

***Strong Employment Lands, Strong Communities:***  
***An Evaluative Framework and Comparative Case Study of the Region of Niagara's Gateway  
Employment Lands Study (2011) and the Region of Waterloo's Industrial and Business Park Vacant  
Land Inventory and Demand Analysis (2006)***

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A Report Submitted to the School of Urban and Regional Planning in Conformity with the Requirements for the Degree of

Master of Planning

Queen's University

Kingston, Ontario

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## **ACKNOWLEDGEMENTS**

Apart from the effort I have put into the successful completion of this project myself; this accomplishment would not have been possible without the guidance, support and encouragement of many others. I would like to take this space to extend my deepest appreciation and thanks to the following:

First, and foremost, I would like to thank my supervisor, Dr. John Meligrana, for keeping me on track and for providing his time, expertise, feedback and guidance throughout the many stages of this report.

I would also like to thank my mom, Bonnie Martel, for supporting me financially and emotionally throughout my postsecondary career and encouraging me to aspire to achieve my goals. And also for providing me with delicious baked goods to help get me through writing this report (although your last batch of cookies wasn't up to par).

Thank you, fellow 2011-2013 SURPers, for being such a great group of people to spend the last two years with.

To my colleagues at the Region of Niagara, where I completed my summer internship, thank you for welcoming me into your team and providing me with your advice, guidance and encouragement.

Thank you to my best friend, Stacey Mater, for providing me with endless amounts of encouragement, advice, pats on the head and Nutella sandwiches throughout my academic career. Also, thank you for getting married this year, the busiest year I have experienced in my life so far. It was very easy juggling being a maid of honour and writing a master's paper.

Finally, I would like to thank my dog, and research assistant, Chester, for reminding me to take a break every now and then.

## **EXECUTIVE SUMMARY**

Employment lands studies provide the backbone by which information is disseminated to local politicians, councils, decision makers, and citizens (Dempwolf, 2012). Without these studies and strategies, an inherent lack in informed decisions made regarding the present and future use of employment lands within a community would be the norm (Dempwolf, 2012). The purpose of this project is to provide a better understanding of the components of a good employment lands plan through the development and application of an employment lands evaluation framework and toolkit. This research project aims to answer the following questions:

1. In a post-industrial society, what does good planning within an employment lands context look like?
2. Do Canadian employment lands plans represent the latest cutting edge concepts and ideas regarding planning for employment lands within a post-industrial society?

In order to answer the research questions posed for this project, an evaluation methodology with four main objectives was established and carried out. The objectives of this research and evaluation are as follows:

1. To develop a set of criteria to inform a comparative framework in order to determine the degree to which a municipal employment lands plan conforms to the latest ideas and outlines for industrial lands plans developed in the United States,
2. To apply this framework to the comparative assessment of the Region of Niagara's Gateway Employment Lands Study (2011) and the Region of Waterloo's Industrial and Business Park Vacant Land Inventory and Demand Analysis (2006) and provide an evaluation of the two plans with recommendations for future employment lands analysis in these municipalities specifically,
3. To present recommendations for criteria to be included in future employment land plans released by other municipalities throughout Ontario, more generally, and
4. To provide recommendations regarding the utility of adapting an employment land study evaluation toolkit within the province of Ontario.

In terms of methodology, once the objectives were established, a framework for analysis and toolkit for evaluation was developed based on four categories in order to answer the overarching research question of what good planning in an employment lands context looks like. The categories for analysis in this project were plan quality, employment lands- specific plan quality, industrial site selection, and economic development and competitiveness. Each of the categories contained a variety of sub-questions for scoring and evaluation. Content analysis was conducted on two employment lands plans selected based on a pre-determined criteria, and scores between 0 and 2 were assigned for each sub-question. After the analysis was conducted, the Region of Waterloos plan scored 61% and the Region of Niagara's plan scored 66%.

Overall, the findings of this report suggest that the cutting edge employment lands research published to date can be applied within the Canadian context; however, further adjustments may be warranted. Ultimately, the toolkit developed for this study can be used by scholars and planning practitioners into the future to ensure employment lands plans of the highest quality are produced. The results of this research yielded the following nine recommendations:

**Recommendation 1:** *Establish indicators and timelines for implementation of action items and include these within the plan.*

**Recommendation 2:** *Include a cost-benefit analysis of implementation vs. non-implementation of the plan.*

**Recommendation 3:** *Include some discussion of surrounding uses and potential impacts.*

**Recommendation 4:** *In future studies and updates to the plan, include a detailed analysis of public transit linkages and transportation opportunities for future industrial workers.*

**Recommendation 5:** *In future studies and updates to the plan, increased consideration for employment and market conditions should be given.*

**Recommendation 6:** *In future studies and updates to the plan, increased consideration for demand for industrial land should be given.*

**Recommendation 7:** *In future studies and updates to the plan, increased consideration for organizational components should be given.*

**Recommendation 8:** *Repeat this analysis on additional Canadian employment lands plans to determine whether or not ILU-specific plan and industrial site selection categories need to be modified to fit the Canadian context.*

**Recommendation 9:** *Look to the categories, components and sub-questions used in this analysis to add more rigor and depth to future employment lands plans.*

## TABLE OF CONTENTS

Acknowledgements.....	i
Executive Summary.....	ii
1.0 Introduction.....	1
1.2 Purpose of the Report.....	1
1.3 Structure of the Report.....	2
1.4 Evaluation Rationale.....	2
1.5 Background Sources of Information.....	3
1.6 Selection of Study Areas/ Employment Land Plans.....	4
1.7 Justification for Selected Study Areas/ Employment Land Plans.....	4
1.7.1 Waterloo Region.....	5
1.7.2 Niagara Region.....	5
1.8 Employment Lands Planning in Waterloo and Niagara.....	6
2.0 Methods.....	10
2.1 Method of Analysis.....	10
2.2 Development of an Evaluative Framework and Toolkit.....	11
2.3 Evaluation Tables.....	17
2.4 Scoring System, Analysis and Justification.....	17
2.5 Limitations.....	18
3.0 Analysis.....	19
3.1 Analysis of Plan Quality Components.....	19
3.1.1 Weak Areas in Both Plans.....	21
3.1.2 Waterloo Region Strengths/ Niagara Region Weaknesses.....	21
3.1.3 Niagara Region Strengths/ Waterloo Region Weaknesses.....	22
3.2 Analysis of ILU-Specific Plan Quality Components.....	22
3.2.1 Weak Areas in Both Plans.....	23
3.2.2 Waterloo Region Strengths/ Niagara Region Weaknesses.....	23
3.2.3 Niagara Region Strengths/ Waterloo Region Weaknesses.....	24
3.3 Analysis of Industrial Site Selection Components.....	26
3.3.1 Weak Areas in Both Plans.....	26
3.3.2 Waterloo Region Strengths/ Niagara Region Weaknesses.....	28
3.3.3 Niagara Region Strengths/ Waterloo Region Weaknesses.....	28
3.4 Analysis of Economic Development and Competitiveness Components.....	28
3.4.1 Weak Areas in Both Plans.....	29
3.4.2 Waterloo Region Strengths/ Niagara Region Weaknesses.....	29
3.4.3 Niagara Region Strengths/ Waterloo Region Weaknesses.....	29
3.5 Analysis of Total Overall Scores.....	30

4.0 Recommendations and Conclusion.....	32
4.1 Recommendations for Both Study Areas.....	32
4.2 Recommendations Specific to Waterloo Region.....	33
4.3 Recommendations Specific to Niagara Region.....	33
4.4 Recommendations for the Toolkit and its use in Practice.....	33
4.5 Conclusion.....	34
5.0 References.....	36
Appendix A.....	39
Appendix B.....	46
Appendix C.....	52
Appendix D.....	58

## LIST OF TABLES AND FIGURES

### Figures

Figure 1.1: Location of Waterloo Region and Niagara Region within Ontario.....	8
Figure 2.1: Summary of the Hierarchy of the Categories and Components for Evaluation.....	12

### Tables

Table 1.1: Comparison of Selected Features for Waterloo Region and Niagara Region.....	9
Table 3.1: Comparison of Plan Quality Evaluation Results for Waterloo and Niagara Region.....	20
Table 3.2: Comparison of Employment Land-Specific Plan Quality Evaluation Results for Waterloo and Niagara Region.....	25
Table 3.3: Comparison of Industrial Site Selection Evaluation Results for Waterloo and Niagara Region.....	27
Table 3.4: Comparison of Economic Development and Competitiveness Results for Waterloo and Niagara Region.....	30
Table 3.5: Total Scores for all Categories of Analysis for Waterloo and Niagara Region.....	31

## 1.0 Introduction

According to provincial planning documents, employment lands can be considered any area designated in an official plan for clusters of business and economic activities including, but not limited to, manufacturing, warehousing, offices and associated retail and ancillary uses (Ministry of Municipal Affairs and Housing [MMAH], 2005; Ontario Ministry of Infrastructure [OMI], 2006). These lands are defined and designated by a municipality in an official plan and zoning document and have traditionally been meant to be used by manufacturing, processing and warehousing uses (MMAH, 2005; OMI, 2006). Employment lands have been considered a vital component of a healthy community, region, and nation overall, to a larger extent, since the industrial revolution (Howland, 2011; Dempwolf, 2012).

Despite the fact that we are now living in what can be considered a “post-industrial” period, these employment lands continue to be vital in creating and maintaining strong communities (Howland, 2011). Following are seven key reasons why employment lands remain important drivers of creating strong communities today (Howland, 2011):

1. Employment lands are an important source of jobs,
2. Employment lands are critical to the operation of government,
3. Employment lands house back-office activities critical to other sectors of the economy,
4. Employment lands are home to many activities that support the local population, such as automotive and household repair services and warehousing operations,
5. Employment lands provide low-cost space that is critical for startups and incubators for innovation in high-technology sectors,
6. Employment lands provide relatively good jobs for workers with lower levels of formal education than other sectors of the economy; and,
7. Some employment lands are only suitable for employment uses due older parcels that may contain a legacy of contamination. Therefore they would not be suitable for other types of development.

## 1.2 Purpose of the Report

Recently, it has become common for cities and counties throughout North America to take on detailed studies of their employment lands beyond the traditional land supply analysis (Dempwolf, 2012). Employment land studies are often initiated by planners and consultants working within the profession at a more local level and are not often a topic of research within the planning profession in the more academic sense (Dempwolf, 2012). Because these studies are not grounded within academic research, they often lack consideration for the theoretical underpinnings and connections that can be made between employment lands, planning history, planning theory, industrial history, and economic theory (Dempwolf, 2012). However, the importance of these studies cannot be understated.

Employment lands studies provide the backbone by which information is disseminated to local politicians, councils, decision makers, and citizens (Dempwolf, 2012). In other words, without these studies and

strategies, an inherent lack in informed decision making regarding the present and future use of employment lands within a community would be the norm. The purpose of this project is to provide a better understanding of the components of a good employment lands plan through the development and application of an employment lands evaluation framework and toolkit. Ultimately, this research project aims to answer the following questions:

1. In a post-industrial society, what does good planning within an employment lands context look like?
2. Do Canadian employment lands plans represent the latest cutting edge concepts and ideas regarding planning for employment lands within a post-industrial society?

### **1.3 Structure of the Report**

This report contains 5 sections and four appendices, outlined below:

- Chapter 1 provides an introduction to the topic and states the research problem,
- Chapter 2 of this report outlines the methodology undertaken in answering the research questions and conducting the study,
- Chapter 3 presents the findings of the study and provides an analysis of the results,
- Chapter 4 discusses recommendations for each plan, recommendations for the applicability of the toolkit, and

recommendations for future research. Additionally, Chapter 4 provides an overall conclusion to the report,

- Chapter 5 provides a list of references consulted; and,
- Appendices A through D provide a more detailed analysis to compliment and justify the findings presented in Chapter 3. These appendices represent the research analysis in its entirety.

### **1.4 Evaluation Rationale**

In a profession such as planning, where the plan remains one of the planner's primary tools to influence future growth and development, the importance of evaluating plans against accepted plan quality standards cannot be understated (Berke & Godschalk, 2009). Plan quality evaluation functions as a learning process that yields important planning lessons and guidelines (Berke & Godschalk, 2009). Ultimately, a high quality plan provides a clear and convincing picture of the future, strengthening the plan's overall influence in an area (Berke & Godschalk, 2009).

The following methods detail how the Employment Lands Studies of these two regions were evaluated against criteria to determine whether or not they are reflective of the latest ideas and concepts regarding planning for employment lands within a post-industrial society. The objectives of this research and evaluation are as follows:

1. To develop a set of criteria to inform a comparative framework in order to determine the degree to which a municipal employment

lands plan conforms to the latest ideas and outlines for industrial lands plans developed in the United States,

2. To apply this framework to the comparative assessment of the Region of Niagara's Gateway Employment Lands Study (2011) and the Region of Waterloo's Industrial and Business Park Vacant Land Inventory and Demand Analysis (2006) and provide an evaluation of the two plans with recommendations for future employment lands analysis in these municipalities specifically,
3. To present recommendations for criteria to be included in future employment land plans released by other municipalities throughout Ontario, more generally, and
4. To provide recommendations regarding the utility of adapting an employment land study evaluation toolkit within the province of Ontario.

### **1.5 Background Sources of Information**

Two documents have been the impetus for the recent influx in employment land use planning publications throughout Ontario: The Provincial Policy Statement (PPS) (2005) and the Places to Grow Growth Plan for the Greater Golden Horseshoe (2006). These documents provide the policy context for employment lands planning within Ontario and, as such, serve as primary sources of background information to frame the context for this study. The recent changes in these documents with regard to employment lands highlight the need to better understand employment lands

planning in general and how employment lands plans can be effectively evaluated, more specifically.

Prior to 2005, there was not substantial provincial direction for the planning of employment lands within Ontario municipalities. However, as a response to the increase in conversions of good employment lands to accommodate big box retail uses and the recognition of the need to maintain and preserve employment lands as viable contributors to the overall prosperity and economic sustainability of communities, the province introduced policies specifically for employment lands when it updated the PPS in 2005. Sections 1.3.1 and 1.3.2 of the PPS stipulate that planning authorities shall provide economic development and competitiveness through the cultivation of employment lands, and that planning authorities can only permit the conversion of employment lands after a comprehensive review and three-point test.

The Places to Grow Growth Plan for the Greater Golden Horseshoe contains policies that specifically help municipalities within the Greater Golden Horseshoe (GGH) maintain an adequate supply of employment lands that can be developed at present, or preserved to meet future employment needs. In particular, section 2.6 of the plan echoes the policies in the PPS and expands upon them as they relate to the Greater Golden Horseshoe by identifying particular employment areas and economic zones and centres. Additionally, schedule 3 of the Growth Plan provides population and employment targets that must be achieved by municipalities within the GGH. The need for Ontario municipalities to achieve growth plan

conformity and meet population and employment targets has resulted in an increase in municipalities undertaking detailed analysis and studies of their employment lands.

