



Waste Management of Canada Corporation

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

AGRICULTURE EXISTING CONDITIONS REPORT

Prepared by:

Weston Graham and Associates Ltd.

Project Number:

60191228

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1. Introduction

This report provides an overview of the existing Agriculture conditions associated with the study area for the West Carleton Environmental Centre (WCEC) Environmental Assessment (EA). The Minister approved Terms of Reference (ToR) included a preliminary description of the existing environmental conditions on-site as well as within the site vicinity (See Section 7 of the approved ToR, August 2010). The ToR made a commitment that the description of the existing conditions would be expanded during the EA¹. With this in mind, investigative studies of the following environmental components were carried out for the purposes of generating a more detailed description and understanding of the environment for use in the assessment and evaluation of alternative landfill footprint options during the EA:

- Atmospheric;
- Geology and Hydrogeology;
- Surface Water;
- Biology – Terrestrial and Aquatic;
- Cultural Heritage Resources;
- Transportation;
- Land Use;
- Agriculture;
- Socio-economic; and,
- Site Design and Operations.

Each of the above disciplines also prepared draft work plans that were presented in Appendix C of the approved ToR. The work plan presents the scope of work required to complete the EA, including the scope of technical studies for each of the environmental components, including the existing conditions.

1.1 Documentation

The results of these individual studies will be documented in separate stand-alone technical memorandums during the EA. The final Existing Conditions will form a chapter of the EA Report with each of the stand-alone memorandums becoming supporting documents/appendices to the EA Report.

1. *During the EA, and following approval of work plans by the GRT, the project team will collect further information and conduct studies (desktop and field) to describe components and sub-components of the environment identified in the ToR that may be affected by the undertaking (Approved ToR, Section 7.4, p. 41)*



1.2 Agriculture Study Team

The Agriculture component of the Environmental Assessment for a new landfill footprint at the West Carleton Environmental Centre (WCEC) was carried out by Bill Graham, P.Ag., Principal of Weston Graham and Associates Limited. He has been a consultant in agriculture, land use and resource management for 48 years. He has worked extensively across Ontario for farmers and land owners, government agencies and professional firms. The work includes assessing land quality, assessing agricultural and environmental impacts of new or expanded highways on farms, and advising land owners on a range of land use issues.

2. Landfill Footprint Study Areas

The Agricultural component of the Environmental Assessment has one criterion, and that is the displacement of agricultural land. The rationale is that agricultural land will be displaced by the development of the facility if the facility is located away from the lands currently designated to accommodate waste management facilities. There are three indicators that have been identified in this regard. They are:

- Current land use;
- Predicted impacts on surrounding agricultural operations; and,
- Type(s) and proximity of agricultural operations.

The Landfill Footprint Study Areas have been defined in accordance with the approved Terms of Reference (ToR) for the Environmental Assessment. The three study areas are (see **Figure 1**):

- On-Site** the lands owned or optioned by WM and required for the new landfill. The Site is bounded by Highway 417, Carp Road and Richardson Sideroad;
- Site-Vicinity** the lands in the vicinity of the site extending about 500 metres (m) in all directions; and,
- Regional** the lands within approximately 3-5 kilometres (km) of the Site for those disciplines that require a larger analysis area (i.e., socio-economic, odour, etc).

The study areas identified above were presented in the approved ToR with the commitment that these generic study areas would be modified during the EA to suit the requirements of each environmental component. The Agriculture component is confined to the On-site and Site-vicinity study areas. The study addresses agriculture from the point of view of existing conditions in the two areas. There was no evidence to support extending the study to the Regional level (3-5 km).



3. Methodology

The methodology employed was to collect and review available information relevant to the two study areas, including Google Earth satellite imagery, contact City of Ottawa staff, and carry out a field reconnaissance to confirm land use and land use patterns. The material was analyzed and the results are presented in this report.

