2.0 PROJECT CONTEXT

2.1 BACKGROUND

Consideration to develop the East Side Lands was initially identified through the Regional Growth Management Strategy (2003), which identifies lands east of the Grand River and in the vicinity of the Region of Waterloo Airport as a future greenfield development area. The area was recognized as a significant opportunity for development, requiring appropriate partnerships and coordinated approaches to land use and infrastructure planning.

In 2004, the East Side Community Scoping Study was developed to recommend an approach to planning for future development within the East Side Lands. The study recommended the development of a Structure Plan to coordinate work between the Region of Waterloo, Township of Woolwich and the Cities of Cambridge and Kitchener.

The East Side Community Structure Plan and Proposed Highway 401-97 Industrial Area Expansion (2006) were developed to identify staging for the development of the East Side Lands. The Plan evaluates a series of staging scenarios, and ultimately recommends Scenario 4, which conceptually identifies the staging of development, described generally as follows:

- Stage 1 consists of lands within the vicinity of Middle Block Road, and was identified as a priority Employment Lands area.
- Stage 2 consists of the central lands within the East Side Lands, inclusive of the Airport as well as lands to the south and to the north.
- Stage 3 consists of lands to the east and south of the community of Breslau.
- Stage 4 consists of land to the northeast of the East Side Lands.

In June 2007, Regional Council approved Regional Official Policies Plan Amendment No. 28 (ROPPA 28) to designate approximately 150 net hectares of land for large lot employment uses. As a result of an Ontario Municipal Board (OMB) Settlement, additional land west of Founta in Street and south of Allendale Road, and east of Speedsville Road were included. In June 2009, Regional Council adopted the new Regional Official Plan (ROP), approved June 15, 2015, which includes the land designated as part of ROPPA 28, plus additional land for a total of approximately acres 300 net hectares (741 net acres) as Prime Industrial Strategic Reserve (PISR).

The Stage 1 study is now complete and is briefly discussed below. The boundaries of the Stage 2 Lands, as being considered for urban development through this study, consists of lands in the northerly portion of Cambridge, south of the airport and in proximity of Breslau within Woolwich Township. The boundaries for the Stage 2 Lands are not based on the staging noted above, but rather has been based on the Region of Waterloo’s Official Plan policies, which requires an urban area expansion to be contemplated beginning in 2016 for these lands.
2.1.1 STAGE 1 LANDS MESP AND COMMUNITY PLAN

The MESP and Community Plan study for the Stage 1 Lands was initiated on June 14, 2011, with issuance of the Notice of Commencement and Notice of Public Information Centre #1. The process included extensive public and stakeholder consultation, including four Public Information Centres (PICs). The MESP was inclusive of a subwatershed study for Freeport Creek and Tributary to the Grand, a Master Drainage Plan, Transportation System Assessment and Municipal Water and Wastewater Servicing Assessment. The Community Plan provided a framework for land use and community design and recommended implementation of an Official Plan Amendment. The MESP was also complemented by a Fiscal Impact Analysis Report, identifying costs and benefits associated with developing the Stage 1 Lands, and recommending financing tools. In accordance with the recommendations of previous studies and the ROP, the Stage 1 Lands were recommended to be developed for large lot employment uses. The process concluded on May 14, 2014 with the issuance of the Notice of Completion.

2.2 STUDY AREA

The focus of this study is a portion of lands within the East Side Lands in the Region of Waterloo. The boundaries of the Project Study Area, including the Stage 2 Lands, as well as the East Side Lands, are illustrated in Figure 2-1. Although the ultimate purpose of this study is to result in a framework for development of just the Stage 2 Lands, it is recognized that the broader area must be considered, as it will be important to consider the broader impacts and implications of development on surrounding lands, including the subwatersheds. The study area can be considered to include the following components:

The East Side Lands refer to the broad area of approximately 4,065 ha of land within the City of Cambridge and the Township of Woolwich, within the east side of the Region of Waterloo, east of the Grand River. The lands are generally bounded by the Grand River to the west, Shantz Station Road to the east, the new Highway 7 corridor alignment to the north, and as far as Maple Grove Road to the south.

The Project Study Area (PSA) has been identified to be generally coincident with Randall and Breslau Drain subwatersheds. The area extends from the Grand River to the west and Shantz Station Road to the east, but only including lands as far as the rail corridor to the north and Middle Block Road to the south. These northerly and southerly boundaries are intended to be generally coincident with the boundaries of the Breslau and Randall Municipal Drain subwatersheds. A more detailed area of focus is the Stage 2 Lands, which will represent the potentially developable area.