### **1.6 Selection of Study Areas/ Employment Land Plans**

Prior to conducting the evaluation, secondary research was also conducted to gain a better understanding of the issues surrounding plan evaluation and planning for employment lands as they pertain to different locations. Background research on the two regions of study was also conducted. This included an analysis of Statistics Canada 2011 and 2006 profiles for the Region of Niagara and the Region of Waterloo.

Determining the extent to which employment lands plans are reflective of the latest ideas and concepts regarding planning for industrial lands within a post-industrial society required the selection of case study areas and plans. Because almost every municipality in Ontario has released some sort of industrial land study, the choices for evaluation were expansive. As such, criteria needed to be established so as to select case studies that could be easily compared and analyzed on their own merits, but still had enough contrast to allow for generalizability of the findings. The following criteria were considered when selecting case studies for this research.

1. Case studies must be located within Ontario to ensure the evaluation and analysis is conducted on plans under the same legislation,

2. Study areas must have released an industrial land study after 2005 to ensure they were undertaken within the new planning regime and follow 2005 Provincial Planning guidelines,
3. Case study areas must be selected from within the Greater Golden Horseshoe due to the specific policies identified within that plan,
4. Case study areas must be either all upper-tier or all lower-tier municipalities. This is because upper-tier and lower-tier municipalities have different levels of control over growth management and employment lands planning and, therefore, selecting one plan from each level of government would not provide a useful comparison; and,
5. Industrial Land Studies must have been published by the regional municipality, or a consultant hired by the municipality, and not by the local economic development agency. This is because the scope of this project intends to only understand industrial land planning from a planning perspective, and not from the perspective of the economic development agency.

### **1.7 Justification for Selected Study Areas/ Employment Land Plans**

The case studies, selected for this evaluation are the Regional Municipality of Niagara and the Region of Waterloo (See Figure 1.1 for an illustration of the location of these Regions). Waterloo and Niagara Region are among communities within the “outer ring” of the Greater Golden Horseshoe and make for good case study areas due to their similarities and differences, which are illustrated in Table 1.1.

In particular, both municipalities are similar in their population size and composition and both have similar projections in terms of population and employment within schedule 3 of the Growth Plan. In addition, both municipalities contain major universities and colleges; Wilfrid Laurier University, Waterloo; the University of Waterloo, Waterloo; Connestoga College, Kitchener; Brock University, St. Catharines, and Niagara College with campuses in Welland and Niagara-on-the-Lake.

In terms of differences, the municipalities cater to different industries. Waterloo is known as an area for technological innovation and has been branded as Canada's Technology Triangle. Niagara has been singled out in the Growth Plan as a gateway economic zone and centre as a result of their prime location in terms of access and linkages for national and international trade, such as the Welland Canal, the Queen Elizabeth Way and several international border crossings.

### **1.7.1 Waterloo Region**

Waterloo Region is an upper-tier municipality that consists of three urban municipalities and four rural townships<sup>1</sup>. It is the fourth largest municipality in Ontario, and the tenth largest in the country (Region of Waterloo [ROW], 2010). Additionally, it is the fastest growing region in the Province (ROW, 2010). The Region regards itself as a forward-thinking community that is an attractive place to live, work and play (ROW, 2010) In

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<sup>1</sup> Waterloo Region consists of the City of Cambridge, the City of Kitchener, the City of Waterloo, the Township of North Dumfries, the Township of Wellesley, the Township of Wilmot and the Township of Woolwich

terms of industry an economic base, the Region is internationally known for its leading-edge technology and advanced manufacturing industries (ROW, 2010). The Region is situated within close proximity to Toronto and Hamilton and has good access to major highways, including the Queen Elizabeth Way and Highway 401.

### **1.7.2 Niagara Region**

The Regional Municipality of Niagara, like Waterloo Region, is a two-tiered municipality that consists of 12 local area municipalities<sup>2</sup>. The Region is located in Southern Ontario, between Lake Erie and Lake Ontario. In terms of physical characteristics, the Region is best known for two primary natural features- the Niagara Escarpment, which runs through the Northern Part of the Region, and Niagara Falls (Regional Municipality of Niagara [RON], 2010).

The industrial economic base of the region is in a geographically ideal location as a result of the multitude of transportation facilities, such as the Welland Canal, the Queen Elizabeth Way and three international border crossings<sup>3</sup> (RON, 2010). Although deindustrialization has been occurring throughout the area in the last decade, the region's geographic advantage

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<sup>2</sup> The Region of Niagara consists of the Town of Fort Erie, the Town of Grimsby, the Town of Lincoln, the City of Niagara Falls, the Town of Niagara-on-the-Lake, the Town of Pelham, the City of Port Colborne, the City of St. Catharines, the City of Thorold, the Township of Wainfleet, the City of Welland and the Township of West Lincoln.

<sup>3</sup> The following international border crossings are within the Niagara Region boundaries: Peace Bridge, Fort Erie; Rainbow Bridge, Niagara Falls; and Queenston-Lewiston Bridge, Niagara-on-the-Lake.

has put it in a position to emerge as a leader in the advanced manufacturing sector and as a significant player in other industries, such as bio-sciences, energy generation and trade and knowledge infrastructure.

### **1.8 Employment Lands Planning in Waterloo and Niagara**

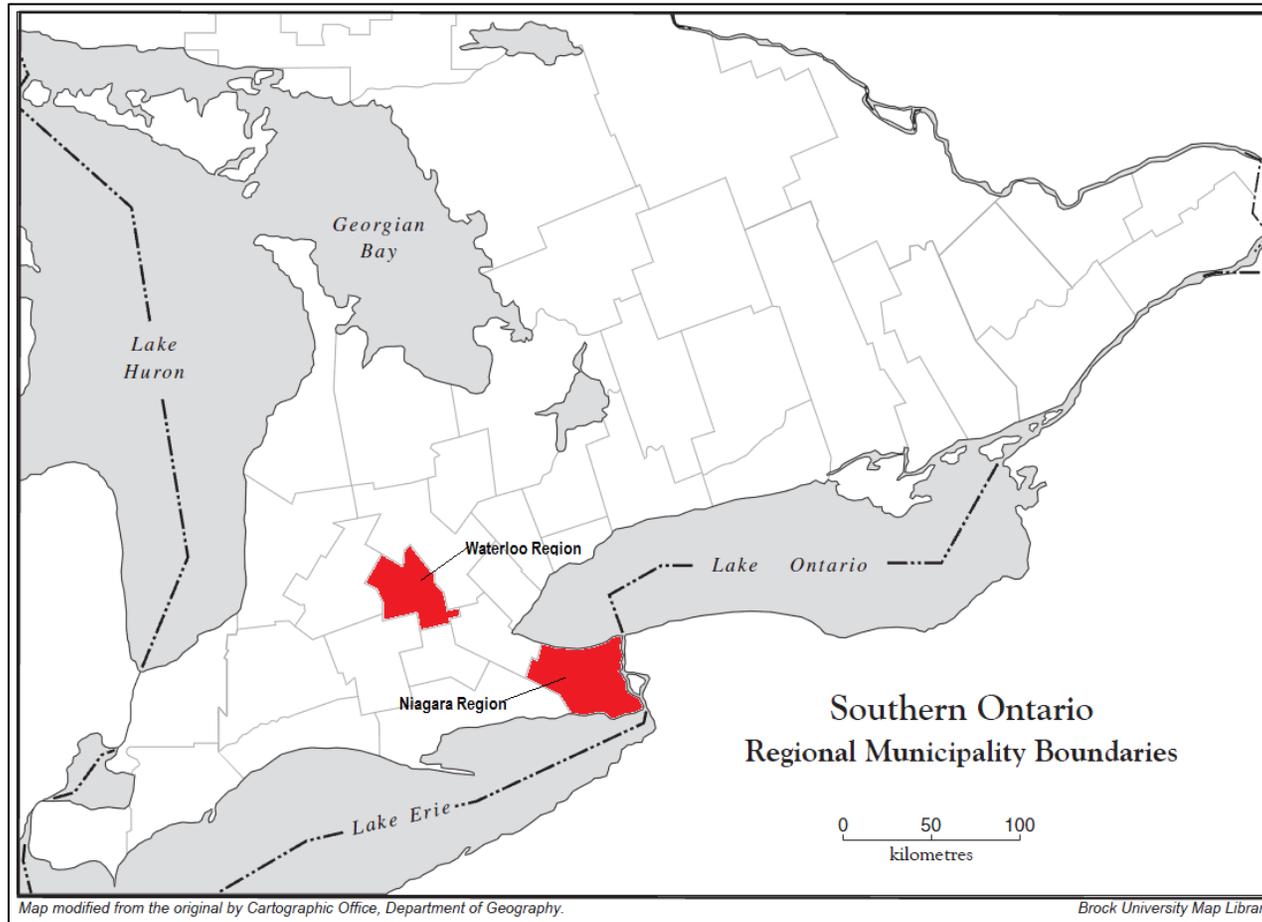
Closer examination of Table 1.1 reveals significant information for each region as it pertains to employment lands planning. First, in terms of median income, Region of Waterloo residents earn approximately \$10,000 more annually than those living in Niagara. This could suggest that the types of jobs offered in Waterloo Region are of higher pay scales than those in Niagara. As mentioned earlier, Howland (2011) suggests that one of the major benefits seen by communities that place a strong emphasis on employment land planning is that higher paying jobs can be provided to those with the lowest levels of education. It is possible that investing time in developing an employment lands strategy could be beneficial to both communities and a potential end result could be an increase in the median income in each area.

In addition to the vast difference in median income within the two Regions, another difference in the percentage of residents not in the labour force is apparent. While this could be attributed to the fact that the median age of Niagara's population is much higher, and thus more residents would be at or nearing the age of retirement, it can also suggest that additional jobs created by developing employment lands could increase the labour force activity. In terms of population growth, Waterloo is growing much faster

than Niagara. This means that Waterloo will have to develop more immediate solutions to create jobs for residents. Employment lands employment, when properly planned for, can provide this fast growing population with quality work. On the other hand, Niagara is in a situation where a more long-term strategy can be developed, as the population will not grow fast enough to warrant an excess of employment lands employment in the short term.

Other factors of importance to employment lands planning include the level of educational attainment and the major industries. The Region of Waterloo has a higher percentage of residents with a university certificate, diploma or degree and a high percentage of residents employed in the manufacturing industry. This may indicate that the pool of skilled workers is larger in this area. In terms of planning for industrial lands, the highly skilled workers may cater more to the development of high technology sectors or incubators. This is also fitting, given the Region of Waterloo's connection with Research in Motion (RIM) and Canada's Technology Triangle (CTT). In contrast, Niagara has a high concentration of residents employed in other services, and business services and a larger proportion of residents with a college, CEGP or other non-university certificate or diploma, apprenticeship or trades certificate. The concentration of those employed in other services could be attributed to the strong tourism industry in Niagara Falls and Niagara-on-the-Lake. In terms of employment land planning, the area may be well suited to strategize for developing employment lands supportive of this tourism industry.

Figure 1.1: Location of Waterloo Region and Niagara Region within Ontario



Modified from Brock University Map Library. (Year unknown).

**Table 1.1: Comparison of Selected Features for Waterloo Region and Niagara Region**

	Waterloo Region	Niagara Region
<i>Demographics</i>		
Population in 2011	507,096	431,346
Population in 2006	478,121	427,421
2006 to 2011 population change (%)	6.1	0.9
Total private dwellings	202,121	188,877
Private dwellings occupied by usual residents	191,599	174,685
Population density per square kilometre	370.4	232.6
Land area (Square KM)	1368.94	1854.25
Median age of the population	37.7	44.1
Median household income	\$64,522	\$54,497
% of the Population Aged 15 and Older	81.7	84.5
<i>Educational Attainment</i>		
<i>total population aged 15 and over (2006)</i>		
No certificate, diploma or degree	24%	24%
High school certificate or equivalent	28%	30%
Apprenticeship or trades certificate or diploma	8%	10%
College, CEGP or other non-university certificate or diploma	18%	20%
University certificate or diploma below the bachelor level	3%	3%
University certificate, diploma or degree	18%	13%
<i>Labour Force Activity</i>		
<i>total population aged 15 and over (2006)</i>		
Employed	68%	61%
Unemployed	4%	4%
Not in the labour force	28%	35%
<i>Industry (2006)</i>		
Agriculture and other resource-based industries	2%	4%
Construction	6%	6%
Manufacturing	22%	14%
Wholesale trade	5%	4%
Retail trade	11%	11%
Finance and real estate	7%	5%
Health care and social services	8%	10%
Educational services	8%	6%
Business services	17%	16%
Other services	14%	24%

(Statistics Canada, 2006 & 2011)

## **2.0 Methods**

The purpose of this chapter is to outline the method of analysis used in the evaluation of the Regional Municipality of Niagara and the Region of Waterloo's employment lands studies.

### **2.1 Method of Analysis**

After the case studies were selected, the next phase in the analysis was to develop a method to evaluate and compare them. Baer (1997) identifies five different stages for plan evaluation: plan assessment, plan testing and evaluation, plan critique, comparative research and professional evaluations, and post hoc evaluation of plan outcomes. With these stages under consideration, this research project falls within the realm of plan critique and comparative research. Plan critique is undertaken after the plan's publication, but usually before it has had time to be put into practice (Baer, 1997). Generally, the evaluation criteria are based on the critic's professional ability to make judgments on the topic at hand and assess whether the plan as a document communicates that substance (Baer, 1997). Comparative plan research and professional evaluation usually occurs after publication but before any outcomes can be evaluated (Baer, 1997). This type of evaluation is similar to plan critique in that the researcher is often developing their own criteria for assessment; however, the methodology is a bit different in that it involves the comparison of several plans simultaneously by an independent researcher as the evaluator, as opposed to an inside member of the planning organization (Baer, 1997).

In order to explore the proposed research question, the method of analysis of this study is mixed-methods in its approach, utilizing multiple case design and content analysis. Using a multiple case design method to analyze data confers many advantages, according to Yin (2009). Multiple case design, as a research method, allows for a more compelling and robust study. Content analysis, as a research method, can be both qualitative and quantitative in nature and involves the examination of various documents, texts, and other forms of communication (Bryman et al., 2009). The multiple cases in this situation are the two industrial land studies, which will be analyzed quantitatively through a scoring system and qualitatively through plan excerpts, both of which are achieved through intense content analysis of each document.

The plans selected for this study were analyzed against a set of criteria adapted from four primary sources, covering three key categories: plan quality, industrial site selection evaluation, and economic development and competitiveness. Baer (1997) and Berke and Godschalk (2009) offer composite frameworks that are intended to be used as checklists of possible considerations for analysis and evaluation of plans in general, while Dempwolf (2012) provides a composite framework for the specific analysis of employment land studies and industrial site selection and evaluation. Finally, Hackler (2011) has developed a framework that offers indicators for identifying the extent to which planning policies can help foster and promote economic development and competitiveness.