3.1 Data Collection

The first level of data collection consisted of a review and analysis of the following information:

- The Soils of the Regional Municipality of Ottawa- Carleton, Vol. 1, Report No. 58 of the Ontario Institute of Pedology, L.W. Schut and E.A. Wilson, Ontario Ministry of Agriculture and Food, and Agriculture Canada, Guelph, 1987 – report and soils map;
- Rural Policy Plan, Official Plan – Schedule A, Rural Policy Plan (Prepared by City of Ottawa Development Services Department, May 2003);
- Provincial Policy Statement, 2005; and
- Use of Google Earth satellite imagery, Oct. 1, 2008.

A second level of data collection was to contact City of Ottawa staff concerning any plans, studies or new regulations affecting agriculture in the area around the WCEC.

The third level of data collection was that of reconnaissance field survey by car.

3.2 Data Analysis

The first level of analysis consisted of an overview of the agricultural soils map and soils capability report, in combination with a review of the rural policy plan for the study area. This was followed by a comparison of soils and soil capability with present land use on the site and in the vicinity, using Google Earth imagery.

The second level of analysis was that of a field reconnaissance survey by car to verify findings from the previous level, and to assess types of farm activities remaining in the study area.



4. Existing Agriculture Conditions

The existing agriculture conditions On-site were dealt with on the basis of two Landfill Envelopes (see **Figure 2**).

4.1 Landfill Envelope 1 (LE-1)

LE-1 is bounded by Highway 417, Richardson Side Road, and William Mooney Road. The area contains a dairy farm and one part-time beef farm. The total area of cleared land is estimated to be about 69 hectares (ha).

The soil map shows nine different soils in this Envelope (see **Figure 3**). The cleared land is mainly on four soil types. They are Ironside, Kars, Oka, and a very small area of Osgoode. Of these Osgoode is a Class 3 for agricultural soil capability, while the other three are rated as Class 4 soils (ibid, Tables 9 & 10, p. 85 – 93). The remaining group of soils range in soil capability from Class 4 to Class 7. Soils with agricultural capability ratings of 1- 3 are those best suited to the commercial production of a range of crops, including corn, soybeans and cereals.

4.2 Landfill Envelope 2 (LE-2)

LE-2 is bounded by the current Ottawa WMF operations, William Mooney Road, a rural property, and Carp Road. LE-2 is separated from Richardson Side Road by a property that is about 302.5 m wide. The cleared agricultural land on LE-2 is comprised of four fields abutting William Mooney Road for a distance of about 295 m, and stretching toward the Carp Road for about 835 m. The area of the four fields is estimated to be about 24 ha. The soil map indicates that the four fields are mainly Osgoode sand with some Kars soil toward the Carp Road part of LE-2 (see **Figure 3**). The Osgoode soil has an agriculture soil capability rating of Class 3, and the Kars soil is a Class 4 (Report No. 58 of the Ontario Institute of Pedology, Vol. 1, p. 88 & 91). The fields are farmed by the dairy farmer across William Mooney Road in LE-1.

4.3 Site-Vicinity of LE-1

There are four properties with cleared land within 500 m of LE-1, some of which is used for hay or pasture, and some of which does not appear to be actively farmed:

- There are two small fields on the west side of David Manchester Road that are about 310 m from LE-1. They appear to be hay fields, on Grenville soil that is Class 3. The total area is about 6.6 ha.



- The second property is across William Mooney Road from LE-1, along Richardson Side Road. There approximately 16 ha of cleared land on the property. It does not appear to be actively farmed at this time.
- The CBC occupies a property at the corner of William Mooney Road and Richardson Side Road, about 83 m from the corner of LE-1. The property has about 8.3 ha of cleared land that does not appear to be actively farmed.
- Adjacent to the CBC property on Richardson Side Road is a property with four cleared fields with a total area of about 11.9 ha. These fields appear to be used for pasture.

4.4 Site-Vicinity of LE-2

There are three properties with cleared land within 500 m of LE-2, some of which is used for hay or pasture, and some of which does not appear to be actively farmed:

- The first property is adjacent to LE-2, along Richardson Side Road. There approximately 16 ha of cleared land on the property. It does not appear to be actively farmed at this time.
- The CBC occupies a property at the corner of William Mooney Road and Richardson Side Road, about 345 m from LE-2. The property has about 8.3 ha of cleared land that does not appear to be actively farmed.
- Adjacent to the CBC property on Richardson Side Road is a property with four cleared fields with a total area of about 11.9 ha. These fields appear to be used for pasture. This property is about 345 m from LE-2.

