road PO Box 430
 Ottawa, Ontario K0A 1L0
 TEL: (613) 839-3053
 FAX: (613) 839-5376
 Email: info@blumetric.ca
 Web: http://www.blumetric.ca

PROJECT # 160486 **DATE** 2016-12-19

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LEGEND

 Property Boundary

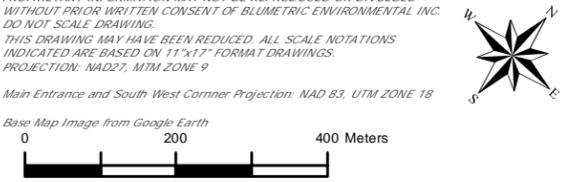
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REFERENCES
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING.
 THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11" X 17" FORMAT DRAWINGS.
 PROJECTION: NAD27, MTM ZONE 9

Main Entrance and South West Corner Projection: NAD 83, UTM ZONE 18

Base Map Image from Google Earth



CLIENT



PROJECT

WCEC ECA Waste Disposal Site Amendment Application

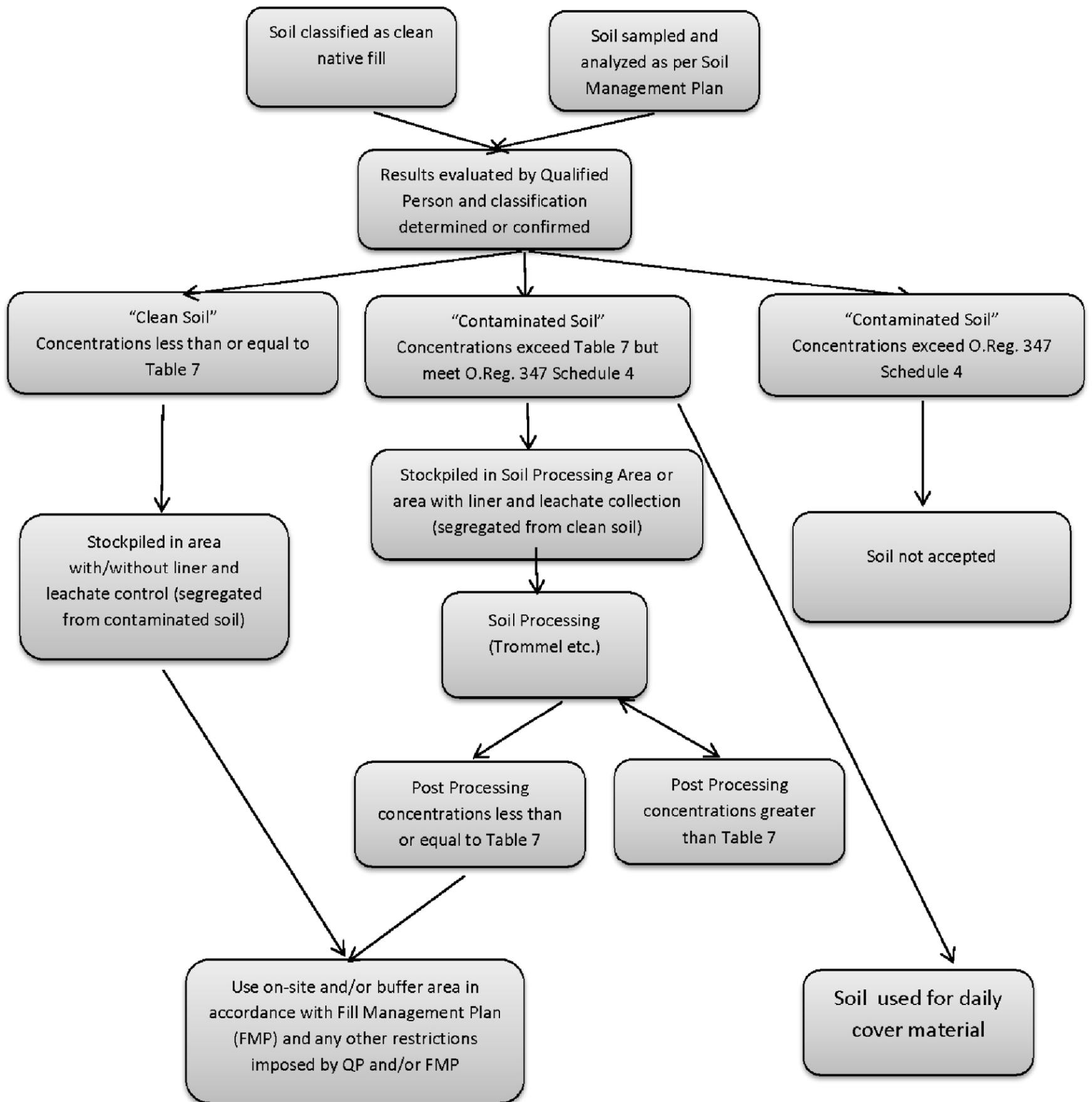
TITLE

Proposed Operational Layout



3108 Carp Road PO Box 430
 Ottawa, Ontario K0A 1L0
 TEL: (613) 839-3053
 FAX: (613) 839-5376
 Email: info@blumetric.ca
 Web: http://www.blumetric.ca

PROJECT #	DATE		
160486	2016-12-19		
DRAWN	CHECKED	FIG NO.	REV
IB	KG	04	0



REFERENCES

PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DIVULGED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL INC. DO NOT SCALE DRAWING. THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON 11"x17" FORMAT DRAWINGS.



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CLIENT



PROJECT

WCEC ECA Waste Disposal Site Amendment Application

TITLE

Soil Management Flow Chart

PROJECT #

160486

DATE

2016-12-23

DRAWN

IB

CHECKED

KG

FIG NO.

05

REV

0

REV.	DESCRIPTION	YY/MM/DD	BY	CHK
1				

APPENDIX A

Waste Disposal Site Approval No. A461002





AMENDED ENVIRONMENTAL COMPLIANCE APPROVAL

NUMBER A461002

Issue Date: November 13, 2015

Waste Management of Canada Corporation
 2301 Carp Rd
 Ottawa, Ontario
 K0A 1L0

Site Location: West Carleton Environmental Centre
 Parts of Lots 2, 3 & 4, Concession 2, and
 Parts of Lots 3, 4 & 5, Concession 3, Geographic Township of Huntley,
 City of Ottawa

*You have applied under section 20.2 of Part II.1 of the Environmental Protection Act, R.S.O. 1990, c. E. 19
 (Environmental Protection Act) for approval of:*

*for the use and operation of a 72.26 hectare landfill site (consisting of 37.8 hectare Landfill Expansion Area and 34.46
 hectare Closed Landfill Area), and a waste transfer/processing facility within a total site area of 232.9 hectares, with a
 contaminant attenuation zone, consisting of 2 parcels totalling 51.3 ha, being known as the West Carleton Environmental
 Centre as follows*

For the purpose of this environmental compliance approval, the following definitions apply:

"Approval" or **"ECA"** means this entire Environmental Compliance Approval, issued in accordance with section 39 of the
EPA, and includes all items, conditions and Schedules attached to and forming part of this Approval, as amended by the
Director.

"Closed Landfill Area" refers to pre-existing 34.46 ha landfill waste disposal mound, that was closed in September 2011;

"Contaminant Attenuation Zone" or **"CAZ"** means the lands known as Part of Lot 4, Concession II, Part of Lot 3,
 Concession II, Part of Lot 2, Concession II, Geographic Township of Huntley, now in the City of Ottawa consisting of the
 properties identified as Parcels "B" and "C" in Schedule B.

"Contaminating Lifespan" or **"CLS"** refers to the period of time, after closure until the *Site* finally produces
 contaminants at concentrations below levels which have unacceptable health or environmental effects;

"Director" means any *Ministry* employee appointed in writing by the Minister pursuant to section 5 of the *Act* as a
Director for the purposes of Part II.1 and Part V of the *Act*;

"District Manager" refers to the District Manager in the Ministry of the Environment and Climate Change's Ottawa
 District Office;

"District Office" refers to the Ministry of the Environment and Climate Change Ottawa District Office;

"EA Approval" refers to the "Notice of Approval to Proceed With the Undertaking" issued under Environmental
 Assessment Act Section 9, by the Ministry on August 16, 2013, EA File No. EA-02-08-02;

"Environmental Inspector" refers to the individual employed by the Ministry of the Environment and Climate Change to
 inspect the *Site*;

"EPA" means *Environmental Protection Act*, R.S.O. 1990, c. E. 19, as amended from time to time;

CONTENT COPY OF ORIGINAL

"Landfill Expansion Area" means the 37.8 hectare new landfill area in the north portion of the *Site*, located at Parts of Lots 4 & 5, Concession 3, Geographic Township of Huntley, City of Ottawa, approved by this *ECA*.

"Major Works" are those works that have an engineering component;

"MOECC" or **"Ministry"** refers to the Ontario Ministry of the Environment and Climate Change;

"Odour Referee" is the person or agency who is technically qualified and trained in odour assessment, designated as per the Odour Enforcement Mechanism and is not a representative of the *Ministry*.

"Operator" has the same meaning as "operator" as defined in s.25 of the *EPA*;

"Owner" means Waste Management of Canada Corporation and its successors and assigns;

"OWRA" refers to the Ontario Water Resources Act, R.S.O. 1990, c. O.40;

"PA" means the *Pesticides Act*, R.S.O. 1990, c. P-11, as amended from time to time;

"PLC" means the West Carleton Environmental Centre Public Liaison Committee for the *Site*;

"Provincial Officer" means any person designated in writing by the Minister as a provincial officer pursuant to section 5 of the *OWRA* or section 5 of the *EPA* or section 17 of the *PA*;

"Regional Director" refers to the Director of the Ministry of the Environment and Climate Change's Eastern Regional Office;

"Regulation 347" or "Reg. 347" or "O. Reg. 347" means Regulation 347, R.R.O. 1990, made under the *EPA*, as amended from time to time;

"Site" means the entire waste disposal site, including the buffer lands and contaminant attenuation zone approved by this *ECA*, shown and identified in Schedule "B"; and

"Waste Transfer/Processing Facility" refers to the area of land contiguous to the landfill area and part of the *Site*, to be used for the waste transfer and processing operations of industrial/commercial waste and construction and demolition waste prior to the removal of the wastes from the *Site*.

You are hereby notified that this environmental compliance approval is issued to you subject to the terms and conditions outlined below:

TERMS AND CONDITIONS

1.0 GENERAL

Compliance

1.1 The *Owner* shall ensure that any person authorized to carry out work on or operate any aspect of the *Site* is notified of the *ECA* and the conditions herein and shall take all reasonable measures to ensure the person complies with the same.

1.2 Any person authorized to carry out work on or operate any aspect of the *Site* shall comply with the conditions of this *ECA*.

In Accordance

1.3 Except as otherwise provided for in this *ECA*, the *Site* shall be designed, developed, constructed, operated and maintained in accordance with the conditions in this *ECA* and the supporting documentation listed in Schedule "A".

1.4 Within ninety (90) days of the issuance of this *ECA*, the *Owner* shall submit to the *Director*, with copy to the *District Manager*, an updated Development & Operations Report that incorporates the correspondents between the *Owner* and the *Ministry* listed as Items 67 to 73 in Schedule "A".

Other Legal Obligations

1.5 The issuance of, and compliance with, this *ECA* does not:

- a. relieve any person of any obligation to comply with any provision of the *EPA* or any other applicable statute, regulation or other legal requirement; or
- b. limit in any way the authority of the *Ministry* to require certain steps be taken or to request that any further information related to compliance with this *ECA* be provided to the *Ministry* ;

unless a provision of this *ECA* specifically refers to the other requirement or authority and clearly states that the other requirement or authority is to be replaced or limited by this *ECA* .

Adverse Effect

1.6 The *Owner* or *Operator* shall remain responsible for any contravention of any other condition of this *ECA* or any applicable statute, regulation, or other legal requirement resulting from any act or omission that caused the adverse effect or impairment of air and/or water quality.

Furnish Information

1.7 Any information requested by the *Director* or a *Provincial Officer* concerning the *Site* and its operation under this *ECA* , including but not limited to any records required to be kept by this *ECA* shall be provided in a timely manner.

1.8 The receipt of any information by the *Ministry* or the failure of the *Ministry* to prosecute any person or to require any person to take any action, under this *ECA* or under any statute, regulation or subordinate legal instrument, in relation to the information, shall not be construed as:

- i. an approval, waiver, or justification by the *Ministry* of any act or omission of any person that contravenes any condition of this *ECA* or any statute, regulation or other subordinate legal requirement; or
- ii. acceptance by the *Ministry* of the information's completeness or accuracy.

1.9 Any information related to this *ECA* and contained in *Ministry* files may be made available to the public in accordance with the provisions of the Freedom of Information and Protection of Privacy Act, RSO 1990, CF-31.

Interpretation

1.10 This *ECA* revokes and replaces the previous Environmental Compliance Approval and all subsequent amendments.

1.11 Where there is a conflict between a provision of any document, including the application, referred to in this *ECA* , and the conditions of this *ECA*, the conditions in this *ECA* shall take precedence.

1.12 Where there is a conflict between the application and a provision in any documents listed in Schedule "A", the application shall take precedence, unless it is clear that the purpose of the document was to amend the application and that the *Ministry* approved the amendment in writing.

1.13 Where there is a conflict between any two documents listed in Schedule "A", other than the application, the document bearing the most recent date shall take precedence.

1.14 The conditions of this *ECA* are severable. If any condition of this *ECA* , or the application of any condition of this *ECA* to any circumstance, is held invalid or unenforceable, the application of such condition to other circumstances and the remainder of this *ECA* shall not be affected thereby.

Certificate of Requirement

1.15 Pursuant to Section 197 of the *EPA* , no person having an interest in the *Site* shall deal with the *Site* in any way without first giving a copy of this *ECA* to each person acquiring an interest in the *Site* as a result of the dealing.

1.16 If not completed by the issuance of this *ECA*, then two (2) copies of a completed Certificate of Requirement, containing a registerable description of the *Site* , shall be submitted to the *Director* for the *Director's* signature within sixty (60) calendar days of the date of this *ECA*.

1.17 If not completed by the issuance of this *ECA*, then the Certificate of Requirement shall be registered in the appropriate land registry office on title to the *Site* and a duplicate registered copy shall be submitted to the *Director* within 10 calendar days of receiving the Certificate of Requirement signed by the *Director* .

No Transfer or Encumbrance

1.18 No portion of this *Site* shall be transferred or encumbered prior to or after closing of the *Site* unless the *Director* is notified in advance and is satisfied with the arrangements made to ensure that all conditions of this *ECA* will be carried out and that sufficient financial assurance is deposited with the *Ministry* to ensure that these conditions will be carried out.

Change of Owner

1.19 The *Owner* shall notify the *Director* , in writing, and forward a copy of the notification to the *District Manager* , within 30 days of the occurrence of any changes in the following information:

- i. the ownership of the *Site* ;
- ii. the *Operator* of the *Site* ;
- iii. the address of the *Owner* or *Operator* ;
- iv. the partners, where the *Owner* or *Operator* is or at any time becomes a partnership and a copy of the most recent declaration filed under the *Business Names Act* , R. S. O. 1990, c. B.17, shall be included in the notification;
- v. the name of the corporation where the *Owner* or *Operator* is or at any time becomes a corporation, other than a municipal corporation, and a copy of the most current information filed under the *Corporations Information Act* , R. S. O. 1990, c. C.39, shall be included in the notification.

1.20 In the event of any change in the ownership of the *Site*, other than a change to a successor municipality, the *Owner* shall notify in writing the succeeding owner of the existence of this *ECA* , and a copy of such notice shall be forwarded to the *Director* and *District Manager* .

Inspections

1.21 No person shall hinder or obstruct a *Provincial Officer* from carrying out any and all inspections authorized by the *OWRA* , the *EPA* , or the *PA* , of any place to which this *ECA* relates, and without limiting the foregoing:

- i. to enter upon the premises where the approved works are located, or the location where the records required by the conditions of this *ECA* are kept;
- ii. to have access to, inspect, and copy any records required to be kept by the conditions of this *ECA* ;
- iii. to inspect the *Site*, related equipment and appurtenances;
- iv. to inspect the practices, procedures, or operations required by the conditions of this *ECA* ; and
- v. to sample and monitor for the purposes of assessing compliance with the terms and conditions of this *ECA* or the *EPA* , the *OWRA* or the *PA* .

2.0 FINANCIAL ASSURANCE

Overview

2.1 Financial assurance shall be provided as required by the *Director*, in an amount that is sufficient to pay for compliance with and performance of any action specified in this *ECA*, including closure, monitoring and maintenance of the *Site*, maintenance of all required contaminant control systems including leachate management systems, contaminant monitoring for the *Contaminating Lifespan* of the *Site* and contingency plans for the *Site* in accordance with this *ECA*.

2.2 Financial assurance may be provided in one or more of the following forms: cash, irrevocable letter of credit, surety bond, or some other form, all satisfactory to the *Director*.

Proposed Payment Schedule

2.3. (1) Within thirty (30) days of the issuance of this *ECA*, the *Owner* shall ensure that financial assurance in a form acceptable to the *Director* in the amount of **\$35,645,612.00** has been submitted to the *Director*.

(2) In addition to the amount provided in Condition 2.3 (1), the *Owner* shall provide in a form acceptable to the *Director* an additional amount of financial assurance in the amount of **\$45,871.00** for the *Waste Transfer/Processing Facility*. This financial assurance shall be provided to the *Director* 30 days prior to commencing the operation of the *Waste Transfer/Processing Facility*.

2.4 The total amount of financial assurance specified in Condition 2.3 (1) shall be updated by the *Owner* as follows by the following dates:

- i. March 31, 2016 - **\$34,301,044.00**
- ii. March 31, 2017 - **\$47,721,084.00**
- iii. March 31, 2018 - **\$52,462,515.00**
- iv. March 31, 2019 - **\$57,203,945.00**

Updated Review Report

2.5 A revised or new Financial Assurance program shall be submitted to the *Director* by no later than **March 31, 2018** and then at an interval no greater than a period of every four (4) years thereafter. The report shall include:

- a. updates of the discount, interest and inflation rates associated with the requirements for financial assurance in this *ECA* including justifications and sources of the proposed rates; and
- b. a report prepared by a qualified Professional Engineer which updates the cost estimates on which the amounts associated with the requirements for financial assurance in this *ECA* are based.

2.6 The report referenced in the above condition shall take into consideration the:

- a. actual amounts of waste landfilled;
- b. empirical leachate generation rates;
- c. empirical and theoretical landfill gas generation rates;
- d. a recalculation of the contaminating life span of the *Site* with respect to groundwater, surface water and landfill gas based on empirical and theoretical data;
- e. any measures that have been carried out or need to be carried out to prevent and ameliorate any adverse effect that relates to the *Site*;
- f. annual inspection, maintenance, and monitoring costs, including costs for leachate treatment and disposal and landfill gas use or discharge from the landfill gas management works; and
- g. The operations related to the *Waste Transfer/Processing Facility*.