## 2.2 Development of an Evaluative Framework and Toolkit

Key categories and evaluative components are used in this evaluation and were developed by previous frameworks, as mentioned above. Figure 2.1 shows a hierarchy of the categories and components identified in the literature to be used for evaluation of the selected plans for this study.

The key categories can be regarded as high-level criteria that should be considered as necessary measures for evaluation of industrial land studies. Within the three established key categories, 27 evaluative components were established, with each one of these components having specific questions for evaluation and scoring. These evaluative components are more specific in nature and represent criteria that current experts believe are necessary in order for an industrial land use plan to be of sufficient quality. Each category, and the specific criteria, is discussed below.

### *Category 1: Plan Quality Evaluation*

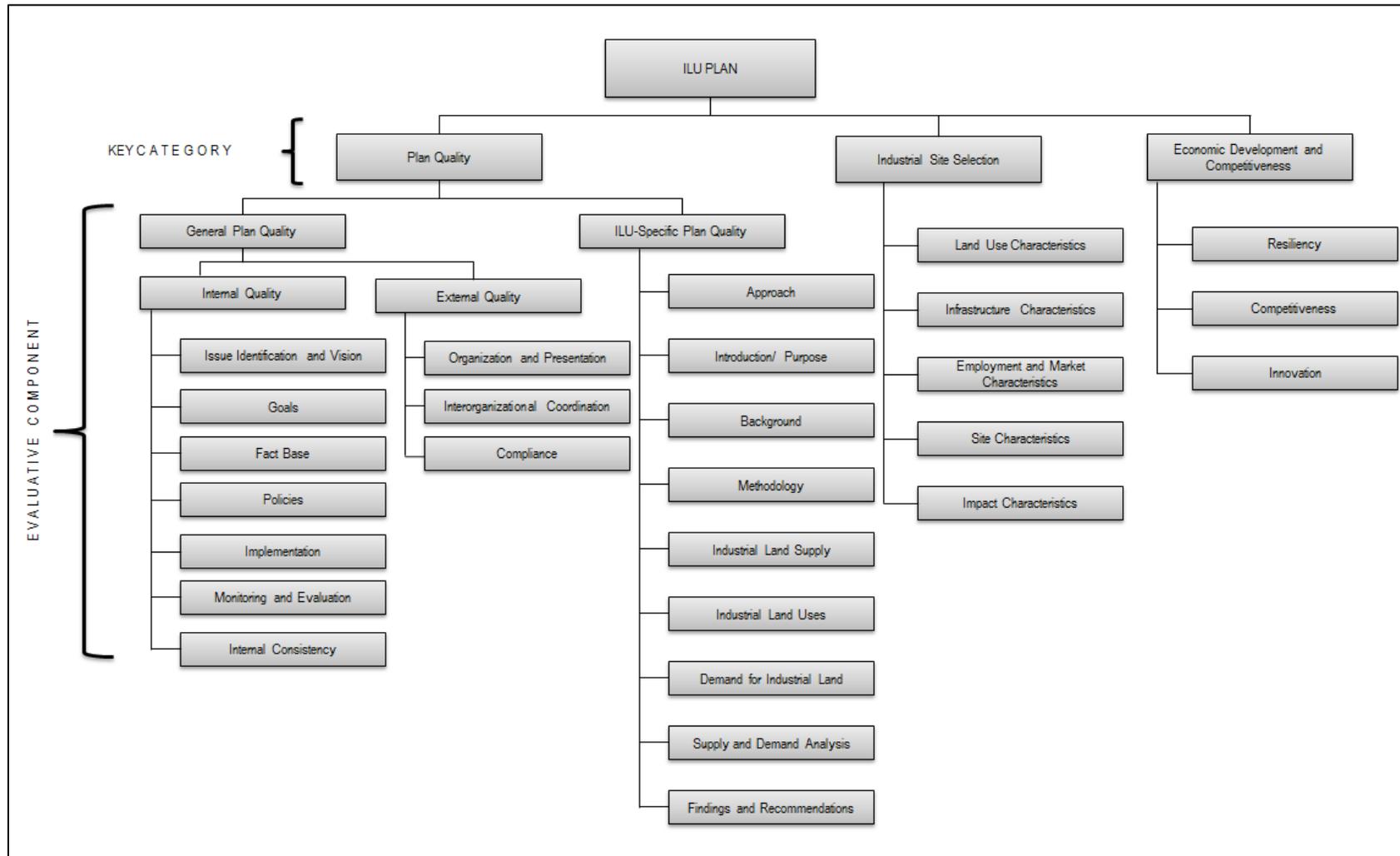
In terms of general plan quality evaluation, plans should be measured on two broad dimensions: internal plan quality needed to guide land use in the future and external plan quality that accounts for the relevance of the scope and coverage to reflect stakeholder values and the local situation to maximize use and influence of the plan (Berke & Godschalk, 2009). Berke and Godschalk's (2009) method for plan quality evaluation has been applied to groups of plans using varying research

designs in domestic and international settings and represents a reliable cutting-edge framework by which any type of plan can be evaluated.

Internal plan quality evaluation consists of the following:

1. **Issue identification and vision:** This includes an assessment of major issues, trends, and impacts of the plan. This section of the plan should also include a description of opportunities and threats to the land use and desired development pattern. Essentially, this section of the plan addresses issues deemed important and provides an overarching vision of what the desired outcome should be. A quality plan will clearly articulate the vision and issues early on in the document and use subsequent sections and elements to address these issues.
2. **Goals:** Serve as the critical direction-setting framework of plans and identify what the area will become. Goals identify the desired future outcome of the plan. A quality plan should include realistic goals that set the directional framework for the rest of the plan.
3. **Fact base:** Includes an analysis of current and future conditions and an explanation of why things are the way they are. A quality plan provides a strong fact base to ensure that decision making in setting goals and policies are well-informed.
4. **Policies:** Policies are specific principles to guide public and private land use decisions and achieve goals. Policies rely on

Figure 2.1: Summary of the Hierarchy of the Categories and Components for Evaluation



(This image was developed by the author from a review of Dempwolf, 2012; Howland, 2011; Hackler, 2011; Berke and Godschalk, 2009; Berke & Conroy, 2000 and Baer, 1997)

a range of tools, such as regulations and incentives to achieve the desired future spatial form. A good plan should include a strong framework of policies that will help achieve the goals identified in the plan.

5. **Implementation (\*)**<sup>4</sup>: The implementation section of a plan includes the organization of tasks, assignment of responsibilities and creation of timelines for action in order to achieve the stated goals. Plans that clearly specify organization responsibility and timelines for actions for implementation and monitoring are more likely to achieve the desired end result.
6. **Monitoring and evaluation (\*)**<sup>4</sup>: The monitoring and evaluation component of a plan should track and assess the effectiveness of the plan in resolving issues and achieving goals. This section includes provisions for tracking the conditions necessary for goal achievement and implementation and includes timelines for action and identification of responsible actors and sources of funding for carrying out actions. Inclusion of indicators to gauge progress and goal achievement is critical for a quality plan.

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<sup>4</sup> In evaluating plans, a higher weight should be given to the implementation and monitoring and evaluation sections. If plans score high on all elements except implementation and monitoring and evaluation, the plans may become paper documents that are not carried out and regularly evaluated and improved. A quality plan should have high scores in these two categories.

7. **Internal consistency**: A plan with strong internal consistency will contain issues, vision, goals, policies and implementation elements that are mutually reinforcing. An analysis of internal consistency includes verification that goals accommodate the vision of the plan, policies are linked back to goals and forward to implementation actions and monitoring includes indicators to gauge goal achievement and policy effectiveness. (Baer, 1997; Berke & Godschalk, 2009)

In addition to these seven internal quality evaluative criteria, external plan quality evaluation can be measured using three more categories:

1. **Organization and presentation**: In organizing and presenting information, a quality plan will ensure that steps are taken in order to enhance the understandability and readability for a wide range of readers. Aesthetic components such as a table of contents, glossary of terms, executive summary and clear visuals are some of the essential items that will foster comprehension and understanding. Ultimately, in its organization and presentation, a quality plan will promote awareness, support the public interest and be clearly understood by the community at large.
2. **Interorganizational coordination**: Includes the coordination with actions of other organizations and other relevant plans. A quality plan should be easily integrated within the larger planning

framework via coordination and alignment with plans or policies of local, provincial, and federal parties.

3. **Compliance:** refers to the extent to which the plan is consistent with the purpose of provincial and federal mandates. In other words, a quality plan should meet the federal and provincial legal requirements and be consistent with the mandates of relevant plans and policy statements (Baer, 1997; Berke & Godschalk, 2009).

#### *Category 2: Employment Land Specific Plan Quality Evaluation*

The question of what a good industrial land use study should contain is a question that has only been undertaken as an area for research and study in academia recently. One of these academics, (Dempwolf, 2012), has begun the process of developing a framework for analyzing, and better understanding, industrial land studies within the post-industrial context. Dempwolf (2012) has created a composite outline for industrial land use studies that contains critical plan evaluation criteria and questions considered to be essential to understanding what makes a good industrial land study. The intent of Dempwolf's (2012) framework is to help organize the future study of industrial land and to ensure critical issues are addressed within plans.

Industrial land plan-specific quality can be measured using nine evaluative components

1. **Approach to study:** ILU plans are either comprehensive in nature, or focused in nature. In analyzing and evaluating these studies, it is important to determine which approach the study is taking before analysis.
2. **Introduction and purpose:** The best studies have a clearly articulated purpose; the introduction should guide the reader through the structure of the study.
3. **Background:** The general purpose is to assess whether or not the plan provides sufficient background information to enhance a reader's understanding of industrial lands. In particular, the purpose of this component is to assess whether the plan is able to provide readers who may not be planners with enough understanding of the subject to move forward in the document without confusion. The background should provide policy makers or laypeople with enough understanding to make informed decisions regarding industrial lands.
4. **Methodology:** Good industrial land studies generally provide the reader with a detailed description of the methodology undertaken to conduct data analysis components of the plan (e.g. land supply, supply, demand, employment projections).
5. **Industrial land supply:** The plan should contain quantitative and qualitative information about the overall supply of industrial land, describe the spatial organization of industrial land, and provide a sense of the dynamics of the area's industrial land use over time.

6. **Industrial land uses:** Although the characterization and definition of employment lands may vary by municipality, good industrial land use studies discuss critical components of industrial land uses, such as industries, employment, spatial organization, economic impact, and prospects for growth.
7. **Demand for industrial land:** A good study should include an examination of the overall demand for industrial land from both industrial and non-industrial uses. This section should examine pressures for industrial conversion and include estimates of future land needed and identify specific target areas for industrial location.
8. **Supply and demand analysis:** This section of an ILU should address the degree to which the supply and demand sections have been synthesized and validated.
9. **Findings & Policy Recommendations:** A good ILU will conclude by presenting the major findings and provide specific recommendations related to the planning process (Dempwolf, 2012).

### *Category 3: Industrial Site Selection Evaluation*

The process for selecting sites for industrial location, or for preservation or conversion, is of critical importance (Dempwolf, 2012). In order to analyze the extent to which ILUs justify their selection of sites to be designated as “employment or industrial” lands, an examination of six characteristics is warranted (Dempwolf, 2012). The purpose of analyzing

these characteristics is not to make judgments on the overall quality of the plan—that is what Categories 1 and 2 achieve. Instead, the purpose of examining these characteristics is to better understand the process of industrial site selection and the extent to which industrial land use plans address the issue. It may be the case that plans score low in this category; however, this is only indicative of the overall intent and approach of the plan being focused on site selection or not. The characteristics for consideration are described below:

1. **Land use characteristics:** These characteristics deal with the compatibility of the industrial site to allow for non-compatible uses or not. Consideration regarding whether or not the particular land should be zoned exclusively for industrial uses should be given. Additional consideration should be given to the possibility of the land use characteristics of the area to change in the future as a result of outside forces, and the possible impact this may have on the existing land uses in the area.
2. **Infrastructure characteristics:** Infrastructure characteristics such as accessibility to customers, suppliers, workers, road networks, and public transit are all critical for making sound decisions regarding industrial land location, preservation and conversion. Additionally, consideration should be given to the adequacy of public facilities in the area to service new workers and additional development.

3. **Employment and market characteristics:** In selecting a particular site for industrial location, preservation or conversion, an analysis of the existing employment characteristics in the area, wage levels, and the potential to create new jobs should be undertaken and used to justify the selection. Affordability of industrial land is of critical importance to site selection. Because industrial uses are highly sensitive to rent levels and vulnerable to displacement, when deciding and justifying where to locate, preserve or convert industrial land, consideration should be given to market characteristics such as rent levels, potential to generate additional employment, and potential to generate economic activity within the region.
4. **Site characteristics:** Site characteristics, building characteristics, the site's ability to provide significant linkages for agglomeration economies, and proximity of the site to resources essential to industrial operation are important drivers of industrial location. In deciding and justifying the selection, preservation or conversion of industrial land, consideration should be given to the appropriateness of the configuration of the parcels in question, the surrounding development patterns, and the potential to create positive linkages between other industrial areas and resources critical to industrial operations.
5. **Impact characteristics:** In terms of industrial site location, consideration should be given to potential environmental or health impacts on surrounding uses that may result from the industrial

use. Additionally, costs and benefits of remediation of land before introducing industrial uses should be considered. An impact cost/benefit analysis should be undertaken to better understand the appropriateness of the location for industrial use (Dempwolf, 2012).

#### *Category 4: Economic Development and Competitiveness Evaluation*

Employment lands are consistently recognized as a critical driving component of the overall economic success of a region (Hackler, 2011; Dempwolf, 2012). Additionally, taking into consideration the intent of section 1.3 of the Provincial Policy Statement (2005) which directs municipalities to utilize employment areas in order to promote economic development and competitiveness of a community, an evaluation of the extent to which industrial land plans address issues of economic development and competitiveness is important. Cutting-edge criteria in this area has been developed by Hackler (2011) using Arlington, Virginia as a case study. An explanation of the evaluative criteria for economic development and competitiveness is provided, below:

1. **Resiliency:** Resilience indicates that, although a set of "resting points" are present in any system, some prescription of changes can tilt the system irreversibly to another resting point. Resiliency is more likely to occur in diversified economies than in one-company towns. An industrial plan should pay attention to resilience because resilience can preserve the region's economic and social integrity.

2. **Competitiveness:** Competitiveness is about productivity relative to other cities; competitiveness is fundamentally grounded in the contribution of placemaking and branding of an area. An industrial plan should provide an analysis of the competitive advantages offered in the area over areas outside of the municipality of comparable quality.
3. **Innovation:** Innovation is recognized as implemented change in products, services, activities of businesses and their processes. Innovation is a process by which firms create new economic value. An industrial plan should identify areas where there is potential to create new economic value (Hackler, 2011).

### 2.3 Evaluation Tables

Actual analysis of the Employment Land Studies was carried out by using a series of evaluation tables. Both plans selected for evaluation in this project were analyzed based on distinct evaluation frameworks that were adapted from Baer (1997), Berke & Godschalk (2009), Dempwolf (2012) and Hackler (2011) and modified for this research project. Appendices A through D contain the completed evaluation charts used for this project.