4.5 Rural Policy Plan

Schedule A of the City of Ottawa Official Plan, 2003, indicates that the land in both Landfill Envelopes has been designated “General Rural Area” (see **Figure 4**). This reflects the overall low agricultural soil capability in the area of the two Landfill Envelopes.

5. Conclusions

Development of Landfill Envelope 1 will result in the displacement of one dairy farm and one part-time beef farm. These farms are not on good agricultural soils, and they lack the



opportunity for expansion because of being confined by developments around them and in the vicinity.

Development of Landfill Envelope 1 will not have an adverse impact on agriculture in the site- vicinity because of the type of low intensity land use activities being carried out in the area.

Development of Landfill Envelope 2 will have an adverse impact on the dairy farm in LE-1 because of the loss of the 24 ha of cropland which are needed to feed the dairy herd.

Development of Landfill Envelope 2 will not have an adverse impact on agriculture in the site- vicinity because of the type of low intensity land use activities being carried out in the area.

6. Recommendations / Further Work

There are no recommendations for further work.

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Report Reviewed By:

Weston Graham and Associates Ltd.

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Agriculture Consultant

Bill McDonough
Waste Management



7. References

The Soils of the Regional Municipality of Ottawa- Carleton, Vol. 1, Report No. 58 of the Ontario Institute of Pedology, L.W. Schut and E.A. Wilson, Ontario Ministry of Agriculture and Food, and Agriculture Canada, Guelph, 1987 – report and soils map.

Rural Policy Plan, Official Plan – Schedule A, Rural Policy Plan (Prepared by City of Ottawa Development Services Department, May 2003);

Provincial Policy Statement, 2005 (online);

Google Earth satellite imagery, Oct. 1, 2008 (online).



Figures



Map Document: (P:\60191228\000-CA-DD\050 GIS WIP\MXD\Working\MXD\60191228\OverviewMap.mxd)
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- Legend**
- Project Study Area
 - Current Ottawa WMF Operations

Basemapping from Ontario Ministry of Natural Resources
Orthophotography: 2005, 2008 and 2010