2.7 No waste shall be received, accepted, disposed or transferred at the *Site* unless appropriate financial assurance is received by the *Ministry*.

2.8 The amount of Financial Assurance is subject to review at any time by the *Director* and may be amended at his/her discretion. If any financial assurance is scheduled to expire or notice is received, indicating financial assurance will not be renewed, and satisfactory methods have not been made to replace the financial assurance at least 60 days before the

financial assurance terminates, the financial assurance shall forthwith be replaced by cash.

2.9 The amount of financial assurance may be less than the amounts specified in Condition 2.4 provided the *Owner* can justify to the *Director* that the amount of waste deposited on site is less than the maximum allowed during the time interval, and a financial assurance re-evaluation is submitted to the *Director*.

3.0 PUBLIC LIAISON COMMITTEE (PLC)

3.1 The *Owner* shall establish and maintain a PLC for the *Site* to provide a forum for public concerns to be raised and for mitigation measures to be discussed where appropriate as related to the *Site*.

3.2 If there is no interest from the public in continuing the existing PLC or establishing and participating in a new PLC (once sufficient notice has been given) it may be discontinued. If discontinued the *Owner* shall publish a notice at least annually inviting expressions of interest in establishing or re-establishing the PLC.

3.3 If continued or re-established, the PLC shall serve as the focal point for dissemination, review and exchange of information and monitoring results relevant to the landfill expansion.

3.4 If there is interest in forming a PLC and members are willing to serve, the PLC shall be established.

3.5 The *Owner* shall provide administrative support for the PLC including, at minimum:

- a) Providing PLC meeting space;
- b) Preparing and publishing meeting notes;
- c) Recording minutes of each meeting; and,
- d) Preparing an annual report to be submitted as part of Compliance Reporting as required by Condition 5 of the *EA Approval*.

4.0 CONSTRUCTION, INSTALLATION and PLANNING

Major Works

4.1 For the purposes of this *ECA* the following are *Major Works*:

- a. gas management system;
- b. leachate collection system; and
- c. liner

4.2 A final detailed design shall be prepared for each *Major Works* to be constructed at the *Site* consistent with the conceptual design of the *Site* as presented in the Supporting Documentation, specifically Item 59 in Schedule "A".

4.3 The final detailed design of each *Major Works* shall include the following:

- a. design drawings and specifications;
- b. a detailed quality assurance / quality control (QA/QC) program for construction of the *Major Works*, including necessary precautions to avoid disturbance to the underlying soils; and
- c. details on the monitoring, maintenance, repair and replacement of the engineered components of the *Major Works*, if any.

4.4 Any design optimization or modification that is inconsistent with the conceptual design shall be clearly identified, along with an explanation of the reasons for the change.

4.5 The final detailed design of each *Major Work* shall be submitted to the *Director*, copied to the *District Manager*.

4.6 No construction of a *Major Works* shall commence prior the *Director* approving, in writing, the final detailed design of that *Major Works*. Each major work shall be constructed in accordance with the approved final detailed design and the

QA/QC procedures shall be implemented as approved by the *Director*.

4.7 No person shall deposit any waste at the *Site* until a written Preparation Report has been submitted to the *Director* and *District Manager* documenting that:

- a. all construction;
- b. *QA/QC* activities;
- c. *Site* conditions; and,
- d. all details of the construction of the *Site*;

are in accordance with the approved design plans and specifications.

4.8 As-built drawings for all *Major Works* shall be retained on site and made available to *Ministry* staff for inspection.

Subsequent Stages

4.9 The final detailed design for the subsequent stages shall be submitted to the *Director* for approval prior to landfilling.

4.10 Approval to proceed with landfilling in each subsequent stage shall be dependent on monitoring results acceptable to the *Director*. If monitoring results are not acceptable to the *Director* then remedial action must be taken and completed before landfilling may proceed in the subsequent stage.

5.0 GENERAL OPERATIONS

Proper Operation

5.1 The *Site* shall be properly operated and maintained at all times. All waste shall be managed and disposed of in accordance with the *EPA* and *Regulation 347* and the requirements of this *ECA*. At no time shall the discharge of a contaminant that causes or may cause an adverse effect be permitted.

Operations Manual

5.2 An operations and procedures manual that addresses the requirements of this *ECA* shall be prepared for the *Site* within 180 days from the date of this *ECA*. The operations and procedures manual shall include the following information:

- a) Health and safety;
- b) Operation and maintenance of the *Site*;
- c) Waste acceptance;
- d) Waste disposal area and development;
- e) Waste processing and transferring operations
- f) Nuisance management;
- g) Leachate management;
- h) Landfill gas management;
- i) Surface water/stormwater management;
- j) Inspections and monitoring;
- k) Contingency plans and emergency procedures;
- l) Complaints; and,
- m) Reporting and record keeping.

5.3 The operations and procedures manual shall be:

- a) Retained at the *Site*;
- b) Reviewed on an annual basis and updated by the *Owner* as required; and
- c) Be available for inspection by *Ministry* staff.

Service Area

5.4 Only solid, non-hazardous waste that was generated in the Province of Ontario shall be accepted at the *Site*.

Hours of Operation

5.5 Waste shall only be accepted at the *Site* during the following time periods:

i) From 7:00 AM to 7:00 PM for Monday through Friday;

ii) From 7:00 AM to 6:00 PM for Saturday;

iii) On-*Site* equipment used for daily *Site* preparations and closing activities shall only be used from 6:00 AM to 8:00 PM for Monday through Saturday.

5.6 With the prior written approval of the *District Manager*, the time periods may be extended to accommodate seasonal or unusual quantities of waste.

5.7 The *Owner* may provide limited hours of operation provided that the hours are posted at the landfill gate and that suitable notice is provided to the public of any change in operating hours.

5.8 Upon reasonable notice to the *District Manager*, contingency actions may take place outside normal hours of operation. Emergency response may occur at any time as required.

Site Access

5.9 (1) Once the *Landfill Expansion Area* opens to accept waste, access to the *Site* for disposal and related waste operations is limited to the main entrance off of Carp Road as illustrated in Section 3.1 of the Development & Operations Report listed as Item 59 in Schedule "A".

(2) Prior to opening of the new cells in the *Landfill Expansion Area*, the existing site entrance on Carp Road may be used for existing site operations (waste transfer/processing facility), maintenance, and construction of the new cells.

Site Security

5.10 During non-operating hours, the *Site* entrance and exit gates shall be locked and the *Site* shall be secured against access by unauthorized persons.

Roads and Traffic

5.11 On-*Site* roads shall be provided and maintained in a manner that vehicles hauling waste to and on the *Site* may travel readily and safely on any operating day. Onsite roads must be clear of mud, ice and debris which may create hazardous conditions.

5.12 The *Owner* shall ensure that inbound trucks to the *Site* do not cause traffic back up on Carp Road.

Waste Inspection and Procedures

5.13 The *Operator* shall develop and implement a program to inspect waste to ensure that the waste is of a type approved for acceptance under this *ECA*.

5.14 All loads of waste must be inspected by trained site personnel prior to acceptance at the *Site* and waste vehicles must be directed to appropriate areas for waste disposal.

Litter Control:

5.15 The *Owner* shall take all practical steps to prevent escape of litter from the *Site*. All loose, windblown litter shall be collected on a daily basis and disposed of at the landfill working face when the *Site* is active and at a licensed waste disposal site when the *Site* no longer accepts waste for final disposal.

Vermin, Scavenging, Dust, Odour, Noise, etc.

5.16 The *Site* shall be operated and maintained such that the vermin, vectors, dust, odour, noise and traffic do not create adverse effect off-site.

5.17 No scavenging is to occur at the *Site*.

5.18 The *Owner* shall install tire inspection location on site and shall ensure that vehicles leaving the *Site* do not track mud or debris onto Carp Road. If mud and debris can not be managed on site, the *Owner* shall install a tire washing facility within six (6) months of a request from the *District Manager*.

Dust

5.19 The *Owner* shall control fugitive dust emissions from onsite sources including but not limited to onsite roads, stockpiled cover material and closed landfill area prior to seeding especially during times of dry weather conditions. If necessary, major sources of dust shall be treated with water and/or dust suppression materials to minimize the overall dust emissions from the *Site*.

Noise

5.20 The *Owner* shall comply with noise criteria in MOECC Guideline entitled "Noise Guidelines for Landfill Sites."

Contaminant Attenuation Zone Requirements

5.21 (1) The *Owner* shall ensure all drinking water supply wells in the *Contaminant Attenuation Zone* that are not used for groundwater monitoring are decommissioned as per current *Ministry* regulations .

(2) No new drinking water supply wells are permitted within the *Contaminant Attenuation Zone*.

(3) The *Owner* shall provide alternative drinking water supply(s) to the Karson Group Inc. operations that are affected as a reason of Condition 5.20 (1).

Contaminated Soil Stockpiling

5.22 Contaminated soil shall be stockpiled in areas of the *Site* that have a base liner and leachate collection system installed below.

Leaf and Yard Waste

5.23 Source Separated Organics, as well as Leaf and yard waste shall not be composted at the *Site* unless approved by the *Director*.

6.0 LANDFILL SITE OPERATION

Landfill Operations

6.1 Except as otherwise provided by these conditions, the landfilling operations at the *Site* shall be conducted in accordance with conditions within this *ECA* and the supporting documentation, plans and specifications listed in Schedule "A".

Capacity

6.2 The *Owner* shall only accept and deposit waste for landfilling at the *Site* as long as the total *Site*(including the *Closed Landfill Area* and the *Landfill Expansion Area*) capacity for waste and waste cover does not exceed **15,244,400** cubic meters, the capacity for the *Landfill Expansion Area* does not exceed **6,500,000** cubic metres, and there is available capacity as defined by the final waste contours for the *Site* approved by the *Director*.

Daily and Annual Waste Limit

6.3 (1) The *Site* can receive up to 4,000 tonnes of waste per day.

(2) The *Site* can receive up to a maximum of 400,000 tonnes per year of waste, including waste materials used for alternative daily cover.

Waste Types

6.4 Only solid non-hazardous waste shall be accepted at the *Site* for landfilling.

First Waste Acceptance

6.5 Within one week of the planned opening of the *Landfill Expansion Area*, the *Owner* shall notify the *District Manager* in writing of the date on which waste is first received at the *Site*.

Burning of Waste

6.6 Burning of waste is not permitted at the *Site*.

Asbestos Waste

6.7 Any waste that is considered asbestos waste shall be handled in accordance with Section 17 of O. Reg. 347, as amended from time to time.

6.8 A suitable sized excavation for the asbestos waste shall be made by the *Owner* in a location away from the active landfilling face, or the active face of the landfill shall be shut down during this procedure to bury the asbestos containing waste.

6.9 All asbestos waste shall be inspected to ensure that the asbestos waste is properly bagged or contained and free from puncture, tears or leaks.

6.10 The asbestos waste shall be placed in the excavation to avoid damage to the containers and to prevent dust and spillage.

6.11 Upon completion of the unloading and deposition of the asbestos in the excavation, at least 1.25 metres of cover or waste material shall be placed over the asbestos.

6.12 All asbestos waste shall be deposited to a level no higher than 1.25 metres below the general elevation of the disposal area to ensure that daily cover material removal in the future does not encounter the asbestos waste.

International Waste

6.13 Any waste that is considered international waste shall be handled in accordance with Appendix 4, of the International Waste Directive of the Canadian Food Inspection Agency, as amended from time to time.

Cover Material

6.14 i. Daily Cover - By the end of each working day, the entire working face shall be covered with a minimum thickness of 150 mm of soil cover or an approved thickness of alternative cover material.

ii. Intermediate Cover - In areas where landfilling has been temporarily discontinued for six (6) months or more, a minimum thickness of 300 mm of soil cover material shall be placed.

iii. Final cover of the *Landfill Expansion Area* must meet the following specifications:

a. Final Cover - In areas where landfilling has been completed to final contours, a minimum 0.85 m layer of low-permeability final cover soil shall be placed. Fill areas shall be progressively completed and rehabilitated as development reaches final contours; and

b. Topsoil - In areas where landfilling has been completed to final contours and where final cover has been placed, a minimum 0.15 metres thick layer of topsoil shall be placed.

6.15 The following materials, may be used as an alternative daily cover material in accordance with the Development and Operations Report (Item 59 in Schedule "A"):

- a. contaminated soil;
- b. tarps;

- c. processed green material;
- d. tire shred;
- e. slag and foundry sands;
- f. auto shred residue;
- g. glass aggregate;
- h. industrial residues;
- i. crushed concrete and brick; and
- j. shredded shingles

6.16 The contaminated soil, slag and foundry sand, and industrial residues listed in Condition 6.15 shall meet the Toxicity Characteristic Leaching Procedure (TCLP) criteria specified in Schedule IV of *O. Reg. 347* as amended from time to time.

6.17 Contaminated soil, slag and foundry sand, and industrial residues that are used for daily cover shall be sampled on a quarterly basis and submitted for analysis of *O. Reg. 347* Schedule IV Inorganics, VOCs, PAHs and PCBs. Quarterly testing results shall be included in the annual report. The frequency of *O. Reg. 347* testing of the cover material may be reduced subject to agreement of the *District Manager*.

6.18 Alternative daily cover shall only be used on inside slopes of the active landfilling face, clean soil shall be used on the top flat portion of daily cell.

6.19 Only native clean soil or soil that meets Table 7 of the "Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act" shall be used for intermediate and final cover.

6.20 The application of alternative daily cover material shall not result in any nuisance including odour, dust, and litter.

6.21 Use of alternative daily cover materials shall be discontinued within two (2) working days of receipt of written notification from the *District Manager*, stating that the use of the alternative daily cover materials at the *Site* has proven to be environmentally unsuitable.

Signage

6.22 A sign shall be maintained at the main entrance/exit to the *Site* on which is legibly displayed the following information:

- a) the name of the *Site* and *Owner*;
- b) the number of the *ECA*;
- c) the name of the *Operator*;
- d) the normal hours of operation;
- e) the allowable and prohibited waste types;
- f) a warning against unauthorized access;
- g) the telephone number to which complaints may be directed;
- h) a twenty-four (24) hour emergency telephone number (if different from above); and
- i) a warning against dumping outside the *Site*

6.23 The *Owner* shall post and maintain signs to direct vehicles to working face and recycling areas.

Landfill Gas

6.24 The *Owner* shall ensure all existing structures and future structures to be built on *Site* shall be situated and constructed in a manner which minimizes the potential for accumulation of landfill gas.

6.25 The *Owner* shall install and maintain methane detection and alarm equipment, with active venting or an effective passive venting system to relieve any possible landfill gas accumulation in all enclosed buildings on the *Site* which at times are occupied by people.

Surface Water Management

6.26 Surface water runoff from the landfilling area shall be collected and directed to the on-site stormwater management ponds, and shall not be directly discharged off-site.

6.27 Clean runoff from non-operating areas shall be diverted from the landfilling area and prevented from entering the lined landfill cells.

Environmental Inspector

6.28 (1) The *Owner* shall provide the *Environmental Inspector* with adequate office facilities, communication equipment, and means of transportation for the purpose of site inspection as deemed necessary by the *District Manager* during hours of waste disposal operation.

(2) The *Owner* shall, on a semi-annual basis, reimburse MOECC for the reasonable costs of the *Environmental Inspector* and associated expenses.

Air Space Survey

6.29 The *Owner* shall undertake semi-annual air space surveys of the bottom and top waste contours to determine the estimated air space used for waste disposal in the prior six months. The air space survey shall include daily cover material and shall take into account settlement. The first air space survey shall be undertaken within six months after the approval date of this *ECA* with an air space survey being completed semi-annually after the completion of the first air space survey, until landfill *Site* closure.

6.30 Each air space survey shall be conducted by an Ontario Land Surveyor or other qualified consultant and such air space survey shall be included in the Annual Report to be submitted to the *District Manager*. The *Owner* shall keep a copy of each air space survey on-Site and make them available to MOECC personnel upon request.

Mini-Transfer Area

6.31 The *Owner* shall operate and maintain the mini-transfer area such that the dust, odours, vectors, birds, litter, noise and traffic do not create a nuisance.

6.32 Domestic waste received from the public shall be placed within appropriate steel bin, and shall not be placed on the ground.

6.33 Waste storage bins shall be emptied and the waste be disposed of in the active landfilling area within 24 hours of being full or every seven (7) days at a minimum.

6.34 Recyclable materials received shall be properly sorted and sent to appropriate processing facility. No landfilling of recyclable materials shall be allowed.

6.35 All storage containers/bins used to store waste and/or recyclable materials shall be well sealed and maintained in good condition to prevent leakage. The *Owner* shall immediately remove from service any leaking container.

7.0 WASTE TRANSFER/PROCESSING FACILITY

Waste Transfer/Processing Operations

7.1 Except as otherwise provided by these conditions, the waste transfer and processing operations at the *Site* shall be conducted in accordance with conditions within this *ECA* and the supporting documentation, plans and specifications listed in Schedule "A".

Waste Type and Service Area

7.2 (1) Only solid non-hazardous waste which includes wastes generated by residential, commercial, institutional and industrial sectors (including construction and demolition waste) within the Province of Ontario shall be accepted at the *Site*

for processing and transfer.

(2) (a) With the exception of wood waste, no putrescible waste shall be accepted at the Construction and Demolition Processing Area; and

(b) If incidental amounts of putrescible waste and/or loads are inadvertently received at the Construction and Demolition Processing Area, the *Owner* shall remove the putrescible waste from the Construction and Demolition Processing Area forthwith.

Unacceptable Waste

7.3 i. The *Owner* shall conduct appropriate inspections and ensure that appropriate controls are in place to prevent the acceptance of non-approved waste as reflected by this *ECA* and to prevent the acceptance of waste from outside the approved service area.

ii. The *Owner* shall record in the daily records for the *Waste Transfer/Processing Facility* operations any occurrence of unacceptable waste delivered to the *Waste Transfer/Processing Facility*, the name of the waste hauler delivering the waste to the *Waste Transfer/Processing Facility* and waste generator (if known).

iii. The *Owner* shall forthwith notify the *District Manager* of any and all waste load refusals at the *Waste Transfer/Processing Facility* related to requirements in this *ECA*, including service area and waste types.

Capacity

7.4 The *Owner* shall ensure that:

a. the total amount of waste received at the *Waste Transfer/Processing Facility* shall not exceed 400 tonnes per day;

b. the maximum amount of processed materials, unprocessed waste and residual wastes approved to be stored at the *Waste Transfer/Processing Facility* shall not exceed 370 cubic meters as described in Table 5 of Item 54 in Schedule "A"; and

c. with the exception of statutory holidays, the *Owner* shall ensure that incoming waste material shall be removed from the *Waste Transfer/Processing Facility* within 72 hours of receipt.

7.5 In the event that waste or recyclable materials cannot be removed from the *Waste Transfer/Processing Facility* and the total approved storage capacity is reached, the *Owner* shall cease accepting additional waste to ensure the total approved storage capacity does not exceed the maximum amount approved by this *Approval*.

