



Waste Management of Canada Corporation

Environmental Assessment for a New Landfill Footprint at the West Carleton Environmental Centre

LAND USE DETAILED IMPACT ASSESSMENT

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Appendix A. Development Activity Update (November 24, 2011)



1. Introduction

This report documents the Land Use impact assessment of the Preferred Alternative Landfill Footprint for the Environmental Assessment (EA) for a new landfill footprint at the West Carleton Environmental Centre (WCEC). In the preceding Alternative Methods phase of the EA, a net effects analysis as well as a comparative evaluation of the four alternative landfill footprint options were carried out in order to identify a Preferred Alternative Landfill Footprint. The Preferred Alternative Landfill Footprint was determined to be Option #2. The potential environmental effects, mitigation or compensation measures to address the potential adverse environmental effects, and the remaining net effects following the application of the mitigation or compensation measures were identified for the Preferred Alternative Landfill Footprint.

The Preferred Alternative Landfill Footprint was refined based on stakeholder comments received and in order to further avoid or mitigate potential adverse environmental effects, and is illustrated in **Figure 1**.

A Facility Characteristics Report (FCR) as well as a description of the ancillary facilities associated with the WCEC have been prepared so that potential environmental effects and mitigation or compensation measures identified for the Preferred Alternative Landfill Footprint during the Alternative Methods phase of the EA can be more accurately defined, along with enhancement opportunities and approval requirements.

The discipline-specific work plans developed during the ToR outlined how impacts associated with the Preferred Alternative Landfill Footprint would be assessed. The results of these assessments have been documented in the following 10 standalone Detailed Impact Assessment Reports:

- Atmospheric (Air Quality, Noise, Odour, and Landfill Gas)
- Geology and Hydrogeology
- Surface Water
- Biology
- Archaeology
- Cultural Heritage
- Transportation
- Land Use
- Agriculture
- Socio-Economic (including Visual)

Despite being standalone documents, there are; however, interrelationships between some of the reports, where the information discussed overlaps between similar disciplines. Examples of this include the following:

- Geology and Hydrogeology, Surface Water and Biology (Aquatic Environment); and
- Land Use, Agricultural, and Socio-Economic (including Visual).



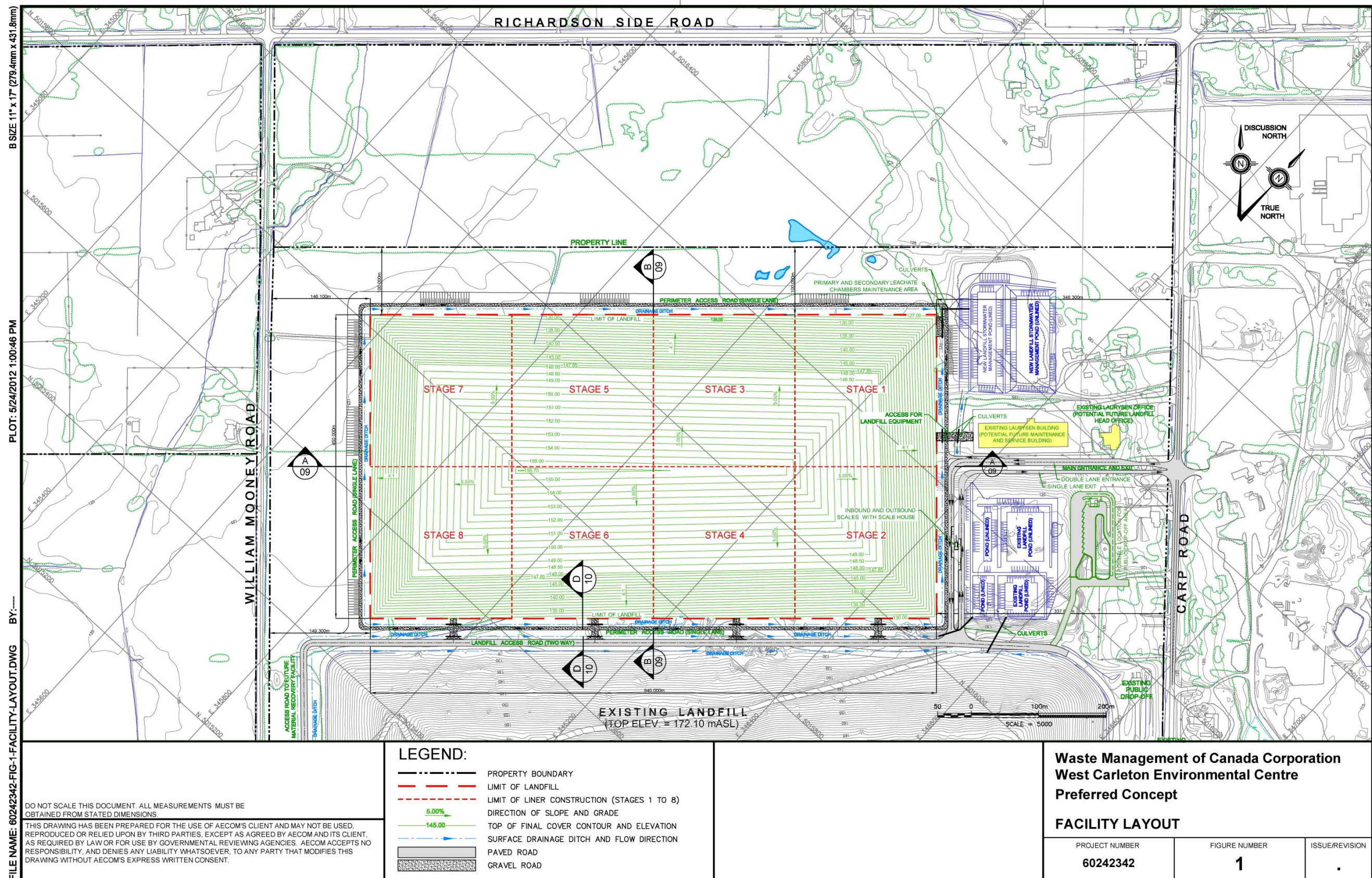


Figure 1. Preferred Alternative Landfill Footprint

1.1 Description of the Preferred Alternative Landfill Footprint

The southern half of the Preferred Alternative Landfill Footprint is on Waste Management (WM)-owned lands and the northern half is on lands that WM has options to purchase. A 100 m buffer is maintained between the north limit of the Preferred Landfill Footprint and the private lands to the north (e.g., lands which front onto Richardson Side Road) in accordance with Ontario Regulation 232/98, and an approximate 350 m buffer is maintained between the east limit of the footprint and Carp Road. A light industrial building (e.g., the Laurysen building) is situated in the eastern portion of the WM optioned lands, which WM anticipates using for equipment storage/maintenance or waste diversion activities in the future. An approximate 45 to 50 m buffer is maintained between the toe of slope of the existing and new landfill footprint, thus allowing sufficient area for a new waste haul road to the new footprint, and for maintenance and monitoring access. The location of the west limit of the Preferred Alternative Landfill Footprint was determined by maintaining the noted buffers and providing the required 6,500,000 m³ of disposal capacity, while maintaining landfill elevation below 158 mASL (as reported in the CDR) and maintaining side slopes required by Ontario Regulation 232/98 (e.g., varying from 4H to 1V to 5%). This results in an approximate 146 m buffer between the west limit of the Preferred Footprint and William Mooney Road. This buffer preserves a portion of the existing woodlot within the west part of the WM-owned lands.

The final contours of the landfill are shown in **Figure 1** and reflect a rectangular landform with a maximum elevation (top of final cover) of 155.7 mASL. This elevation is approximately 30.7 m above the surrounding existing grade. By comparison, the maximum elevation of the existing Ottawa WMF landfill is approximately 172 mASL or approximately 47 m above the surrounding existing grade. The contours reflect maximum side slopes of 4H to 1V, and a minimum slope of 5%. The total footprint area of the new landfill is 37.8 ha.

1.2 Facility Characteristics Report

The FCR presents preliminary design and operations information for the Preferred Alternative Landfill Footprint (Option #2) and provides information on all main aspects of the landfill design and operations including:

- Site layout design;
- Surface water management;
- Leachate management;
- Gas management; and
- Landfill development sequence and daily operations.



The FCR also provides estimates of parameters relevant to the detailed impact assessment including estimates of leachate generation, contaminant flux through the liner system, landfill gas generation, and traffic levels associated with waste and construction materials haulage.

1.3 Other WCEC Facilities

In addition to the new landfill footprint, the WCEC will also include other facilities not subject to EA approval. These include:

- A material recycling facility;
- A construction and demolition material recycling facility;
- An organics processing facility;
- Residential diversion facility;
- Community lands for parks and recreation;
- A landfill-gas-to-energy facility; and
- Greenhouses

Although these facilities do not require EA approval, it is important to consider environmental impacts from all potential activities at the WCEC, not just the new landfill footprint. As such, the synergistic impacts of these facilities in relation to the Preferred Alternative Landfill Footprint will also be assessed in the EA.

1.4 Land Use Study Team

The Land Use study team consisted of staff from FoTenn Consultants Inc. The actual individuals and their specific roles are provided as follows:

- **Michelle Armstrong, MCIP, RPP**
Michelle is a Senior Planner with FoTenn Consultants and is the project manager for the land use team. Michelle has over 15 years' experience in public and private sector planning. She has developed expertise in the areas of policy research, analysis, and formulation; feasibility and land use studies/assessments; and municipal approval of planning applications.
- **Andrew Sacret, MCIP, RPP**
Andrew is a Planner with FoTenn Consultants and was responsible for the initial research and site visits in 2006. He resumed his involvement with the project in 2011 by updating the final land use existing conditions report, as well as carrying out the comparative analysis and detailed impact analysis.



- Andrew has been involved in a wide range of land use and policy planning initiatives for public and private sector clients.
- **Mélodie Simard, M. ATDR**
Mélodie Simard is a fully bilingual Planner at FoTenn Consultants. Mélodie was responsible for conducting the site visits and updating the draft land use existing conditions report. Mélodie has a background in research, tourism and community development. She is involved in a variety of policy and development review projects for public and private sector clients.
 - **Michael Szilagyi, M. Pl. and Phil Busby, BAA**
Michael and Phil provided mapping and graphics assistance for this report.

2. Study Area

The specific On-Site, Site-Vicinity, and Regional study areas for the Preferred Alternative Landfill Footprint at the WCEC are listed below:

- On-Site** the lands required for the Preferred Alternative Landfill Footprint;
- Site-Vicinity** the lands in the vicinity of the Preferred Alternative Landfill Footprint, extending about 500 m in all directions; and,
- Regional** the lands within approximately 1-5 km of the Preferred Alternative Landfill Footprint for those disciplines that require a larger analysis area (i.e., socio-economic, odour, etc.).

The Study Areas for the Land Use component are shown in **Figure 2** and described in the following subsections.

2.1 On-Site Study Area

For the purposes of the Detailed Impact Assessment, the On-Site Study Area is defined as the lands for the Preferred Alternative Landfill Footprint. The southern half of these lands are WM-owned lands and the northern half are lands that WM has options to purchase. The On-Site Study Area is shown in **Figure 2**.