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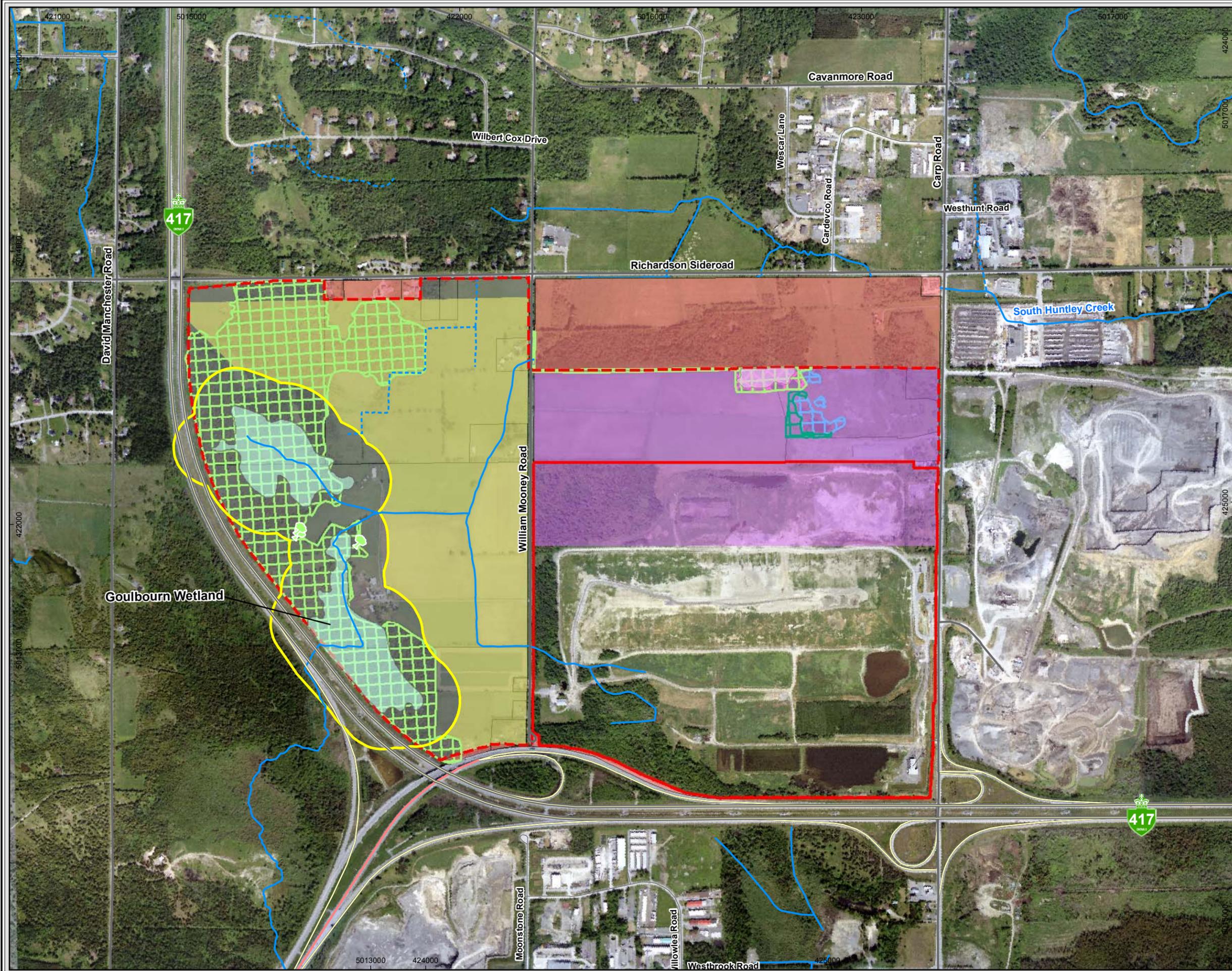
Waste Management of Canada Corporation
West Carleton Environmental Centre

Study Area

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Figure 1

Map Document: (P:\0191228\000-CA-DD\050 GIS WIP\MXD\Working\MXD\08191228 Landfill Envelopes.mxd)
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Legend

- Butternut Tree
- Intermittent Stream
- Permanent Stream
- PSW Buffer Area (120 m)
- CA Regulated Wetland
- PSW
- Woodlot
- Amphibian Breeding and Hibernation Site
- Non-Regulated Wetland
- South Huntley Riparian Zone
- Wetland Bank
- Lands Owned/Optioned by WM
- Lands Not Owned/Optioned by WM
- Project Study Area
- Current Ottawa WMF Operations
- West Footprint Option
- North Footprint Option

Basemapping from Ontario Ministry of Natural Resources
 Orthophotography: 2005, and 2010