Hours of Operation

7.6 Operating hours of the *Waste Transfer/Processing Facility* shall be as per Condition 5.5 (i) and (ii), 5.6, 5.7 and 5.8 of this *ECA*.

Manuals

7.7 The operations and procedures manual for the *Waste Transfer/Processing Facility* shall be:

a. retained at the *Site*;

b. kept up to date through periodic revisions; and

c. be available for inspection by *Ministry* staff.

Processing/Transfer

7.8 All waste must be transferred inside the building or put into the appropriate steel bin the same day the waste is received at the *Site*.

7.9 The *Owner* is permitted to unload waste for the purposes of transfer and processing on the concrete pad as shown in Item 52 in Schedule "A".

7.10 All waste received at the *Waste Transfer/Process Facility* shall be processed and stored indoors with the exception of scrap metal and corrugated cardboard which can be stored in metal bins placed on the concrete pad as shown in Item 52 in Schedule "A".

7.11 All construction and demolition waste received at the outdoor processing pad for construction and demolition waste as shown in Item 52 of Schedule "A" must be processed the same day the waste is received. The waste must be placed in the appropriate bins or bunker. No overnight storage of waste on the pad is permitted.

Storage Bins

7.12 All storage containers/bins used to store waste and/or recyclable materials shall be maintained in good condition to prevent leakage. The *Owner* shall immediately remove from service any leaking container. Containers/bins used to store clean scrap metal may be equipped with drainage holes to permit the drainage of rainwater.

Site Security

7.13 The *Site* shall be operated and maintained in a secure manner.

Site Access

7.14 Access to and exit from the *Site* for the transportation of waste destined for the *Waste Transfer/Processing Facility* shall be through the main access gate, as illustrated on the proposed entrance realignment Drawing 91712G-E1 in Item 9 of Schedule "A".

Noise Assessment

7.15 If, in the opinion of the *District Manager*, the levels of noise from the *Waste Transfer/Processing Facility* cause or may cause an adverse impact, the *Owner* shall, within two (2) months of being so notified by the *District Manager*, submit an application for remedial measures designed to effect compliance with the *Ministry's* noise guidelines and the *EPA*, and upon approval by the *Director*, shall carry out remedial work forthwith.

Record Keeping and Reporting

7.16. Prior to receiving any waste on *Waste Transfer/Processing Facility*, the *Owner* shall prepare an operations manual for use by *Site* personnel. The operations manual shall contain the following:

- (i) outline the responsibilities of *Site* personnel;
- (ii) personnel training protocols;
- (iii) receiving and screening procedures;
- (iv) unloading, handling and storage procedures;
- (v) *Site* inspections, spill, fire, upset and leakage recording procedures;
- (vi) procedure for handling complaints.

7.17 The *Owner* shall keep a copy of an up-to-date operations manual specified in Condition 7.16 at the *Waste Transfer/Processing Facility*, in a location accessible to personnel at all times.

7.18 The *Owner* shall maintain, at the *Site*, a log which records on each day of operation, the following information:

- (a) date of record;
- (b) types, quantities and source of materials received;
- (c) quantities of materials stored on *Site*;

- (d) quantities and destination of waste and residual materials shipped from the *Site*;
- (e) results of the inspections, including the name and signature of the person conducting the inspection; and
- (f) any spills or upsets.

8.0 MAJOR WORKS APPROVALS

Leachate Management

8.1 The leachate collection system piping for each stage of the landfill shall be inspected annually for the first five years after waste placement and then as often as future inspections indicate to be necessary. Additionally, leachate collection pipes must be cleaned whenever an inspection indicates that cleaning is necessary.

8.2 The leachate drainage layer shall be constructed in accordance with the Specifications detailed in Appendix 4-B of the Development & Operations Report (Item 59 of Schedule "A")

8.3 A minimum of 50 mm of stone shall be placed below the leachate collection pipes and a minimum of 250 mm of stone shall be placed above any leachate collection pipes.

8.4 The *Owner* shall ensure that a maximum leachate head of 300 mm on the landfill liner is not exceeded except on a temporary basis as described in the Development and Operations Plan (Item 59 of Schedule "A").

SBR Leachate Pre-Treatment Facility

8.5 (1) The *Owner* is approved to construct the SBR Leachate Pre-Treatment Facility in accordance with Items 55 through 57 in Schedule "A" and applicable information submitted for the EPA Section 9 approval No. 4117-8EHQE7.

(2) The *Owner* shall notify the *District Manager* in writing at least forty-eight (48) hours prior to initially operating the SBR Leachate Pre-treatment Facility that operation of the facility will commence.

8.6 Within ninety (90) days of the initial operation of the SBR Leachate Pre-Treatment Facility, the *Owner* shall submit to the *Director*, with copies to the *District Manager*, an Operation and Maintenance Manual for the SBR Leachate Pre-Treatment Facility. The operations and maintenance manual shall be reviewed on an annual basis and updated by the *Owner* as required.

Gas Collection System

8.7 The *Owner* shall manage landfill gas in accordance with Items 44 through 48 and 59 of Schedule "A" and based on the landfill gas management system constructed under the authority of the *EPA* Approval issued which may be amended or replaced from time to time.

8.8 For the future expansion of the landfill gas collection and flaring/utilization system, the *Owner* shall submit the final detailed design to the *Director* for approval, with copies to the *District Manager* prior to construction.

8.9 a) In the event a gas well needs replacing due to damage or the well is deemed to be not functioning properly, the *Owner* may replace the gas well.

b) For any repairs, replacements and/or upsets of the landfill gas collection and flaring system, the *Owner* shall notify the *District Manager* in writing within 30 days of the changes.

c) Maintenance or replacing components relating to existing Major Works are not considered Major Works under Section 4.0 of this *ECA*.

Landfill Liner

8.10 The liner system for the *Site* will be constructed in accordance with Appendix 4 of the Development & Operations Report (Item 59 of Schedule "A").

9.0 TRAINING

Employees and Training

9.1 A training plan for all employees that operate any aspect of the *Site* (including *Waste Transfer/Processing Facility*) shall be developed and implemented by the *Operator*. Only trained employees shall operate any aspect of the *Site* or carry out any activity required under this *ECA*. For the purpose of this *ECA* "trained" means knowledgeable either through instruction or practice in:

- i. the relevant waste management legislation including *EPA, O. Reg. 347*, regulations and guidelines;
- ii. major environmental and occupational health and safety concerns pertaining to the waste to be handled;
- iii. the proper handling of wastes;
- iv. the management procedures including the use and operation of equipment for the processes and wastes to be handled;
- v. the emergency response procedures;
- vi. the specific written procedures for the control of nuisance conditions;
- vii. the terms, conditions and operating requirements of this *ECA* and,
- viii. proper inspection, receiving and recording procedures and the activities to be undertaken during and after a load rejection.

10.0 INSPECTIONS AND RECORD KEEPING

Daily Inspections and Log Book

10.1 An inspection of the entire *Site* and all equipment on the *Site* shall be conducted each day the *Site* is in operation to ensure that the *Site* is being operated in compliance with this *ECA*. Any deficiencies discovered as a result of the inspection shall be remedied immediately, including temporarily ceasing operations at the *Site* if needed.

10.2 A record of the inspections shall be kept in a daily log book or a dedicated electronic file that includes:

- i. the name and signature of person that conducted the inspection;
- ii. the date and time of the inspection;
- iii. the list of any deficiencies discovered;
- iv. the recommendations for remedial action; and
- v. the date, time and description of actions taken.

10.3 A record shall be kept in the daily log book or a dedicated electronic file of all the following:

- i. the type, date and time of arrival, hauler, and quantity (tonnes) of all waste received at the *Site*; and,
- ii. a list of the refusal of waste shipments, the reason(s) for refusal, and the origin of the waste, if known.

Monthly Records

10.4 Monthly *Site* inspection records in the form of a written log or a dedicated electronic file shall include the following:

- i. a summary of wastes received, processed, transfer and refused for disposal at the *Site*;
- ii. a calculation of the total quantity (tonnes) of waste received at the *Site* during each operating day and each operating week;
- iii. the amount of any leachate removed, or treated and discharged from the *Site*;
- iv. a record of litter collection activities and the application of any dust suppressants;
- v. a record of the daily inspections;
- vi. a description of any out-of-service period of any control, treatment, disposal or monitoring facilities, the reasons for the loss of service, and action taken to restore and maintain service;
- vii. type and amount of daily, intermediate and final cover used;
- viii. maintenance and repairs performed on equipment employed at the *Site*;
- ix. complaints received and actions taken to resolve them;

- x. emergency situations and actions taken to resolve them; and
- xi. any other information required by the *Ministry*.

Site Inspections

10.5 During *Site* operations, the *Owner* shall inspect the *Site* monthly for the following items but not limited to these items:

- i. General settlement areas or depressions on the waste mound;
- ii. Shear and tension cracks on the waste mound;
- iii. Condition of surface water drainage works;
- iv. Erosion and sedimentation in surface water drainage system;
- v. Presence of any ponded water on the waste mound;
- vi. Adequacy of cover material;
- vii. Evidence of vegetative stress, distressed poplars or side slope plantings on or adjacent to the waste mound;
- viii. Condition of groundwater monitoring wells and gas wells;
- ix. Presence of insects, vermin, rodents and scavenging animals on or adjacent to the waste mound;
- x. Condition of fence surrounding the *Site*;
- xi. Condition of storage pond located near the *Waste Transfer/Processing Facility*; and,
- xii. General *Site* appearance.

10.6 The *Owner* shall inspect the waste mound and surrounding areas weekly for presence of leachate seeps. The *Owner* will make best efforts to repair leachate seeps within 48 hours of discovery, depending on weather and ground conditions. In the event the leachate seeps are not addressed within 48 hours of discovery, the *Owner* shall document in the daily log book the reasons for which the seep(s) were not repaired within the 48 hour timeframe.

Record Retention

10.7 Except as authorized in writing by the *Director*, all records required by this *ECA* shall be retained at the *Site* for a minimum of two (2) years from their date of creation.

10.8 The *Owner* shall retain all documentation listed in Schedule "A" for as long as this *ECA* is valid.

10.9 All monthly summary reports are to be kept at the *Site* until they are included in the Annual Report.

10.10 The *Owner* shall retain employee training records as long as the employee is working at the *Site*.

10.11 The *Owner* shall make all of the above documents available for inspection upon request of *Ministry* staff.

11.0 MONITORING

Groundwater Monitors

11.1 The *Owner* shall ensure all groundwater monitoring wells are properly capped, locked and protected from damage.

11.2 All groundwater monitoring wells whether included in the monitoring program or not shall be assessed, repaired, replaced or decommissioned as required. Any well being decommissioned shall be decommissioned in accordance with good standard practice that will prevent contamination through the abandoned well and in accordance with Ontario Regulation 903.

11.3 The *Owner* shall repair or replace any monitoring well included in the monitoring program which is destroyed or in any way made inoperable for sampling such that no more than one sampling event is missed.

11.4 Any monitoring well included in the monitoring program that is no longer required as part of the groundwater monitoring program may be decommissioned provided its removal from the monitoring program has been approved by the

Director. A report on the decommissioning shall be provided in the annual monitoring report for the period during which the well was decommissioned.

Monitoring Programs

11.5. (1) Monitoring programs shall be carried out by the *Owner* for groundwater, surface water, leachate, and landfill gas in accordance with Item 62 of Schedule "A".

(2) For any changes to the monitoring program, the *Owner* shall first obtain written approval by the *District Manager*, and then submit a letter identifying the proposed changes and a copy of the correspondences from the *District Manager*, to the *Director* requesting the *ECA* be amended to approve the proposed changes prior to implementation.

Compliance Criteria

11.6 The *Site* shall be operated in such a way to ensure compliance with the *MOECC's* Guideline B-7 Reasonable Use Concept at monitoring points along the property line that have the potential to be impacted by leachate from the *Site*.

Best Management Programs

11.7 (1) Best Management Plans shall be carried out by the *Owner* for dust, odour, combustion by-products, noise in accordance with Item 65 of Schedule "A".

(2) For any changes to the Best Management Plans, the *Owner* shall obtain written approval for the changes by the *District Manager* prior to implementation.

12.0 TRIGGER MECHANISMS AND CONTINGENCY PLANS

Trigger Mechanisms

12.1 In the event of a confirmed exceedance of a site-specific trigger levels for groundwater, surface water or landfill gas , the *Owner* shall complete the following:

- i. immediately notify the *District Manager*; and
- ii. an investigation into the cause and the need for implementation of remedial or contingency actions shall be carried out by the *Owner* in accordance with the approved trigger mechanisms and associated contingency plans described in Items 42 and 62 of Schedule "A".

Contingency Plans

12.2 If monitoring results, investigative activities and/or trigger mechanisms indicate the need to implement contingency measures, the *Owner* shall ensure that the following steps are taken:

- a. The *Owner* shall notify the *Director* and *District Manager*, in writing, of the need to implement contingency measures, no later than 30 days after confirmation of the exceedances;
- b. Detailed plans, specifications and descriptions for the design, operation and maintenance of the contingency measures shall be prepared and submitted by the *Owner* to the *Director* and *District Manager* for approval within 90 days after confirmation of the exceedances; and
- c. The contingency measures shall be implemented by the *Owner* upon approval by the *Director*.

12.3 The *Owner* shall ensure that any proposed changes to the site-specific trigger levels for leachate impacts to surface water or groundwater, shall be approved in advance by the *Director* prior to implementation.

13.0 COMPLAINTS PROCEDURE

13.1 If at any time, the *Owner* receives complaints regarding the operation of the *Site*, the *Owner* shall respond to these complaints according to the following procedure:

- a. The *Owner* shall record and number each complaint, either electronically or in a log book, and shall include the following information: the nature of the complaint, the name, address and the telephone number of the complainant if the complainant will provide this information and the time and date of the complaint;
- b. The *Owner*, upon notification of the complaint, shall initiate appropriate steps to determine all possible causes of the complaint, proceed to take the necessary actions to eliminate the cause of the complaint and forward a formal reply to the complainant; and
- c. The *Owner* shall complete a report written within one (1) week of the complaint date, listing the actions taken to resolve the complaint and any recommendations for remedial measures, and managerial or operational changes to reasonably avoid the recurrence of similar incidents. A copy of the report shall be retained onsite.

13.2 The *Owner* shall post the *Site* complaints procedure at the *Site* entrance along with the name and phone number of a suitable, local contact to receive complaints or questions related to the *Site*. All complaints and the *Owner's* actions taken to remedy the complaints must be summarized in the Annual Report.

13.3 All complaints received by the *Owner* are to be reported within twenty-four (24) hours of receipt to the *District Manager*. Complaints shall be reported to the PLC at the next PLC meeting.

Odour Referee

13.4 In the event of an odour complaint and the *Odour Referee* is called, the investigation conducted and decision made by the *Odour Referee* shall not constitute part of this *Approval*. In addition to the *Odour Referee*, the complaint shall also be reported to the *District Manager* for his/her investigation and determination of the compliance of the *Approval* and applicable regulations and standards.

14.0 EMERGENCY SITUATIONS

14.1 In the event of a fire or discharge of a contaminant to the environment, *Site* staff shall contact the *MOECC* Spills Action Centre (1-800-268-6060) and the *District Office* of the *MOECC*, as well as other applicable agencies as required.

14.2 The *Owner* shall submit to the *District Manager* a written report within three (3) days of the spill or incident, outlining the nature of the incident, remedial measures taken and measures taken to prevent future occurrences at the *Site*.

14.3 The *Owner* shall prepare an Emergency Response Manual for the *Site* and submit to the *District Manager* within 180 days of the issuance of this *ECA*, in consultation with local emergency response agencies. The Emergency Response Manual should indicate the responsibility of each of the stakeholders with respect to handling possible emergency situations.

14.4 The Emergency Response Manual shall be updated on an annual basis as a minimum and be provided to the *District Manager* within one month of the revision date.

14.5 The *Owner* shall ensure that adequate fire fighting and contingency spill clean up equipment is available and that emergency response personnel are familiar with its use and location.

15.0 ANNUAL REPORTING

15.1 A written report on the development, operation, closure and monitoring of the *Site* including the *Waste Transfer/Processing Facility*, shall be completed annually (the "Annual Report"). The Annual Report shall be submitted to the *District Manager*, *Regional Director*, the City of Ottawa, and the *PLC*, by **March 31st** of each year and shall cover the year ending the preceding December 31st.

15.2 The Annual Report shall include the following:

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- i. the results and an interpretive analysis of the results of all leachate, groundwater, surface water and landfill gas monitoring, including an assessment of the need to amend the monitoring programs;
- ii. An assessment with regards to compliance of the groundwater quality at the property boundary and compliance point with regards to Guideline B-7 - Reasonable Use Concept;
- iii. an assessment of the operation and performance of all engineered facilities, the need to amend the design or operation of the *Site*, and the adequacy of and need to implement the contingency plans;
- iv. an assessment of the efficiency of the leachate management at the *Site*;
- v. site plans showing the existing contours of the *Site*;
- vi. areas of excavation during the reporting period;
- vii. the progress of final cover, vegetative cover, and any intermediate cover application;
- viii. previously existing site facilities;
- ix. facilities installed during the reporting period;
- x. site preparations and facilities planned for installation during the next reporting period;
- xi. calculations of the volume of waste, daily and intermediate cover, and final cover deposited or placed at the *Site* during the reporting period and a calculation of the total volume of *Site* capacity used during the reporting period;
- xii. a summary of the quantity of any leachate or pre-treated leachate removed from the *Site* during each operating week;
- xiii. a summary of the weekly, maximum daily and total annual quantity (tonnes) of waste received at the *Site*.
- xiv. a summary of any complaints received and the responses made;
- xv. a discussion of any operational problems encountered at the *Site* and corrective action taken;
- xvi. a summary of the amount of wastes refused for disposal at the *Site*, the reasons for refusal and the carrier who brought the waste to the *Site*;
- xvii. a summary of the leachate collection system cleaning and inspection activities;
- xviii. an update summary of the amount of financial assurance which has been provided to the *Director*;
- xix. a report on the status of all monitoring wells and a statement as to compliance with Ontario Regulation 903;
- xx. any other information with respect to the site which the *District Manager or Regional Director may require from time to time*;
- xx. a statement of compliance with all conditions of this *ECA* and other relevant *Ministry* groundwater and surface water requirements;
- xx. a confirmation that the site inspection program as required by this *ECA* has been complied with by the *Owner*;
- xx. Any changes in operations, equipment or procedures employed at the *Site*;
- xx. Recommendations regarding any proposed changes in operations of the *Site*;
- xx. total volume of landfill gases collected during the reporting year expressed in cubic metres and adjusted to standard 25⁰C, 101.3 kPa;
- xx. percentage of methane contained in the collected gases expressed as an average value of the total volume of gases collected over the reporting period;
- xx. any changes to the gas collection system implemented over the reporting period including any extensions of the collection system, installation of new extraction wells, replacement wells, and any other extraction wells that have been mothballed or decommissioned;
- xx. any other changes to the gas collection and utilization system implemented over the reporting period including the utilization facility;
- xx. any updates to the inspection and maintenance plan as a result of changes made to the gas collection system during the reporting period; and
- xx. any updates to the Operations Manual.