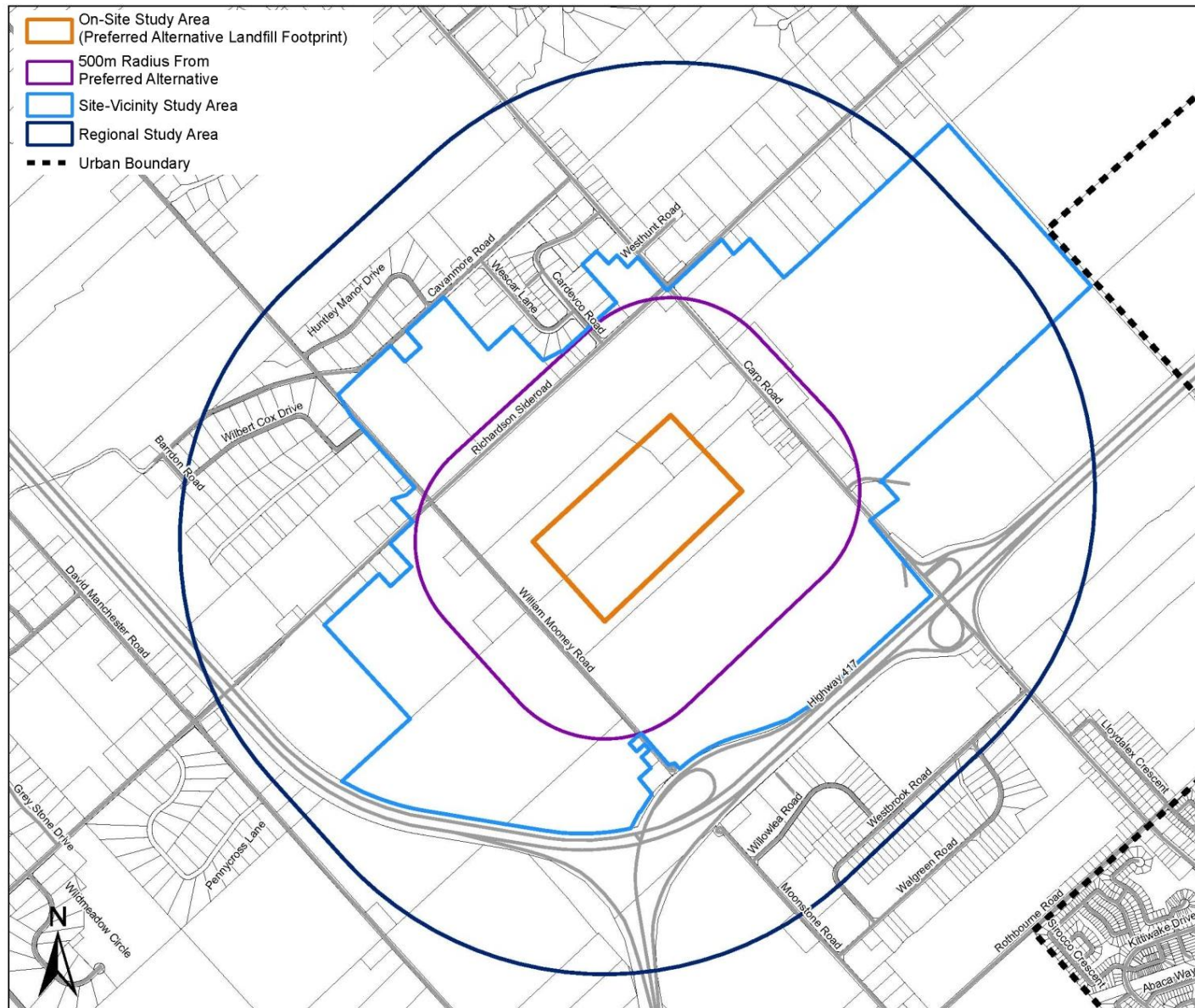


Figure 2. Study Areas for Land Use

2.2 Site-Vicinity Study Area

For the purposes of the Detailed Impact Assessment, the Site-Vicinity Study Area is defined as all properties lying wholly or partially within a 500 m radius of the Preferred Landfill Footprint. For clarity, **Figure 2** illustrates both the generic 500 m radius (purple line) and the resulting irregular shape of the Site-Vicinity Study Area. As shown, the Site-Vicinity Study Area encompasses properties on the north side of Richardson Side Road, properties east of Carp Road and west of William Mooney Road.

2.3 Regional Study Area

Provincial legislation and municipal policies (consistent with Provincial legislation) control the use of land within 500 m of a landfill site (i.e., Site Vicinity Study Area); however a Regional Study Area that extends an additional 1 km from the Site-Vicinity Study Area, or 1.5 km from the On-Site Study Area, has been defined and is represented on **Figure 2**. While some of the EA disciplines have examined potential effects in a wider area (up to 5 km), a 1.5 km radius was deemed appropriate for the land use discipline in order to provide adequate land use context for the Preferred Alternative footprint, while focusing on the specific effects within the 500 m site-vicinity referenced in the prevailing policy documents.

The Regional Study Area for the Preferred Alternative footprint extends north past Cavanmore Road, east to approximately Oak Creek Road and the Urban Boundary (i.e., boundary that divides the Rural Area from the Urban Area in the City of Ottawa), south to Westbrook Road in the A.G. Reed Industrial Park, and west to approximately David Manchester Road.

3. Methodology

The assessment of impacts associated with the Preferred Alternative Landfill Footprint was undertaken through a series of steps that were based, in part, on a number of previously prepared reports (Land Use Existing Conditions Report, Land Use Comparative Evaluation Technical Report). The net effects associated with the four Alternative Landfill Footprint Options identified during the Alternative Methods phase of the EA were based on conceptual designs. These effects were reviewed within the context of the preliminary design plans developed for the Preferred Alternative Landfill Footprint, as identified in the FCR, to determine the type and extent of any additional investigations required to ensure a comprehensive assessment of net effects. Additional investigations were then carried out, where necessary, in order to augment the previous work undertaken.



With these additional investigations in mind, the potential impact on the Land Use environment of the Preferred Alternative Landfill Footprint was documented.

With a more detailed understanding of the Land Use environment developed, the previously identified potential effects and recommended mitigation or compensation measures associated with the Preferred Alternative Landfill Footprint (documented in the Land Use Comparative Evaluation Technical Report, September 2011) were reviewed to ensure their accuracy in the context of the preliminary design for the Preferred Landfill Footprint. Based on this review, the potential effects, mitigation or compensation measures, and net effects associated with the Preferred Alternative Landfill Footprint were confirmed and documented. In addition to identifying mitigation or compensation measures, potential enhancement opportunities associated with the preliminary design for the Preferred Alternative Landfill Footprint were also identified, where possible.

Following this confirmatory exercise, the requirement for monitoring in relation to net effects was identified, where appropriate. Finally, any Land Use approvals required as part of the implementation of the Preferred Alternative Landfill Footprint were identified.

4. Additional Investigations

Monitoring Development Activity

FoTenn has been monitoring development activity within the defined Study Areas for the Land Use Existing Conditions Report. Development activity is tracked through periodic review of development applications submitted to the City for lands within the Study Areas. Development applications are searched using the City's Development Application Search Website. FoTenn has been particularly interested in following development applications that propose changes in land uses, especially those that are potentially sensitive land uses with regard to landfilling activities. A Development Activity Update for the Study Areas was last conducted on November 24, 2011. **Appendix A** contains the Development Activity Update and associated map identifying the lands currently subject to a development application.

Monitoring Ontario Municipal Board (OMB) decisions regarding Official Plan Review

The City of Ottawa recently undertook a 5-year review of their Official Plan, which resulted in the passing of Official Plan Amendment (OPA) 76 on June 24, 2009. OPA 76 was subsequently approved by the Ministry of Municipal Affairs and Housing on December 24, 2009, subject to several modifications. Several appeals to the OPA 76 have been filed with the Ontario Municipal Board (OMB), including blanket appeals to the policy document. OMB decisions have

the potential to impact policies that guide future land uses within the Study Areas, including the location of the Urban Boundary. Regarding the Urban Boundary, the first phase of a two-phased hearing at the OMB was held in February through March 2011. The Board issued a decision in June 2011 to establish the number of hectares of land to be added to the existing Urban Boundary. The second phase of the hearing will determine which specific lands will be included in the Urban Boundary. Another series of appeals dealing with the “Cultural Heritage” policies of the Plan was considered by the Board in August 2011. This decision adjusted some of the land use compatibility criteria of the plan. While this decision does not substantially affect the assessment of land use effects for the EA, the compatibility criteria as approved by the OMB are reviewed in Section 6.2.1 of this report. Any additional OMB decisions regarding the Urban Boundary and other OPA 76 policies under appeal are being monitored and will continue to be monitored throughout the EA process.

5. Detailed Description of the Environment Potentially Affected

5.1 On-Site

5.1.1 Existing Land Uses

There are four existing land uses in the On-Site Study Area as shown on **Figure 3**. A description of these land uses are as follows:

- **Industrial**
The lands within the WM-owned portion of the Study Area are largely used for industrial purposes and represent some of the current activities on the WM site. These lands include an old sand pit that was used by WM for landfill daily cover. This pit has been exhausted and the approved volumes of the license removed. To the north of the pit is the site of a kitchen manufacturing business - Laurysen Kitchens.
- **Wooded Area**
The western portion of the lands within the WM-owned part of the Study Area are wooded.
- **Idle and Shrub Land**
An area of idle and shrub lands are located in the northeast corner of the On-Site Study Area.



- **Agriculture**
The WM-optional lands in the northwest portion of the On-Site Study area are currently used for agriculture.

5.1.2 Future Land Uses

The future planned uses for the On-Site Study Area are governed by the Ottawa Official Plan (**Figure 4**), the Carp Road Corridor Community Design Plan (CDP) (**Figure 5**), and the Ottawa Comprehensive Zoning By-law (**Figure 6**).

Ottawa Official Plan

- The On-Site Study Area is designated Carp Road Rural Employment Area and Sand and Gravel Resource Area, as shown on **Figure 4**.
- The intent of the Carp Road Corridor Rural Employment Area designation is to reserve land for rural industrial and commercial uses thus providing opportunities for industries that favour large amounts of land and the openness of a more rural site. Although landfilling is not specifically mentioned as a use in the preamble to the policy statements, examples of uses provided include a wide range of heavy industrial uses such as manufacturing, mining, construction, and wood and metal fabrication.
- The southeastern portion of the On-Site Study Area is designated Sand and Gravel Resource Area which reflects the boundaries of the exhausted sand pit on the existing WM site. The policies for this land use designation state that where sand and gravel resources have been fully extracted on a property, the property may be used for other purposes.
- The existing landfill footprint located directly south of the On-Site Study Area is identified with a Solid Waste Disposal Site symbol. Unlike other land use designations, Waste Disposal Sites are identified by a symbol in the Official Plan Schedules and thus their locations are generalized. Specific locations of waste disposal sites are defined in the Zoning By-law. The policies for Solid Waste Disposal Sites state that any expansion to an existing designated Solid Waste Disposal Site requires a zoning by-law amendment and the amendment will be subject to the same criteria applied to the establishment of new landfill sites.