### 2.4 Scoring System, Analysis and Justification

A scoring system was developed to measure if a given component identified in the evaluative framework was reflected in the plan. The scoring system was based on a similar scoring of plans to a set of criteria detailed in Berke and Conroy (2000). If a particular item was deemed to be sufficiently

discussed, a score of 2 was assigned for that item (Berke & Conroy, 2000). Conversely, if it was determined that the item was deemed to be not discussed, a score of 0 was assigned for that item (Berke & Conroy, 2000). If an item was deemed to be somewhat discussed, a score of 1 was assigned (Berke & Conroy, 2000).

In terms of scoring, within the specific evaluation component, each evaluation question could receive a maximum score of '2'. The scores of each of the evaluation questions were then added together to get a total score for the specific evaluation component. The total maximum score varied for each evaluation component based on the number of evaluation questions present in the category. The overall total score serves as an indicator of the extent to which each one of the plans represents the latest ideas and concepts regarding planning for industrial lands in a post-industrial society. It is also important to note that, in scoring the plans, scores were not tabulated until the very end of the assessment to avoid bias.

Berke and Godschalk (2009) suggest that, although a plan may have a high overall evaluation score, this may not be reflective of the plan's overall effectiveness. Some plan elements carry a heavier weight than others-- particularly elements that deal with implementation, monitoring, and evaluation (Berke & Godschalk, 2009). In order to achieve a standardized evaluation of the evaluation components, and add rigor and a more detailed analysis of the plans, the evaluative component scores were also standardized based on the method utilized by Berke and Conroy (2000). Standardization was achieved as follows: the subtotal of the evaluation

component was divided by the maximum possible score for the evaluative component and was then multiplied by 100. For example, in assessing the quality of the plan on the evaluative component of 'fact base', a total score of 12 is possible. If the plan scores 7 on this component, then the standardized score would be 5.83 [found by:  $(7 \div 12) \times 100$ ]. In this regard, the closer an evaluative component scores to 100, it can be determined that it is meeting the standard of effectiveness. Conducting the analysis in this manner allowed for an overall score to quantitatively measure the quality of the plan. In addition to a quantitative analysis, a qualitative assessment was also undertaken. In this regard, particular portions of each plan were cut and pasted into the evaluation charts with a rationale for the score assigned. This qualitative component allowed for a justification beyond a number score.

## **2.5 Limitations**

Several limitations to the evaluation of the plans in the methodology described in this chapter exist. One of the first limitations is the difference in interpretation, meaning, and overall language of terms crossing over from the United States to a Canadian context. Although employment lands and

industrial lands are meant to mean the same thing in both areas, many different names and definitions exist when describing the same thing. This may lead to difficulties in determining whether or not the established criteria have been met by either plan.

Another limitation is that the context of the evaluation is set only in Ontario. Even more specifically, the context is set within the "inner ring" of the Greater Golden Horseshoe and the study only assesses employment lands planning from an upper-tier perspective. As such, the generalizability and applicability of the toolkit to other areas and other levels of government cannot be concretely determined based on this analysis. Only inferences can be made.

The final limitation associated with this methodology and research protocol deals with the issue of evaluator bias. Due to time and money constraints, the analysis was conducted only by one evaluator. Although several precautions were taken in order to avoid bias, such as delaying the tabulation of all scores until all charts were filled in and complete, the presence of only one evaluator could lead to less rigorous results.

### 3.0 Analysis

This chapter shows how the toolkit can be applied as described in Chapter 2. Evaluation tables, showing a side-by-side breakdown of the numerical scores assigned to the various components for each plan, are provided. Each table presents the total number of points possible, the actual score and the standardized percent score assigned for the respective plan on each component. In addition, the tables present overall scores for the key category to be addressed in the plan (plan quality, ILU-specific plan quality, industrial site selection, and economic development and competitiveness). As outlined previously, a minimum score of 0 and a maximum score of 2 could be assigned to any given component. A score below 50% indicates that the plan is not meeting established criteria for evaluation. An overall score of 50 to 65% indicates that the plan contains some of the necessary elements, but needs a considerable amount of work. A score of 66 to 80% indicates that the plan contains most of the necessary elements, but there is still room for the plan to make improvements. Finally, a score of 81% or above indicates that the plan provides a thorough discussion of the necessary elements, with little to no improvements necessary. The intent of this chapter is not to provide an exhaustive discussion of the results; instead, the intent is to provide an overview of the highlights of the results. A more detailed set of analytical charts explaining the rationale and justification for the allocation of scores for each component can be found in the **Appendix**. This constitutes the analysis undertaken in this research project in its entirety.

### 3.1 Analysis of Plan Quality Components

The first of the four key categories employment lands plans should give consideration to is that of overall plan quality. Within this theme, seven internal and three external plan quality elements are identified. In total, 43 sub-questions were examined under these elements, with the overall intent being to ensure that the plan has a relevant scope and can effectively guide land use into the future. Table 3.1 shows the evaluation and comparison of plan quality components in Waterloo and Niagara's employment lands plans (Appendix A1 and A2 contain the evaluation and justification for scoring in its entirety).

An analysis of the scores reveals that, overall, Niagara's plan received a higher score on internal plan quality elements, while Waterloo's plan received a higher score on the external plan quality elements. When the internal and external scores are combined and averaged, the results show that both plans fall within the 66 to 80% range, indicating that both plans could use improvement in terms of plan quality. Although Niagara received a score higher than Waterloo on the internal components, it is important to note that Waterloo's plan scored higher on the monitoring and implementation component, which is one of the more important components deemed necessary for inclusion in a plan to ensure success, as mentioned in Chapter 2 (p.11) (Berke & Godschalk, 2009; Baer, 1997).

**Table 3.1: Comparison of Plan Quality Evaluation Results for Waterloo and Niagara Region**

<b>EVALUATION OF PLAN QUALITY COMPONENTS</b> <i>Derived from Berke &amp; Godschalk (2009) and Baer (1997)</i> <b>SCORING SYSTEM</b> <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>					
		WATERLOO		NIAGARA	
EVALUATION COMPONENT	POINTS POSSIBLE	TOTAL SCORE	% SCORE	TOTAL SCORE	% SCORE
<b>INTERNAL PLAN QUALITY</b>					
Issue Identification and Vision	10	8	80.0	10	100.0
Goals	4	3	75.0	4	100.0
Fact Base	12	8	66.7	10	83.3
Policies	4	3	75.0	3	75.0
Implementation	12	5	41.7	6	50.0
Monitoring and Evaluation	8	2	25.0	2	25.0
Internal Consistency	8	5	62.5	3	37.5
<b>INTERNAL SCORE</b>					
	58	34	58.6	38	65.5
<b>EXTERNAL PLAN QUALITY</b>					
Organization and Presentation	18	17	94.4	14	77.8
Interorganizational Coordination	4	3	75.0	4	100.0
Compliance	6	6	100.0	6	100.0
<b>EXTERNAL SCORE</b>					
	28	26	92.9	24	85.7
<b>TOTAL SCORE FOR COMPONENTS</b>					
	86	60	69.8	62	72.1

### **3.1.1 Weak Areas in Both Plans**

There are several evaluative items in which both plans were considerably weak. First, both plans did not establish for the reader the historical context of industrial uses throughout the area. While this may not seem like an essential item to include in a plan for those who are familiar with the area, the discussion of the historical context of industrial land is important to help councilors, non-residents and non-planners obtain a sound understanding of the issues pertaining to industrial uses faced in the area over time. Next, another area where both plans are lacking is in the inclusion of a detailed population and economic analysis. A detailed analysis of present and future population and economy are particularly important when planning for employment lands and a weak analysis could have the potential to hinder the overall vision and success of the lands. Third, both plans provide no discussion whatsoever of a cost benefit analysis of implementation vs. non-implementation of the plan. Inclusion of these types of figures, both in monetary and non-monetary terms, is critical in helping non-planners understand the importance of following through with the implementation of the plan. Finally, both plans lack any concrete timeline or indicator to assess progress and ensure that implementation is carried out. Establishing timelines and indicators is one of the most important factors for ensuring implementation of action items and recommendations within a plan. When these are weak it is less likely that the overall vision will be accomplished (Berke & Godschalk, 2009; Baer, 1997).

### **3.1.2 Waterloo Region Strengths/ Niagara Region Weaknesses**

Overall, Waterloo Region's plan is easy to follow, as it is organized and written well. It uses the 2031 planning timeframe established in Places to Grow and is consistent with provincial policy in terms of their mandates on employment lands. The recommendations included within Waterloo's plan are clear, direct, descriptive, divided, categorized and detailed. The plan divides recommendations for consideration into three main areas and provides subcategories for recommendations within each area. It begins by discussing recommendations for the designation of additional lands to industrial and business park employment and specifically provides recommendations for the East Side study area and the 97/401 Industrial area. Next, it discusses recommendations for future consideration, maximizing use of employment opportunities on currently designated lands, and finishes with recommendations for maintenance and the use of information contained within the industrial and business park vacant land inventory and demand analysis. Of particular interest is the document's use of building permit data as a part of the demand analysis. Building permits can provide a wealth of information for growth management and employment lands planning when properly managed.

Based on analysis of the contents of the plan, it is apparent that the recommendations contained within Waterloo's analysis are targeted and specific, while the Niagara Region study contains action items and more broad statement- based recommendations. The vision in Niagara's plan is clear; however, the implementation measures, recommendations and directions are not as direct as Waterloo's.

Overall, the organization and presentation of the Waterloo plan scored much higher than Niagara's. This is because Waterloo's plan was aesthetically pleasing with an appropriate font size. Additionally, it contained organizational items such as a glossary of terms, consistent page numbering and a consistent font throughout (including the appendix) that Niagara's plan did not.

### **3.1.3 Niagara Region Strengths/ Waterloo Region Weaknesses**

Overall, the vision of the Niagara Region's Gateway Employment Lands Study is clearly defined and direct. The purpose of the report is to *"provide foundation information for the planning and development of Niagara's Economic Gateway...Conclude with a recommended strategy and action plan for developing the employment lands within the Economic Gateway...Intended to provide a framework for capitalizing on Niagara's Gateway designation"*. Ultimately, the report guides the vision of the Gateway Employment lands, six targeted areas throughout the Region selected for employment use based on a detailed analysis.

Accompanying this clear vision, the plan also contains a detailed SWOT analysis that justifies the selection of the six areas, and identifies overall strengths, weaknesses, opportunities, and threats within the Region as well as individually for each of the six locations. Conversely, Waterloo's plan did not contain a dedicated and detailed SWOT analysis. Some strengths and threats were identified; however, there was not sufficient detail for a non-planner or non-resident to understand the nature of the issue as it pertains to the location. Instead, Waterloo's plan contains a broad picture of the

changing nature of the land and the Region's ability to respond and adapt to changes.

Next, the Niagara plan provides a better idea of sources of funding and other cost issues that Waterloo is lacking. In terms of sources of funding, Niagara's plan contains a detailed discussion of the utility of Community Improvement Plan (CIP) funding to ensure the vision becomes a reality. Additionally, the plan provides a detailed cost breakdown for required servicing improvements at both the upper and lower-tier levels for each of the six areas. In contrast, Waterloo briefly touches on leveraging funding from Canada's Technology Triangle for marketing, and working with lower-tier municipalities for funding and provides no breakdown of servicing costs whatsoever.

Finally, the Region of Niagara's plan excelled at providing high quality visual aids, primarily maps, to convey the message and overall vision while Waterloo Region's Industrial and Business Park Vacant Land Inventory and Demand Analysis did not contain any maps to support their conclusions. In terms of enhancing the understanding of the reader, particularly those without a planning or geography background, the use of maps as aids is critical as it helps set the context better than words and charts alone.

### **3.2 Analysis of ILU-Specific Plan Quality Components**

The second of the four key categories employment lands plans should give consideration to is that of industrial land use (ILU) - specific plan quality. Essentially, the intent of this category is to assess the extent to

which the plan addresses issues specific to industrial land use. Within this category, eight components are identified with 33 sub-questions intended to ensure that critical issues specific to industrial lands are addressed sufficiently within the plan. Table 3.2 shows the evaluation and comparison of the ILU-specific plan quality components in Waterloo and Niagara's employment lands plans (Appendix B1 and B2 contain the evaluation and justification for scoring in its entirety).

An analysis of the scores demonstrates that the Region of Waterloo's plan scored higher for this category; however, the margin between the two plans was quite close. The total average score for both of these plans fell in the 50 to 65% range, indicating that a considerable amount of improvements could be made to the plans in order to better address items specific to industrial land use plans.

This category is unique because it acknowledges that the impetus for undertaking an employment lands study can be different. Depending on the reason for initiating the plan, one of two general approaches can be identified. Specific to the plans studied for this analysis, Waterloo Region's plan is more comprehensive in its approach, providing a complete inventory and demand analysis. In contrast, Niagara Region's plan is more focused in its approach, as the study targets six specific areas within the Gateway.

### **3.2.1 Weak Areas in Both Plans**

One of the primary weaknesses present in both plans is that neither one considers the perspective of industrial businesses nor appears to have consulted with any actual industrial users when developing their respective

plans. In the methodology component, both plans were given a 0 for the sub-question regarding whether or not the plan includes a survey of industrial businesses and in the industrial land uses component, both plans were given a 0 for the sub-question regarding the consideration of the perspectives of business owners. This is a flaw, as input from the actual future users of the land would lead to a better overall plan and enhance the overall success of the plan.

Although both plans had an overall score of 9 out of a possible ten in the findings and recommendations component, both Waterloo Region and Niagara Region lost the point as a result of their weak discussion of implementation policies in terms of providing timelines and indicators.

### **3.2.2 Waterloo Region Strengths/ Niagara Region Weaknesses**

The purpose of the plan is identified early on in the document and is clear and straightforward, leaving the reader with no doubt about what will be covered. Ultimately, the plan aims to *"better understand the issues relating to the development and marketing of industrial and business park lands within the Region of Waterloo and recommend steps to be taken to ensure continues economic prosperity within the Region"*.

The most noticeable strengths present in Waterloo's plan have to deal with the methodology, the demand analysis, and the supply and demand analysis. Waterloo's Industrial Business Park Vacant Land Inventory and Demand Analysis includes a thorough, well-explained, methodology for the land supply analysis and for the categorization of parcels. This is something that is lacking in Niagara's plan. Although

Niagara's plan is targeted in its approach and is not intended to provide the reader with a detailed discussion of industrial land supply, this does not exempt them from discussing their methodology in conducting their study. Next, in terms of supply and supply and demand, Waterloo's plan gives the reader a good sense of industrial use patterns over a useful time frame. Additionally, where the supply does not match with the demand, the plan explores alternatives in order to meet the demand. The plan identifies parcels that would be suitable for long, medium and short-range uses and examines the marketability of particular parcels. In projecting their jobs to be created into the 2031 planning horizon, the plan justifies their projection based on a 40% demand. Although Niagara also ascribes to the 2031 planning horizon set out in Places to Grow (2006), the plan lacks any discussion of industrial demand in numeric terms. While Niagara's plan provides a demand and distribution of land, it is not specific from which type of user and which type of uses would be permitted on the land. Additionally, Niagara's plan lacks any consideration for demand for land from competing and non-competing uses.