The Stage 2 Lands (the detailed study area) consist of lands within the Project Study Area, including a portion of land in the City of Cambridge, and two portions of land in the Township of Woolwich. This area consists of approximately 616 ha of land. Lands in Cambridge are located in the vicinity of Kossuth Road, south of the Airport, at the north end of the municipality and are referred to as the ‘Randall’ portion of the Stage 2 Lands, referring to the fact that they are located within the Randall Drain subwatershed. In Woolwich, the two land parcels abut the community of Breslau, which is subject to the Breslau Secondary Plan. The larger of the two
areas within the Township is immediately east of the existing Breslau community and is referred to as the ‘Breslau’ portion of the Stage 2 Lands; a smaller land area is located west of the existing community and is referred to as the ‘Riverland’ area, referencing the naming convention used in existing reports for this area. All three areas of the Stage 2 Lands are shown on Figure 2-1. The most detailed level of study will take place within the Stage 2 Lands, where future land use and development options will be considered. For lands within the City of Cambridge, a Secondary Plan (Official Plan Amendment) will also be an outcome of this broader MESP study process.

2.2.1 PROJECT STUDY AREA

The PSA level of study will be used to determine subwatershed surface drainage function, as well as broader natural heritage features and functions. This was assessed primarily through secondary source information and reconnaissance-level field analysis.

Within the PSA the objective of this study is to characterize the existing conditions, primarily through the collection and review of secondary source information including:

- Historical air photos
- Environmental reports relevant to the study area
- Databases and monitoring information (e.g., Natural Heritage Information Center / Biodiversity Explorer, Ministry of Natural Resources and Forestry)
- GRCA, Region, City, Township, Ontario Breeding Bird Atlas (OBBA), Ontario Herpetofaunal Atlas
- Other relevant information (e.g., naturalist group species records / observations), as available

The PSA study objective also applies to the Stage 2 Lands and forms the basis for the more detailed level of study undertaken within the Stage 2 Lands. Note that some detailed field surveys were undertaken within the PSA where potential implications for land use planning within the Stage 2 Lands existed; scoped refinements to the descriptions for some natural heritage features in the PSA are provided.

2.2.2 STAGE 2 LANDS

The objective of the Natural Heritage portion of the MESP within the Stage 2 Lands is to complete a detailed inventory and assessment of existing conditions which will be used as the basis for assessments and recommendations on Natural Heritage management and provide input to other aspects of the MESP. Specifically, this has included four seasons of detailed field surveys following accepted protocols and guidelines.

Field survey components are listed in Section 2.4 and described in detail in respective sections of the current report.
Data analysis and evaluation has included preparation of species inventories, habitat assessments, and evaluations of significance and sensitivity using relevant guidelines and policy, as described in Section 2.5 and various areas of the current report.

2.3 Secondary Source Review

Prior to field investigations, agency contact was initiated and relevant background material was collected and reviewed. The planning framework was reviewed to ensure compliance with regulations and policy and guideline requirements, and to provide a focus to the field investigations.

Specifically, the following sources of information were reviewed to supplement and provide context for field investigations:

2.3.1 Directly Related Technical Reports (Completed or Ongoing)

- East Side Lands (Stage 1 Lands) MESP (including the MESP document, Community Plan, Fiscal Impact Analysis Report and Appendices - Freeport Creek and Tributary to the Grand Subwatershed Study, Master Drainage Plan, Transportation System Assessment and Municipal Water and Wastewater Servicing Requirements Assessment, Dillon et al. (2014))
- East Side Lands (Stage 1 Lands) MESP – Appendix B1 – Final Draft: Freeport Creek and Tributary to the Grand Subwatershed Study. Aquafor Beech (November 2013)
- East Side Subwatersheds Study: Annual Monitoring Reports from 2005-2014. GRCA
- Breslau Secondary Plan and supporting documentation (on-going)
- Hespeler West Subwatersheds Study and Appendices (September, 2004)
- Environmental Study Report for the Fountain Street Improvements (Fairway Road / Kossuth Road to Cherry Blossom Road) Municipal Class Environmental Assessment
- Drainage Investigation Along Regional Road 17 Middleblock Road to Kossuth Road (KSmart, 2003)
- Floodplain Mapping for Breslau Drain and Hopewell Creek, Breslau Settlement Plan (SCS Consulting, 2015)
• Hydrologic Characterization and Streamflow Analysis Memo (AquaResource, 2011)
• Region of Waterloo International Airport SWM Report (Stantec, 2003)
• Greenlands Network Implementation Guideline, Region of Waterloo
• Water Supply Study for the Fountain Street and Maple Grove Area Class Environmental Assessment, Final Environmental Study Report (MTE, 2014)
• Waterloo International Airport Master Planning Study (MMM Group Limited, 2014)
• Empire Riverland Area 2 Scoped EIS Addendum (MMM Group Limited, 2016)

2.3.2 BACKGROUND / POLICY DOCUMENTS
• Regional Official Plan (2015)
• Region of Waterloo Growth Management Strategy (2003)
• Regional Official Policies Plan (1995)
• City of Cambridge Official Plan (2012)
• Township of Woolwich Official Plan (consolidated, 2012)
• Region of Waterloo East Side Community Structure Plan (2006)
• Region of Waterloo International Airport Master Plan
• City of Cambridge, Stormwater Management Policies and Guidelines (2011)
• Regulation of Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Ontario Regulation 150/06. (GRCA, 2006)
• Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation (GRCA, 2015)
2.3.3 **COMPLETED OR ONGOING EAS**

- Fairway Road EA (completed)
- Region of Waterloo Rapid Transit EA (completed)
- North Cambridge Business Park EA (ongoing)

2.3.4 **OTHER**

- Aerial photography, including historic images
- GIS data (LIO, GRCA)
- Hydrologic and floodplain models
- Ontario Ministry of the Environment and Climate Change Water Well Records
- Monitoring well information provided by the Region of Waterloo in their WRAS+ Database

These reports and data were reviewed in order to provide a description of the existing environmental conditions within the Project Study Area and were built into the Watershed Characterization completed in this report, as appropriate (Section 3). Background and other data sources are listed in the references section of this report.