Carp Road Corridor CDP

- The CDP, adopted by Council in 2004, provides more detailed land use categories and policies for the lands designated Carp Road Corridor Rural Employment Area and General Rural Area in the Ottawa Official Plan within the defined corridor. These sub-categories provide guidance as to the types of development that should occur in the future within the Carp Road Corridor.



- The southern portion of the On-Site Study Area is designated Heavy Industrial Area and the northern portion is designated Light Industrial Area. The exhausted sand pit in the southeast corner of the Study Area is subject to a Sand and Gravel Resource Area overlay, as shown on **Figure 5**.
- Permitted uses in the Heavy Industrial Area are industrial uses involving the manufacturing of products from local primary materials, quarry, abattoirs, salvage yards, sawmills. None of these uses are considered sensitive uses for landfilling activities. The CDP states that lands designated Heavy Industrial are intended for uses that by their nature generate noise, fumes, odours, vibration and are hazardous and obnoxious. The incompatibility of heavy industry with more sensitive land uses, particularly residential, encourages the grouping of heavy industrial uses. The CDP provides for this grouping by directing future heavy industrial uses to locate near or adjacent to the existing waste disposal site and quarrying operations at the east side of Carp Road.
- The CDP states that lands designated Light Industrial Area are intended for industrial park type development. Permitted uses in the Light Industrial Area include light manufacturing plants, distribution, recycling and assembly plants, warehouses, service and repair shops, research, design and testing facilities, storage uses, transportation depots, contractor or construction related uses, and compatible public and institutional uses.
- Heavy and light industrial uses are compatible with landfilling activities. The interpretation of the Official Plan and CDP policies is that a new landfill footprint on lands designated Heavy Industrial and Light Industrial would not require an amendment to the CDP but would require a zoning by-law amendment. This interpretation has been confirmed by City staff.

Ottawa Comprehensive Zoning By-law

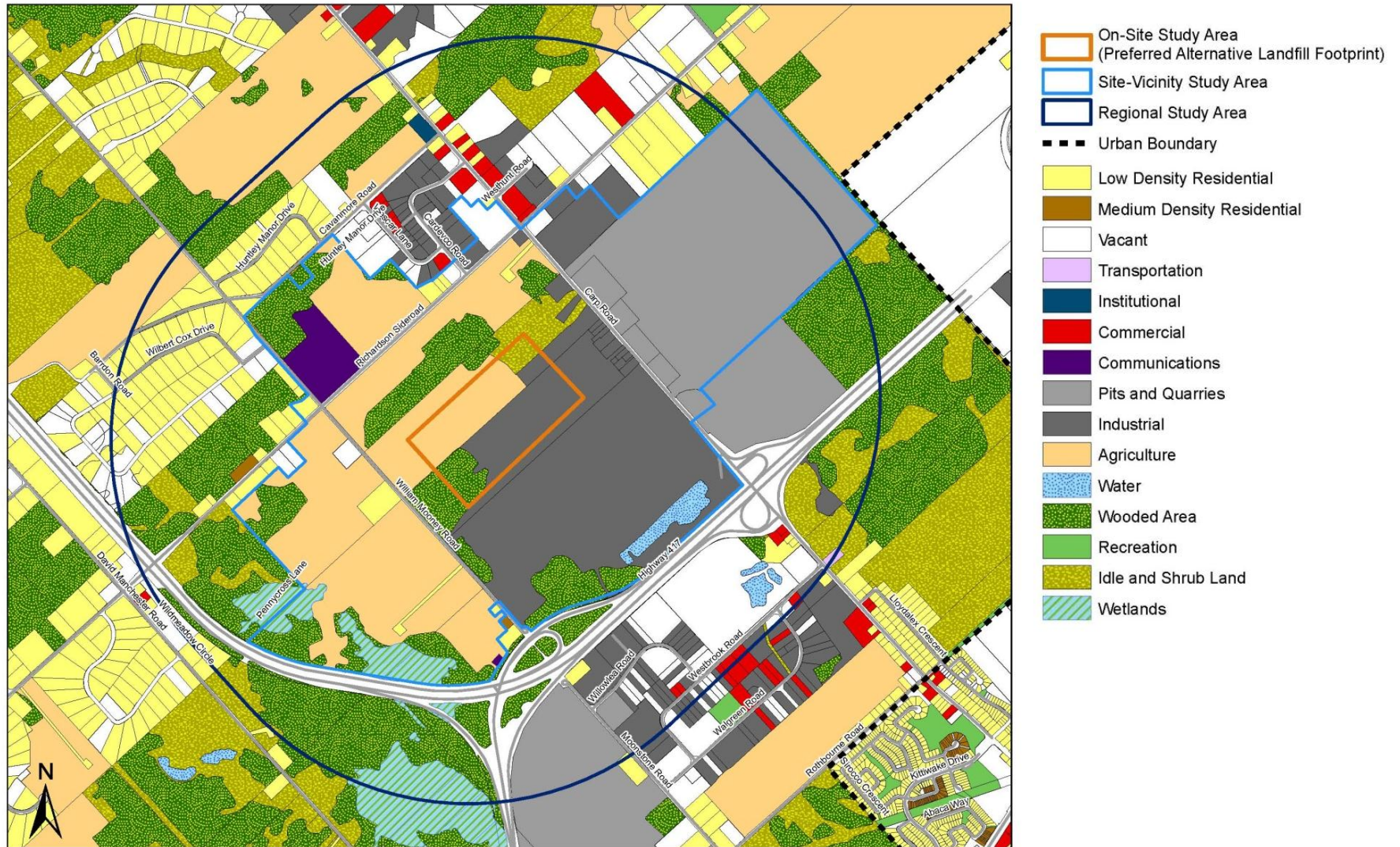
- The Zoning By-law, adopted by Council in 2008, generally reflects the land use designations and intended uses of the Carp Road Corridor CDP and the Ottawa Official Plan.
- The southern portion of the On-Site Study Area is zoned Rural Heavy Industrial (RH) and Mineral Extraction Subzone 2 (ME2) and the northern portion is zoned Rural General Industrial Subzone 5 (RG5) with an Exception (275r) and holding zone (h), as shown on **Figure 6**.
- A landfill is defined as a “solid waste disposal facility” in the Zoning By-law. This use is not a permitted use in the current zoning in the On-Site Study Area. A zoning by-law amendment would be required to permit a new landfill footprint.



Summary

- The existing land uses in the On-Site Study Area are a combination of industrial uses, agricultural uses, wooded area and shrubland. Despite the presence of agricultural uses, a wooded area, and shrubland, the future uses planned for the lands are for heavy and light industrial uses, as outlined in the policies of the Official Plan and Carp Road Corridor Rural Employment Area.
- A new landfill footprint is consistent with the policy framework of the Ottawa Official Plan and Carp Road Corridor Rural Employment Area and amendments to these plans are not anticipated to be needed. An amendment to the Ottawa Comprehensive Zoning By-law; however, would be required.

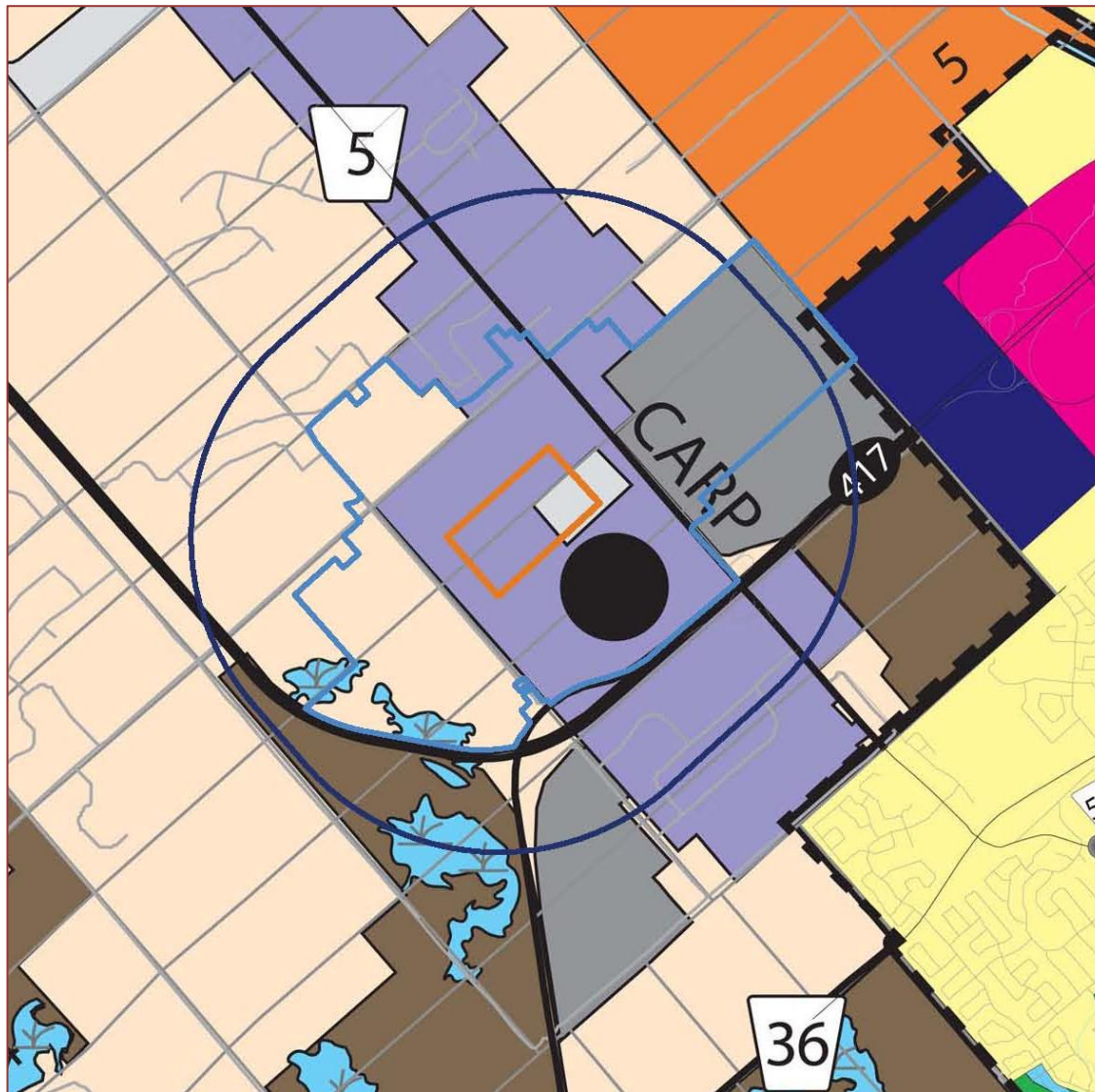








Land use data by City of Ottawa, 2005, modified, May 2011.

Note: Land uses beyond the Regional Study Area were updated in February 2009.