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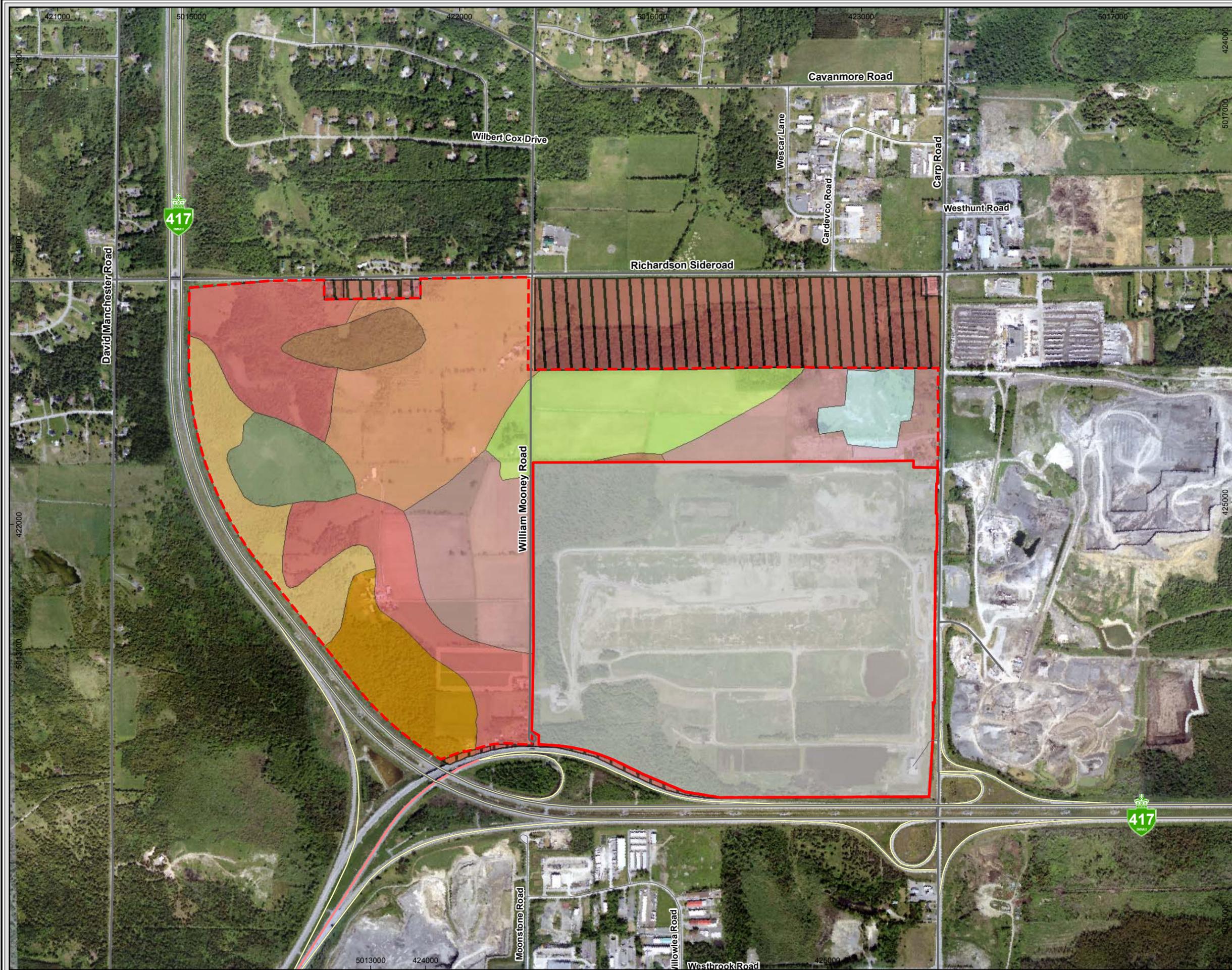
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Landfill Envelopes

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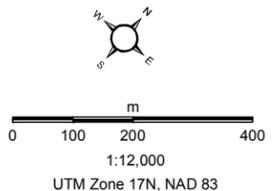
Figure 2



Legend

- Current Ottawa WMF Operations
- Project Study Area
- Optioned**
- Lands Not Owned/Optioned by WM
- Soil Association**
- Osgoode
- Ironside
- Jockvale
- Kars
- Oka
- Farmington
- Grenville
- Current Landfill
- Greely
- GP (Gravel Pit)

Soils mapping from "The Soils of the Regional Municipality of Ottawa-Carleton" Vol.1. Report No. 58 of the Ontario Institute of Pedology (1987)
 Basemapping from Ontario Ministry of Natural Resources
 Orthophotography: 2005, and 2010