2.4 **FIELD SURVEYS**

Comprehensive multi-season field surveys have been undertaken within the Stage 2 Lands and portions of the PSA – refer to relevant text and figures for clarification. Surveys were undertaken on properties where Permission to Enter (PTE) was granted; where PTE was not granted, surveys were undertaken from roadsides where possible. Efforts to obtain PTE included multiple letter mail-outs and hand-delivery as well as some direct follow-up where landowner contact information was available. Results of PTE efforts are shown on Figure 2-2. Survey locations were selected based on PTE, survey coverage objectives and opportunities for roadside surveys (See Section 3 for details). Surveys undertaken as part of the subwatershed study include:

- Aquatic Resources
  - Survey of barriers to fish migration
  - Comprehensive review of GRCA watercourse mapping and condition
- Vegetation and flora
  - Ecological Land Classification (ELC) / Vegetation community description
  - Botanical Inventory
  - Preliminary Wetland and Dripline Delineation
● Wildlife
  - Avifaunal surveys (breeding birds, heronry use assessment, owl surveys, fall migrant bird surveys, winter raptor point counts)
  - Herpetofaunal surveys (spring calling amphibians, Ambystomid salamander trapping, road / mortality, snake ‘cover board’ surveys, turtle basking / nesting / overwintering habitat)
  - Species-at-Risk surveys (Blanding’s Turtle, SAR bat maternity roost habitat assessment / cavity tree, Barn Swallow nesting, Bobolink and Eastern Meadowlark habitat assessment)
  - Winter wildlife area searches (Wild Turkey, White-tailed Deer and other)
  - General Wildlife including: Incidental observations, Significant Wildlife Habitat and general wildlife observations.

Field survey methodologies and results are discussed in detail in Section 3.0 and a detailed field chronology is provided in Appendix A.

2.5 Data Analysis

Data analysis and evaluation of field survey findings and background information has included the following:

- Results presented on 1:35,000 (or larger) current aerial photography
- Preparation of floral and faunal inventories, keyed to vegetation communities and/or habitat units
- Identification / discussion of species and habitats of conservation concern (based on relevant municipal, provincial and federal lists most current at the time of report preparation)
- Discussion of floristic quality, using the Floristic Quality Assessment (FQA) for Southern Ontario (Oldham et.al., 1995)
- OWES Complexing Assessment for unevaluated wetlands where sufficient data was available within the Stage 2 Lands
- GRCA Wetland Policy Assessment for non-PSW wetlands evaluated in the OWES Complexing Assessment within the Stage 2 Lands
- Discussion of terrestrial vegetation, wetlands and wildlife habitat significance and sensitivity, including dependencies on natural features within and external to the Development Study Area
- Consideration of vegetation / feature – hydrogeological interactions
- Discussion of fish and benthic communities and aquatic habitat availability
- Consideration of available Species-At-Risk (SAR) Recovery Strategies, as relevant to the Study
• Assessment of species presence, diversity and relative abundance and their interactions, use and movement within and between natural heritage features
• Assessment of surface water quality
• Evaluation of groundwater levels in relation to nearby surface water sources, including hydraulic gradients
• Estimation of aquifer properties and recharge capability of surficial soils
• Groundwater quality sampling

2.6 POLICY AND PLANNING FRAMEWORK

This Subwatershed Study is being undertaken in accordance with relevant policies and guidelines of the Region of Waterloo, the City of Cambridge, the Township of Woolwich and Grand River Conservation Authority.

Additional relevant planning legislation and policy pertinent to this study are listed below and discussed further in Section 0 Policy Review / Assessment.

• Federal:
  • Fisheries Act (1985)
  • Migratory Birds Convention Act (1994)
  • Species at Risk Act, SARA (2002)

• Provincial:
  • Endangered Species Act, ESA (2007)
  • Provincial Policy Statement (2014)
  • Ontario Regulation 150/06

• Regional / Municipal:
  • Region of Waterloo Official Plan (approved July 14, 2015)
  • City of Cambridge (1999, 2004 Consolidation and revised 2012 version)
  • Township of Woolwich (2002, 2010 Consolidation updated to July 31, 2012)

• Conservation Authority:
  • Grand River Conservation Authority Policies for the Administration of the Development, Interference with Wetlands and Alterations to Shorelines and Watercourses Regulation, Ontario Regulation 150/06 (2015)