Figure 3. Existing Land Uses



-  On-Site Study Area
(Preferred Alternative Landfill Footprint)
-  Site-Vicinity Study Area
-  Regional Study Area
-  Urban Boundary

-  Agricultural Resource Area
-  General Rural Area
-  Rural Natural Features Area
-  Limestone Resource Area
-  Sand and Gravel Resource Area
-  Significant Wetland
-  Natural Environment Area
-  Carp Road Corridor Rural Employment Area
-  Carp Airport
-  Enterprise Area
-  Mixed Use Centre
-  Major Open Space
-  Urban Natural Features
-  Solid Waste Disposal Site

The Official Plan has been amended by Official Plan Amendment No. 76. Sections of the Amendment are under appeal at the Ontario Municipal Board.

2003 City of Ottawa Official Plan, Consolidated to the following Amendments: 1, 7, 9, 12, 14, 16, 18, 26, 28, 29, 30, 31, 35, 38, 42, 44, 46, 50, 52, 53, 54, 55, 58, 59, 61, 64, 76, 77, 78, 86, 91

Figure 4 Ottawa Official Plan – Schedules A & B

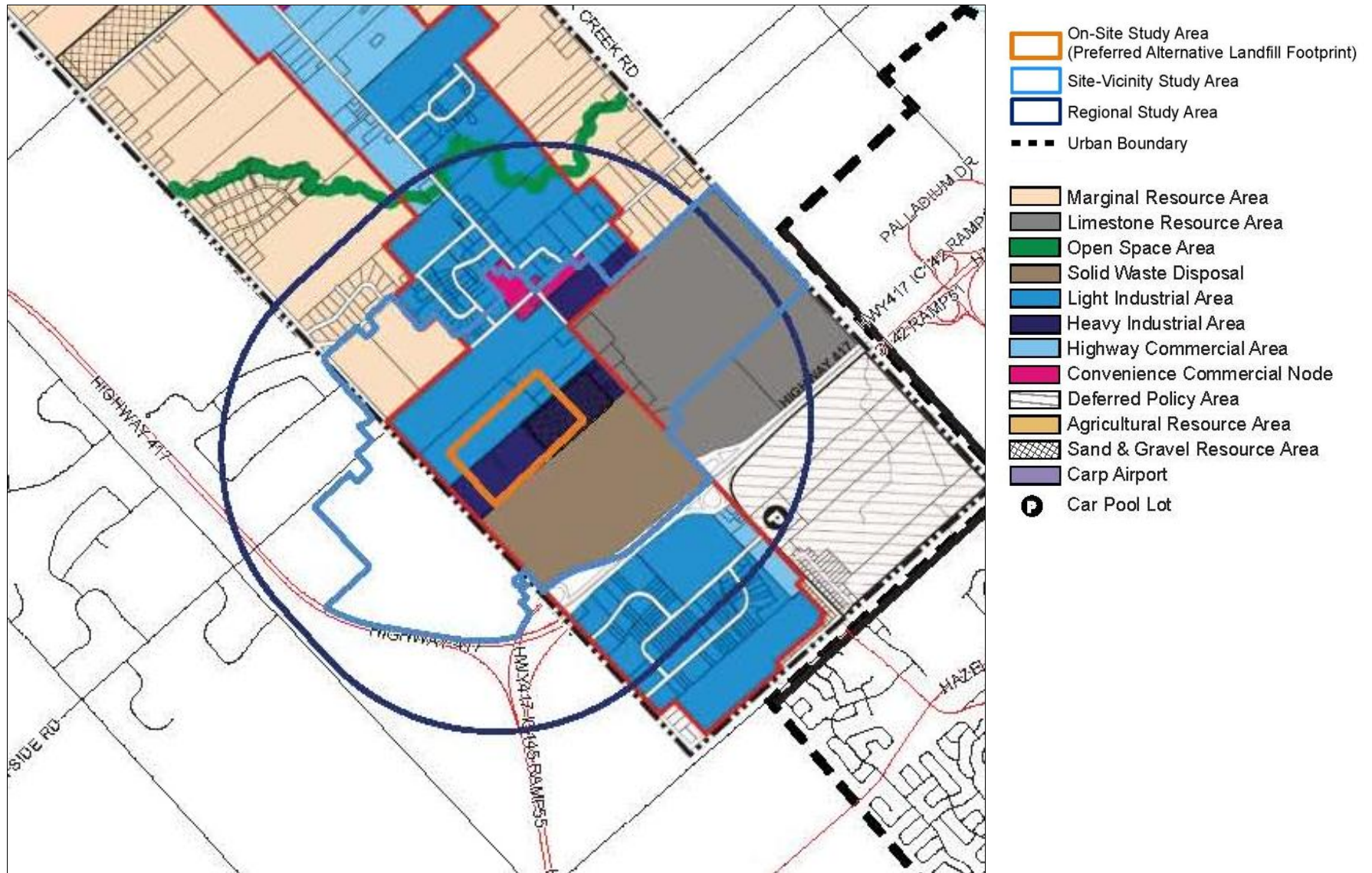


Figure 5. Carp Road Corridor Community Design Plan – Schedule 1

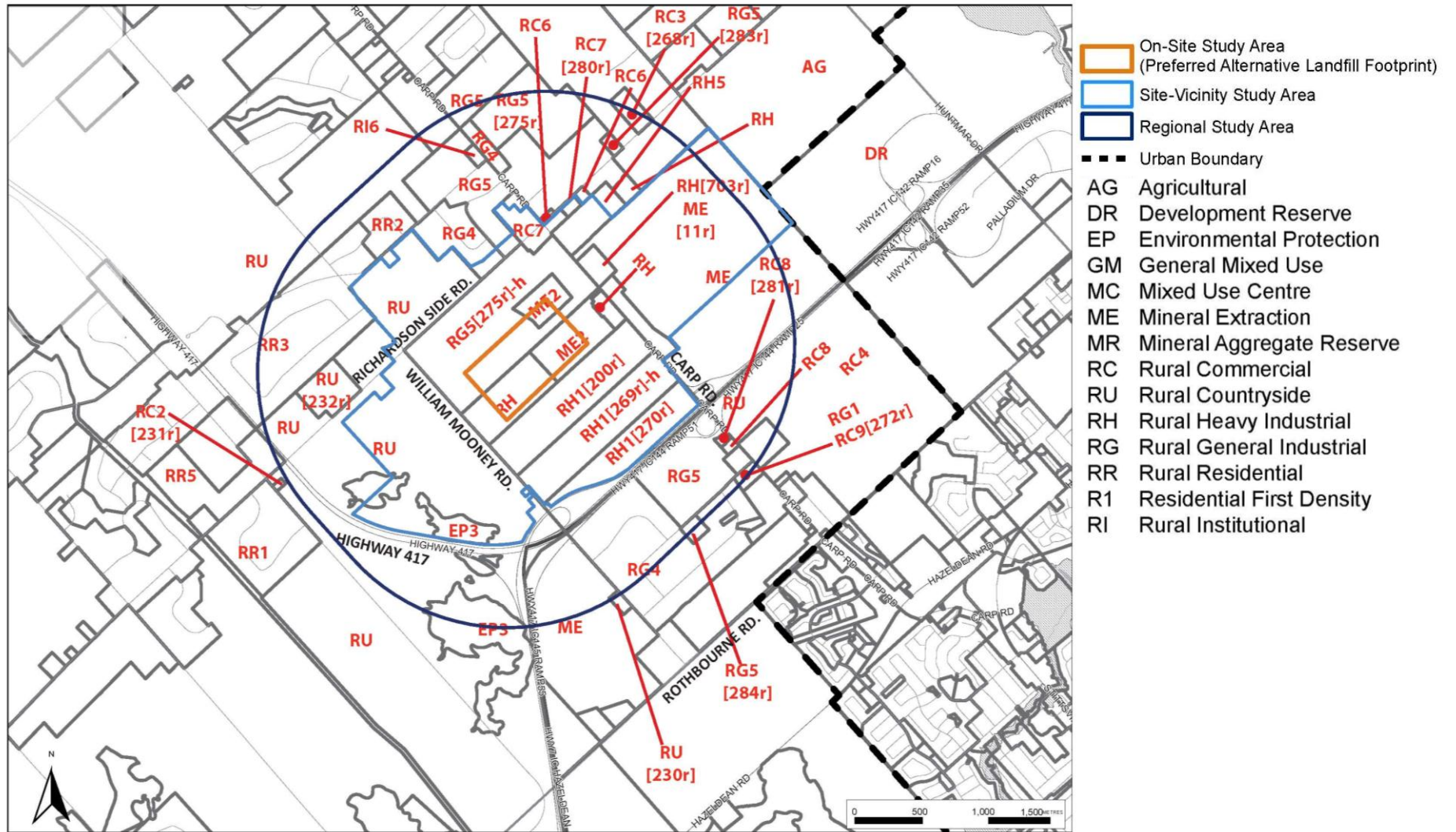


Figure 6. Ottawa Comprehensive Zoning By-law 2008-250 – Zoning Map

5.2 Site-Vicinity

5.2.1 Existing Land Uses

There is a variety of existing land uses in the Site-Vicinity Study Area, as shown on **Figure 3**, and as described below. The Site-Vicinity Study Area is drawn to include all properties located wholly or partially within a 500 m radius of the On-Site Study Area, or Preferred Alternative Landfill Footprint.

Residential

- Residential uses are considered sensitive land uses regarding landfilling activities.
- There are 7 residential lots located within the Site-Vicinity Study Area. All the lots contain single-family dwellings. Three lots are located along Richardson Side Road just west of Cardevco Road. One lot is located on Carp Road near the intersection with Richardson Side Road. Another lot is located at the corner of William Mooney Road and Richardson Side Road.
- The two remaining lots are located along William Mooney Road south of Richardson Side Road. These lots are either owned or have been optioned by WM.

Industrial Uses

- Most industrial uses are not considered sensitive land uses regarding landfilling activities.
- Industrial uses within the Site-Vicinity Study Area are mostly those that form part of the existing WM site.
- There are a number of industrial properties on the west side of Carp Road directly north of the WM site. These properties are either owned or optioned by WM.
- There are also two industrial properties on the east side of Carp Road near Richardson Side Road.
- There is one existing industrial property that is part of the Cardevco-West Hunt Industrial Area located north of Richardson Side Road along Cardevco Road and Wescar Lane.

Pits and Quarries

- Due to the heavy industrial nature of pits and quarrying activities, these uses are considered non-sensitive uses with regard to landfilling activities.



- There are pit and quarry activities on the east side of Carp Road, extending from Highway 417 to just south of Richardson Side Road. These activities include quarrying, cement manufacturing and manufacturing of formed cement products.

Wooded Area / Shrub Land / Wetlands

- There are a number of natural areas within the Site-Vicinity Study Area, occupied by wetlands, wooded areas, and shrub land.
- There are small pockets of wooded areas close to the Preferred Alternative Landfill Footprint. The wooded areas to the west and south of the Footprint, the shrub land, and the wetlands are located on lands either owned or optioned by WM.