16.0 SITE CLOSURE

16.1 At least two (2) years prior to closure or when 90% of the site capacity is reached, whichever comes first, the *Owner* shall submit to the *Director* for approval, with copies to the *District Manager*, the PLC, a detailed *Site* closure plan pertaining to the termination of landfilling operations at this *Site*, post-closure inspection, maintenance and monitoring, and end use. The plan shall include the following:

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- a) a plan showing *Site* appearance after closure;
- b) a description of the proposed end use of the *Site*, that shall include a discussion on the EA commitment to dedicate portion of the lands within the *Site* that are not required for site post-closure operations and monitoring, to be used for community recreational purpose.
- c) a description of the procedures for closure of the *Site*:
 - i. advance notification of the public of the landfill closure;
 - ii. posting a sign at the *Site* entrance indicating the landfill is closed and identifying any alternative waste disposal arrangements;
 - iii. completion, inspection and maintenance of the final cover and landscaping;
 - iv. site security;
 - v. removal of unnecessary landfill-related structures, buildings and facilities; and
 - vi. final construction of any control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
- d) a schedule indicating the time-period for implementing sub-conditions i) to vi) above.
- e) descriptions of the procedures for post-closure care of the *Site*, including:
 - i. Operation, inspection and maintenance of the control, treatment, disposal and monitoring facilities for leachate, groundwater, surface water and landfill gas;
 - ii. Record keeping and reporting; and
 - iii. Complaint contact and response procedures;
- f) an assessment of the adequacy of and need to implement the contingency plans for leachate and methane gas;
- g) an updated estimate of the *Contaminating Lifespan* of the *Site*, based on the results of the monitoring programs to date; and
- h) an update of the cost estimates for financial assurance and the amount which has been provided to the *Director* to date.

16.2 The *Site* shall be closed in accordance with the closure plan as approved by the *Director*.

16.3 Upon closure of the *Site*, the *Owner* shall update the sign at the front gate of the *Site* to indicate the following:

- i. the name of the *Site* and *Owner*;
- ii. the Environmental Compliance Approval number;
- iii. the name of the *Operator*;
- iv. a warning against unauthorized access;
- v. the telephone number to which complaints or questions may be directed;
- vi. 24 hour emergency telephone number;
- vii. the *Site* is closed;
- viii. dumping outside of the gate is illegal; and
- ix. alternative locations for waste disposal.

16.4 Upon closure of the *Site*, the following features will be inspected, recorded and maintained on a monthly basis:

- i. evidence of settlement;
- ii. evidence of leachate seeps;
- iii. cover soil integrity;
- iv. evidence of illegal waste dumping;
- v. vegetative cover; and
- vi. surface water drainage works.

16.5 Any deficiencies noted in the above items shall be repaired within one month time of notice.

16.6 Illegal waste shall be removed and disposed of within 48 hours of detection.

16.7 An inspection of the entire *Site* shall be conducted by the *Owner* twice per year.

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16.8 The *Owner* shall inspect ditches and surface water ponds on a yearly basis and shall clean as required.

16.9 The *Owner* shall inspect the pumps and leachate collection system on a yearly basis and shall clean as required.

16.10 The *Owner* shall abide by the equipment maintenance requirements for the landfill gas collection system as detailed in Table 7.1 of Item 27 of Schedule "A".

16.11 The *Owner* shall undertake Surface Emission Surveys at least twice per year and provide a report to the *District Manager* within one month of completion.

16.12 A vegetative cover consisting of vegetation that is suited to local conditions and that is capable with minimal care of providing vigorous, plentiful cover no later than its 3rd growing season shall be established over the entire landfill cover to control erosion and minimize evapotranspiration. The *Owner* shall complete planting as soon as possible after reaching final contours. The vegetative cover seed shall be in accordance with Ontario Provincial Standard Specifications and good practice.

16.13 If weather conditions do not allow timely placement of final and vegetative cover, silt curtains shall be employed to minimize silt loadings to surface water bodies.

16.14 The following shall remain in place and be operational at the site until the end of the *Contaminating Lifespan* unless approval is obtained from the *Director*:

- i. Leachate extraction equipment;
- ii. landfill gas extraction equipment; and
- iii. sedimentation ponds

Closure Plan for Waste Transfer/Processing Facility

16.15 (a) The *Owner* shall submit, for approval by the *Director*, a written Closure Plan at least six (6) months prior to the permanent closure of the *Waste Transfer/Processing Facility*. This plan must include, as a minimum, a description of the work that will be done to facilitate closure of the *Waste Transfer/Processing Facility* and a schedule for completion of that work; and

(b) Within ten (10) days after closure of the *Waste Transfer/Processing Facility*, the *Owner* shall notify the *Director*, in writing, that the *Waste Transfer/Processing Facility* is closed and that the *Waste Transfer/Processing Facility* Closure Plan has been implemented.

SCHEDULE "A"

1. Application for a Certificate of Approval for a Waste Disposal Site (Landfill) dated October 5, 1989.
2. The site design and operations report entitled "DESIGN AND OPERATIONS REPORT LAIDLAW LANDFILL WEST CARLETON, ONTARIO FINAL REPORT" prepared by Water and Earth Science Associates Ltd. and dated January, 1989.
3. The hydrogeological study of the area entitled "HYDROGEOLOGICAL STUDY LAIDLAW WASTE SYSTEMS LTD. LAIDLAW LANDFILL WEST CARLETON TOWNSHIP" prepared by Water and Earth Science Associates Ltd. and dated January, 1989.
4. The design report for the leachate collection system entitled "DESIGN REPORT Leachate Collection System Laidlaw Waste Systems (Ottawa) Ltd. Ottawa Landfill Final Report" prepared by Water and Earth Science Associates Ltd. and dated November, 1989.
5. Legal survey of the site entitled "PLAN OF SURVEY OF PART OF NORTH HALF OF LOT 4 CONCESSION 3 GEOGRAPHIC TOWNSHIP OF HUNTLEY NOW TOWNSHIP OF WEST CARLETON" prepared by V. Andrew Shelp,

Ontario Land Surveyor and dated June 18, 1993.

6. Final contours and site plan entitled "Landfill Final Contours Map Laidlaw Waste Systems (Ottawa) Ltd.", dated July 7, 1993 and prepared by Water and Earth Science Associates Limited.

7. Letter dated May 21, 2003 from Jessica Campbell, Director, Environmental Compliance, Canadian Waste Services Inc. to I. Parrott, MOE, re: request for emergency approvals.

8. Application for Amendment to Provisional Certificate of Approval No. 461002 (Waste Management of Canada Corporation's West Carleton Landfill Site) and supporting documentation dated September 2006 requesting the incorporation and approval of additional lands into the Certificate of Approval to address a contaminant attenuation zone issue. The application was signed by Mr. Michael Pullen, Sr. Group Director of Engineering, WMCC dated June 1, 2006. The supporting documentation included the following:

i. Report entitled "Supporting Documentation - Application to Amend Provisional Certificate of Approval Number A461002 - WM Ottawa Landfill Site" prepared for WMCC by WESA Ltd. dated September 2006.

9. Report entitled "Canada Waste Services Inc., Development & Operations, Update Report for Ottawa Landfill Site" dated April 7, 2003 prepared by Henderson, Paddon Environmental Inc.

10. The letter dated May 8, 2006 from Waste Management of Canada Corporation to the Ministry of the Environment withdrawing, from the above report, the Quebec Service Area for Contaminated Soils.

11. Report entitled "Odour Source Summary, Ottawa Landfill" report dated June 29, 2007, prepared by RWDI.

12. Report entitled "Ambient Air Quality Work Plan" dated September 20, 2007, prepared by RWDI.

13. Report entitled "Application for an Amendment to Provisional Certificate of Approval No. 461002 WM Ottawa Landfill" prepared by WESA dated August 2008.

14. Email dated September 4, 2008 addressed to Mr. Remi Godin, WMCC from Mr. Dale Gable, Ministry of the Environment requesting additional drawings and descriptions of the proposed facility and piping to and from the leachate collection system.

15. Email dated September 12, 2008 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Remi Godin, WMCC in response to comments from the Ministry of the Environment.

16. Email dated October 7, 2008 addressed to Mr. Rick Li, Ministry of the Environment from Mr. Remi Godin, WMCC in response to comments from the Ministry of the Environment.

17. Application for a Provisional Certificate of Approval for Waste Management of Canada Corporation's Carp Landfill Site signed and dated March 28, 2008.

18. Design Brief entitled "Landfill Gas 'Beanie' Cap Control System West Carleton Landfill" signed and stamped, dated March 28, 2008 prepared by Comcor Environmental Limited.

19. Letter dated August 7, 2008 from Greg Washuta, Senior Waste Engineer, Waste Unit, EAAB, MOE to Remi Godin, Senior District Engineer, WMCC.

20. Letter dated September 12, 2008 from Shannan McGarr, Comcor Environmental Limited to Remi Godin, Senior District Engineer, WMCC.

21. Application for a Provisional Certificate of Approval for Waste Management of Canada Corporation's West Carleton Landfill site signed by Reid Cleland and dated June 14, 2010.

22. Amended Design Brief entitled "Landfill Gas 'Beanie' Cap Control System West Carleton Landfill" dated June 11, 2010 prepared by Comcor Environmental Limited.

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23. Letter dated July 29, 2010 addressed to Rick Li, Ministry of the Environment from Wayne Jenken, Waste Management of Canada Corporation providing response to EBR comments and MOE review comments on the application for amendment to the "Beanie" Cap installation.
24. Report entitled "Final Closure Plan Ottawa Landfill Site Ottawa, Ontario Waste Management of Canada Corporation" and Appendices A to E inclusive dated March 28, 2008 and prepared by Henderson Paddon & Associates Limited.
25. Drawing Number 91712E-104 entitled "West Carleton Landfill Proposed Final Landfill Contours" dated November 1, 1994 prepared by Henderson Paddon Environmental Inc.
26. Letter dated December 16, 2009 from Greg Washuta, Senior Waste Engineer, Waste Unit, EAAB, MOE to Remi Godin, Senior District Engineer Eastern Canada, Waste Management of Canada Corporation.
27. Letter and Appendices A, B, E.1 and E.2 dated February 9, 2010 from Jeff Armstrong, GENIVAR to Greg Washuta, Senior Waste Engineer, Waste Unit, EAAB, MOE.
28. Document entitled "Table 8.1 (revised)" dated February 8, 2010 prepared by GENIVAR.
29. Letter dated January 7, 2011 from Reid Cleland, WMCC to Doris Dumais, Director, Approvals Program, EAAB, MOE, re: request for emergency approvals.
30. Letter dated March 7, 2011 from Reid Cleland, Director of Operations, Eastern Canada Area, Waste Management of Canada Corporation to Tesfaye Gebrezghi, Director, Environmental Assessment and Approvals Branch, Ministry of the Environment.
31. Document and Appendix A entitled "Supporting Document Application to Amend Provisional Certificate of Approval A461002 Waste Management Ottawa Landfill Site, Ref CB6096 CAZ Supporting Document-former Holcim-June2010.docx" prepared by WESA Inc., dated June 2010.
32. Application for a Provisional Certificate of Approval for a Waste Disposal site for Waste Management of Canada Corporation's Ottawa Landfill Site, signed and dated June 26, 2010, MOE Reference # 7217-874P5V.
33. Document and Appendix A entitled "Supporting Document Application to Amend Provisional Certificate of Approval A461002 Waste Management Ottawa Landfill Site, Ref CB6096 CAZ Supporting Document-former Metcalfe-July 2010.docx" prepared by WESA Inc., dated July 2010.
34. Application for a Provisional Certificate of Approval for a Waste Disposal site for Waste Management of Canada Corporation's Ottawa Landfill Site, signed and dated July 23, 2010, MOE Reference # 7332-87YRZ2.
35. Document and Appendix A entitled "Supporting Document Application to Amend Provisional Certificate of Approval A461002 Waste Management Ottawa Landfill Site, Ref CB6096 CAZ Supporting Document-former Tomlinson-June 2010.docx" prepared by WESA Inc., dated June 2010.
36. Application for a Provisional Certificate of Approval for a Waste Disposal site for Waste Management of Canada Corporation's Ottawa Landfill Site, signed and dated June 26, 2010, MOE Reference # 4716-874Q8R.
37. Document and Appendix A entitled "Supporting Document Application to Amend Provisional Certificate of Approval A461002 Waste Management Ottawa Landfill Site, Ref CB6096 CAZ Supporting Document-former Karson-June 2010.docx" prepared by WESA Inc., dated June 2010.
38. Application for a Provisional Certificate of Approval for a Waste Disposal site for Waste Management of Canada Corporation's Ottawa Landfill Site, signed and dated June 26, 2010, MOE Reference # 3244-874QMT.
39. Memorandum dated October 29, 2010 from F. Crossley, Hydrogeologist, Technical Support Section, Eastern Region, Ministry of the Environment to G. Davis, Senior Environmental Officer, Ottawa District Office, Ministry of the Environment.

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40. Letter dated November 2, 2010 from Greg Washuta, Senior Waste Engineer, Waste Unit, EAAB, MOE to Brad Muter, VP Eastern Canada, WMCC.
41. Letter dated December 2, 2010 from Ross Wallace, Site Manager, WMCC, Ottawa to Greg Washuta, Senior Waste Engineer, Waste Unit, EAAB, MOE.
42. Document entitled "Environmental Monitoring Plan WM Ottawa Landfill Ottawa, Ontario - Revision No. 2" dated May 18, 2011 prepared by WESA Inc.
43. Application for a Provisional Certificate of Approval for Waste Management of Canada Corporation's West Carleton Landfill site signed by Reid Cleland and dated June 14, 2010 (to replace Item 21 in Notice No.11 issued August 9, 2010).
44. Report entitled "Landfill Gas Collection and Flaring System Design Report Ottawa Landfill" dated June 2009 prepared by GENIVAR Consultants LP.
45. Letter dated June 22, 2010 addressed to Rick Li, Ministry of the Environment from Jeff Armstrong, GENIVAR providing response to MOE comments regarding the contingency plan, condensate collection, horizontal collector and proposed expansion in 2010 for the landfill gas system.
46. Design drawings for the landfill gas collection and flaring/utilization system:
- (1) Drawing No. 1712713-PGE "Proposed LFGCS Expansion June 2010, Ottawa Landfill" dated June 22, 2010 prepared by GENIVAR;
 - (2) Drawing No. 91712G-GC1 "Gas Collection As Built May 2009, Ottawa Landfill" dated June 23, 2009 prepared by GENIVAR;
 - (3) Drawing No. 91712G-CC1 "Condensate Collection As Built Drawing, Ottawa Landfill" dated June 23, 2009 prepared by GENIVAR; and
 - (4) Drawing No. 91712G-MMP "Monitoring Probe As Built February 2009, Ottawa Landfill" dated June 22, 2009 prepared by GENIVAR.
47. Letter dated February 4, 2011 addressed to Remi Godin, Waste Management of Canada Corporation from Rick Li, Ministry of the Environment providing comments on the proposed landfill gas expansion in 2010 and the condensate collection system.
48. Letter dated March 7, 2011 addressed to Rick Li, Ministry of the Environment from Jeff Armstrong, GENIVAR providing response to MOE comments (Item 47).
49. Application for Approval for a Certificate of Approval for a Waste Disposal Site and supporting documentation submitted by Waste Management of Canada Corporation signed January 31, 2011 by Beverly D Leno requesting approval for slope remedial works at the Ottawa Landfill Site. The supporting documentation included the following:
- i. Letter dated January 28, 2011 addressed to Tesfaye Gebrezghi, Ministry of the Environment from Mr. Reid Cleland, Waste Management of Canada Corporation providing the submission to satisfy former Conditions No.47 and 49.
 - ii. Letter dated January 28, 2011 addressed to Mr. Reid Cleland, Waste Management of Canada Corporation from Mr. Jeff Armstrong, GENIVAR Inc. providing information to satisfy former Conditions 47 and 49.
50. Letter dated April 4, 2011 addressed to Mr. Reid Cleland, Waste Management of Canada Corporation from Mr. Dale Gable, Ministry of the Environment requesting additional information on the proposed remedial works.
51. Letter dated April 6, 2011 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Reid Cleland, Waste Management of Canada Corporation providing additional details on the remedial work plan.
52. Report dated April 1, 2011 addressed to Mr. Tes Gebrezghi, Ministry of the Environment from Mr. Reid Cleland, Waste Management of Canada Corporation addressing the proposed Waste Transfer/Processing Facility.

53. Letter dated May 25, 2011 addressed to Mr. Reid Cleland, Waste Management of Canada Corporation from Mr. Dale Gable, Ministry of the Environment requesting additional information on the Waste Transfer/Processing Facility.

54. Letter dated June 6, 2011 addressed to Mr. Dale Gable, Ministry of the Environment from Ms. Katrina DiRenzo-McGrath, Waste Management of Canada Corporation providing additional information on the Waste Transfer/Processing Facility.

55. Letter dated March 24, 2011 addressed to Director, Environmental Assessment and Approvals Branch, Ministry of the Environment from Mr. Michael Gundry, AECOM Canada providing supporting documentation for a proposed leachate pre-treatment facility prior to discharge to the sanitary sewer. The supporting documentation included the following:

- i. Application for a Provisional Certificate of Approval for a Waste Disposal dated March 25 and signed by Mr. Reid Cleland, Waste Management of Canada Corporation;
- ii. Letter report dated November 1, 2010 entitled "Ottawa Landfill Leachate Treatment System Conceptual Design Report" addressed to Mr. Wayne Jenken, WMCC from Mr. Michael Gundry, AECOM Canada.
- iii. Drawing No. IND entitled "Ottawa Landfill Leachate Treatment System - Drawing Index" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- iv. Drawing No. LEG entitled "Ottawa Landfill Leachate Treatment System - Legend and Abbreviations" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- v. Drawing No. G01 entitled "Ottawa Landfill Leachate Treatment System - Location Plan" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- vi. Drawing No. G02 entitled "Ottawa Landfill Leachate Treatment System - Site Plan" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- vii. Drawing No. S01 entitled "Ottawa Landfill Leachate Treatment System - Process Building Foundation Plan, Sections and Details" prepared by AECOM Canada (Project no. 60156478) dated May 15, 2011.
- viii. Drawing No. S02 entitled "Ottawa Landfill Leachate Treatment System - Process Building Typical Details, General Notes, Sections and Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- ix. Drawing No. P01 entitled "Ottawa Landfill Leachate Treatment System - Flow Diagram" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- x. Drawing No. P02 entitled "Ottawa Landfill Leachate Treatment System - Process Building Ground Floor Plan" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xi. Drawing No. P03 entitled "Ottawa Landfill Leachate Treatment System - Process Building Sections" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xii. Drawing No. P04 entitled "Ottawa Landfill Leachate Treatment System - Process Building Sections" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xiii. Drawing No. P05 entitled "Ottawa Landfill Leachate Treatment System - Equalization and Effluent Tanks Plans and Sections" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xiv. Drawing No. P06 entitled "Ottawa Landfill Leachate Treatment System - SBR Tank Plan and Section" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xv. Drawing No. P07 entitled "Ottawa Landfill Leachate Treatment System - Sludge Tank Plan and Section" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xvi. Drawing No. P08 entitled "Ottawa Landfill Leachate Treatment System - Miscellaneous Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xvii. Drawing No. M01 entitled "Ottawa Landfill Leachate Treatment System - Process Building Legend and Schedules" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xviii. Drawing No. M02 entitled "Ottawa Landfill Leachate Treatment System - Process Building Floor Plan" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xix. Drawing No. M03 entitled "Ottawa Landfill Leachate Treatment System - Process Building Diagrams and Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xx. Drawing No. E01 entitled "Ottawa Landfill Leachate Treatment System - Overall Site Plan Legend and Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxi. Drawing No. E02 entitled "Ottawa Landfill Leachate Treatment System - Site Plans and Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxii. Drawing No. E03 entitled "Ottawa Landfill Leachate Treatment System - Single Line Diagram" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.