### **3.2.3 Niagara Region Strengths/ Waterloo Region Weaknesses**

The strengths of Region of Niagara Gateway Employment Lands Study are that the plan includes a thorough introduction and review of best practices. The introduction in Niagara's plan has a thorough discussion of

the structure of the report. It outlines and describes the contents of each chapter. Additionally, a specific section of the introduction is dedicated to laying out the structure of the report. This is helpful to any reader of the plan and is something that is not present in Waterloo's plan. The inventory in this plan is more broad and high-level, focusing on the Gateway only and does not expand to other employment lands within the Region; however, the inventory given for the Gateway lands is thorough.

The plan contains a considerable discussion of and reference to precedents from other cities in the form of a review of best practices in economic Gateway planning. The best practices review is extended further in an appendix at the end of the plan, where a more thorough review and comparison is provided, in chart form. Although Waterloo Region has not been designated a Gateway area in Places to Grow (2006), a review of other land supply analyses and inventories for best practices could have been included. This would serve to legitimize the research, methodology, and findings of their analysis.

In terms of limitations, the plan notes that by studying only employment lands located within the Gateway, non-gateway employment lands could be overlooked. In order to address this; however, the plan suggests a study on non-Gateway employment lands be undertaken as a next step to explore opportunities for growth elsewhere as well.

**Table 3.2: Comparison of Employment Land-Specific Plan Quality Evaluation Results for Waterloo and Niagara Region**

<b>EVALUATION OF EMPLOYMENT LAND- SPECIFIC PLAN QUALITY COMPONENTS</b> <i>Derived from Dempwolf (2012)</i> <b>SCORING SYSTEM</b> <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>					
		<b>WATERLOO</b>		<b>NIAGARA</b>	
EVALUATION COMPONENT	POINTS POSSIBLE	TOTAL SCORE	% SCORE	TOTAL SCORE	% SCORE
Introduction and Purpose	6	3	50.0	5	83.3
Background	10	6	60.0	5	50.0
Methodology	6	2	33.3	2	33.3
Industrial Land Supply	8	6	75.0	7	87.5
Industrial Land Uses	12	5	41.7	8	66.7
Demand for Industrial Land	8	5	62.5	2	25.0
Supply and Demand	6	6	100.0	3	50.0
Findings and Recommendations	10	9	90.0	9	90.0
<b>TOTAL SCORE FOR COMPONENTS</b>	<b>66</b>	<b>42</b>	<b>63.6</b>	<b>41</b>	<b>62.1</b>

### **3.3 Analysis of Industrial Site Selection Components**

The third of the four key categories included in this toolkit and analysis is industrial site selection. The purpose of examining these characteristics is to better understand the process of industrial site selection and the rationale behind location choices. This category consists of five components, with a total of 26 sub-questions to be analyzed and scored. Table 3.3 shows the evaluation and comparison of the industrial site selection components in Waterloo and Niagara Regions' employment lands plans (Appendix C1 and C2 B2 contain the evaluation and justification for scoring in its entirety). The analysis and evaluation indicates that both plans scored the lowest in this category. In terms of scores, overall, Niagara's plan received the higher score, with an average of 55.8%. This suggests that although the plan contains some of the necessary elements for assessing industrial site selection in the toolkit, a considerable amount of work still needs to be done to convey to the reader that the selection of employment lands in the six targeted areas is justified. Waterloo's plan received an average score of 36.5%, which indicates that the plan is not meeting the established criteria for industrial site selection.

#### **3.3.1 Weak Areas in Both Plans**

One of the primary weaknesses with both plans is the lack of discussion around the development patterns surrounding the employment areas and the interplay between nearby, non-industrial, parcels and the employment lands. Neither plan contained any discussion of parcels surrounding the employment lands, which is a flaw in their design as it is

important for decision makers, potential future developers of both the employment lands or the surrounding lands, and those reading the plan who are unfamiliar with the area to have a sound understanding of surrounding uses and their compatibility with future industrial uses./The importance of locating industrial lands within close proximity to an existing, or planned, transit station cannot be understated. The literature unanimously agrees that public transit is of critical importance in ensuring functional employment lands. Although both plans acknowledge the important role of public transit, neither plan gives consideration for the proximity to transit stations. Instead, both plans highlight a need to prepare a transportation strategy and look at TDM policies within their recommendations, but neither plan addresses industrial site selection in relation to the transit system. Although the plans recommend this as a critical next step, the sites were selected without regard for public transportation.

Another weak area in both plans is the lack of analysis of employment and market characteristics. In particular; although both plans state that they will meet the employment density targets set out in the Places to Grow plan (2006), neither plan discusses actual numbers of employees or the anticipated density beyond the Places to Grow targets.

Finally, both plans received a score of 0 in the social and health impact characteristics and a 1 on the environmental impact characteristic. Essentially, both plans are lacking in any consideration for impact characteristics. While both mention environmental assessments, there is little to no discussion about potential impacts resulting from industrial uses on the selected parcels, environmental or otherwise.

**Table 3.3: Comparison of Industrial Site Selection Results for Waterloo and Niagara Region**

<b>EVALUATION OF INDUSTRIAL SITE SELECTION COMPONENTS</b> <i>Derived from Dempwolf (2012)</i> <b>SCORING SYSTEM</b> <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>					
		<b>WATERLOO</b>		<b>NIAGARA</b>	
EVALUATION COMPONENT	POINTS POSSIBLE	TOTAL SCORE	% SCORE	TOTAL SCORE	% SCORE
Land Use Characteristics	12	5	41.7	6	50.0
Infrastructure Characteristics	6	2	33.3	3	50.0
Employment and Market Characteristics	14	5	35.7	10	71.4
Site Characteristics	14	6	42.9	9	64.3
Impact Characteristics	6	1	16.7	1	16.7
<b>TOTAL SCORE FOR COMPONENTS</b>	<b>52</b>	<b>19</b>	<b>36.5</b>	<b>29</b>	<b>55.8</b>

### **3.3.2 Waterloo Region Strengths/ Niagara Region Weaknesses**

The primary strength Waterloo's plan has in terms of the site selection category is in the land use characteristics component. In particular, the plan presents a thorough discussion of the ability of parcels to provide for the expansion of existing or new firms via infill and intensification. The document discusses how utilized lands can be used to allow existing firms to expand through infill and other methods such as reduced parking and shared driveways. Additionally, the plan briefly discusses the potential for parcels to support municipal functions while Niagara's plan does not address this.

### **3.3.3 Niagara Region Strengths/ Waterloo Region Weaknesses**

A major strength present within Niagara's plan is the detail and consideration given for employment and market considerations. In addition to providing data on existing employment composition, labour force growth, labour force concentration, and labour force trends, the plan contains a detailed breakdown of how the selected lands can cater to a variety of shipping modes because of the proximity and access to differing transportation networks vital for various industrial activities. In contrast, Waterloo's plan does not discuss any employment composition trends and has a less developed market analysis.

In addition to an increased detail in the employment and market considerations, strength of Niagara's plan lies in the site characteristic considerations. This is likely due to the focused nature of the plan. Because

Niagara's Gateway Employment Lands Study is designed for only six areas, a significant portion of the document is devoted to justifying the selection of these sites. Conversely, some of the lower scores assigned to Waterloo's plan in this component (and this category more broadly) could be explained by the comprehensive nature of their plan.

### **3.4 Analysis of Economic Development and Competitiveness Components**

The final of the four key categories employment lands plans should give consideration to is that of economic development and competitiveness. Within this theme, three components are identified. In total, 12 sub-questions were examined under these elements, with the overall intent being to evaluate and analyze the plan's ability to address issues pertaining to economic development at the regional level. Table 3.4 shows the evaluation and comparison of economic development and competitiveness components in Waterloo and Niagara's employment lands plans (Appendix D1 and D2 B2 contain the evaluation and justification for scoring in its entirety).

Overall, little variation in scores between the two plans is present for this category. The difference in the total score between the two plans is only one point. Niagara's plan averaged a 79.2% for this category, while Waterloo averaged a 75%. As both scores are between the 66 to 80% range, it can be determined that both plans contain the necessary elements for economic development and competitiveness, but could improve slightly.

Both documents address resiliency very well, acknowledging the importance of a diversified economy. Additionally, both documents have a thorough plan for promoting industrial development by many sectors. Waterloo intends to promote development by ensuring parcels of varying sizes are available. Additionally, Waterloo's plan anticipates the timing and marketability of parcels. Niagara accomplishes this through strategically targeting particular sectors to particular selected target areas for optimization.

Another similarity between the two plans is their discussion of opportunities for collaboration. Both plans indicate that collaborating with various levels of government and the private sector is important. Each plan mentions the need to leverage existing partnerships and form new partnerships to ensure the economic success of the region via employment lands development.

Finally, in terms of competitiveness, both plans could have included more discussion of their productivity compared to other locations. This would provide the audience with a more thorough understanding of the competitive advantages associated with industrial location in one area over another similar nearby area

#### **3.4.1 Weak Areas in Both Plans**

Both plans scored lowest in the innovation component. The low scores assigned to both plans in this component are a result of the lack of concrete timelines. Additionally, some of the action items and recommendations in the plans are not detailed or descriptive enough in terms of innovation.

#### **3.4.2 Waterloo Region Strengths/ Niagara Region Weaknesses**

While Waterloo's document received a low score in innovation, they scored higher than Niagara Region on this component. This is primarily due to the recommendations in Waterloo's plan being slightly more detailed than Niagara's. Additionally, the contents of Waterloo's plan are oriented toward implementing more strategic initiatives.

#### **3.4.3 Niagara Region Strengths/ Waterloo Region Weaknesses**

As a result of the focused approach of Niagara's plan, the document does an excellent job at presenting placemaking attributes associated with the Gateway lands. The "Gateway" concept itself is placemaking by default, and the plan outlines how each of the six areas is to be marketed with a specific name and different characteristics. This provides a sense of place and meaning for each of the six areas that separates them from non-Gateway employment lands and from each other. Additionally, this provides a competitive advantage in that developers may be more enticed to locate on Niagara's gateway lands due to the high degree of placemaking. As a contrast, because Waterloo's plan is comprehensive, placemaking is rather weak. The placemaking within Waterloo's plan is briefly discussed as branded as Canada's Technology Triangle; however, in terms of competitiveness this may be a disadvantage as it may create a market only for the technology sector and deter other industries.

**Table 3.4: Comparison of Economic Development and Competitiveness Results for Waterloo and Niagara Region**

EVALUATION OF ECONOMIC DEVELOPMENT AND COMPETITIVENESS COMPONENTS					
<i>Derived from Hackler(2011)</i>					
SCORING SYSTEM					
<i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>					
		WATERLOO		NIAGARA	
EVALUATION COMPONENT	POINTS POSSIBLE	TOTAL SCORE	% SCORE	TOTAL SCORE	% SCORE
Resiliency	8	7	87.5	7	87.5
Competitiveness	10	6	60.0	8	80.0
Innovation	6	5	83.3	4	66.7
<b>TOTAL SCORE FOR COMPONENTS</b>		<b>18</b>	<b>75</b>	<b>19</b>	<b>79.2</b>

### 3.5 Analysis of Total Overall Scores

Looking at the total overall scores for each of the four categories reveals several trends. Table 3.5 shows the total scores for all categories with an additional column indicating the difference between the two plans on each component. The largest difference between the two plans was in the industrial site selection category, with an overall difference of 1.92 in the average score. The smallest difference between the two plans was in the ILU-specific category, where the total difference in the average score was .15. Both plans had their highest scores in the economic development and competitiveness category and the lowest score in the industrial site selection category. Finally, Table 3.5 shows that when all

scores are combined, both plans had a very close overall average score. These findings suggest that both plans have a similar variation in terms of addressing the four categories identified by the toolkit as essential for inclusion in a high quality employment lands plan. Waterloo had a final score of 61%, meaning that their plan requires a considerable amount of improvement to conform to what the toolkit deems as critical for inclusion in a high quality employment lands plan. Niagara's plan scored 66% overall, which is on the lower end of the 66 to 80% range. This indicates that their plan could also use improvement.

**Table 3.5: Total Scores for all Categories of Analysis for Waterloo and Niagara Region**

TOTAL OVERALL SCORES OF WATERLOO AND NIAGARA REGION'S EMPLOYMENT LANDS PLANS				
SCORING SYSTEM				
0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed				
Key Component	Evaluative Component	Municipality		Difference in Score
		Waterloo Region	Niagara Region	
Plan Quality	Issue Identification and Vision	8	10	2
	Goals	3	4	1
	Fact Base	8	10	2
	Policies	3	3	0
	Implementation	5	6	1
	Monitoring and Evaluation	2	2	0
	Internal Consistency	5	3	2
	Organization and Presentation	17	14	3
	Interorganizational Coordination	3	4	1
	Compliance	6	6	0
Average Score		6.98	7.21	0.23
ILU-Specific Plan Quality	Introduction and Purpose	3	5	2
	Background	6	5	1
	Methodology	2	2	0
	Industrial Land Supply	6	7	1
	Industrial Land Uses	5	8	3
	Demand for Industrial Land	5	2	3
	Supply and Demand	6	3	3
	Findings and Recommendations	9	9	0
Average Score		6.36	6.21	0.15
Industrial Site Selection	Land Use Characteristics	5	6	1
	Infrastructure Characteristics	2	3	1
	Employment and Market Characteristics	5	10	5
	Site Characteristics	6	9	3
	Impact Characteristics	1	1	0
Average Score		3.65	5.58	1.92
Economic Development & Competitiveness	Resiliency	7	7	0
	Competitiveness	6	8	2
	Innovation	5	4	1
Average Score		7.50	7.92	0.42
Overall Average		6.10	6.62	0.53

## 4.0 Recommendations and Conclusion

This chapter provides general recommendations for improvements that can be made for each plan. Given that both regions obtained very similar overall scores, many of the recommendations can be applicable to each. However, individual improvements for each plan are highlighted as well. In addition to general recommendations for the plan, this section also highlights recommendations for the applicability of the toolkit and evaluation framework and recommendations for future research.

### 4.1 Recommendations for Both Study Areas

*Recommendation 1: Establish indicators and timelines for implementation of action items and include these within the plan*

*Recommendation 2: Include a cost-benefit analysis of implementation vs. non-implementation of the plan*

The importance of establishing indicators, timelines for implementation of action items, and an overall cost- benefit analysis of implementation or non-implementation within plans cannot be understated. Throughout the analysis, both plans scored very low on any sub question dealing with monitoring and implementation. If these elements are absent within a plan, research suggests that optimal success is unlikely. In order to ensure that the overall vision of each plan is realized, both Waterloo and Niagara Region should consider including these types of timelines and analyses within their plans. Inclusion of these items directly in the plan will

ensure accountability on the part of the organization, and it will help to better educate decision makers and non-planners.