Agriculture

- Agricultural uses, with the exception of livestock operations, are considered non-sensitive land uses with regard to landfilling activities.
- There are agricultural uses to the north of the Preferred Alternative Landfill Footprint, located both north and south of Richardson Side Road, between William Mooney Road and Carp Road. Agricultural uses are limited to cropping; there are no livestock operations on this land.
- There are also agricultural uses to the west of William Mooney Road, extending from Highway 417 to Richardson Side Road. These uses include cropping and one livestock operation (i.e., cattle). Livestock operations are considered sensitive to landfilling activities. The lands west of William Mooney Road are either owned or optioned by WM.
- None of these agricultural uses are on lands designated Agricultural Resource Area in the Ottawa Official Plan and are therefore not considered prime agricultural areas. Identification of prime agricultural areas is based on the Ottawa-Carleton Land Evaluation and Area Review (LEAR) evaluation system.

Communications

- There is one communications use in the Site-Vicinity Study Area. The communications use is the CBC National Alarm Centre located on Richardson Side Road, east of William Mooney Road. This use is considered non-sensitive with regard to landfilling activities.



5.2.2 Future Land Uses

The future planned uses for the Site-Vicinity Study Area are governed by the Ottawa Official Plan (**Figure 4**), the Carp Road Corridor CDP (**Figure 5**), and the Ottawa Comprehensive Zoning By-law (**Figure 6**).

Ottawa Official Plan

- The Site-Vicinity Study Area is designated Carp Road Rural Employment Area, Limestone Resource Area, General Rural Area, Sand and Gravel Resource Area, and Significant Wetland, as shown on **Figure 4**. It is also identified with a Solid Waste Disposal Site symbol.
- The existing landfill footprint, immediately south of the Preferred Alternative Landfill Footprint, is identified with a Solid Waste Disposal Site symbol. Unlike other land use designations, Waste Disposal Sites are identified by a symbol in the Official Plan Schedules and thus their locations are generalized. Specific locations of waste disposal sites are defined in the Zoning By-law. Policies for this land use designation (Section 3.8, Ottawa Official Plan) require that development proposals within 500 m of a waste disposal site must demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on landfill operations. The policies require a study to be undertaken for development proposals that have the potential to be incompatible. Policy 7 states that “the uses for which a study may be required include those accommodating people or agricultural uses that include animal husbandry.” Thus, the policies of the Official Plan are intended to prohibit any proposed uses that are sensitive to landfilling activities.
- The intent of the Carp Road Corridor Rural Employment Area designation is to reserve land for rural industrial and commercial uses thus providing opportunities for industries that favour large amounts of land and the openness of a more rural site. The policies for this designation state that new development applications are to conform to the policies in the Carp Road Corridor CDP and that the CDP will provide direction to the zoning by-law for future uses.
- The Limestone Resource Area designation in the Official Plan (Section 3.7.4) is intended to preserve the City’s resources of sand, gravel, stone and other aggregates. Permitted uses in this designation include quarries, wayside pits and underground mining. Secondary uses related to aggregate extraction are also permitted. Policies in the Official Plan restrict development on sites located within 500 m of a Limestone Resource Area due to the potential for noise, vibration, dust and fumes and to protect future mineral aggregate extraction on these lands. The uses envisioned for these lands are compatible with landfilling activities.



- Lands designated General Rural Area are located west of William Mooney Road and north of Richardson Side Road. The policies of this designation (Section 3.7.2, Ottawa Official Plan) are intended to reserve lands primarily for rural residential uses, agriculture, forestry, small industries and other natural resource management uses. The policies describe uses that are permitted with a zoning by-law amendment and without a zoning by-law amendment. Uses permitted without an amendment include agriculture, forestry, conservation uses, residential uses on existing lots of record or those created by severance, animal boarding and training facilities, bed and breakfast establishments, open space uses, and cemeteries. Livestock agricultural activities, residential, animal boarding, bed and breakfast establishments and cemeteries are all considered sensitive land uses to landfilling operations.
- A small portion of the Site-Vicinity Study Area is designated Sand and Gravel Resource Area which reflects the boundaries of the exhausted sand pit on the existing WM site. The policies for this land use designation state that where sand and gravel resources have been fully extracted on a property, the property may be used for other purposes.
- Lands designated Significant Wetlands are located at the western edge of the Site-Vicinity Study Area. Development is very restricted within this designation and any development proposed within 120 m of a boundary of a designated Significant Wetland must submit an Environmental Impact Statement that demonstrates no negative impact on the wetland.

Carp Road Corridor CDP

- The CDP, adopted by Council in 2004, provides more detailed land use categories and policies for the lands designated Carp Road Corridor Rural Employment Area and General Rural Area in the Ottawa Official Plan within the defined corridor. These sub-categories provide guidance as to the types of development that should occur in the future within the Carp Road Corridor.
- The Site-Vicinity Study Area is designated Heavy Industrial Area, Light Industrial Area, Solid Waste Disposal, Limestone Resource Area, Convenience Commercial Node, Marginal Resource Area, and Sand and Gravel Resource Area, as shown on **Figure 5**.
- The CDP notes that certain designations and their associated policies currently exist in the Official Plan and are included in the CDP only as a reference. Since these designations do not add any additional policies to the existing regulatory framework of the Official Plan, they are not reviewed in this Section. These reference designations include Solid Waste Disposal Site, Limestone Resource Area, and Sand and Gravel Resource Area.
- Permitted uses in the Heavy Industrial Area are industrial uses involving the manufacturing of products from local primary materials, quarry, abattoirs, salvage yards, sawmills. None of these uses are considered sensitive uses for landfilling activities. The CDP states that lands



designated Heavy Industrial are intended for uses that by their nature generate noise, fumes, odours, vibration and are hazardous and obnoxious. The incompatibility of heavy industry with more sensitive land uses, particularly residential, encourages the grouping of heavy industrial uses. The CDP provides for this grouping by directing future heavy industrial uses to locate near or adjacent to the existing waste disposal site and quarrying operations at the east side of Carp Road.

- The CDP states that lands designated Light Industrial Area are intended for industrial park type development. Permitted uses in the Light Industrial Area include light manufacturing plants, distribution, recycling and assembly plants, warehouses, service and repair shops, research, design and testing facilities, storage uses, transportation depots, contractor or construction related uses, and compatible public and institutional uses. Of these uses, only institutional uses are considered potentially sensitive to landfilling activities.
- The lands at the intersection of Carp Road and Richardson Side Road are designated Convenience Commercial. Permitted uses are commercial uses that provide services to local residents and employees in the corridor as well as servicing the needs of the traveling public. These uses include convenience stores, professional offices, banks, gas stations, and restaurants. Some commercial activities such as restaurants may be sensitive to landfilling activities.
- Finally, there is a small portion of lands designated Marginal Resource Area north of Richardson Side Road and east of William Mooney Road. The Marginal Resource Area designation is different from the General Rural designation in that industrial and commercial uses are not permitted. Permitted uses include agriculture, forestry, conservation/open space, institutional, recreation and residential uses in the form of country lot subdivisions. Residential uses and some types of recreation and institutional uses are sensitive uses regarding landfilling activities. Currently, the majority of lands designated Marginal Resource Area within the Site-Vicinity Study Area are occupied by the CBC National Alarm Centre. This telecommunications centre is not considered a sensitive land use in relation to landfilling activities. The remaining lands designated Marginal Resource Area are currently used for agriculture.
- Policies for Waste Disposal Sites (Section 3.8) of the Official Plan require that development proposals within 500 m of a waste disposal site demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on landfill operations. Therefore, despite uses sensitive to landfilling activities being permitted in some of the land use designations in the Site-Vicinity Study Area, these uses would not be permitted if they were proposed. The policies of Section 3.8 in the Ottawa Official Plan prevail.



Ottawa Comprehensive Zoning By-law

- The Zoning By-law, adopted by Council in 2008, generally reflects the land use designations and intended uses of the Carp Road Corridor CDP and the Ottawa Official Plan.
- The lands within the Carp Road Corridor of the Site-Vicinity Study Area are primarily zoned Rural Heavy Industrial (RH), Rural General Industrial (RG), and Mineral Extraction (ME), as shown on **Figure 6**. The lands around the intersection of Carp Road and Richardson Side Road are zoned Rural Commercial (RC). The lands west of the Cardevco-Hunt Industrial Park and west of William Mooney Road are zoned Rural Countryside (RU) and the wetlands are zoned Environmental Protection (EP).
- Most industrial uses are not sensitive land uses for landfilling activities. However, the Rural General Industrial (RG) and Mineral Extraction (ME) Zones do include a number of primary or conditional uses that would be considered sensitive to landfilling operations.
- The Rural Countryside (RU) Zone permits a number of uses sensitive to landfilling operations including residential, cemeteries, and livestock operations.
- As noted earlier, the policies for Waste Disposal Sites (Section 3.8) of the Official Plan require that development proposals within 500 m of a waste disposal site demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on landfill operations. Therefore, despite uses sensitive to landfilling activities being permitted in the existing zoning in the Site-Vicinity Study Area, these uses would not be permitted if they were proposed. The policies of Section 3.8 in the Ottawa Official Plan prevail.

Summary

- There are seven residential lots located within the Site-Vicinity Study Area. Four lots are currently non-conforming with future planned uses as outlined in the Official Plan (three lots are located on Richardson Side Road, just west of Cardevco Road, one lot is located on Carp Road, south of Richardson Side Road). A further two lots are located on lands either owned or optioned by WM (located on William Mooney Road). One lot at the corner of William Mooney Road and Richardson Side Road conforms with current Official Plan policies.
- There is one livestock operation within the Site-Vicinity Study Area, located west of William Mooney Road. Livestock operations are considered sensitive to landfilling activities. The lands fronting on William Mooney Road south of Richardson Side Road are either owned or optioned by WM.
- Lands designated for heavy industrial, light industrial, and mineral extraction activities envision future land uses that are compatible with landfilling activities.



- Lands designated for commercial and rural activities envision future land uses that may or may not be compatible with landfilling activities.
- Policies for Waste Disposal Sites (Section 3.8) of the Official Plan require that development proposals within 500 m of a waste disposal site demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on landfill operations. Therefore, despite uses sensitive to landfilling activities being permitted in some of the Official Plan land use designations, Carp Road Corridor CDP land use designations, and in certain Zones of the Zoning By-law, within the Site-Vicinity Study Area, these uses would not be permitted if they were proposed. The policies of Section 3.8 in the Ottawa Official Plan prevail.

5.3 Regional

5.3.1 Existing Land Uses

There are a variety of existing land uses in the Site-Vicinity Study Area, as shown on **Figure 3** and described below:

Residential

- Residential uses are considered sensitive land uses regarding landfilling activities. Rural residential uses are mostly concentrated in country lot subdivisions in the northern portion of the Regional Study Area. These subdivisions are mostly developed; however, some lots remain vacant for future development. The lots in these subdivisions are typical of rural residential subdivisions in Ottawa. They accommodate mostly single-detached homes on large parcels. The Huntley Manor Drive subdivision and the majority of the Wilbert Cox Drive subdivision are within the Regional Study Area.
- There are additional rural residential lots scattered along Richardson Side Road, Carp Road, and Moonstone Road within the Regional Study Area. Many of these houses are associated with surrounding agricultural uses or have been created through individual severances.