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- xxiii. Drawing No. E04 entitled "Ottawa Landfill Leachate Treatment System - Floor Plan - Lighting Layout" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxiv. Drawing No. E05 entitled "Ottawa Landfill Leachate Treatment System - Floor Plan - Power and Instrumental Layout" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxv. Drawing No. E06 entitled "Ottawa Landfill Leachate Treatment System - General Drawing Index" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxvi. Drawing No. E07 entitled "Ottawa Landfill Leachate Treatment System - Installation Details" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxvii. Drawing No. E08 entitled "Ottawa Landfill Leachate Treatment System - Electrical Control Diagrams" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.
- xxviii. Drawing No. E09 entitled "Ottawa Landfill Leachate Treatment System - Instrumentation Control Panel, I/O List and Diagrams" prepared by AECOM Canada (Project no. 60156478) dated May 31, 2011.

56. Letter dated June 15, 2011 addressed to Mr. Reid Cleland, Waste Management of Canada Corporation from Mr. Dale Gable, Ministry of the Environment requesting additional information on proposed leachate pre-treatment system.

57. Letter dated June 24, 2011 addressed to Mr. Dale Gable, Ministry of the Environment from Mr. Michael Gundry, AECOM Canada providing a response to Item 56 above. Supporting Documentation included the following:

- i. Drawing No. G01 entitled "Ottawa Landfill Leachate Treatment System - Location Plan" prepared by AECOM Canada (Project no. 60156478) dated June 20, 2011.
- ii. Drawing No. G02 entitled "Ottawa Landfill Leachate Treatment System - Site Plan" prepared by AECOM Canada (Project no. 60156478) dated June 20, 2011.
- iii. Drawing No. S01 entitled "Ottawa Landfill Leachate Treatment System - Process Building Foundation Plan, Sections and Details" prepared by AECOM Canada (Project no. 60156478) dated June 20, 2011.
- iv. Drawing No. S02 entitled "Ottawa Landfill Leachate Treatment System - Process Building Typical Details, General Notes, Sections and Details" prepared by AECOM Canada (Project no. 60156478) dated June 20, 2011.

58. Environmental Compliance Approval Application for "West Carleton Environmental Centre, Ottawa - New Landfill Footprint" signed by Reid Cleland dated August 20, 2014.

59. Report entitled "Development & Operations Report West Carleton Environmental Centre" dated July 2014 prepared by WSP Canada Inc.

60. Report entitled "Hydrogeologic Assessment Report, Proposed West Carleton Environmental Centre Landfill, Ottawa, Ontario" dated July 2014 prepared by WESA.

61. Report entitled "Surface Water Assessment for the West Carleton Environmental Centre Landfill, Ottawa, Ontario" dated July 2014 prepared by AECOM Canada Ltd.

62. Report entitled "Environmental Monitoring Plan, Groundwater, Surface Water, Leachate & Subsurface Gas Components, West Carleton Environmental Centre, Ottawa, Ontario" dated October 2015 prepared by BluMetric Environmental Inc.

63. Report entitled "West Carleton Environmental Centre Ambient Air Quality Monitoring Program Version 1" dated July 30 2014 prepared by RWDI.

64. Report entitled "West Carleton Environmental Centre Noise Monitoring Program Version 1" dated July 30 2014 prepared by RWDI.

65. Best Management Practice Plan Reports, WCEC that include the following:

- (1) "Groundwater Best Management Practices Plan, West Carleton Environmental Centre, Ottawa, Ontario" dated July 2014 prepared by WESA.
- (2) "Best Management Practices Plan (Surface Water, Sediment & Erosion Control), West Carleton Environmental Centre,

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Ottawa, Ontario" dated July 2014 prepared by WSP Canada Inc.

(3) "West Carleton Environmental Centre, Biology Best Management Plan" dated July 2014 prepared by AECOM Canada Ltd.

(4) "Integrated Gull Management Plan, Waste Management of Canada Corporation, West Carleton Environmental Centre" dated August 2014 prepared by Beacon Environmental.

(5) "Best Management Practices Plan (Dust), West Carleton Environmental Centre Landfill" dated July 30, 2014 prepared by RWDI Air Inc.

(6) "Best Management Practices Plan (Odour and LFG), West Carleton Environmental Centre" dated July 30, 2014 prepared by RWDI Air Inc.

(7) "Best Management Practices Plan (Combustion By-Products), West Carleton Environmental Centre Landfill" dated July 30, 2014 prepared by RWDI Air Inc.

(8) "Noise Best Management Practices Plan (Odour and LFG), West Carleton Environmental Centre" dated July 30, 2014 prepared by RWDI Air Inc.

(9) "Odour Enforcement Mechanism", Waste Management of Canada Corporation.

66. Report entitled "Financial Assurance Report, West Carleton Environmental Centre" dated April 2015 prepared by WSP Canada Inc.

67. Letter dated March 10, 2015 addressed to Reid Cleland, Waste Management of Canada Corporation from Dale Gable, Ministry of the Environment and Climate Change providing comments on the application for landfill expansion.

68. Letter dated April 16, 2015 addressed to Dale Gable, Ministry of the Environment and Climate Change from Reid Cleland, Waste Management of Canada Corporation providing a response to the Ministry's review comments.

69. Letter dated August 21, 2015 addressed to Reid Cleland, Waste Management of Canada Corporation from Rick Li, Ministry of the Environment and Climate Change Regarding groundwater and surface water comments on the application for landfill expansion.

70. Document dated August 26, 2015 WSP #131-19416-00 - WSP Response to Rick Li, MOECC, Comments Contained in Letter to Reid Cleland, Director of Operations – Eastern Canada Landfills, WMCC Dated August 21, 2015.

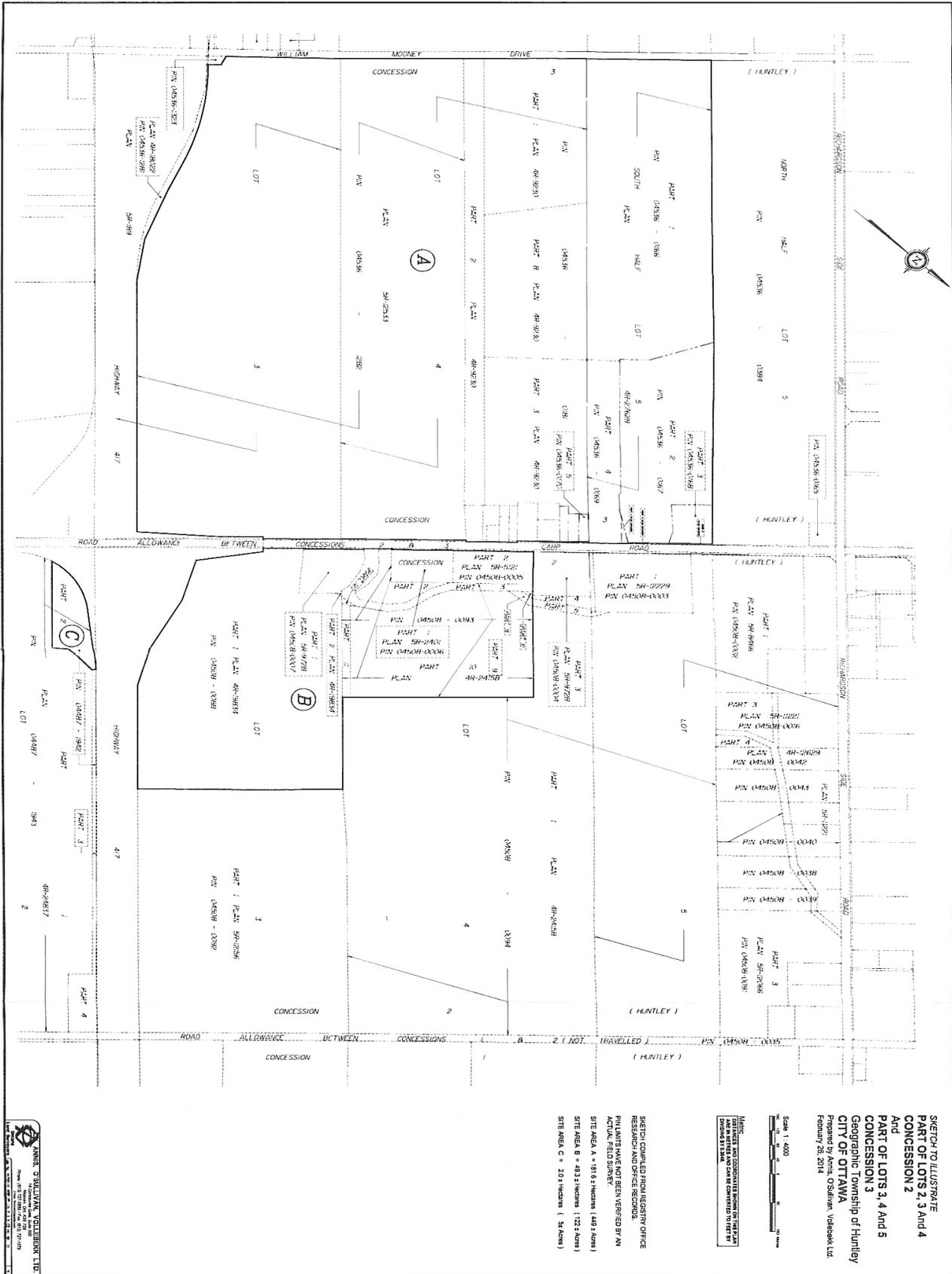
71. Memorandum dated September 4, 2015 to Tim Murphy, Waste Management Canada Corporation from Karen Greer and David Harding, BluMetric Environmental Inc. regarding Response to MOECC Comments.

72. Letter dated September 9, 2015 addressed to Reid Cleland, Waste Management of Canada Corporation from Rick Li, Ministry of the Environment and Climate Change Regarding comments on the D & O Report for landfill expansion.

73. Document dated September 16, 2015 WSP #131-19416-00 - WSP Response to Rick Li, MOECC, Comments Contained in Letter to Reid Cleland, Director of Operations – Eastern Canada Landfills, WMCC Dated September 9, 2015.

SCHEDULE "B"

B-1 Legal Survey of the Site



B-2 Legal Description of the Site (includes Parcels "A", "B", and "C")

A. Lands Identified as Parcel "A"

1. PIN 04536-0166 (LT), being Part of Lot 5, Concession 3, (Geographic Township of Huntley), now in the City of

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Ottawa, designated as Part 1 on Plan 5R-10801.

2. PIN 04536-0167 (LT), being Part of Lot 5, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Parts 2 and 3 on Plan 5R-10801.

3. PIN 04536-0168 (LT), being Part of Lot 5, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 1 on Plan 5R-3716.

4. PIN 04536-0169 (LT), being Part of Lot 5, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Parts 1 and 2 on Plan 5R-11322.

5. PIN 04536-0170 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument N731718.

6. PIN 04536-0171 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument NS253990.

7. PIN 04536-0172 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instruments CT157338 and CT157339, save and except lands set out in Instrument CT157340.

8. PIN 04536-0723 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 1 on Plan 5R-4345 and Part 1 on Plan 4R-14182.

9. PIN 04536-0399 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument NS138205, save and except Part 1 on Plan 4R-14182.

10. PIN 04536-0175 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument CT256061.

11. PIN 04536-0176 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument N299777.

12. PIN 04536-0177 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument N299973.

13. PIN 04536-0181 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Parts 1, 2, 3, 4, 5, 6, 7 and 8 on Plan 4R-9230.

14. PIN 04536-0392 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument N765624.

15. PIN 04536-1282 (LT), being Part of Lots 3 and 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 1 on Plan 5R- 12533, save and except Parts 1 and 2 on Plan OC536758.

16. PIN 04536-0180 (LT), being Part of Lot 4, Concession 3, (Geographic Township of Huntley), now in the City of Ottawa, as set out in Instrument N765631.

B. Lands Identified As Parcel "B"

1. PIN 04508-0005 (LT), being Part of Lot 4, Concession 2, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 2 on Plan 5R-5121.

2. PIN 04508-0006 (LT), being Part of Lot 4, Concession 2, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 1 on Plan 5R-2401.

3. PIN 04508-0007 (LT), being Part of Lots 3 and 4, Concession 2, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 1 on Plan 5R-9728, together with a right-of-way as set out in Instrument N359845.

4. PIN 04508-0088 (LT), being Part of Lot 3, Concession 2, (Geographic Township of Huntley), now in the City of

Ottawa, designated as Parts 1 and 2 on Plan 4R-19834, together with a right-of-way as set out in Instrument N359617 and subject to a right-of-way as set out in Instruments N359617, N359845 and N464480.

5. PIN 04508-0093 (LT), being Part of Lot 4, Concession 2, (Geographic Township of Huntley), now in the City of Ottawa, designated as Parts 2, 3, 6, 8, 9, 10, 11 and 12 on Plan 4R-24158, subject to easements as set out in Instruments N359617, N359845, N464480 and OC1084547.

C. Lands Identified as Parcel "C"

1. Part of PIN 04487-1942 (LT), being Part of Lot 2, Concession 2, (Geographic Township of Huntley), now in the City of Ottawa, designated as Part 2 on Plan 4R-24837, subject to easements as set out in Instruments CR1194798 and CT1194800, and together with an easement as set out In Instrument CT1194799.

The reasons for the imposition of these terms and conditions are as follows:

- 1. The reason for inclusion of the definitions is to define the specific meaning of terms and simplify the wording of conditions in this Environmental Compliance Approval.*
- 2. The reason for Conditions 1.1, 1.2 and 1.4 is to ensure that the Site is designed, operated, monitored and maintained in accordance with the application and supporting documentation submitted by the Owner, and not in a manner which the Director has not been asked to consider.*
- 3. The reason for Conditions 1.3, 1.5, 1.6, 1.10, 1.11, 1.12, 1.13 and 1.14 is to clarify the legal rights and responsibilities of the Owner under this Approval.*
- 4. Conditions 1.7 and 1.8 are included to ensure that the appropriate Ministry staff have ready access to information and the operations of the Site, which are approved under this ECA.*
- 5. Condition 1.9 has been included in order to clarify what information may be subject to the Freedom of Information Act.*
- 6. Conditions 1.15 to 1.17 inclusive are included, pursuant to subsection 197(1) of the EPA, to provide that any persons having an interest in the Site are aware that the land has been approved and used for the purposes of waste disposal.*
- 7. The reasons for Condition 1.18 are to restrict potential transfer or encumbrance of the Site without the approval of the Director and to ensure that any transfer of encumbrance can be made only on the basis that it will not endanger compliance with this Approval.*
- 8. The reasons for Conditions 1.19 and 1.20 are to ensure that the Site is operated under the corporate name which appears on the application form submitted for this approval and to ensure that the Director is informed of any changes.*
- 9. The reason for Condition 1.21 is to ensure that appropriate Ministry staff have ready access to the Site for inspection of facilities, equipment, practices and operations required by the conditions in this Environmental Compliance Approval. This condition is supplementary to the powers of entry afforded a Provincial Officer pursuant to the EPA and OWRA.*
- 10. The reasons for Conditions 2.1 to 2.8 inclusive are to ensure that sufficient funds are available to the Ministry to close the landfill, and to carry out all expected post-closure care activities and any contingencies. Failure to include requirements for financial assurance would not be in the public interest and may result in a hazard or nuisance to the natural environment or any person.*
- 11. The reason for Conditions 3.1 to 3.5, 13.1 and 13.2 is to establish a forum for the exchange of information and public dialogue on activities carried out at the landfill Site. Open communication with the public and local authorities is important in helping to maintain high standards for site operation and environmental protection.*
- 12. The reason for Conditions 4.1 to 4.7 is to ensure that the Site is designed, constructed and operated in an environmentally acceptable manner, based on the conceptual design and operations for the Site.*

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13. *The reason for Condition 4.8 is to ensure the availability of as-built drawings for inspection and information purposes.*
14. *Conditions 5.1, 6.1, 7.1 and 11.6 are included in order to ensure that waste disposal, waste transfer operations at the site is undertaken in accordance with applicable Ministry of the Environment regulations and guidelines. Compliance with these regulations and guidelines will ensure that the site does not cause and adverse effect on the environment.*
15. *Conditions 5.2, 5.3, and 7.7 are to ensure the Owner has a operations plans for the site that details all current operations at the site and that a copy is kept on site for the Owner, the Owner's staff and/or operator. This is to ensure the site is operating in a safe manner and the environment and human health are protected.*
16. *The reason for Conditions 5.4, 6.3, 6.4, 7.2 and 7.3 is to specify the approved areas from which waste may be accepted at the Site and the types and amounts of waste that may be accepted for disposal at the Site, based on the Owner's application and supporting documentation.*
17. *The reasons for Conditions 5.5, 5.6, 5.7, 5.8 and 7.6 are to specify the normal hours of operation for the landfill Site and a mechanism for amendment of the hours of operation.*
18. *The reasons for Conditions 5.9, 5.10 and 7.14 are to specify site access to/from the Site and to ensure the controlled access and integrity of the Site by preventing unauthorized access when the Site is closed and no site attendant is on duty.*
19. *The reason condition 5.11 has been included is to ensure that access roads are clear and do not pose a safety hazard to the general public.*
20. *Condition 5.12 is to ensure that the Site operation does not cause local traffic congestion.*
21. *Condition 5.13 is necessary in order to ensure that all waste loads are inspected and waste that is disposed of at the site is in accordance with the terms and conditions in this Environmental Compliance Approval.*
22. *The reasons for Conditions 5.14, 5.15, 5.16, 5.18, 7.1, and 7.13 are to ensure that the Site is operated, inspected and maintained in an environmentally acceptable manner and does not result in a hazard or nuisance to the natural environment or any person.*
23. *The reasons for Condition 5.17 are the protection of public health and safety and minimization of the potential for damage to environmental control, monitoring and other works at the landfill Site. Scavenging is the uncontrolled removal of material from waste at a landfill site.*
24. *The reason for Condition 5.20 is to ensure that noise from or related to the operation of the landfill is kept to within Ministry limits and does not result in a hazard or nuisance to any person.*
25. *The reason for Condition 5.21 is to ensure the Owner decommissions all water supply wells and no new water supply wells in the contaminant attenuation zone as indicated in the application submission. The condition is also to ensure the Owner is aware that it needs to provide alternative water supply to company effected by the decommissioning of the water supply wells. This is to ensure long-term health and safety of the public and the environment.*
26. *The reason for Condition 5.22 is to reflect operation procedures for receiving contaminated soil. This is to ensure the long term protection of the environment and human health.*
27. *The reason for Condition 5.23 is to ensure that no composting operation shall be carried out on site.*
28. *The reason for Condition 6.2 is to specify restrictions on the extent of landfilling at this Site based on the Owner's application and supporting documentation. These limits define the approved volumetric capacity of the site. Approval to landfill beyond these limits would require an application with supporting documentation submitted to the Director.*
29. *The reason for Condition 6.5 is to ensure the Ministry is informed when the new landfilling area opens to receive waste.*
30. *The reason for Condition 6.6 is that open burning of municipal waste is unacceptable because of concerns with air emissions, smoke and other nuisance affects, and the potential fire hazard.*
31. *The reason for Conditions 6.7 to 6.12 is to ensure asbestos waste is handled and disposed of in accordance with O.*

CONTENT COPY OF ORIGINAL

Reg. 347 as amended from time to time. Proper handling and disposal of asbestos waste ensures that the asbestos waste does not cause an adverse impact on the environment and also does not affect human health.