*Recommendation 3: Include some discussion of surrounding uses and potential impacts*

Employment lands should not be studied in isolation. Although the nature of what it means to be industrial in a post-industrial economy is changing, it is still important to consider the potential impacts of industrial uses on surrounding uses and vice versa. Both Waterloo and Niagara Region should consider expanding their studies beyond employment lands specifically and include a brief analysis and discussion about surrounding uses and impacts.

*Recommendation 4: In future studies and updates to the plan, include a detailed analysis of public transit linkages and transportation opportunities for future industrial workers*

Both plans discuss the vital link played by public transportation in providing future employees with a means of getting to and from their places of employment on industrial lands. Additionally, both plans acknowledge the inherent flaw in their studies with regard to the lack of transportation planning involved in employment lands planning. Both Waterloo and Niagara Regions would benefit from conducting a detailed analysis of these public transportation linkages to be included in updated versions of their plans or any future employment lands plans.

## 4.2 Recommendations Specific to Waterloo Region

*Recommendation 5: In future studies and updates to the plan, increased consideration for employment and market conditions should be given*

Although the plan scored high on many of the supply and demand categories, a detailed analysis of important and relevant trends in other areas is lacking. In terms of employment conditions, an increased discussion of existing and emerging industries, current and future employment trends and labour force activity would be an added benefit. Additionally, discussion of market trends in various industrial sectors would help provide a better picture of what currently exists in terms of employment activities and how this market may shift in the future. Ultimately, the inclusion of these items will better inform readers and lead to better decision making when it comes to employment lands.

## 4.3 Recommendations Specific to Niagara Region

*Recommendation 6: In future studies and updates to the plan, increased consideration for demand for industrial land should be given*

Generally, throughout, Niagara Region's Gateway Employment Lands Study lacks any discussion of industrial demand- particularly in numeric terms. More qualitatively, the demand analysis does not explicitly discuss what types of uses would be permitted on the lands and how this would impact the use of the land. Related to permitted uses, Niagara's plan lacks any consideration for demand for land from competing and non-competing uses. This is dangerous in that a lack of consideration for the

demand coming from industrial and non-industrial uses could be a result of the types of uses permitted on the land. It is a recommendation of this report that the Region of Niagara strive to include a more thorough analysis and discussion of this demand on industrial lands from any type of user, in addition to explicitly discussing uses that are permitted on the parcels in any update to the existing plan or in any future employment lands plans.

*Recommendation 7: In future studies and updates to the plan, increased consideration for organizational components should be given*

Although, overall, Niagara's plan received a higher score than Waterloo's, several flaws in terms of organizational components were evident. Primarily, these flaws had to do with the lack of a glossary of terms, inconsistent formatting and page numbering, and inappropriate font size on graphics and maps. A high quality plan cannot only contain sufficient relevant information; it must also be presented in a way that helps the reader obtain the overall message. As such, the Region of Niagara would benefit from giving these organizational components as much attention as more technical components and elements of the plan.

## 4.4 Recommendations for the Toolkit and its Use in Practice

*Recommendation 8: Repeat this analysis on additional Canadian employment lands plans to determine whether or not ILU-specific plan and industrial site selection categories need to be modified to fit the Canadian context*

In terms of the applicability of the toolkit developed for this analysis, overall, it was easily transferred from the United States and applied within a

Canadian context. The general plan quality and economic development and competitiveness categories were more easily applied than the ILU-specific and industrial site selection categories. The low scores attained by both plans in these categories may suggest that Canadian agencies looking to produce strategies for their employment lands need to tailor their plans to include more of the criteria from these categories. It may also suggest that some of the key questions may need to be modified. Alternatively, the low scores attained by both plans used in this analysis could be coincidental. In order to determine whether or not alterations need to be made to these categories, the analysis should be repeated using additional plans.

*Recommendation 9: Look to the categories, components and sub-questions used in this analysis to add more rigor and depth to future employment lands plans*

Agencies looking to conduct an employment lands study that will eventually become a plan and public document can use this framework and toolkit at the beginning, middle and end stages of the plan's development to ensure that it is of sufficient quality.

#### **4.5 Conclusion**

The maintenance, development and preservation of employment lands is critical for any community. Although the common perception today is that our economy and communities are not dependent on employment lands, this is not the case. Employment lands provide communities with

many benefits, and will continue to do so in the future. While academics and planners alike have begun to realize the need to plan for employment lands in a more strategic manner, methodologies to assess their effectiveness are in their infancy. As we begin to realize the importance of employment lands in a post-industrial context, it is increasingly important to plan for them accordingly.

This study has taken components from cutting edge employment lands research published by various scholars in the United States to develop a framework and toolkit for evaluating employment lands plans. The framework was then applied to two employment lands plans from Ontario, Canada to determine its applicability in the Canadian context. Overall, the findings of this report suggest that the cutting edge employment lands research published to date can be applied within the Canadian context; however, further adjustments may be warranted. In particular, the industrial site selection evaluation yielded low scores for both plans. It could be a possibility that site selection is beyond the scope of these plans because they are more high-level in nature. However, it could also be that these plans scored low because site selection is something that warrants further attention in the Canadian context. As such, this is one of the adjustments that the evaluation matrix may need and is a prime area for future research.

Additionally, this study was able to apply the toolkit in practice and assess the quality of the plans selected for analysis and provide specific recommendations for each. Once the analysis was completed, results show that the Region of Niagara's plan scored 66% overall, while Waterloo Region's plan scored 61%. Although this indicates that the Niagara Region

Gateway Employment Lands Study is of higher quality than Waterloo's plan, based on the scores tabulated for this analysis; the results of the analysis indicate that both plans could make improvements. They contain some of the cutting-edge criteria, but not all. This suggests that there may be some sort of difference between the focus of industrial lands planning between the United States and Canada. It could also suggest that these two Regions, in particular, need to take a closer look at what is believed to be prime examples of employment lands plans and adjust accordingly. The second supposition is the more likely reason. The composite outline developed by Dempwolf (2012), and adapted for this study, was created using a review of more than 40 industrial land plans from the United States and Vancouver. As such, it seems less likely that the criteria are something a Canadian plan would disregard. Given that the criteria was established from what Dempwolf (2012) believes to be 40 exemplary plans, the low scores received suggest that Niagara and Waterloo are not matching up to the cutting edge criteria. Ultimately, the toolkit developed for this study can be used by scholars and planning practitioners into the future to ensure employment lands plans of the highest quality are produced.

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**APPENDICES**

**Appendix A: Plan Quality Evaluation**

Appendix A1: Waterloo Region Analysis.....39  
Appendix A2: Niagara Region Analysis.....42

**Appendix B: ILU-Specific Plan Quality Evaluation**

Appendix B1: Waterloo Region Analysis.....46  
Appendix B2: Niagara Region Analysis.....49

**Appendix C: Industrial Site Selection Evaluation**

Appendix C1: Waterloo Region Analysis.....52  
Appendix C2: Niagara Region Analysis.....55

**Appendix D: Economic Development and Competitiveness Evaluation**

Appendix D1: Waterloo Region Analysis.....58  
Appendix D2: Niagara Region Analysis.....60

Appendix A1

<p style="text-align: center;"><b>EVALUATION OF PLAN QUALITY COMPONENTS</b>  <i>Derived from Berke &amp; Godschalk (2009) and Baer (1997)</i>  <b>SCORING SYSTEM</b>  <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i></p>			
<p style="text-align: center;">Plan Title: Region of Waterloo Industrial and Business Park Vacant Land Inventory and Demand Analysis</p>			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
<p>Internal Plan Quality</p> <p style="text-align: center;">Issue Identification and Vision</p> <p><i>This component includes an assessment of major issues, trends, and impacts of the plan. This section of the plan should also include a description of opportunities and threats to the land use and desired development pattern. Essentially, this section of the plan addresses issues deemed important and provides an overarching vision of what the desired outcome should be. A quality plan will clearly articulate the vision and issues early on in the document and use subsequent sections and elements to address these issues.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 10</p>	Are issues the plan is to address clearly articulated?	2	Scope of the report is identified on page 7 of the document
	Are the issues the plan is to address identified early on in the document?	2	The issues to be addressed within the plan are laid out in section 1 of the report, on pages 7-8
	Are strengths, weaknesses, opportunities and threats to employment land uses identified?	1	A very brief overview is provided More broad picture of the changing nature of the land and the Region's ability to respond and adapt to that change
	Are major local trends and potential impacts of change addressed?	2	Building permit and land sales history are examined and utilized to predict future trends Discusses anticipated changes to industrial lands and potential impacts of change
	Does the plan contain a clear vision of what the desired outcome will be?	1	Objectives and scope defined; however, the overall vision is less clear It is not 100% clear what the desired outcome of the plan will be
TOTAL SCORE		8	
<p style="text-align: center;">Goals</p> <p><i>Serve as the critical direction-setting framework of plans and identify what the area will become. Goals identify the desired future outcome of the plan. A quality plan should include realistic goals that set the directional framework for the rest of the plan.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 4</p>	Does the plan contain realistic goals regarding the future use of the lands under examination?	2	Analysis of the availability and marketability of land on long, medium and short term basis is realistic and will allow for sound decision making for each parcel Goals are based on detailed analysis
	Do the goals identify what the land will become?	1	What the lands will realistically become is dependent on a variety of factors It is unclear what the land will become in terms of the type of industrial use it will provide
TOTAL SCORE		3	
<p style="text-align: center;">Fact Base</p> <p><i>Includes an analysis of current and future conditions and explanation of why things are the way they are. A quality plan provides a strong fact base to ensure that decision making in setting goals and policies are well-informed.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 12</p>	Does the plan establish the context through presentation of relevant background information?	1	Section 3.0 provides a background, discusses the growth management strategy The plan does not discuss the policy context beyond this background
	Does the plan contain a broad analysis of present and future conditions?	2	The plan contains both a broad level analysis and a more specific analysis of the present and future conditions of the land throughout the report
	Does the plan include an analysis of present and future population and economy?	1	The present and future population and economy are briefly touched upon in the executive summary but are not analyzed in-depth in the document
	Does the plan include an analysis of the existing land use and future demands for employment use?	2	Land sale analysis, building permits, immediately usable lands, lands marketable in 1-10 years, lands immediately marketable, underutilized lands, and a future demand analysis are all included in the document beginning in section 7 (p.39)
	Does the plan contain maps and tables to support the fact base and enhance relevance and comprehensibility?	1	Tables and figures are present throughout the document; however, there is no use of maps
	Does the plan provide a general background of the local history of the area?	1	Local planning context is highlighted and a short background is provided Discusses history and past documents related to the current document The context of the Region is not really established
TOTAL SCORE		8	

<p style="text-align: center;">Policies</p> <p><i>Policies are specific principles to guide public and private land use decisions and achieve goals. Policies rely on a range of tools, such as regulations and incentives to achieve the desired future spatial form. A good plan should include a strong framework of policies that will help achieve the goals identified in the plan.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 4</p>	Does the plan identify specific tools by which the desired outcome, or goals, can be achieved?	1	Specific recommendations for each area is provided No specific tools for achieving the outcome, instead the plan recommends that municipalities be encouraged to review their zoning bylaws to ensure industrial and business park lands are retained and available to accommodate both heavy manufacturing and higher density employment (the zoning bylaw can be considered a tool to implement particular policies)
	Does the plan contain principles and policies that are specific?	2	Recommendations are clear and specific, also laid out in an easy to follow fashion
TOTAL SCORE		3	
<p style="text-align: center;">Implementation</p> <p><i>The implementation section of a plan includes the organization of tasks, assignment of responsibilities and creation of timelines for action in order to achieve the stated goals. Plans that clearly specify organization responsibility and timelines for actions for implementation and monitoring are more likely to achieve the desired end result.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 12</p>	Are specific timelines for actions outlined?	1	No timeline given, just the statement that the "land inventory be maintained on a regular basis"
	Are people, or organizations, named as responsible for carrying out particular actions?	2	The Region and lower-tier municipalities are given responsibilities for some items
	Are sources of funding identified?	0	No sources of funding are identified
	Are implementation provisions appropriate?	2	Provisions are appropriate and would further the development of employment lands in designated areas into the future
	Are there priorities for implementation?	0	No priorities given
	Are costs of implementation vs. non-implementation considered?	0	No cost/ benefit analysis discussed
TOTAL SCORE		5	
<p style="text-align: center;">Monitoring and Evaluation</p> <p><i>The monitoring and evaluation component of a plan should track and assess the effectiveness of the plan in resolving issues and achieving goals. This section includes provisions for tracking the conditions necessary for goal achievement and implementation and includes timelines for action and identification of responsible actors and sources of funding for carrying out actions. Inclusion of indicators to gauge progress and goal achievement is critical for a quality plan.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Are goals based on measurable objectives?	1	Some of the goals could be measured and quantified, while others would not be able to be measured
	Are indicators of objectives to assess progress established?	0	No indicators provided in the document
	Has any person, or organization, been identified as responsible for monitoring?	1	Directions for maintaining, monitoring and updating given but there is not a body or department deemed as responsible
	Is there a schedule or timetable for updating the plan?	0	While there is direction to update the inventory on a regular basis, there is no timeframe given
TOTAL SCORE		2	
<p style="text-align: center;">Internal Consistency</p> <p><i>A plan with strong internal consistency will contain issues, vision, goals, polities and implementation elements that are mutually reinforcing. An analysis of internal consistency includes verification that goals accommodate the vision of the plan, policies are linked back to goals and forward to implementation actions and monitoring includes indicators to gauge goal achievement and policy effectiveness.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Are the first six evaluative components integrated within the plan?	1	There is a lack of integration in implementation, monitoring and evaluation; however the other components are integrated throughout the plan
	Are goals comprehensive?	2	The goals cover a broad range of topics and address what is within the scope of the report
	Are policies clearly linked back to goals and forward to implementation actions?	2	Steps to be taken to ensure economic prosperity are articulated Clear objectives and recommendations
	Are indicators to gauge goal achievement and policy effectiveness included and discussed?	0	Not discussed
TOTAL SCORE		5	
INTERNAL PLAN QUALITY (SUBTOTAL)		34	