Industrial and Commercial Uses

- Industrial and commercial uses are mostly concentrated along a rural employment area known as the “Carp Road Corridor.” Industrial uses in the Regional Study Area are concentrated in two main industrial/business parks whereas the commercial uses are mostly concentrated along Carp Road but also appear within the industrial/business parks. Industrial uses are not considered sensitive land uses regarding landfilling activities; however, some commercial activities are considered sensitive, such as hotels/motels.



- The industrial/business parks feature uses such as warehousing, multi-tenant industrial buildings, outdoor storage, construction and landscaping contracting, automotive/truck maintenance, repair and storage, and small commercial offices.
- The Cardevco-West Hunt Industrial Park is located at the northeastern end of the Regional Study Area and straddles Carp Road. Several new industrial buildings were noted in the 2011 field surveys and reflected on the updated land use map. There are also a number of development applications in process for new industrial development in this area. Although there are a number of existing residential uses in this industrial park, along Carp Road and Richardson Side Road, they are non-conforming uses with regard to the existing policy framework.
- The northern portion of the A.G. Reed Industrial Park is located south of Highway 417, bounded by Moonstone Road and Carp Road. The industrial park features many industrial and commercial uses and a significant amount of vacant land for future development.

Pits and Quarries

- The rural employment area of the Carp Road Corridor is also characterized by pit and quarry activities, including limestone quarrying, cement manufacturing and manufacturing of formed cement products. These uses are located on the east side of Carp Road, extending from Highway 417 to just south of Richardson Side Road. Given the large size of the parcels, these uses appear both within the Site-Vicinity Study Area and Regional Study Area. There is a second large pit and quarry use south of Highway 417 and west of Moonstone Road, also within the Regional Study Area. Due to the heavy industrial nature of these activities, they are considered non-sensitive uses with regard to landfilling activities.

Wooded Area / Shrub Land / Wetlands

- There are a number of natural area pockets within the Regional Study Area. These natural areas are occupied by a combination of wetlands, wooded areas, and idle/shrub land. These areas are located in the southwestern portion of the Regional Study Area, west of the Highway 7 and Highway 417 interchange, west along Richardson Side Road (west of William Mooney Road), northeast of the Cardevco-Hunt Industrial Park, and southeast of Highway 417 and Carp Road.

Agriculture

- There are only very small pockets of agricultural activity located outside the Site-Vicinity Study Area but within the Regional Study Area. These parcels are located north of Cavanmore Road. Agricultural uses are limited to cropping; there are no livestock operations on this land. Agricultural lands used for crops are considered non-sensitive land



uses with regard to landfilling activities. None of these agricultural uses are on lands considered prime agricultural lands, as defined by the Ottawa-Carleton Land Evaluation and Area Review (LEAR) evaluation system.

5.3.2 Future Land Uses

The future planned uses for the Regional Study Area are governed by the Ottawa Official Plan (**Figure 4**), the Carp Road Corridor CDP (**Figure 5**), and the Ottawa Comprehensive Zoning By-law (**Figure 6**). The planned uses in these documents for the Regional Study Area are very similar to those described for the Site-Vicinity Study Area in Section 5.2.2. of this report. Only the differences in future planned uses are therefore noted in this Section of the report.

Ottawa Official Plan

- In addition to the land use designations described in the Site-Vicinity Study Area in Section 5.2.2 of this report, the Rural Natural Features Area land use designation appears in the Regional Study Area, as shown on **Figure 4**.
- The existing landfill footprint, immediately south of the Preferred Alternative Landfill Footprint, is identified with a Solid Waste Disposal Site symbol. Policies for this land use designation (Section 3.8, Ottawa Official Plan) require that development proposals within 500 m of a waste disposal site must demonstrate that the landfill will not have an impact on the proposed use and that there will be no impacts from the proposed use on landfill operations.
- Lands designated Rural Natural Features Area (Section 3.2.4, Ottawa Official Plan) identifies natural areas in the City's rural area that contain significant woodlands, wetlands and wildlife habitat. As such, any development within or adjacent to these lands must be assessed in terms of its impact on the area's natural features and functions, particularly impacts arising from the extent of disturbance and the location of buildings. Uses such as agriculture, forestry, conservation uses, residential uses on existing lots of record or those created by severance, animal boarding and training facilities, bed and breakfast establishments, open space uses, and cemeteries are permitted without a zoning by-law amendment. Although residential uses, cemeteries, bed and breakfast establishments and agricultural uses involving livestock operations are considered sensitive to landfilling operations, the Official Plan does not restrict sensitive land uses on properties located greater than 500 m from a landfill footprint.



Carp Road Corridor CDP

- In addition to the land use designations described in the Site-Vicinity Study Area in Section 5.2.2 of this report, the Highway Commercial Area and Deferred Policy Area land use designations appear in the Regional Study Area, as shown on **Figure 5**.
- There are two pockets of lands designated Highway Commercial Area at the northern and southern ends of Carp Road within the Regional Study Area. The policies of this designation target uses that require direct access to an arterial road, large parking areas and extensive displays to capture the attention of the passing public. Permitted uses include automotive service facilities, automobile sales and repair facilities and tourist accommodation. Convenience commercial such as stores, restaurants, banks and gas stations are not permitted. Although some commercial uses such as tourist accommodations are considered sensitive to landfilling operations, the Official Plan does not restrict sensitive land uses on properties located greater than 500 m from a landfill footprint.
- There is also a Deferred Policy Area south of Highway 417 and east of Carp Road, which was subject to an appeal at the OMB at the time the CDP was adopted by Council. The appeal was seeking to redesignate the lands to General Urban Area but was rejected by the Board. The policies of the CDP state that “consideration of the appropriate designation of the lands in the Deferred Policy Area will be deferred until the Official Plan appeal process has been exhausted.” The City has confirmed that there have been no amendments to the CDP since its adoption and therefore these lands have not been updated to reflect the OMB decision as they are reflected in the Official Plan. Therefore, any proposed development on these lands may require an amendment to the CDP.

Ottawa Comprehensive Zoning By-law

- The Zoning By-law, adopted by Council in 2008, generally reflects the land use designations and intended uses of the Carp Road Corridor CDP and the Ottawa Official Plan.
- In addition to the zones described in the Site-Vicinity Study Area in Section 5.2.2 of this report, the Rural Residential (RR) Zone appears in the Regional Study Area, as shown on **Figure 6**.
- The Rural Residential (RR) Zone reflects the country lot subdivisions found in this portion of the Study Area. Although residential uses are considered sensitive to landfilling operations, the Official Plan does not restrict sensitive land uses on properties located greater than 500 m from a landfill footprint.



Summary

- There are many residential land uses located within the Regional Study Area. These uses are concentrated in two country lot subdivisions in the rural northwestern portion of the Study Area. All of these residential uses are in conformity with the policies of the Official Plan. These uses are beyond the generalized 500 m prescribed influence area of a landfill site, as outlined in MOE Guideline D-4 and Ottawa Official Plan policies. The impact on these sensitive land uses will need to be studied with regard to the potential influence area of the Preferred Alternative Landfill Footprint.
- Many of the future uses in the Regional Study Area are intended for industrial, commercial, mineral extraction, and natural uses which are not considered sensitive to landfilling operations. Although some of the future uses in the Regional Study Area, such as residential and some types of commercial and agricultural uses are considered sensitive to landfilling operations, the Official Plan does not restrict sensitive land uses on properties located greater than 500 m from a landfill footprint.

6. Land Use Net Effects

The previously identified potential effects and recommended mitigation or compensation measures associated with the Preferred Alternative Landfill Footprint were reviewed to ensure their accuracy in the context of the preliminary design of the Preferred Alternative Landfill Footprint, based on the more detailed understanding of the Land Use environment developed through the additional investigations. With this in mind, the confirmed potential effects, mitigation or compensation measures, and net effects are summarized in **Table 1** and described in further detail in the sections below.

6.1 Potential Effects on Land Use

The evaluation of potential effects is described according to the four indicators that were selected for the “effects on current and planned future land uses” Environmental Sub-Component.

6.1.1 Current Land Uses

The evaluation of “current land uses” employed the City of Ottawa’s GIS land use mapping for the area. These maps were last updated on a city-wide scale in 2008; subsequent land use changes have been monitored and incorporated into the City’s mapping by the study team. The



applicable designations in the City of Ottawa Official Plan, the Carp Road Corridor CDP, and the City of Ottawa Comprehensive Zoning By-law were also consulted to determine the existing land uses in the area.

The main land use effects for the Preferred Alternative Landfill Footprint are the loss of some rural/agricultural lands as well as some wooded and shrub lands. There is also some industrial land that would be converted for the new footprint, including an exhausted sand pit that was previously used to extract daily cover material.

There are seven residential properties and one livestock operation (i.e., cattle) that fall within the 500 m Site-Vicinity Study Area. No other potentially sensitive land uses (as defined in Guidelines D-1 and D-4, and associated Procedures) are found within 500 m of the Preferred Alternative Landfill Footprint.

6.1.2 Planned Future Land Uses

The Preferred Alternative Landfill Footprint falls completely within the planning area of the Carp Road Corridor CDP. The lands that would be used to construct this option are designated Heavy Industrial and Light Industrial in the CDP. These designations do not permit waste disposal operations but they are more compatible with waste disposal uses than rural or residential uses. The CDP anticipates the potential expansion of the landfill site and indicates that if an expansion proceeds, a zoning by-law amendment will be required in addition to the EA.

Four of the residences within the 500 m Site-Vicinity Study Area are designated for Light Industrial uses in the Carp Road Corridor CDP and are therefore non-conforming to the future land use vision for this area. These residences include three adjacent properties along Richardson Side Road (north side, next to Cardevco-West Hunt Industrial Area) and one property immediately south of the intersection of Carp Road and Richardson Side Road.

The Carp Road Corridor CDP also identifies a Convenience Commercial node at the intersection of Carp Road and Richardson Side Road, a portion of which falls within the 500 m Site-Vicinity Study Area. The purpose of the Convenience Commercial nodes in the Carp Road Corridor is to satisfy some of the day to day service and retail requirements of area residents and employees. As such, examples of Convenience Commercial land uses include convenience stores, professional offices, business offices, gas bars, banks, and restaurants. Some of these uses, in particular restaurants and offices, may be considered sensitive land uses.

The 1.5 km Regional Study Area takes in a greater portion of the Carp Road Corridor CDP area. The lands in the southern end of the corridor are designated primarily for industrial uses, which are mainly concentrated in the A.G. Reed Industrial Park on the south side of Highway 417 and



the Cardevco-West Hunt Industrial Area on the north side of Richardson Side Road. The vacant lots in these industrial parks indicate that there will be more industrial development in the corridor in the future; however, industrial uses are generally considered compatible with a landfill and its related uses. Outside the corridor, there are some marginal agricultural lands and country lot subdivisions. Within the country lot subdivisions, there are some vacant lots which are expected to be filled in with new residences in the longer term.