- 32. The reason for Condition 6.13 is to ensure that appropriate approval is obtained by the Owner for the handling of international waste.*
- 33. The reason for Conditions 6.14 to 6.21 is to ensure that landfilling operations are conducted in an environmentally acceptable manner. Daily and intermediate cover is used to control potential nuisance effects, to facilitate vehicle access on the site, and to ensure an acceptable site appearance is maintained. The proper closure of a landfill site requires the application of a final cover which is aesthetically pleasing, controls infiltration, and is suitable for the end use planned for the site.*
- 34. The reason for Conditions 6.22 and 6.23 is to ensure that users of the Site are fully aware of important information and restrictions related to Site operations under this ECA.*
- 35. The reason for Condition 6.24 and 6.25 is to ensure concentration of landfill gas does not pose a hazard to human health or the environment.*
- 36. The reason for Conditions 6.26 and 6.27 is to ensure that surface water from the Site is properly managed and does not pose an impact to the environment.*
- 37. The reason for Condition 6.28 is to ensure that there is a person, reporting directly to the Ministry, with associated costs reimbursed by the Owner, to carry out necessary site inspection to ensure that the Site is operated in an environmentally acceptable manner based on the requirements in this Approval.*
- 38. The reason for Conditions 6.29 and 6.30 is to require that the air space consumption is regularly monitored to ensure the site is developed in accordance with the approved site plan.*
- 39. The reason for Conditions 6.31 to 6.35 is to ensure the mini-transfer area is operated in a manner that does not cause an impact on the environment and public health.*
- 40. The reasons for Conditions 7.4 and 7.5 is to specify the amount of waste that can be stored at the facility and the steps to be taken should the facility reach that amount.*
- 41. The reason for Conditions 7.8, 7.9, 7.10, 7.11 and 7.12 is to identify where waste may be unloaded and stored.*
- 42. The reason for Conditions 7.16, 7.17, 7.18 and 10.2 through 10.11 is to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Environmental Compliance Approval (such as fill rate, site capacity, record keeping, annual reporting, and financial assurance requirements), the EPA and its regulations.*
- 43. The reason for Conditions 8.1 to 8.4 is to ensure that the leachate collection system is build in accordance with the Regulation and the Ministry's standards.*
- 44. The reason for Condition 8.5 is to incorporate the proposed construction of the SBR Leachate Pre-Treatment Facility into the ECA based on the submitted information. This is to ensure the protection of the environment and human health.*
- 45. The reason for Condition 8.6 is to ensure an operation and maintenance plan is available for the SBR leachate treatment facility.*
- 46. The reason for Condition 8.7, 8.8 and 8.9 is to ensure that the landfill gas collection system is constructed in accordance with the information submitted to the Director and not in a manner that the Director has not been asked to consider, and to allow improvements to the landfill gas collection system be implemented as required.*
- 47. The reason for Condition 8.10 is to ensure that the landfill liner system is constructed in accordance with the information submitted to the Director and in a manner complies with the Ministry's Regulation and standards.*
- 48. The reason for Condition 9.1 is to ensure that the Site is supervised and operated by properly trained staff in a manner which does not result in a hazard or nuisance to the natural environment or any person.*
- 49. Condition 10.1, 10.5 and 10.6 is needed to ensure regular inspections of the site are conducted in order to protect the*

natural environment.

50. The reason for Conditions 10.2, 10.3 and 10.4 is to ensure that detailed records of Site inspections are recorded and maintained for inspection and information purposes.

51. The reason for Conditions 10.7 to 10.11 is to ensure that accurate waste records are maintained to ensure compliance with the conditions in this Environmental Compliance Approval (such as fill rate, site capacity, record keeping, annual reporting, and financial assurance requirements), the EPA and its regulations.

52. The reasons for Conditions 11.1 through 11.4 are to ensure the integrity of the groundwater monitoring network and protection of the natural environment.

53. The reason for Conditions 11.5 and 11.6 is to demonstrate that the landfill site is performing as designed and the impacts on the natural environment are acceptable. Regular monitoring allows for the analysis of trends over time and ensures that there is an early warning of potential problems so that any necessary remedial/contingency action can be taken.

54. The reason for Conditions 11.7 is to ensure that the site is managed in a manner that minimizes nuisance. This is for the protection of the public health and the environment.

55. The reason for Conditions 12.1 through 12.3 is to ensure that the Owner follows a plan with an organized set of procedures for identifying and responding to unexpected but possible problems at the Site. A remedial action / contingency plan is necessary to ensure protection of the natural environment.

56. The reason for Conditions 13.1 and 13.2 is to ensure that any complaints regarding landfill operations at this Site are responded to in a timely and efficient manner.

57. The reasons for Conditions 14.1 through 14.5 are to ensure that the Ministry is informed of any spills or fires at the Site and to provide public health and safety and environmental protection.

58. The reasons for Conditions 15.1 and 15.2 are to ensure that regular review of site development, operations and monitoring data is documented and any possible improvements to site design, operations or monitoring programs are identified. An annual report is an important tool used in reviewing site activities and for determining the effectiveness of site design.

59. The reasons for Conditions 16.1 through 16.14 are to ensure that final closure of the Site is completed in an aesthetically pleasing manner and to ensure the long-term protection of the natural environment.

60. The reason for Condition 16.15 is to ensure the waste transfer and processing facility is closed in an appropriate manner.

61.

Upon issuance of the environmental compliance approval, I hereby revoke Approval No(s). A461002 issued on September 8, 2011

In accordance with Section 139 of the Environmental Protection Act, you may by written Notice served upon me and the Environmental Review Tribunal within 15 days after receipt of this Notice, require a hearing by the Tribunal. Section 142 of the Environmental Protection Act provides that the Notice requiring the hearing shall state:

- 1. The portions of the environmental compliance approval or each term or condition in the environmental compliance approval in respect of which the hearing is required, and;*
- 2. The grounds on which you intend to rely at the hearing in relation to each portion appealed.*

Pursuant to subsection 139(3) of the Environmental Protection Act, a hearing may not be required with respect to any terms and conditions in this environmental compliance approval, if the terms and conditions are substantially the same as those contained in an approval that is amended or revoked by this environmental compliance approval.

The Notice should also include:

3. The name of the appellant;
4. The address of the appellant;
5. The environmental compliance approval number;
6. The date of the environmental compliance approval;
7. The name of the Director, and;
8. The municipality or municipalities within which the project is to be engaged in.

And the Notice should be signed and dated by the appellant.

This Notice must be served upon:

The Secretary*
Environmental Review Tribunal
655 Bay Street, Suite 1500
Toronto, Ontario
M5G 1E5

AND

The Director appointed for the purposes of Part II.1 of the
Environmental Protection Act
Ministry of the Environment and Climate Change
135 St. Clair Avenue West, 1st Floor
Toronto, Ontario
M4V 1P5

*** Further information on the Environmental Review Tribunal's requirements for an appeal can be obtained directly from the Tribunal at: Tel: (416) 212-6349, Fax: (416) 326-5370 or www.ert.gov.on.ca**

The above noted activity is approved under s.20.3 of Part II.1 of the Environmental Protection Act.

DATED AT TORONTO this 13th day of November, 2015

Dale Gable, P.Eng.
Director
appointed for the purposes of Part II.1 of the
Environmental Protection Act

RL/
c: District Manager, MOECC Ottawa
Peter Brodzikowski, WSP Canada Inc.

APPENDIX B

Proof of Legal Name



Ministry of Government Services Ministère des Services gouvernementaux

ServiceOntario ServiceOntario

Central Production and Verification Services Branch Direction des services centraux de production et de vérification

(mailing address) (adresse postale)
393 University Avenue, Suite 200 393, avenue University, bureau 200
Toronto ON M5G 2M2 Toronto ON M5G 2M2
(physical address) (adresse municipale)
375 University Avenue, 2nd floor 375, avenue University, 2^e étage



MARCH 06, 2013

Corporations Information Act

Your Reporting Requirements

WASTE MANAGEMENT OF CANADA
CORPORATION
117 WENTWORTH COURT
BRAMPTON ON L6T 5L4

This is your Ontario Corporation Number (OCN)

1892256

Regulations require that this number is stated in all notices submitted under the *Corporations Information Act*. This number must be stated in ALL correspondence with the Central Production and Verification Services Branch.

Initial Return

The Initial Return you just filed has generated an Ontario Corporation Number and created a file for the public record for your corporation.

Notice of Change

In addition to the Initial Return you have recently filed, you are required to file a Notice of Change for every change in the information **within 15 days** after the change or changes take place. There is no fee for filing these notices.

Forms

Forms may be obtained from the Ministry at the above noted address or by calling (416) 314-8880, 1-800-361-3223 or TTY (416) 325-3408, 1-800-268-7095. Forms are also available on the Ministry's website at www.ontario.ca. To access the forms, select 'For Business' option at the top of the Ministry's home page.

Business Name

- (a) No corporation shall carry on business in Ontario or identify itself to the public in Ontario by a name other than its corporation name unless the name is first registered. The appropriate registration form may be obtained from the Central Production and Verification Services Branch or by calling one of the above noted telephone numbers.
- (b) A corporation which has registered and uses a name other than its corporate name is required to set out its corporate name and all registered business names on all contracts, invoices, negotiable instruments and orders for goods or services.

Penalties

Sections 13 and 14 of the *Corporations Information Act* provide penalties for contravening the Act or Regulations.

Section 18(1) of the Act provides that a corporation that is in default of a requirement under this Act to file a notice or that has unpaid fees or penalties is not capable of maintaining a proceeding in a court in Ontario in respect of the business carried on by the corporation except with leave of the court.

Copies of the *Corporations Information Act*, the *Corporations Act* and the *Business Corporations Act* may be obtained from ServiceOntario Publications, by calling (416) 326-5300 or toll-free at 1-800-668-9938. They can also be ordered online via the ServiceOntario Publications website at www.publications.serviceontario.ca. The Acts are also available at no charge on the Internet at www.e-laws.gov.on.ca.

APPENDIX C

Notice of Approval EAA



ENVIRONMENTAL ASSESSMENT ACT

SECTION 9

NOTICE OF APPROVAL TO PROCEED WITH THE UNDERTAKING

RE: An Environmental Assessment for a New Landfill Footprint at the West Carleton Environmental Centre (Amended January 21, 2013)

Proponent: Waste Management of Canada Corporation

EA File No.: EA-02-08-02

TAKE NOTICE that the period for requesting a hearing, provided for in the Notice of Completion of the Review for the above-noted undertaking, expired on April 2, 2013.

I received one submission requesting a hearing by the Environmental Review Tribunal.

I consider a hearing to be unnecessary in this case. Having considered the purpose of the Environmental Assessment Act, the approved Terms of Reference, the Amended Environmental Assessment, the Ministry Review of the Environmental Assessment and submissions received, I hereby give approval to proceed with the Undertaking, subject to the conditions set out below.

REASONS

My reasons for giving approval are:

- (1) The proponent has complied with the requirements of the Environmental Assessment Act.
- (2) The Amended Environmental Assessment has been prepared in accordance with the approved Terms of Reference.
- (3) On the basis of the proponent's Amended Environmental Assessment and the Ministry Review, the proponent's conclusion that, on balance, the advantages of this undertaking outweigh its disadvantages appears to be valid.
- (4) No other beneficial alternative method of implementing the undertaking was identified.
- (5) The proponent has demonstrated that the environmental effects of the undertaking can be appropriately prevented, changed, mitigated, or remedied.
- (6) On the basis of the proponent's Amended Environmental Assessment, the Ministry Review and the conditions of approval, the construction, operation and maintenance of the undertaking will be consistent with the purpose of the Environmental Assessment Act (section 2).
- (7) The government agency, public and Aboriginal review of the Amended Environmental Assessment has indicated no outstanding concerns that cannot be addressed through commitments made in the Amended Environmental Assessment, through the conditions set out below, or future additional approvals that will be required.
- (8) The submissions received after the Notice of Completion of the Review was published are being dealt with through commitments made in the Amended Environmental Assessment, through the conditions set out below, or future additional approvals that will be required. I am not aware of any outstanding issues with respect to this undertaking which suggest that a hearing should be required.

CONDITIONS

The approval is subject to the following conditions:

1. Definitions

For the purposes of these conditions:

"CLC" means the Community Liaison Committee.

"construction" means physical construction activities, including, site preparation works, but does not include tendering of contracts.

"date of approval" means the date on which the Order in Council was approved by the Lieutenant Governor.

"Director" means the Director of the Environmental Approvals Branch.

"EAB" means the Environmental Approvals Branch of the Ministry of the Environment.

"environmental assessment" means the document titled West Carleton Environmental Centre New Landfill Footprint Environmental Assessment (as amended January 21, 2013).

"ministry" means the Ministry of the Environment.

"Notice" means this Notice of Approval to Proceed with the Undertaking.

"program" means compliance monitoring program.

"proponent" means Waste Management of Canada Corporation.

"Regional Director" means the Director of the ministry's Eastern Regional Office.

"site" means

- o the entire waste disposal site, including the buffer lands, located on Lots 3 and 4, Concession 3, in the former Township of Huntley, formerly in the Township of West Carleton, now the City of Ottawa; and,
- o the contaminant attenuation zone (CAZ), including portions of 2301, 2330, 2104, 2326 and 2300 Carp Road, located on Part of Lot 4, Concession 2, Part of Lot 3, Concession 2, and Part of Lot 2, Concession 2, in the former Township of Huntley, formerly in the Township of West Carleton, now in the City of Ottawa.

"undertaking" means the construction and operation of a new landfill footprint at the site, and as more specifically set out in the environmental assessment.

2. General Requirements

- 2.1 The proponent shall carry out the undertaking in accordance with the environmental assessment which is hereby incorporated in this approval by reference except as provided in these conditions and as provided in any other approval or permit that may be issued for the site.
- 2.2 The proponent shall fulfill all commitments made during the environmental assessment process.
- 2.3 The conditions set out in this Notice do not prevent more restrictive conditions being imposed under other statutes.

3. Public Record

- 3.1 Where a document is required for the public record, the proponent shall provide two copies of the document to the Director: a copy for the public record file maintained for the undertaking and a copy for staff use.

- 3.2 The EAB file number EA-02-08-02 shall be quoted on all documents submitted to the ministry pursuant to this Notice.
- 3.3 For every document submitted to the ministry, the proponent shall clearly identify which condition the document is meant to fulfill
- 3.4 Documents may be provided electronically where appropriate. The ministry may request that the document be provided in hardcopy.

4. Compliance Monitoring Program

- 4.1 The proponent shall prepare and submit to the Director for the public record, an environmental assessment compliance monitoring program.
- 4.2 The program shall be submitted to the Director within one year from the date of approval, or 60 days before the commencement of construction, whichever is earlier.
- 4.3 The program shall include monitoring of the proponent's implementation of the undertaking in accordance with the environmental assessment and the conditions in this Notice with respect to mitigation measures, public consultation, and additional studies and work to be carried out. The program shall also include monitoring of compliance with all commitments made in the environmental assessment and the subsequent review of the environmental assessment and the approval process for the environmental assessment with respect to mitigation measures, public consultation, and additional studies and work to be carried out.
- 4.4 The program must contain an implementation schedule.
- 4.5 The Director may require the proponent to amend the program. The program, as it may be amended by the Director, must be carried out by the proponent.
- 4.6 The proponent shall make the program documentation available to the ministry or its designate upon request in a timely manner when so requested by the ministry.

5. Compliance Reporting

- 5.1 The proponent shall prepare an annual compliance report which describes the proponent's compliance with the conditions in this Notice and the results of the program.
- 5.2 The annual compliance report shall be submitted for the public record on or before March 31 of each year, with the first report being due in 2014, and shall cover all activities of the previous calendar year.
- 5.3 The proponent shall submit annual compliance reports until all conditions are satisfied.
- 5.4 When all conditions have been satisfied, the proponent shall indicate in the annual compliance report that it is the final annual compliance report.
- 5.5 The proponent shall retain, either on site or in another location approved by the Director, copies of the annual compliance reports for each reporting year and any associated documentation of compliance monitoring activities.

5.6 The proponent shall make the compliance reports and supporting documentation available to the ministry or its designate upon request in a timely manner when requested to so by the ministry.

6. Community Liaison Committee

6.1 The proponent shall establish and maintain a CLC in respect of the undertaking to provide a forum for public concerns to be raised and for mitigation measures to be discussed where appropriate.

6.2 If there is no interest from the public in continuing the existing CLC or establishing and participating in a new CLC (once sufficient notice has been given) it may be discontinued. If discontinued the proponent shall publish a notice at least annually inviting expressions of interest in establishing or re-establishing the CLC.

6.3 If continued or re-established, the CLC shall serve as the focal point for dissemination, review and exchange of information and monitoring results relevant to the undertaking.

6.4 If there is interest in forming a CLC and members are willing to serve, the CLC shall be established.

6.5 The proponent shall provide administrative support for the CLC including, at minimum:

- a) providing CLC meeting space;
- b) preparing and publishing meeting notices;
- c) recording minutes of each meeting; and,
- d) preparing an annual report to be submitted as part of Compliance Reporting as required by Condition 5.

7. Complaint Protocol

7.1 The proponent shall prepare and implement a protocol on how it will deal with and respond to inquiries and complaints with respect to the undertaking.

7.2 The proponent shall submit the Complaint Protocol to the Director at least 6 months prior to the start of construction.

7.3 The Director may require the proponent to amend the Complaint Protocol at any time. Should an amendment be required, the Director shall notify the proponent in writing of the amendment required and when the amendment must be completed.

7.4 The proponent shall submit the amended Complaint Protocol to the Director within the time period specified by the Director.