External Plan Quality			
<p>Organization and Presentation</p> <p><i>In organizing and presenting information, a quality plan will ensure that steps are taken in order to enhance the understandability and readability for a wide range of readers. Aesthetic components such as a table of contents, glossary of terms, executive summary and clear visuals are some of the essential items that will foster comprehension and understanding. Ultimately, in its organization and presentation, a quality plan will promote awareness, support the public interest and be clearly understood by the community at large.</i></p> <p>TOTAL POSSIBLE SCORE: 18</p>	Overall, does the presentation and organization of the document foster comprehension and understanding for all audiences?	2	Overall, the plan is well organized and easy to follow The only issue is that it is lacking maps
	Does the document contain an executive summary, table of contents and glossary of terms to enhance understanding?	2	All of these items are present within the plan
	Does the document contain clear, well-explained and appropriately placed visual aids?	2	Figures are embedded in text and are clearly titled Descriptions of figures or images are given with a sound explanation
	Does the document provide the reader with links, or direction, to supporting documents?	1	The reader is not provided with any links Past reports are mentioned, but there is no actual direction on how to access them
	Does the document use an appropriate size and format?	2	Yes, the size and format are appropriate
	Does the document clearly show a date of publication?	2	The document was published in March of 2006- date of publication is clearly visible
	Does the document show the authors?	2	Yes
	Does the document contain numbered pages?	2	All pages are numbered
	Overall, is the document's layout attractive?	2	The document is easy to follow, aesthetically pleasing, and well laid out. Images are used where appropriate to help the reader visualize what is being discussed in-text
TOTAL SCORE		17	
<p>Interorganizational Coordination</p> <p><i>Includes the coordination with actions of other organizations and other relevant plans. A quality plan should be easily integrated within the larger planning framework via coordination and alignment with plans or policies of local, provincial, and federal parties.</i></p> <p>TOTAL POSSIBLE SCORE: 4</p>	Is there vertical coordination with provincial plans and policies?	2	Yes, the plan discusses the Provincial Policy Statement and the Places to Grow Growth Plan
	Is there horizontal coordination with plans or policies of other local parties within or outside local jurisdiction?	1	Roles of local agencies and parties are established and acknowledged (p.9-11) No analysis of lower-tier policies or plans is provided
TOTAL SCORE		3	
<p>Compliance</p> <p><i>The extent to which the plan is consistent with the purpose of provincial and federal mandates. In other words, a quality plan should meet the federal and provincial legal requirements and be consistent with the mandates of relevant plans and policy statements.</i></p> <p>TOTAL POSSIBLE SCORE: 6</p> <p><i>* Required elements- elements regarding employment lands discussed in provincial planning documents (Provincial Policy Statement, Places to Grow, Planning Act).</i></p>	Is the plan consistent with provincial and federal mandates?	2	The plan uses the 2031 planning timeframe established in the Places to Grow Growth Plan and is consistent with both P2G and PPS in terms of their mandates on employment lands
	Does the plan include required elements*?	2	Yes
	Do required elements* fit together?	2	Yes
TOTAL SCORE		6	
EXTERNAL PLAN QUALITY (SUBTOTAL)		26	
TOTAL SCORE (ALL COMPONENTS)		60	

Appendix A2

<b>EVALUATION OF PLAN QUALITY COMPONENTS</b> <i>Derived from Berke &amp; Godschalk (2009) and Baer (1997)</i> <b>SCORING SYSTEM</b> <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i> Plan Title: Region of Niagara Gateway Employment Lands Study (2011)			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
Internal Plan Quality  Issue Identification and Vision  <i>This component includes an assessment of major issues, trends, and impacts of the plan. This section of the plan should also include a description of opportunities and threats to the land use and desired development pattern. Essentially, this section of the plan addresses issues deemed important and provides an overarching vision of what the desired outcome should be. A quality plan will clearly articulate the vision and issues early on in the document and use subsequent sections and elements to address these issues.</i>  TOTAL POSSIBLE SCORE: 10	Are issues the plan is to address clearly articulated?	2	Purpose is stated on page 1 A bulleted list of seven areas the document is intended to address is provided on page 1
	Are the issues the plan is to address identified early on in the document?	2	Purpose is identified on page 1 and within the executive summary
	Are strengths, weaknesses, opportunities and threats to employment land uses identified?	2	Strengths, weaknesses, opportunities and threats are identified throughout the document and are individually analyzed for each of the six chosen locations in section 4 The prime overall threat identified is the lack of detailed secondary planning (p.33) Assets in terms of linkages and transportation are identified (p. 34- 42) Opportunities each of the six locations can provide are discussed
	Are major local trends and potential impacts of change addressed?	2	Section 4 of document identifies the local trends and areas of change for each of the six selected strategic locations
	Does the plan contain a clear vision of what the desired outcome will be?	2	Desired outcome is development of employment lands in six strategic locations to capture various opportunities and sectors
	<b>TOTAL SCORE</b>		<b>10</b>
Goals  <i>Serve as the critical direction-setting framework of plans and identify what the area will become. Goals identify the desired future outcome of the plan. A quality plan should include realistic goals that set the directional framework for the rest of the plan.</i>  TOTAL POSSIBLE SCORE: 4	Does the plan contain realistic goals regarding the future use of the lands under examination?	2	Detailed outlines of what each of the six strategic areas are to become Rationale given for each location Directions given for enhancements to each area to improve marketability and attain the vision
	Do the goals identify what the land will become?	2	Each of the six identified strategic locations has a clear description of the future employment uses that are anticipated for the land
<b>TOTAL SCORE</b>		<b>4</b>	
Fact Base  <i>Includes an analysis of current and future conditions and explanation of why things are the way they are. A quality plan provides a strong fact base to ensure that decision making in setting goals and policies are well-informed.</i>  TOTAL POSSIBLE SCORE: 12	Does the plan establish the context through presentation of relevant background information?	2	Context established for the following items: Gateway, geography, market, and policy- provincial, regional and local
	Does the plan contain a broad analysis of present and future conditions?	2	Table of existing and emerging sectors (p. 13) Section 4 provides a description of the current conditions of the selected areas and a description of the desired outcomes
	Does the plan include an analysis of present and future population and economy?	1	Labour force trends included Employment sector trends included No population figures included
	Does the plan include an analysis of the existing land use and future demands for employment use?	2	Table 3.2 (p.25) provides an analysis Analysis is included into the 2031 planning horizon
	Does the plan contain maps and tables to support the fact base and enhance relevance and comprehensibility?	2	A variety of maps and tables are included to support the text
	Does the plan provide a general background of the local history of the area?	1	Broader picture history of the Great Lakes Region given; however, no real background of Niagara is specifically provided. There is a brief discussion in the executive summary
<b>TOTAL SCORE</b>		<b>10</b>	

<p>Policies</p> <p><i>Policies are specific principles to guide public and private land use decisions and achieve goals. Policies rely on a range of tools, such as regulations and incentives to achieve the desired future spatial form. A good plan should include a strong framework of policies that will help achieve the goals identified in the plan.</i></p> <p>TOTAL POSSIBLE SCORE: 4</p>	Does the plan identify specific tools by which the desired outcome, or goals, can be achieved?	2	Inclusion in the regional policy plan via amendment 2-2009 to establish gateway policies helps establish the Gateway and achieve goals Servicing and infrastructure needs are discussed Financial tools and incentives, such as using community improvement plan funds are explored as a way to achieve the goals
	Does the plan contain principles and policies that are specific?	1	Policies contained within the plan are broader in nature. Plan mentions that Gateway policies are contained within another document (Amendment 2-2009); excerpts of these policies are provided in the plan Some policies are more specific than others There are high-level policies directing support; however, there are presently very few specific policies or plans in place
TOTAL SCORE		3	
<p>Implementation</p> <p><i>The implementation section of a plan includes the organization of tasks, assignment of responsibilities and creation of timelines for action in order to achieve the stated goals. Plans that clearly specify organization responsibility and timelines for actions for implementation and monitoring are more likely to achieve the desired end result.</i></p> <p>TOTAL POSSIBLE SCORE: 12</p>	Are specific timelines for actions outlined?	0	No specific time frames mentioned
	Are people, or organizations, named as responsible for carrying out particular actions?	2	Region is responsible for implementation (p. 58) "given the broader provincial policy context which established the Gateway, there exists a need for the Region to take on a broader, leadership role in coordinating, financing and administering action items within the action plan" (p. 58) Tourism development strategy- Region's role is more "backseat", other organizations are better suited to lead a tourism strategy (3 bodies are listed as potential groups to be responsible for this) (p. 60) Partnership with municipalities to develop individual secondary plans
	Are sources of funding identified?	2	Plan highlights "financial implementation tools" as a best practice for success (p. 21) and discusses the utilization of an "incentive toolkit" (p. 21) St. Lawrence Seaway Corporation may be able to offer financial incentives for development of employment lands under their jurisdiction (p. 49) Region is preparing and incentive strategy to promote private sector investment in Gateway employment lands Policy 8.2.1 (p. 5): "region will work in partnership with relevant local municipalities and the province to develop a funding strategy and provide adequate, fully serviced employment lands"
	Are implementation provisions appropriate?	2	Implementation oversight committee established in 2009 to address recommendations Action items are appropriate, would further the Gateway employment lands development Action items are realistic and feasible, but no timelines are given for carrying them out
	Are there priorities for implementation?	0	No areas (of the six identified) are identified as a priority
	Are costs of implementation vs. non-implementation considered?	0	no justification or cost-benefit analysis included
TOTAL SCORE		6	
<p>Monitoring and Evaluation</p> <p><i>The monitoring and evaluation component of a plan should track and assess the effectiveness of the plan in resolving issues and achieving goals. This section includes provisions for tracking the conditions necessary for goal achievement and implementation and includes timelines for action and identification of responsible actors and sources of funding for carrying out actions. Inclusion of indicators to gauge progress and goal achievement is critical for a quality plan.</i></p> <p>TOTAL POSSIBLE SCORE: 8</p>	Are goals based on measurable objectives?	1	Can feasibly measure whether or not action items have been carried out
	Are indicators of objectives to assess progress established?	0	Not discussed
	Has any person, or organization, been identified as responsible for monitoring?	1	Most of responsibility lies in the Region, but no specific group or person has been identified
	Is there a schedule or timetable for updating the plan?	0	Not discussed
TOTAL SCORE		2	

<p style="text-align: center;">Internal Consistency</p> <p><i>A plan with strong internal consistency will contain issues, vision, goals, politics and implementation elements that are mutually reinforcing. An analysis of internal consistency includes verification that goals accommodate the vision of the plan, policies are linked back to goals and forward to implementation actions and monitoring includes indicators to gauge goal achievement and policy effectiveness.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Are the first six evaluative components integrated within the plan?	1	First three are well-integrated Last three are poorly integrated
	Are goals comprehensive?	1	Gateway concept is the ultimate goal The action plan establishes how the goal can be accomplished but it is not comprehensive
	Are policies clearly linked back to goals and forward to implementation actions?	1	Section 4 of the document provides information, an analysis and unveils a strategy for developing employment lands within the Niagara Economic Gateway Next steps and action plan are provided but are not strongly linked Policies are linked back to vision of Gateway Action items, if carried out, would aid in implementation
	Are indicators to gauge goal achievement and policy effectiveness included and discussed?	0	Not discussed
TOTAL SCORE		3	
INTERNAL PLAN QUALITY (SUBTOTAL)		38	
<b>External Plan Quality</b>			
<p style="text-align: center;">Organization and Presentation</p> <p><i>In organizing and presenting information, a quality plan will ensure that steps are taken in order to enhance the understandability and readability for a wide range of readers. Aesthetic components such as a table of contents, glossary of terms, executive summary and clear visuals are some of the essential items that will foster comprehension and understanding. Ultimately, in its organization and presentation, a quality plan will promote awareness, support the public interest and be clearly understood by the community at large.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 18</p>	Overall, does the presentation and organization of the document foster comprehension and understanding for all audiences?	2	Overall, the document is well-organized and laid out Table are neat, and portions of the document are labeled to draw the reader's attention Summaries at the end of each section are helpful
	Does the document contain an executive summary, table of contents and glossary of terms to enhance understanding?	1	Glossary of terms is absent- a definition of a Gateway economic zone and centre is provided Structure of the report is clearly articulated
	Does the document contain clear, well-explained and appropriately placed visual aids?	1	Maps could use larger font Appendix: small font size, inconsistent with the rest of the document
	Does the document provide the reader with links, or direction, to supporting documents?	2	Links to best practices studied are provided No link or direction to GHK report that is mentioned throughout the document
	Does the document use an appropriate size and format?	1	Throughout the document, the font size and formatting is appropriate; however, the appendix does not have the same font or format as the rest of the document. It does not have page numbers either, which is somewhat confusing. Map font size is a bit small
	Does the document clearly show a date of publication?	2	June, 2011
	Does the document show the authors?	2	Corporate author- Dillon Consulting, Watson and Associates, Region of Niagara
	Does the document contain numbered pages?	1	Not all pages are numbered- pages with maps and images are not numbered, the appendix does not contain page numbers
	Overall, is the document's layout attractive?	2	The document is well laid out and aesthetically pleasing, overall
TOTAL SCORE		14	
<p style="text-align: center;">Interorganizational Coordination</p> <p><i>Includes the coordination with actions of other organizations and other relevant plans. A quality plan should be easily integrated within the larger planning framework via coordination and alignment with plans or policies of local, provincial, and federal parties.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 4</p>	Is there vertical coordination with provincial plans and policies?	2	Policy context is highlighted- Places to Grow and Provincial Policy Statement (p.3) Niagara Gateway is the only gateway in Ontario which is designated within a provincial plan (p.2)
	Is there horizontal coordination with plans or policies of other local parties within or outside local jurisdiction?	2	Regional planning context is established and explained Local context is established and explained- table 2.1 outlines how the local plan addresses the Gateway and how each plan implements the provincial growth plan and regional policies The strategy "builds on the conclusions of the 2008 Gateway study and aligns with the Region's Policy Plan and a number of local initiatives"
TOTAL SCORE		4	

<p style="text-align: center;">Compliance</p> <p><i>The extent to which the plan is consistent with the purpose of provincial and federal mandates. In other words, a quality plan should meet the federal and provincial legal requirements and be consistent with the mandates of relevant plans and policy statements.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p> <p><i>* Required elements- elements regarding employment lands discussed in provincial planning documents (Provincial Policy Statement, Places to Grow, Planning Act).</i></p>	Is the plan consistent with provincial and federal mandates?	2	Addresses Provincial Policy Statement and Places to Grow Plan Federal consideration/ involvement acknowledged for port activities In discussing potential for a foreign trade zone, the plan mentions this would be a federal matter
	Does the plan include required elements*?	2	Yes- Strategy initiated partially as a response to provincial mandates
	Do required elements* fit together?	2	Yes
TOTAL SCORE		6	
EXTERNAL PLAN QUALITY (SUBTOTAL)		24	
TOTAL SCORE (ALL COMPONENTS)		62	