6.1.3 Types and Proximity of Off-site Recreational Resources within 500 m of Landfill Footprint

Off-site recreational resources of the type considered under this indicator are described in provincial land use Procedure D-1-3 (Land Use Compatibility: Definitions) issued by the Province of Ontario in July 1995. These include uses such as a trailer park or picnic area. During the evaluation, no recreational resources were found within 500 m of the Preferred Alternative Landfill Footprint. There are no effects with respect to this indicator.

6.1.4 Type(s) and Proximity of Off-site Sensitive Land Uses (i.e., dwellings, churches, cemeteries, parks) within 500 m of Landfill Footprint

Similar to the above, off-site sensitive land uses are described in provincial land use Procedure D-1-3 (July 1995). These land uses generally include places where people sleep (i.e., dwellings), churches, cemeteries and parks. There are seven residences within 500 m of the landfill footprint. Measures would need to be put in place to manage any potential nuisance (e.g., noise, odour, visual impact) resulting from the construction and operation of the landfill site within 500 m of these residences.

There is a livestock operation on the west side of William Mooney Road that would potentially be affected by the new landfill. Further details can be found in the Agriculture Detailed Impact Assessment.

6.2 Mitigation and/or Compensation Measures

6.2.1 Mitigation Measures

The Carp Road Corridor CDP includes compatibility guidelines to ensure that industrial uses in the Carp Road Corridor can co-exist with adjacent residential uses. These guidelines include locating all unsightly and noise-generating elements (e.g., service lanes, loading zones, and outdoor storage) away from residential properties, and physically buffering industrial uses from adjacent residential uses with landscaping (e.g., berms and dense evergreen plantings). These measures may provide some degree of mitigation from any visual and noise effects generated by the landfill.



The City of Ottawa Official Plan also provides a number of complementary compatibility criteria which seek to avoid land use conflicts between uses. Of particular application to the landfill site and the residential properties in the vicinity are those relating to noise and air quality. Best management practices will therefore be required to minimize the potential for significant adverse effects on adjacent sensitive land uses relative to noise, odours and other emissions. Mitigation measures are expected to include:

- Daily cover of the landfill;
- Installation of a landfill gas collection system;
- Berms and evergreen buffers; and
- Fencing.

6.2.2 Compensation

While it is expected that the mitigation measures will be sufficient to avoid significant negative effects on sensitive land uses within the Site-Vicinity Study Area, there may be situations where it is appropriate to compensate neighbours for certain effects. In terms of land use, in the ToR WM committed to developing a property value protection plan as part of the EA.

Four of the existing sensitive land uses (i.e., three residences, and the livestock operation along the west side of William Mooney Road) are on lands either owned or optioned by WM.

6.3 Net Effects

The mitigation and compensation measures described in Section 6.2 above should be sufficient to significantly reduce or eliminate negative land use effects on adjacent properties. Consequently, there will be minimal net effects of the Preferred Alternative Landfill Footprint on adjacent land uses.



Table 1. Potential Effects, Proposed Mitigation and Compensation Measures, and Resulting Net Effects

ID Number	Potential Effect	Mitigation/ Compensation	Net Effect
1.	▶ Loss of agricultural, wooded and idle/shrub lands within the On-Site Study Area (Preferred Alternative Landfill Footprint).	▶ None	▶ Loss of agricultural, wooded and idle/shrub lands within the On-Site Study Area (Preferred Alternative Landfill Footprint).
2.	▶ The Carp Road Corridor CDP anticipates Light Industrial and Heavy Industrial uses on the Preferred Alternative Landfill Footprint. The landfill will remove this land from the supply of industrial lands in the corridor; however, a landfill operation is compatible with and similar to industrial uses.	▶ None	▶ The Carp Road Corridor CDP anticipates Light Industrial and Heavy Industrial uses on the Preferred Alternative Landfill Footprint. The landfill will remove this land from the supply of industrial lands in the corridor; however, a landfill operation is compatible with and similar to industrial uses.
3.	▶ Within the 500 m Site-Vicinity Study Area, there are a number of existing sensitive land uses: <ul style="list-style-type: none"> ▪ Five residences along Richardson Side Road ▪ Two residences along William Mooney Road ▪ One livestock operation along the west side of William Mooney Road 	▶ Buffering using berms and evergreen plantings will reduce the visual and noise effects for surrounding sensitive land uses. ▶ The landfill gas collection system and daily cover operations will reduce odours for adjacent and nearby properties. ▶ Three of the residences and the lands where the livestock operation is located are currently owned or optioned by WM; compensation for remaining sensitive land uses within the Site-Vicinity Study Area may be necessary if negative land use effects result.	▶ The sensitive land uses within 500 m remain; however, mitigation measures applied will minimize nuisance effects.
4.	▶ Some of the land use designations within the 500 m Site-Vicinity Study Area, permit land uses that are sensitive to the landfilling activities. Examples include: <ul style="list-style-type: none"> ▪ Convenience Commercial node at the intersection of Richardson Side Road and Carp Road (Carp Road Corridor CDP); ▪ General Rural Area (City of Ottawa OP) 	▶ The policies in Section 3.8 of the Official Plan (Waste Disposal Sites) prohibit sensitive land uses within 500 m of a landfill. Thus, despite the permissions in some of these land use designations, the policies of Section 3.8 would prevail, preventing these sensitive land uses from being established.	▶ Given policies within the Official Plan, sensitive land uses will be prevented from being established within 500 m of the landfill.

7. Impact Analysis of Other WCEC Facilities

The additional WCEC facilities that are existing, planned, approved, or reasonably foreseeable are also located on the On-Site Study Area. **Table 2** below reviews each WCEC facility with regard to its impact on existing and future planned uses for the lands.

Table 2. Land Use Impact Analysis of Other WCEC Facilities

WCEC Facility	Existing Land Use	Official Plan Land Use Designation	Carp Road Corridor CDP	Zoning By-law
Leachate Treatment Facility	industrial	Carp Road Corridor Rural Employment Area ✓ Permitted use	Solid Waste Disposal ✓ Permitted use	RH1[269r]-h ✓ “waste processing & transfer facility” is a permitted use
Leachate Evaporator	industrial	Carp Road Corridor Rural Employment Area ✓ Permitted use	Solid Waste Disposal ✓ Permitted use	RH1[269r]-h ✓ “waste processing & transfer facility” is a permitted use
Gas to Energy Facility (existing)	industrial	Carp Road Corridor Rural Employment Area ✓ Permitted use	Solid Waste Disposal ✓ Permitted use	RH1[270r] ✓ “utility installation” is a permitted use
Greenhouse	industrial / wooded area	Carp Road Corridor Rural Employment Area ✓ Permitted use	Solid Waste Disposal ✓ Permitted use	RH1[269r]-h ✓ “waste processing & transfer facility” is a permitted use
Materials Recovery Facility (C&D / Organics)	industrial	Carp Road Corridor Rural Employment Area ✓ Permitted use	Solid Waste Disposal ✓ Permitted use	RH1[269r]-h ✓ “waste processing & transfer facility” is a permitted use
Public Drop-off	industrial	Carp Road Corridor Rural Employment Area ✓ Permitted use	Heavy Industrial Area ✓ Permitted use	RH ✓ “waste processing & transfer facility” is a permitted use

The concentration of industrial uses on lands designated Carp Road Corridor Rural Employment Area in the Ottawa Official Plan and lands designated Solid Waste Disposal and Heavy Industrial Area in the Carp Road Corridor CDP, are consistent with the land use policies of these Plans.



8. Monitoring and Commitments for the Undertaking

To ensure that the mitigation measures identified in Section 6 of this report are implemented as envisioned, a strategy and schedule was developed for monitoring environmental effects. With these mitigation or compensation measures and monitoring requirements in mind, commitments have also been proposed for ensuring that they are carried out as part of the construction, operation, and maintenance of the landfill.

8.1 Monitoring Strategy and Schedule

As mentioned, a monitoring strategy and schedule was developed based on the Land Use Impact Assessment carried out for the Preferred Alternative Landfill Footprint to ensure that: 1) predicted net negative effects are not exceeded, 2) unexpected negative effects are addressed, and 3) the predicted benefits are realized.

8.1.1 Environmental Effects Monitoring

From a land use perspective, the primary concern would be to ensure that new sensitive land uses are not established within 500 m of the landfill site. The policies in the City's Official Plan may be sufficient to prevent the City from approving such uses; however, WM should also be proactive in ensuring that development proposals in the area will not impact negatively on their operations.

WM should also be aware of any major policy reviews which may have an impact on their operations from a land use perspective. Examples would include the Official Plan (reviewed every 5 years), the Zoning By-law, and the Carp Road Corridor CDP. Decisions of the OMB should also be monitored on a regular basis to ensure that these do not adversely affect land use policies as they apply to waste disposal operations.



Table 3. Proposed Monitoring Requirements

ID Number/Potential Effect	Proposed Monitoring Requirement	Associated Licences, Permits or Authorizations
<ul style="list-style-type: none"> ▶ The Carp Road Corridor CDP anticipates Light Industrial and Heavy Industrial uses on the Preferred Alternative Landfill Footprint. The landfill will remove this land from the supply of industrial lands in the corridor; however, a landfill operation is compatible with and similar to industrial uses. ▶ Some of the land use designations within the 500 m Site-Vicinity Study Area, permit land uses that are sensitive to the landfilling activities. 	<ul style="list-style-type: none"> ▶ Monitor all major policy reviews (e.g. OP, CDP, Rural Review, proposed Waste Transfer & Processing Facilities regulations) to determine whether any policy changes will affect the landfill operations. 	None required
<ul style="list-style-type: none"> ▶ The Carp Road Corridor CDP anticipates Light Industrial and Heavy Industrial uses on the Preferred Alternative Landfill Footprint. The landfill will remove this land from the supply of industrial lands in the corridor; however, a landfill operation is compatible with and similar to industrial uses. ▶ Some of the land use designations within the 500 m Site-Vicinity Study Area permit land uses that are sensitive to the landfilling activities. 	<ul style="list-style-type: none"> ▶ Monitor OMB hearings on the status of the urban boundary expansion and any development applications that are appealed. 	None required

8.1.2 Development of an Environmental Management Plan

An Environmental Management Plan (EMP) or Plans will be prepared following approval of the undertaking by the Minister of the Environment and prior to construction. The EMP will include a description of the proposed mitigation measures, commitments, and monitoring.

8.2 Commitments

The following commitments have been proposed for ensuring that the identified mitigation or compensation measures and monitoring requirements are carried out as part of the construction, operation, and maintenance of the undertaking:

- a) If any proposals for sensitive land uses are posted by the City, WM should review the documentation submitted with the application(s) and provide comments to the City of Ottawa, where appropriate.



- b) WM should keep up to date on the status of City-initiated reviews of major planning documents such as the Official Plan, the Carp Road Corridor CDP, the Rural Review and proposed Waste Transfer & Processing Facilities regulations, and provide comments where appropriate.
- c) WM should keep up to date on relevant OMB decisions, such as those affecting the urban boundary.