7.5 The proponent shall implement the Complaint Protocol and any amendments to it.

8. Groundwater and Surface Water Monitoring Plan

- 8.1 The proponent shall prepare and submit to the Regional Director a draft Groundwater and Surface Water Monitoring Plan for review and comment prior to the commencement of construction of the undertaking. The Regional Director may require the proponent to amend the plan.
- 8.2 The proponent shall post the draft Groundwater and Surface Water Monitoring Plan on the proponent's website for the undertaking for a period of thirty days for review and public comment. The proponent shall take any comments received into consideration prior to finalizing the plan. Once finalized, the proponent shall implement the plan.
- 8.3 Any monitoring reports prepared by the proponent in accordance with the Groundwater and Surface Water Monitoring Plan shall be made publicly available on the proponent's website for the undertaking.

9. Species at Risk Mitigation, Compensation and Monitoring Plans

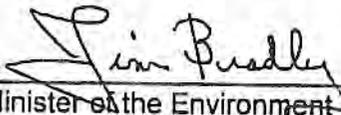
- 9.1 The proponent shall develop and implement a Bank Swallow Mitigation, Compensation and Monitoring Plan in consultation with Environment Canada and the Ontario Ministry of Natural Resources prior to the commencement of construction of the undertaking.
- 9.2 The Bank Swallow Mitigation, Compensation and Monitoring Plan shall include measures to mitigate impacts of the undertaking on the species, compensate for unavoidable adverse impacts and detail monitoring requirements.
- 9.3 The proponent shall conduct on-site surveys to determine the presence of Barn Swallow habitat on-site in consultation with the Ontario Ministry of Natural Resources.
- 9.4 Should Barn Swallow habitat be present, the proponent shall comply with the requirements of the Endangered Species Act, 2007.
- 9.5 The proponent shall conduct on-site surveys to determine the presence of Flooded Jellyskin habitat on-site in consultation with the Ontario Ministry of Natural Resources prior to the commencement of construction of the undertaking.
- 9.6 Should the presence of Flooded Jellyskin habitat be present, the proponent shall comply with the requirements of the Endangered Species Act, 2007.

10. Property Value Protection Plan

- 10.1 The proponent shall implement the Property Value Protection Plan as described in Appendix D – Community Commitments of the environmental assessment.

- 10.2 Should additional studies required for future approvals under the Environmental Protection Act indicate potential impacts to the value of a property; the proponent shall identify the potentially impacted properties by municipal address in the Property Value Protection Plan and shall notify the owners of the properties.

Dated the 16th day of August 2013 at TORONTO.


Minister of the Environment
77 Wellesley Street West
11th Floor, Ferguson Block
Toronto, Ontario
M7A 2T5

Approved by O.C. No. 1228/2013

Date O.C. Approved August 28, 2013

APPENDIX D

Pre-application Consultation Record



Pre consultation with the MOECC – Greg Davis Aug 16, 2016 @330 pm.

Greg Davis from MOECC, Bill McDonough and Ross Wallace from WM and Karen Greer from BluMetric

Meeting bullet points;

- Closure report March 28, 2008 Henderson and Patten does it reference if impacted soils can be used? Does it define soils (contaminated etc.)? Report is listed in Schedule A of the ECA as #24. We can amend the definition of “soils” in the closure plan to include contaminated soils (>Table 7).
- Gregg sent Ross the ECA for the BFI facility. Soil processing in the ECA for the site (it was done through and amendment) as well as an ECA for Air (Reg 419 ESDM). They do everything on their liner. Ross to send to Karen.
- Overall plan is to amend the ECA to have several options with non-specific language;
 - 1- Receiving site for soils to put on the old landfill (800,000m³ in settlement). If soils meet Table 7 they go straight on the landfill (no storage or processing).
 - 2- Use of soil / stock pile of soils on-site for re-use when and where needed (construction of the new landfill, berms, lagoons etc.). if soils meet Table 7 get stock piled in the low area on the south side of the landfill (or suggest a few places?). No pad under the soils (<Table7) is required. The soils accepted are not to take away from the overall approved capacity for the site and soils can be used anywhere (on-site / off-site).
- Soils for which PHC do not meet Table 7 to be accepted for soil processing. Soil processing to be completed on a pad if off foot print. If on the foot print the soils can be taken anywhere. Don't specify within the purge well containment (may turn off the purge wells in future). Once meets Table 7 can feed into options (i.e. 1 or 2 defined above) as clean soils.
- Will need to complete ESDM as per Reg 419. Put in ECA that within 60 days of the ECA issued the ESDM will be completed (don't want an ECA Air approval to get suck in the Q) to assess the impacts and establish mitigation (and amend the ECA if required?).
- Push that the plan is to reduce waste going into landfill to maximise capacity and life span as well as putting soils to good use in a controlled environment.

The plan is to put an ECA amendment application together and send draft to MOECC for review. Gregg is happy to help / consult with approvals as needed (request the same reviewer as for the current ECA etc.).

APPENDIX E

Consultation / Notification Documentation





Dec 20th, 2016

Dear Neighbor,

**Re: Application for Amendment to Environmental Compliance Approval No A461002 Issued
Date: November 13, 2015 for Waste Disposal Site (landfill and processing)**

Waste Management of Canada Corporation is applying for an Environmental Compliance Approval (ECA) amendment for the West Carleton Environmental Centre (WCEC) Waste Disposal Site (landfill and processing).

The reason to amend the ECA is as follows,

- 1- **To allow stockpiling of clean soil for use on-site, including but not limited to activities such as berm construction, landscaping, maintenance materials (including existing landfill) or as determined to be needed on the site.**
- 2- **To allow for soil processing including the use and operation of a Soil Treatment Pad to process contaminated soil already received at the landfill site for use on-site, as defined above.**

The overall objective of the Soil Management and Processing on the site is to allow for a reduction in waste going into landfill, with the diversion of soils in order to maximize capacity and life span as well as putting soils to good use in a controlled environment.

A package has been prepared in support of the ECA amendment to provide the technical information required. The package includes details around the proposed changes to soil management on-site, rational for the change as well as operational details. The proposed operational layout of the Soil Management and Soil Processing is provided as well as detailed design of the Soil Processing Facility and associated Storm Water Management Brief.

The package also contains a site plan, location plan, zoning map, proof of legal name; proof of Environmental Assessment Approval; and a pre-application consultation record.

Sincerely,

Ross Wallace | District Manager
P: 613-831-3565 | C: 613-371-1689 | F: 613-831-8928 | E: rwallac3@wm.com

WM West Carleton Environmental Centre (WCEC) | 2301 Carp Rd | Carp, ON K0A 1L0

Christie Ryan

From: French, Wayne - WBK <WFrench@wm.com>
Sent: December-20-16 9:25 AM
To: Marilyn.Journeaux@ottawa.ca
Cc: Wallace, Ross
Subject: FW: Soil Amendment
Attachments: WCEC TS Station ECA Amendment for Soil- PLC Cover Letter May 12 2016 (Draft).docx

Morning Marilyn,

We are submitting a soil application to the MOE to amend our ECA. The attachment is a brief outline by Ross Wallace and we plan to have a PLC meeting in January or February to discuss the application and update the committee. I will forward you a copy of the application when it is completed and submitted.

If you have any questions, please contact Ross or I.

Have a Very Merry Christmas.

Sincerely
Wayne

From: French, Wayne - WBK
Sent: Tuesday, December 20, 2016 9:00 AM
To: allan.hubley@ottawa.ca; Bob Hillary (bob.hillary@sympatico.ca) <bob.hillary@sympatico.ca>; Councillor Eli El-Chantiry <Eli.El-Chantiry@ottawa.ca>; Councillor Marianne Wilkinson <Marianne.Wilkinson@ottawa.ca>; Councillor Shad Qadri <Shad.Qadri@ottawa.ca>; Greg Leblanc <greg.leblanc@sympatico.ca>; Jana Makusova <jmakusova@yahoo.ca>; Janet Mason <masonjl@xplornet.com>; Lauren Ashe <ashe.lauren@gmail.com>; Scott Moffatt <Scott.Moffatt@ottawa.ca>; Wallace, Ross <RWallac3@wm.com>
Cc: Ginny Barlow <GBarlow@prpgrp.com>
Subject: Soil Amendment

Good Morning Folks,

Please be advised that Waste Management is planning to submit to the Ministry of Environment a soil amendment application to our ECA. A high-level outline by Ross of the soil amendment application is attached. We are in the midst of completing the application and when it is completed and submitted to the MOE it will be posted on our website. A PLC meeting is being planned for January or February to discuss this and to update the committee.

I wish you all a Very Merry Christmas and the Best of the New Year.

Sincerely,
Wayne

Christie Ryan

From: French, Wayne - WBK <WFrench@wm.com>
Sent: December-20-16 9:00 AM
To: allan.hubley@ottawa.ca; Bob Hillary (bob.hillary@sympatico.ca); Councillor Eli El-Chantiry; Councillor Marianne Wilkinson; Councillor Shad Qadri; Greg Leblanc; Jana Makusova; Janet Mason; Lauren Ashe; Scott Moffatt; Wallace, Ross
Cc: Ginny Barlow
Subject: Soil Amendment
Attachments: WCEC TS Station ECA Amendment for Soil- PLC Cover Letter May 12 2016 (Draft).docx

Good Morning Folks,

Please be advised that Waste Management is planning to submit to the Ministry of Environment a soil amendment application to our ECA. A high-level outline by Ross of the soil amendment application is attached. We are in the midst of completing the application and when it is completed and submitted to the MOE it will be posted on our website. A PLC meeting is being planned for January or February to discuss this and to update the committee.

I wish you all a Very Merry Christmas and the Best of the New Year.

Sincerely,
Wayne

SECTION 3

Storm Water Management Design Brief





MEMORANDUM

Date: 23 December 2016
To: Waste Management of Canada Corporation (WM)
From: BluMetric Environmental Inc.
Project No: 160486
Re: **Stormwater Management Design Brief,
Proposed Soil Management and Processing Facility
West Carleton Environmental Center, Ottawa, Ontario**

INTRODUCTION

BluMetric Environmental Inc. (BluMetric™) was retained by Waste Management of Canada Corporation (WM) to assist with an application to the Ontario Ministry of Environment and Climate Change (MOECC) to amend the current Environmental Compliance Approval (ECA) for a Waste Disposal Site (WDS) No. A461002, issued November 13, 2015 for the West Carleton Environmental Centre (WCEC), herein referred to as the “site”.

This Stormwater Management (SWM) design brief was prepared in support of the proposed ECA amendment for the addition of a Soil Management and Processing Facility as an additional site operational function.

The site is located adjacent to Carp Road and Highway 417 at the westerly end of Ottawa at 2301 Carp Road in Ottawa, Ontario or on Parts of Lots 2, 3, and 4 Concession 2 and Parts of Lots 3, 4, and 5 Concession 3 located in the former Township of Huntley, formerly the Township of West Carleton and now the City of Ottawa

EXISTING CONDITIONS

The Soil Management and Processing Facility is proposed to be located in the south west portion of the site, immediately west of the closed south cell and south of the current biosolids storage area (which is immediately south of the existing landfill).

Figure 1 shows the existing conditions in the vicinity of the proposed soil management and processing facility. Figure 8.1, Pre-Development Drainage Areas (WSP, 2014, attached for reference) shows the existing drainage of the site. The majority of the existing drainage from the area of the proposed Soil Management and Processing Facility flows to the existing stormwater pond #2. A small portion of the existing drainage flows to the west into the swamp. There are existing drainage ditches located to the east and north of the proposed soil management and processing facility location.

The groundwater table elevation in the area of the proposed Soil Management and Processing Facility is at approximately 125.60 m asl.

PROPOSED CONDITIONS

Figure 2, Proposed Conditions, illustrates the processing facility and its accompanying drainage. The proposed processing facility will include an impermeable pad and a series of collection ditches encompassing the pad. The pad surface will be gravel and an impermeable liner will be placed approximately 0.5 m below the finished surface. The impermeable liner will extend below the collection ditch system. The ditches will be vegetated.

The pad and the surrounding ditch system will be built of clean imported engineered fill material. Minimum separation of 1.0 metres from the groundwater elevation is respected as per the Ministry of the Environment Stormwater Design Guidelines.

PAD GRADING AND DRAINAGE

The proposed pad area is 12,500 m². It is graded with a high point approximately at the middle of the pad. The pad slopes towards collection ditches located at the west, south and east boundaries of the pad at a minimum slope of 1%. No collection ditch will be located at the north boundary of the pad, as such the pad has a reduced slope in that direction. An earthen containment berm running along its northern limit will redirect the flow either east or west towards to collection system. All rainfall collected on-site sheet flows to the surrounding ditches.

A 300 mm high berm will be installed on the outer perimeter of the collection ditches to provide a buffer on the storage capacity. The berm on the northern portion will be 500 mm high.

Access to the pad will be from the north. The access road will be designed to maintain the integrity of the 500 mm high berm on the northern portion.

SEDIMENT CONTROL

Sediment control is achieved through series of clear stone buffers as well as detention time within the collection ditches. As the runoff sheets off the pad it is conveyed through a clear stone buffer at the edge of the pad. The buffer will provide first stage of sediment removal. Once the runoff passes through the stone buffer it enters the ditch collection system.

STORMWATER DISCHARGE

All of the stormwater that collects within the processing facility will be contained and manually pumped to the leachate management system. There will be no positive outlet from the facility with the exception of an emergency overflow for storms greater than the 1 in 100 year storm.

Manual pumps will be utilized to draw water from the sumps located in each of the west, south, and east ditches. A dedicated force main will be installed between the soil processing facility and the existing leachate management system. A portable pump will be used to manually pump out the ditch collection system on a regular basis.

The existing site generates leachate by two means, purge wells and raw leachate from a liner on part of the existing site. These two streams are blended and discharged to the City of Ottawa sewer system, in accordance with the site discharge agreement.

An existing poplar plantation has been constructed on part of the Closed South Cell, comprising approximately 6.2 ha. The present irrigation system has service from pumping station PS4 at the southeast corner of the existing site. The forest is irrigated during the growing season, with a total application of approximately 0.43 m/year, allowing for disposal of up to approximately 18,100 m³ of contaminated liquid at full capacity, comprising either leachate or purge well liquids or a blend of same.

The stormwater runoff collected in the Soil Processing Facility will be added to the existing leachate management system. The ultimate disposal will either be to the City of Ottawa sanitary sewer system (by way of the forcemain).

The existing flows to be discharged to the City of Ottawa sanitary sewer can be summarized as follows (WSP, 2014):

Source	Leachate Flow (L/s)
Leachate from existing lined site	0.78
Leachate from expansion site - maximum flow during development	2.1
Existing purge well flow	6.60
Total Flow	9.48
Maximum Discharge to City of Ottawa Sanitary Sewer Allowable	14.7
Additional Capacity	5.22

There will be capacity of 5.22 L/sec available for discharge of the stormwater runoff from soil processing facility. This is the minimum flow that is expected to be available at the period when the maximum flows from the expansion site are expected.

There is a potential for a future increase in purge well flow of 3.13 L/sec. The need to expand the purge well system has not been confirmed and will be based on results of on-going groundwater monitoring. Should these purge wells be required, the capacity to manage runoff from the Soil Processing Facility would be reduced to 2.09 L/s.

The total area of the pad and collection ditches will be 17,500 m². The average annual precipitation for the site is 944 mm; therefore a total of 16,520 m³ of runoff will have to be handled per year.

The pumping frequency from the processing facility to the leachate management system will be dependent on the precipitation. To estimate the average pumping rate, it is assumed that the Soil Processing Facility will operate 39 weeks per year, and pumping will occur for 8 hours, three days per week. The average flow rate is estimated to be 4.9 L/s. The pump and associated forcemain will have the capacity to pump out the 100 year storm volume (2,000 m³) in 108 hours of continuous pumping, which is a rate of 5.1 L/sec.

STORMWATER DESIGN

The design storms implemented in the proposed design are 100 and 5 year return, 24 hour duration. The IDF curves for the storms are obtained from The Ministry of Transportation Ontario webpage on November 11, 2016. The curve parameters are listed below.

$$\begin{array}{ll}
 100 \text{ year} & i=43.9*td^{-0.699} \\
 5 \text{ year} & i=26.3*td^{-0.699}
 \end{array}$$

The resulting rainfall depths for the design periods are 114.3 mm and 68.5 mm for 100 and 5 year storms, respectively. The total volumes of runoff generated are 2,000 m³ for 100 year storm and 1,198 m³ for 5 year storm. The volume figures also include rain quantity generated over the footprint of the collection ditches. Since the drainage system does not have a positive outlet, no storm routing was implemented and all volume generated on site is stored in the collection ditch. The collection ditch is sized to fully contain 5 year storm at 0.7 m depth with a 300 mm freeboard at the pad. The proposed collection ditch total volume is 2,090m³ at 1.0 m depth. **Table 1 Storm Results** summarizes the results.

Table 1: Storm Results

Storm Event	Storm Volume Generated (m ³)	Depth of Water in Collection Ditch (m)
100y	2,000	0.972
5y	1,198	0.688

Appendix A – Stormwater Calculations shows detailed hydraulic calculations for each rain event as well as collection ditch capacities.

An overland spillway will be provided at an elevation above 100 year storm. The overland spillway will be directed across the access road, located at the east limit of the pad.

CONSTRUCTION SEDIMENT AND EROSION CONTROL

Standard sediment and erosion control will be implemented during the construction of the pad and its appurtenances. This will include a perimeter sediment fencing installed prior to preparation and removal of any other unsuitable material from the site. All stormwater discharge from the site during construction will be treated through the use of temporary sediment traps, rock check dams, and straw bales to ensure minimal sediment is discharged into the environment.

CLOSING

Please do not hesitate to contact the undersigned if you have any questions regarding this information.

Respectfully submitted,
BluMetric Environmental Inc.



Karen Greer for:
Tom Gmyrek
Environmental Consultant

Encl.

Ref: 160486 SWM Memo Dec 22 2016



Michael L. Duchene, M.A.Sc., P.Eng.
Senior Environmental Engineer

REFERENCES

WSP 2014, Development & Operations Report West Carleton Environmental Centre, report prepared for Waste management Canada Corporation, prepared by WSP Canada Inc., July 2014.