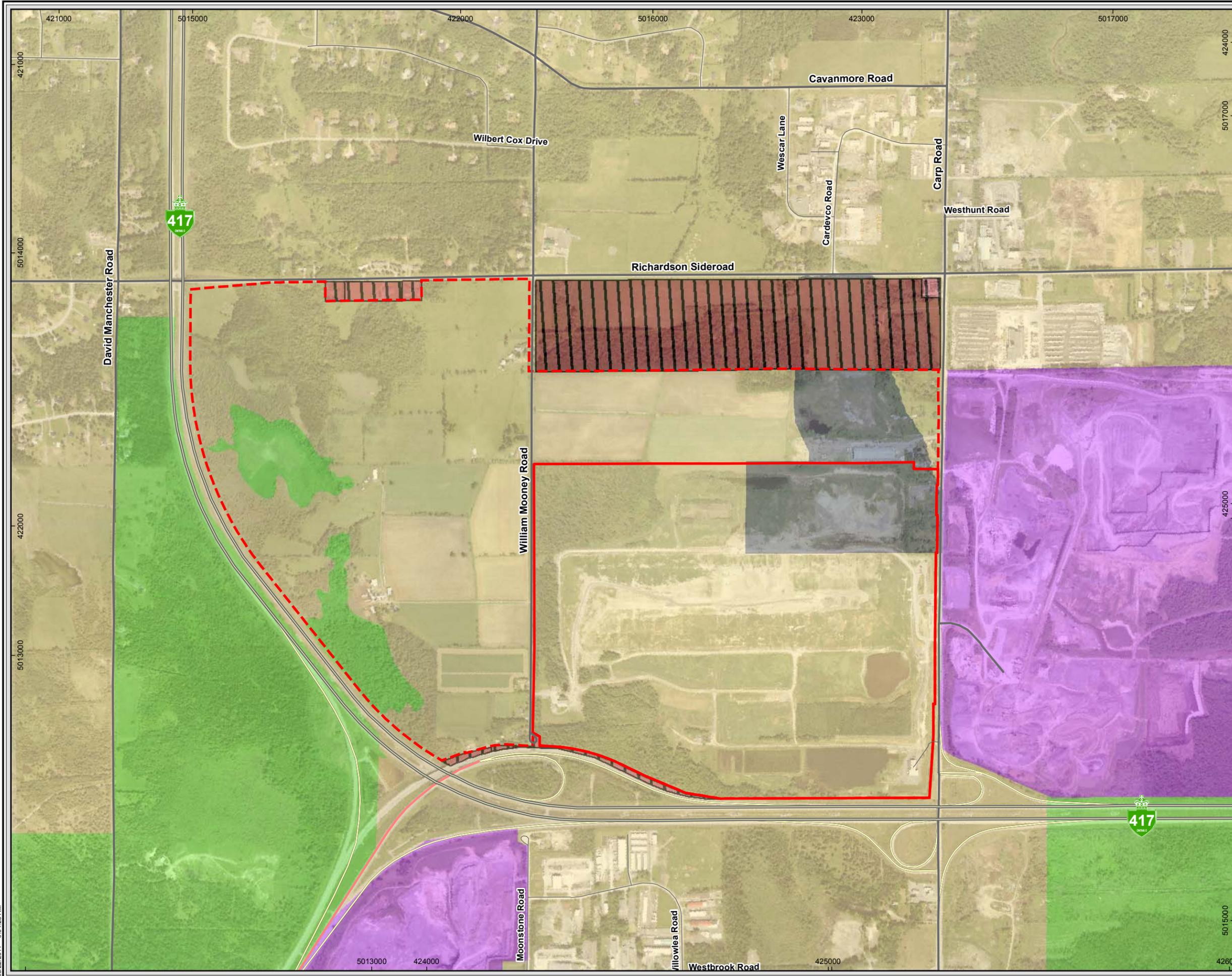
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Soils

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Figure 3



Legend

- Current Ottawa WMF Operations
- Project Study Area
- Optioned**
- Lands Not Owned/Optioned by WM
- General Rural Area
- Limestone Resource Area
- Sand and Gravel Resource Area
- Rural Natural Features Area

Official Plan - Schedule A Rural Policy Plan
Prepared by: City of Ottawa Development Services
Department, Research and Technical Division, May 2003
Basemapping from Ontario Ministry of Natural Resources
Orthophotography: 2005, and 2010



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Rural Policy Plan

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Figure 4