9. Land Use Approvals Required for the Undertaking

9.1 Overview

The existing landfill site is identified as a Waste Disposal Site in the City of Ottawa Official Plan. The Waste Disposal Site symbol does not determine the boundaries of the landfill site; the physical extent of a landfill site is to be regulated through the Zoning By-law. **An amendment to the Official Plan is not required**; City of Ottawa Staff has confirmed this understanding of the policies.

Any expansion to an existing designated Solid Waste Disposal Site **requires a zoning by-law amendment**, which is subject to the same criteria applied to the establishment of new landfill sites (City of Ottawa Official Plan, Section 3.8, Policy 4). The applicable criteria are outlined in Policy 2 of Section 3.8 of the Official Plan, as follows:

- a) The proponent has completed an Environmental Assessment or an Environmental Screening Report under the Environmental Assessment Act considering such items as the:
 - i. Rationale for the undertaking;
 - ii. Potential impact on the City's commitment to waste reduction, reuse and recycling;
 - iii. Potential community, public health, transportation, environmental, visual, financial and land use impact of the facility;
 - iv. Use of mitigation measures, such as buffers and setbacks, to address potential land use conflicts;
 - v. Potential impacts and mitigation measures related to air traffic;
 - vi. Potential impacts and mitigation measures related to roads and haul routes to the facility;



- vii. Environmental monitoring of the facility;
- viii. The end use of the facility;
- b) *Compliance with a Terms of Reference for the Environmental Assessment, as approved by the Minister of the Environment under the Environmental Assessment Act; or in the case of a project using the Environmental Screening Process, the submission of a Notice of Completion to the Ministry of the Environment.*
- c) *Does not duplicate the requirements of the Environmental Assessment Act.*

A segment of the On-Site Study Area is currently designated Sand and Gravel Resource Area. However, the mineral resources on the lands designated Sand and Gravel Resource Area have been fully extracted. Policy 14 of Section 3.7.4 states that where sand and gravel mineral resources have been fully extracted on a property, the property may be used for other purposes. The City will not require the proponent to amend the Official Plan; instead the Plan will be amended to accurately reflect the new use at the time of the next comprehensive Official Plan update or through general Official Plan amendment. However, in either scenario, Policy 14 imposes a number of requirements such as ***a technical study to demonstrate the resource has been exhausted, evidence that the license has been surrendered and any environmental issues have been addressed.*** Policy 15 states that lands that are predominantly surrounded by designations other than Agricultural Resource Area, the uses of General Rural Area will be permitted.

Based on a review of Section 41 of the *Planning Act*, and the City of Ottawa Site Control By-law (By-law No. 2002-4), as amended, ***Site Plan Control is not required.***

9.2 Zoning By-law Amendment

The process and timelines for a Zoning By-law Amendment are revised from time to time and detailed on the City of Ottawa website at:

http://ottawa.ca/residents/planning/dev_review_process/dev_application/17_3_4_en.html

Generally speaking, the requirements for a Zoning By-law Amendment include the steps and timelines detailed in the table below. Given the complexity of the application, it is likely that the Community Information and Comment Session will be required by the City, which will add at least 2 weeks to the final steps in the rezoning process. It is anticipated that the rezoning process will take a minimum of six months, exclusive of any appeals to the OMB.



Pre-application consultation with City staff (required)	Prior to Filing Application
Pre-application consultation with Public (optional)	Prior to Filing Application
Milestone Step	Calendar Days/Weeks Elapsed
Application Submission	Day 1
Application Deemed Complete	Day 6
Community "Heads Up" (if required)	Day 9
Circulation to Technical Agencies, Community Organizations and Ward Councillor	Day 14 (Week 2)
Posting of On-site Sign	Day 17 (Week 2.5)
End of Circulation Period	Day 45 (Week 6.5)
Community Information and Comment Session (CICS)	(add 2 weeks to all subsequent steps in the process)
End of Issue Resolution	Day 60 (Week 9)
Report Preparation	Day 68 (Week 10)
Report Sign-off by General Manager	Day 70 (Week 10)
Report Sign-off by Deputy City Manager	Day 77 (Week 11)
Committee Meeting Advertisement and Report Mail out to Public	Day 83 (Week 12)
Planning or Agriculture and Rural Affairs Committee Meeting	Day 98 (Week 14)
City Council Review/Passage of By-Law	Day 111 (Week 16)
Notice of Decision	Day 126 (Week 18)
End of Appeal Period	Day 146 (Week 21)

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Report Reviewed By:



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10. References

City of Ottawa, 2004:

Carp Road Corridor Community Design Plan, May 2004.

City of Ottawa, 2011:

Comprehensive Zoning By-law (By-law No. 2008-250), Consolidated to November 9, 2011.

City of Ottawa, 2003:

Official Plan, May 2003, as amended.

City of Ottawa, 2002:

Site Plan Control By-law (By-law No. 2002-4), January 2002, as amended.





Appendix A

Development Activity Update (November 24, 2011)



Development Activity Update November 24th, 2011

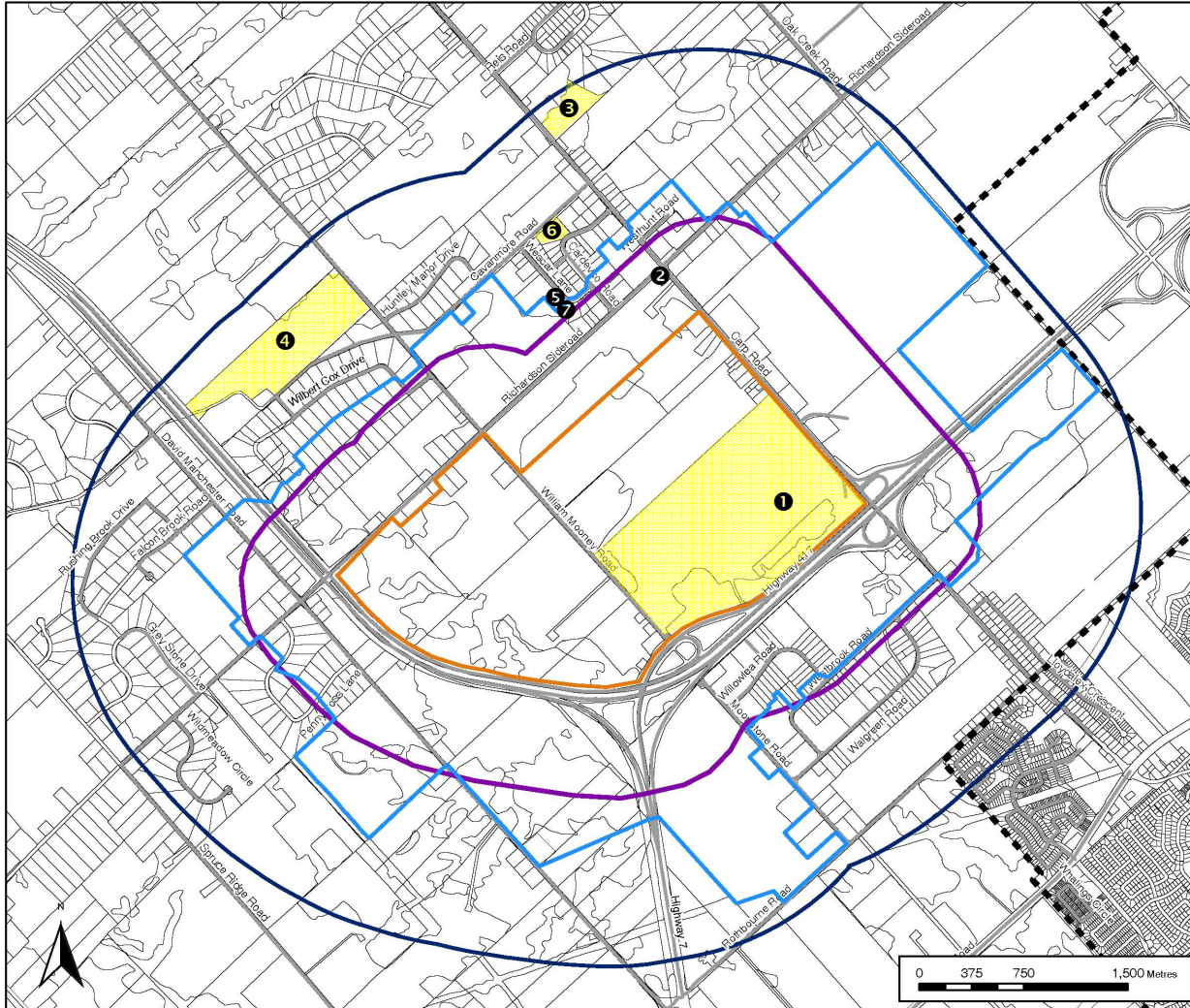
West Carleton Environmental Center New Landfill Footprint Environmental Assessment Study (EA)

Purpose: to monitor development activity within the Regional Study Area as shown on Figure 1 throughout the EA process to document any proposed changes in land uses, and in particular, identify any proposed land uses that are potentially sensitive land uses with regards to landfilling activities.

#	Application Address Application #	Application Type	Application Status
1	2301 Carp Road (subject site) D07-12-11-0127	Site Plan Control: New leachate treatment facility which includes a 374 m ² processing building and four (4) processing tanks connected to the building.	Application Approved Nov.1, 2011.
2	2491 Carp Road D02-02-10-0036	Zoning By-law Amendment: to permit display and sale to the existing use. The site is currently in a rural commercial zone and is currently used for the manufacturing of garden sheds and pre-manufactured docks.	Application received July 5 th , 2010: APPLICATION ON HOLD
3	2650 Carp Road D07-12-11-0177	Site Plan Control: To permit a maintenance & storage facility for trucks & equipment, a small office, associated parking & landscaping.	Application received Sept. 8, 2011: APPLICATION ON HOLD
4	799 William Mooney Road D07-16-09-0029	Plan of Subdivision: to develop a country lot subdivision	Application received April 21 st , 2010: APPLICATION ON HOLD
5	131 Wescar Lane D07-12-11-0100	Site Plan Control: to permit the construction of a single storey multi-tenant warehouse. It is proposed that the single storey four unit warehouse will have a combined gross floor area of 591 m ² and a height of 6.1 m.	Application Reactivated August 15 th , 2011:
6	171 Cardevco Road D07-12-11-0145	Site Plan Control: to construct 3,500 m ² , single-storey fabrication building as well as add 168 m ² addition to the existing office building.	Application received July 19, 2011: APPLICATION ON HOLD
7	123 Wescar Lane D07-12-11-0194	Site Plan Control: to permit the development of two light industrial	Application received Oct 17, 2011: Comment Period in

#	Application Address Application #	Application Type	Application Status
		use buildings with associated office, parking and landscaping. The two buildings are proposed to be 595 m ² and 715 m ² in size and are to be built out over three phases.	Progress





Property Parcel data by Teranet, 2005, updated by FoTenn Consultants, March 2011

Figure 1
Study Areas Map

- On-Site Study Area
- 500m Radius From On-Site Study Area
- Site-Vicinity Study Area
- Regional Study Area
- Urban Boundary