APPENDIX A

Stormwater Calculations

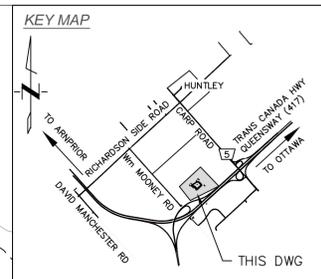
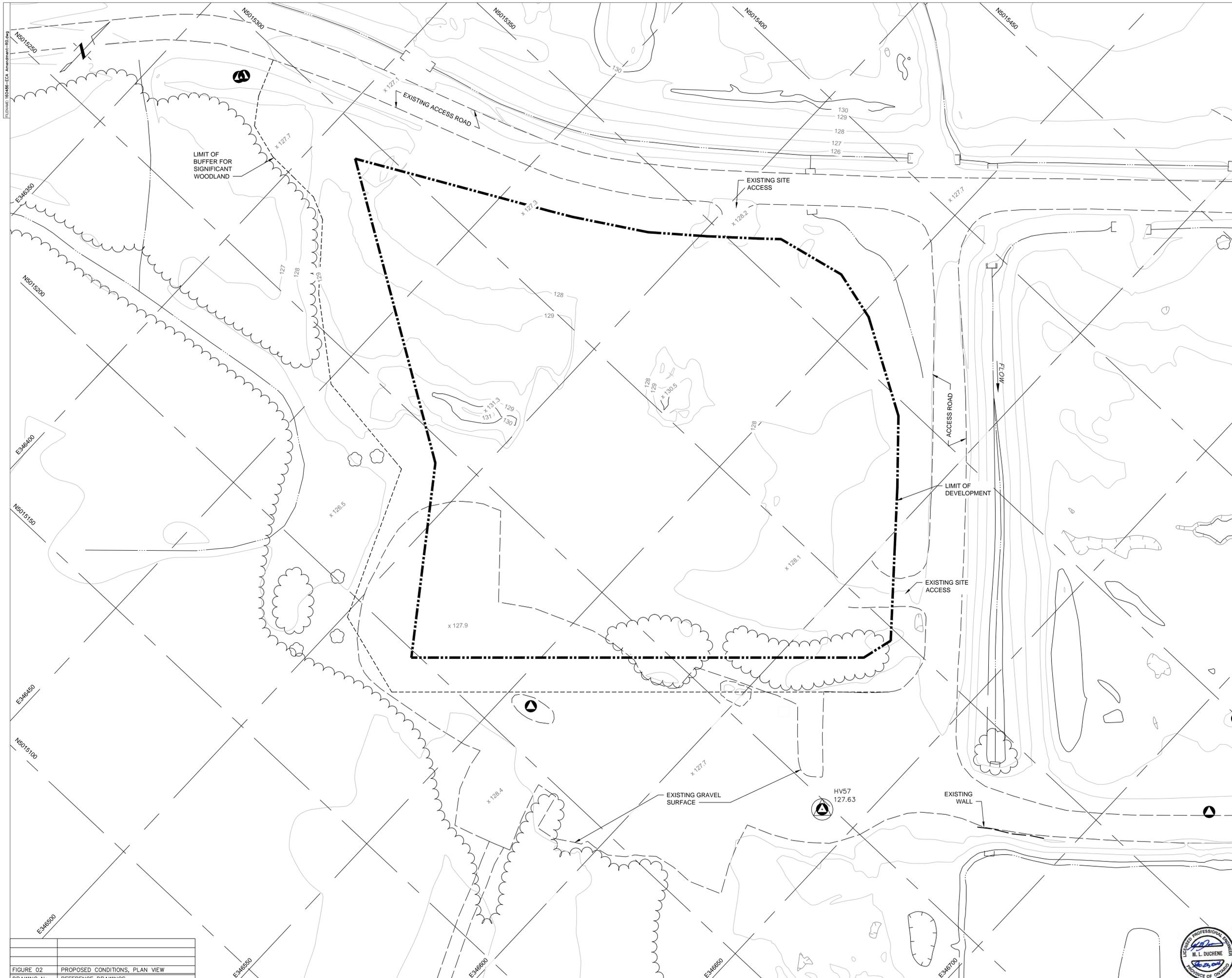
Storm Event			
IDF Curve Parameters			
$i=A*td^B$			
Storm Return	1:100y		1:5y
A	43.9		26.3
B	-0.699		-0.699
td: Duration Time	24 h		24 h
i: Intensity	4.8 mm/h		2.9 mm/h
Total Rainfall Depth	114.3 mm		68.5 mm

Catchment Hydrology			
100 y Storm Runoff Volume From Site			
V=tot. rainfall depth * A	Pad		Collection Ditch
A: Catchment Area	12500 m2		5000 m2
V: Storm Runoff Volume	1428.3 m3		571.3 m3
Total Volume To Be Stored in Facility and Pad		1999.6	m3
5 y Storm Runoff Volume From Site			
V=tot. rainfall depth * A	Pad		Collection Ditch
A: Catchment Area	12500 m2		5000 m2
V: Storm Runoff Volume	855.7 m3		342.3 m3
Total Volume To Be Stored in Facility Only		1197.9	m3

Collection Ditch Capacities		
Total Length	373	m
Minimum Depth	1	m
Side Slope	3	:1
Base Width	2.6	m
Total Storage Volume	2089.98	m3
Freeboard	0.30	m
Total Active Storage (not including freeboard)	1227.86	m3
5y Total Site Runoff Volume	1197.9	m3
100y Total Site Runoff Volume	1999.6	m3

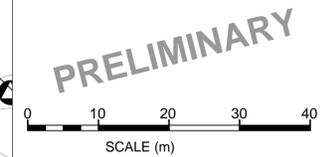
APPENDIX B

Drawing Set



- GENERAL NOTES:**
1. ALL DIMENSIONS ARE METRIC AND SHOWN IN METRES (UNLESS NOTED OTHERWISE).
 2. NORTHINGS AND EASTINGS ARE IN METRES.
 3. ELEVATIONS ARE IN METRES, RELATIVE TO THE LOCAL DATUM. CONTOURS ARE IN 1 METRE INTERVALS.

- LEGEND:**
- LIMIT OF DEVELOPMENT
 - - - - - EXISTING ACCESS ROAD
 - — — — — EXISTING CULVERT
 - · — · — EXISTING DITCH CENTRELINE
 - — — — — EXISTING GROUND SURFACE CONTOURS, 1.0m INTERVALS
 - - - - - LIMIT OF BUFFER FOR SIGNIFICANT WOODLAND
 - x 130.5 EXISTING SPOT ELEVATION
 - ⊙ EXISTING HORIZONTAL AND VERTICAL CONTROL
 - ⊙ EXISTING WELL
 - ☁ EXISTING LIMIT OF VEGETATION
 - - - - - EDGE OF GRAVEL ROAD



REV.	DESCRIPTION	YY/MM/DD	BY	CHK
0	ISSUED FOR ECA APPLICATION	16/12/22	DRR	TG

CLIENT: **WM WASTE MANAGEMENT** WASTE MANAGEMENT

PROJECT: WEST CARLETON ENVIRONMENTAL CENTRE SOIL PROCESSING FACILITY

TITLE: EXISTING CONDITIONS PLAN VIEW

PROJECT # 160486 DATE 2016-12-14 SCALE AS SHOWN

DRAWN BY DRR CHECKED BY TG APPROVED BY KG DRAWN DATE 2016-12-14

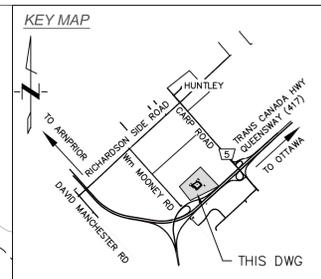
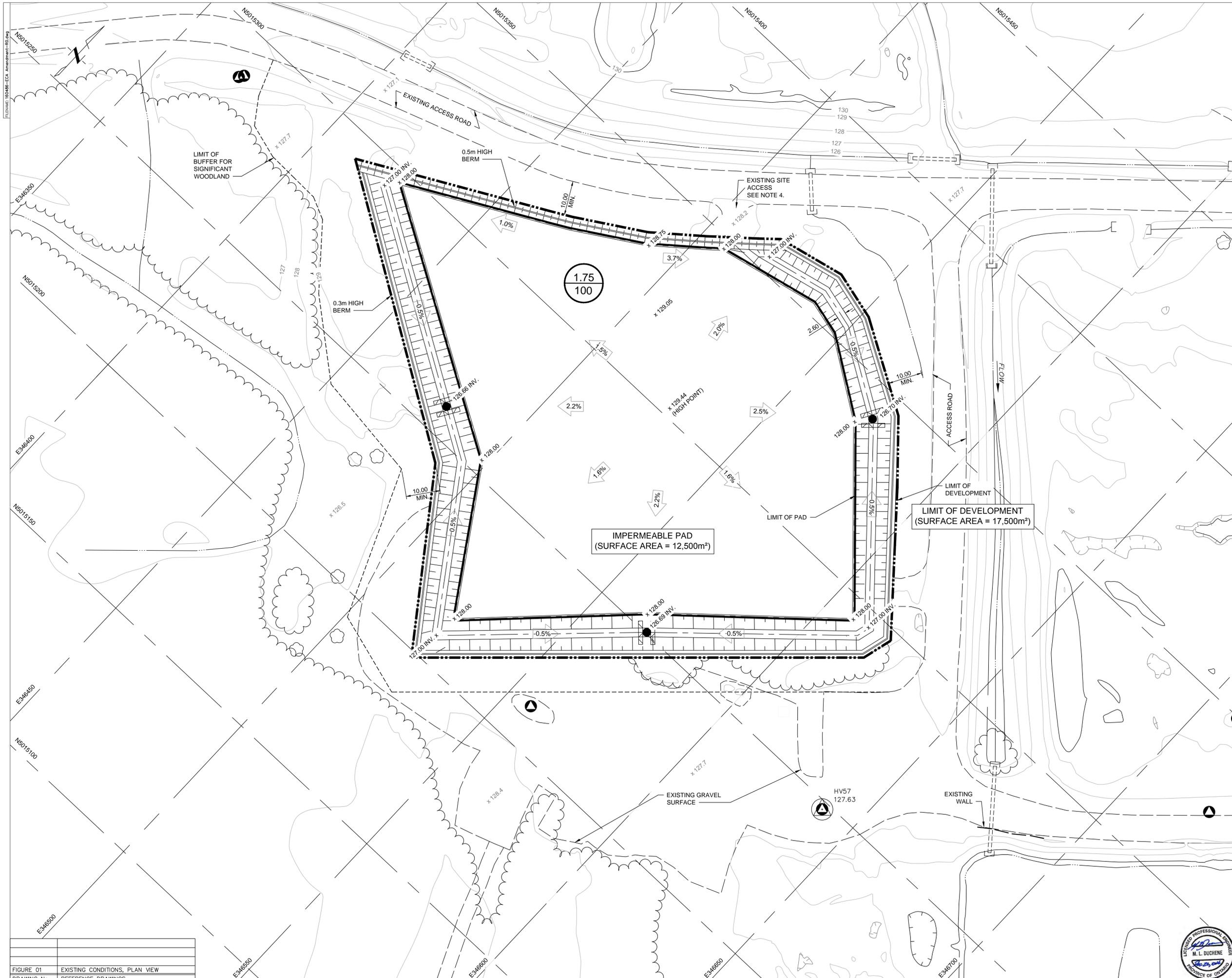
FIGURE 01 REV 0

FIGURE 02	PROPOSED CONDITIONS, PLAN VIEW
DRAWING No.	REFERENCE DRAWINGS



BluMetric Environmental

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 Corp. Ontario R2A 1L0
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 Web: http://www.blumetric.ca



- GENERAL NOTES:**
1. ALL DIMENSIONS ARE METRIC AND SHOWN IN METRES (UNLESS NOTED OTHERWISE).
 2. NORTHINGS AND EASTINGS ARE IN METRES.
 3. ELEVATIONS ARE IN METRES, RELATIVE TO THE LOCAL DATUM. CONTOURS ARE IN 1 METRE INTERVALS.
 4. ENTRANCE/EXIT TO SITE TO BE DETERMINED. CIVIL/DRAINAGE WORKS MAY VARY DEPENDING ON LOCATION.
 5. OVERLAND OVERFLOW WORKS TO BE DETERMINED DURING FINAL DESIGN.

- LEGEND:**
- LIMIT OF DEVELOPMENT
 - LIMIT OF FINISHED PAD
 - - - EXISTING ACCESS ROAD
 - EXISTING CULVERT
 - EXISTING DITCH CENTRELINE
 - EXISTING GROUND SURFACE CONTOURS, 1.0m INTERVALS
 - PROPOSED DITCH CENTRELINE
 - - - LIMIT OF BUFFER FOR SIGNIFICANT WOODLAND
 - PROPOSED SPOT ELEVATION INV. - INVERT
 - EXISTING SPOT ELEVATION
 - ↘ PROPOSED SLOPE/DIRECTION
 - ⊕ EXISTING HORIZONTAL AND VERTICAL CONTROL
 - ⊕ EXISTING WELL
 - ⊕ PROPOSED SUMP LOCATION WITH FILTERS
 - ↘ PROPOSED SLOPE
 - ☁ EXISTING LIMIT OF VEGETATION
 - - - EDGE OF GRAVEL ROAD
 - ⊕ 1.75 CATCHMENT AREA (Ha.)
 - ⊕ 100 CATCHMENT IMPERVIOUSNESS (%)
- PRELIMINARY**
- 0 10 20 30 40
SCALE (m)

0	ISSUED FOR ECA APPLICATION	16/12/22	DRR	TG
REV.	DESCRIPTION	YY/MM/DD	BY	CHK

REFERENCES:
 PROPRIETARY INFORMATION MAY NOT BE REPRODUCED OR DISCLOSED WITHOUT PRIOR WRITTEN CONSENT OF BLUMETRIC ENVIRONMENTAL, INC. DO NOT SCALE DRAWING AS THIS DRAWING MAY HAVE BEEN REDUCED. ALL SCALE NOTATIONS INDICATED ARE BASED ON A2(420x594mm) FORMAT DRAWINGS.

CLIENT: **WM WASTE MANAGEMENT** WASTE MANAGEMENT

PROJECT: WEST CARLETON ENVIRONMENTAL CENTRE SOIL PROCESSING FACILITY

TITLE: PROPOSED CONDITIONS PLAN VIEW

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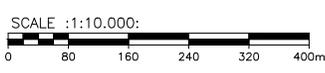
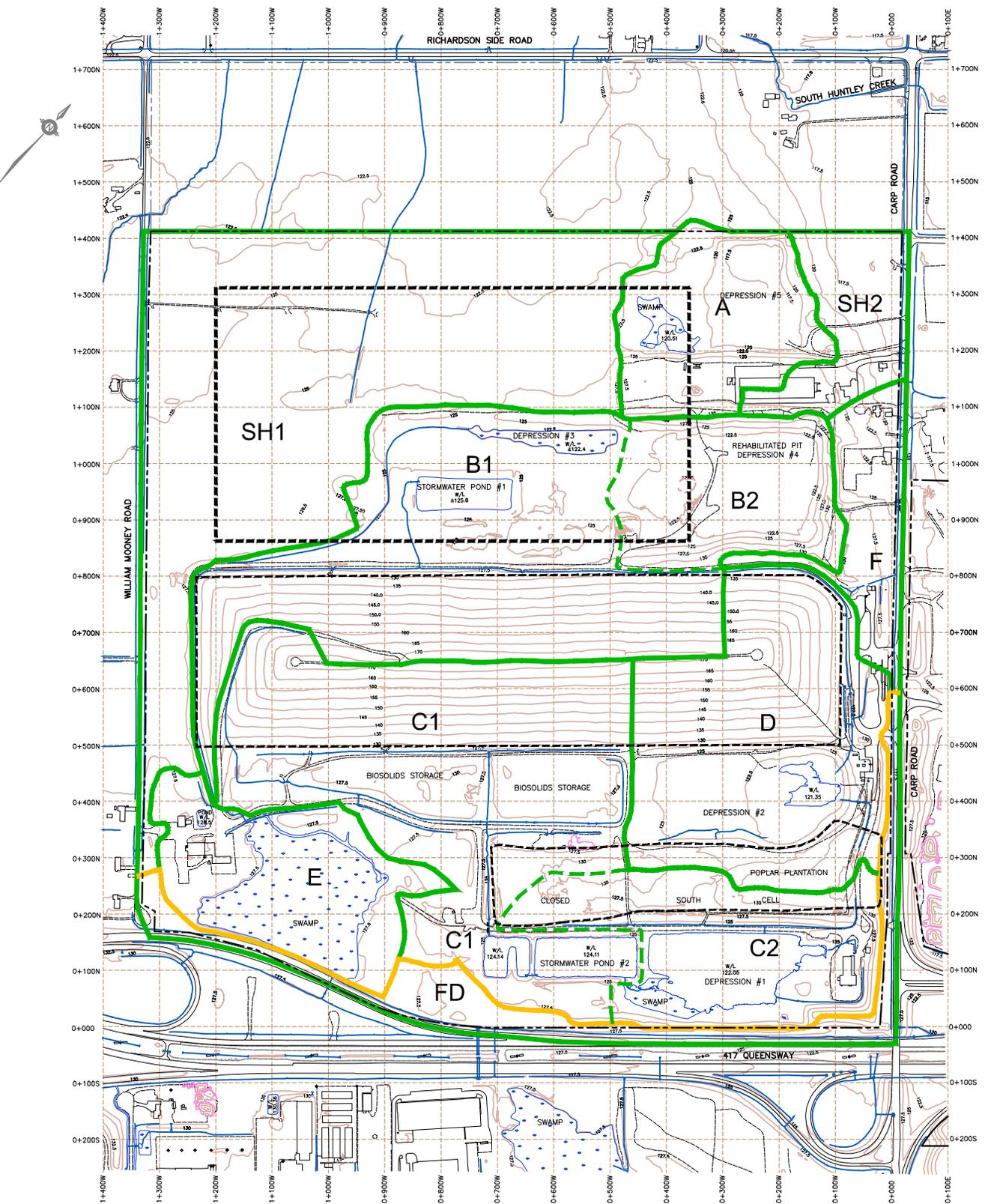
PROJECT # 160486 DATE 2016-12-14 SCALE AS SHOWN
 DRAWN BY DRR CHECKED BY TG APPROVED BY KG DWG FILE FIGURE 02 REV 0

FIGURE 01	EXISTING CONDITIONS, PLAN VIEW
DRAWING No.	REFERENCE DRAWINGS

Attachment

WSP, 2014

Figure 8.1 Pre-Development Drainage Areas



- LEGEND :**
- LIMIT OF DRAINAGE AREA
 - - - - - LIMIT OF SUBCATCHMENT AREA
 - DIVISION BETWEEN FEEDMILL AND SOUTH HUNTLEY CREEK WATERSHEDS
 - - - - - PROPOSED LANDFILL LIMIT
 - - - - - WASTE MANAGEMENT OF CANADA PROPERTY LIMIT
 - - - - - EXISTING LANDFILL LIMIT
 - EXISTING GROUND CONTOURS

C:\2013\05\13-401 - Environment\131-19416-00 - 19416-00-8-1.dwg Jul 08, 2014 - 10:53am
 COPYRIGHT © CH2M HILL

FIGURE 8-1

DWN BY: T C G
 CHK BY: P S B

DATE: JULY 2014
 SCALE: SEE BAR SCALE

WASTE MANAGEMENT OF CANADA CORP.

DRAWING NO. 131-19416-00 - 8-1

PRE-DEVELOPMENT DRAINAGE AREAS

WEST CARLETON ENVIRONMENTAL CENTRE

101-1450 1st AVENUE W
 OWEN SOUND (ONTARIO) CANADA N4K 6W2
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