Appendix B1

EVALUATION OF ILU- SPECIFIC PLAN QUALITY COMPONENTS			
<i>Derived from Dempwolf (2012)</i>			
SCORING SYSTEM			
<i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>			
Plan Title: Region of Waterloo Industrial and Business Park Vacant Land Inventory and Demand Analysis			
APPROACH TO STUDY Classified, <u>not scored</u> )	CLASSIFICATION	JUSTIFICATION	
<i>ILU Plans are either comprehensive in nature (i.e. cover all employment lands within the area) or focused in nature (i.e. cover only particular employment lands within the area). Depending on the approach to the study, the characteristics and questions may differ.</i>	Comprehensive	The inventory is comprehensive in nature, although the plan has a slight focus on the East Side Lands, but it is not limited to this area.	
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
Introduction and Purpose  <i>The best studies have a clearly articulated purpose. The introduction should guide the reader through the structure of the study.</i>  TOTAL POSSIBLE SCORE: 6	Is the purpose of the study clearly articulated?	2	The purpose is to "better understand the issues relating to the development and marketing of industrial and business park lands within the Region of Waterloo and recommend steps to be taken to ensure continues economic prosperity within the Region" Scope of the report is intended to fill 6 objectives (clearly stated, in a bulleted list) It is made clear what the intent of the plan is and is not early on
	Does the introduction guide the reader through the structure of the study?	0	No clear direction of what each section of the document will cover There is no real description of the structure of the report beyond the table of contents; the executive summary and introduction do not provide a thorough overview of what will be contained in further sections
	Is the document laid out so as to be understood by non-planners?	1	Context established, background given, plain language is used, glossary of terms is provided Imagery (e.g. maps) is lacking in the document, which could cause confusion among non-planners Tables and charts are well- placed and thoroughly explained
TOTAL SCORE		3	
Background  <i>The general purpose is to assess whether or not the plan provides sufficient background information to enhance a reader's understanding of industrial lands. In particular, the purpose of this component is to assess whether the plan is able to provide readers who may not be planners with enough understanding of the subject to move forward in the document without confusion. In particular, the background should provide policy makers or laypeople with enough understanding to make informed decisions regarding industrial lands.</i>  TOTAL POSSIBLE SCORE: 10	Does the background provide the reader with information about why industrial land matters?	2	Section 3.0 outlines "planning for employment lands" Economic importance of employment lands in a community is discussed throughout
	Does the background explain how industrial lands fit into the overall land use system?	1	Discusses industrial lands in terms of the Regional Official Policies Plan (ROPP) and how they fit into the ROPP Discusses a urban area expansion for the purpose of adding more employment lands within the region
	Does the document provide a background on the factors that drive industrial location?	1	Discusses factors depleting industrial inventory Needs of industrial users is discussed Value of large parcels is identified No location theory per-se is discussed
	Does the background include information on the industrial history of the area?	1	History on the policy context and the regional growth management study is given Plan describes major industries and drivers of change Brief industrial history of the area is provided in the executive summary and introduction; however, this is not enough information to familiarize a non-resident or someone with little local knowledge about the area's industrial history
	Does the background include information on the past and present workforce demographics?	1	No discussion of the past workforce demographics Demographics by sector given for employment lands only Table 13 has information on present employment, but not by sector
TOTAL SCORE		6	

<p style="text-align: center;"><b>Methodology</b></p> <p><i>Good industrial land studies generally provide the reader with a detailed description of the methodology undertaken to conduct data analysis components of the plan (e.g. land supply, supply, demand, employment projections).</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Does the plan discuss the methodology undertaken in preparing the study?	2	Section 4.0 details the inventory methodology
	Does the plan include a discussion of, or reference to, precedents from other cities?	0	Not discussed
	Does the plan include a survey of industrial businesses?	0	Not discussed
<b>TOTAL SCORE</b>		<b>2</b>	
<p style="text-align: center;"><b>Industrial Land Supply</b></p> <p><i>The plan should contain quantitative and qualitative information about the overall supply of industrial land, describe the spatial organization of industrial land, and provide a sense of the dynamics of the area's industrial land use over time.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Does the plan contain an inventory of industrial land?	2	Yes, the plan contains a detailed inventory of all vacant industrial and business park lands within the Region
	Does the plan describe the spatial organization of industrial land in the overall context?	1	The plan does not have any maps, so it is difficult to spatially identify anything Descriptions are given based on categories of industrial land vs. location of industrial land
	Does the plan provide a sense of industrial use patterns over a useful time frame?	2	Long, medium and short- range uses and locations are identified Marketability of particular parcels is discussed Forecasts for population and employment from 2001- 2041 are provided Examines jobs to be created into the 2031 planning horizon
	Does the plan highlight specific trends and specific areas for concentration?	1	Highlights the East Side Lands and the 97/401 Industrial Area specifically for concentration and intensification No specific trends Lacking a market analysis
<b>TOTAL SCORE</b>		<b>6</b>	
<p style="text-align: center;"><b>Industrial Land Uses</b></p> <p><i>Although the characterization and definition of employment lands may vary by municipality, good industrial land use studies discuss critical components of industrial land uses, such as industries, employment, spatial organization, economic impact, and prospects for growth.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 12</p>	Does the plan consider the characteristics of different employment industries?	1	Discusses differing needs Acknowledges diverse characteristics and land needs of different businesses Not overly specific in characteristics
	Does the plan consider the perspectives of business owners?	0	Not discussed
	Does the plan provide an analysis of the workforce and employment generated by employment industries?	1	Brief outline of population and economy- 250,000 workforce population GDP mentioned Labour pool discussed in the executive summary Amount of employment by sector found on official plan designated industrial lands is provided (graph on p. 13 is used to illustrate this) Percent of employment within industrial and business park lands is described
	Does the plan provide an analysis of the spatial organization of particular industries (i.e. does the plan acknowledge opportunities for clustering, etc.)?	0	Not Discussed
	Does the plan provide an analysis of the economic impact of industrial uses?	1	Recognizes role played by industrial lands in economic development
	Does the plan recognize or indicate where a potential for industrial growth may exist (prospects for growth)?	2	East Side Lands and 97/401 Lands are identified for intensification and growth; these areas are where most of the employment lands employment needs to occur
<b>TOTAL SCORE</b>		<b>5</b>	

<p style="text-align: center;">Demand for Industrial Land</p> <p><i>A good study should include an examination of the overall demand for industrial land from both industrial and non-industrial uses. This section should examine pressures for industrial conversion and include estimates of future land needed and identifies specific target areas for industrial location.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Does the plan provide an analysis of the overall demand for industrial users (current)?	2	Table 13 (p. 39) shows that, on average, approximately 40% of total employment occurs in such areas
	Does the plan provide an analysis of the overall demand for industrial users (future)?	2	"For the purposes of the study, it is assumed that while there will continue to be changes in the form, density and mix of uses, the overall percentage of employment that locates in these areas will remain at 40%" (p. 39)
	Does the plan provide an analysis of the overall demand for industrial land from competing, non-industrial, uses?	1	Plan assumes those parcels in category D2 and F will not be used for industrial purposes
	Does the plan provide an analysis of the overall demand for industrial land from competing, industrial, uses?	0	Assumes 40% Uses provincial targets Not discussed otherwise
TOTAL SCORE		5	
<p style="text-align: center;">Supply and Demand</p> <p><i>A good plan should address the degree to which the supply and demand sections have been matched, synthesized and validated.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Are findings from the industrial land supply and demand for industrial land sections matched?	2	Total quantity of land would potential accommodate the forecasted growth "It is important to remember that not all land is suitable to accommodate the specific needs of the diverse range of new and expanding businesses that need to be accommodated"
	Based on the supply and demand analysis, does the plan identify specific areas for industrial protection?	2	Identifies need to retain prime industrial and strategic reserve lands (East Side Lands and 97/401 Lands); these areas are identified as possible areas to set aside
	Based on the supply and demand analysis, does the plan identify specific areas for industrial conversion?	2	The plan identifies those parcels categorized D2 and F as subject to constraint and likely to be converted The plan identifies properties for consideration for conversion (p.48)
TOTAL SCORE		6	
<p style="text-align: center;">Findings and Recommendations</p> <p><i>A good ILU will conclude by presenting the major findings and provide specific recommendations related to the planning process. A plan may identify a particular area that is in need of a strategy.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 10</p>	Does the study conclude with specific policy recommendations related to the planning process?	2	Recommendation for review of zoning and coverage bylaws, flexibility with setbacks, etc. (p.48) Section 9.0 includes recommendations for consideration
	Does the study conclude with the identification of any next steps or planning options to address the findings of the report?	2	Ongoing inventory and monitoring of parcels to keep findings current Direction for ROPP amendments, land use designations, and policies to promote industrial use
	Does the study conclude with the identification of implementation policies?	1	No timeline is established for implementation of recommendations, but some implementation direction is given The phrase "on a regular basis" is used, but no tangible timeline is identified
	Does the plan identify any ways coordination with other planning elements can help or hinder the recommendations/ implementation?	2	Discusses coordination with TDM, infrastructure, economic development agencies and zoning
	Does the plan identify any particular employment areas to be targeted for specifically or planned for strategically (aka target-area strategies)?	2	Recommendations divided up- some specifically address particular areas where other address overarching themes
TOTAL SCORE		9	
TOTAL SCORE (ALL COMPONENTS)		42	

APPENDIX B2

EVALUATION OF ILU- SPECIFIC PLAN QUALITY COMPONENTS			
<i>Derived from Dempwolf (2012)</i>			
SCORING SYSTEM			
<i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i>			
Plan Title: Region of Niagara Gateway Employment Lands Study			
Approach to Study (Classified, <u>not scored</u> )	QUESTION		JUSTIFICATION
<i>ILU Plans are either comprehensive in nature (i.e. cover all employment lands within the area) or focused in nature (i.e. cover only particular employment lands within the area). Depending on the approach to the study, the characteristics and questions may differ.</i>	Focused		The scope of document is targeted at six identified areas within the Gateway
<b>EVALUATION COMPONENT</b>			
	QUESTION	SCORE	JUSTIFICATION
<p style="text-align: center;">Introduction and Purpose</p> <p><i>The best studies have a clearly articulated purpose. The introduction should guide the reader through the structure of the study.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Is the purpose of the study clearly articulated?	2	Executive summary highlights purpose and questions to be addressed in a bulleted list, which is further expanded upon in the introduction section
	Does the introduction guide the reader through the structure of the study?	2	Section 1.2 lays out the report structure The introduction is fairly short- could use a bit of expansion to improve clarity, although the executive summary is very thorough. This could compensate for the shorter introduction
	Is the document laid out so as to be understood by non-planners?	1	Executive summary provides a thorough overview of the contents of the document. Context and background are well explained and fairly straightforward Charts, tables and maps are clearly laid out and explained The document is lacking a glossary of terms. Although plain language is used throughout the document, non-planners would benefit from some explanation of more complex concepts
TOTAL SCORE		5	
<b>Background</b>			
<p style="text-align: center;">Background</p> <p><i>The general purpose is to assess whether or not the plan provides sufficient background information to enhance a reader's understanding of industrial lands. In particular, the purpose of this component is to assess whether the plan is able to provide readers who may not be planners with enough understanding of the subject to move forward in the document without confusion. In particular, the background should provide policy makers or laypeople with enough understanding to make informed decisions regarding industrial lands.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 10</p>	Does the background provide the reader with information about why industrial land matters?	0	Background on the Gateway is provided, but no explanation of employment lands and why they matter Background discusses a Regional Policy Plan Amendment for employment lands direction, but again does not explain to the reader in-depth about the functions of industrial land within a community.
	Does the background explain how industrial lands fit into the overall land use system?	0	Not discussed
	Does the document provide a background on the factors that drive industrial location?	2	Location factors and employment lands development has its own section in the document (starting on p.15)
	Does the background include information on the industrial history of the area?	1	Brief discussion of industrial changes in the Region over the last 35 years in the market context section of the document Not enough detail for a non-resident or non-planner to discern industrial uses typical for the Region
	Does the background include information on the past and present workforce demographics?	2	Forecast employment growth, labour force trends, labour force growth rates, existing and emerging clusters are all examined in text and in chart and table format
TOTAL SCORE		5	

<p>Methodology</p> <p><i>Good industrial land studies generally provide the reader with a detailed description of the methodology undertaken to conduct data analysis components of the plan (e.g. land supply, supply, demand, employment projections).</i></p> <p>TOTAL POSSIBLE SCORE: 6</p>	Does the plan discuss the methodology undertaken in preparing the study?	0	Not discussed
	Does the plan include a discussion of, or reference to, precedents from other cities?	2	The body of the document and the appendix of the document discuss best practices from other cities
	Does the plan include a survey of industrial businesses?	0	Not discussed
TOTAL SCORE		2	
<p>Industrial Land Supply</p> <p><i>The plan should contain quantitative and qualitative information about the overall supply of industrial land, describe the spatial organization of industrial land, and provide a sense of the dynamics of the area's industrial land use over time.</i></p> <p>TOTAL POSSIBLE SCORE: 8</p>	Does the plan contain an inventory of industrial land?	2	The plan specifically addresses only six areas for employment lands within the gatewayAvailability by parcel size is provided and accompanied by a map Condition of land (developed vs. undeveloped) is discussed Vacant land supply providedVague inventory supplied in appendixLand supply analysis provided in section 3 of the document Appendix B touches on the inventory and servicing needs of particular parcels The inventory in this plan is more broad and high-level, focusing on the Gateway only and does not expand to other employment lands within the Region; however, the inventory given for the Gateway lands is thorough
	Does the plan describe the spatial organization of industrial land in the overall context?	2	A variety of maps are used to provide sound justification for the selection of the lands/ why the location was chosen for the targeted employment activity
	Does the plan provide a sense of industrial use patterns over a useful time frame?	1	Analysis provided into the 2031 time frame 2031 is the long-range date by which targets are to be achieved (consistent with Provincial mandates) No consideration of how industrial needs may change from now to 2031 and how to adapt to this
	Does the plan highlight specific trends and specific areas for concentration?	2	In-depth analysis of employment lands is undertaken in the document Locations were strategically selected Plan identifies current and emerging trends
TOTAL SCORE		7	
<p>Industrial Land Uses</p> <p><i>Although the characterization and definition of employment lands may vary by municipality, good industrial land use studies discuss critical components of industrial land uses, such as industries, employment, spatial organization, economic impact, and prospects for growth.</i></p> <p>TOTAL POSSIBLE SCORE: 12</p>	Does the plan consider the characteristics of different employment industries?	2	Each area is targeted for different industries based on characteristics and justified as such The plan considers different needs for different industries/ users and discusses methods for improving the lands and attracting particular types of employment uses
	Does the plan consider the perspectives of business owners?	0	Not discussed
	Does the plan provide an analysis of the workforce and employment generated by employment industries?	2	Targets for growth identified by sector Projections of jobs in each municipality's Gateway lands is provided
	Does the plan provide an analysis of the spatial organization of particular industries (i.e. does the plan acknowledge opportunities for clustering, etc.)?	2	Location of particular industries by proximity to what that industry's particular need is (e.g. port, rail, institution, etc.) Table 2.3 identifies potential existing and emerging employment clusters for Gateway lands
	Does the plan provide an analysis of the economic impact of industrial uses?	0	Not discussed
Does the plan recognize or indicate where a potential for industrial growth may exist (prospects for growth)?	2	Gateway lands are identified as where the majority of the growth will occur; however, a study on non-Gateway employment lands is suggested to explore opportunities for growth elsewhere as well. Potential target employment sectors are identified	
TOTAL SCORE		8	

<p style="text-align: center;">Demand for Industrial Land</p> <p><i>A good study should include an examination of the overall demand for industrial land from both industrial and non-industrial uses. This section should examine pressures for industrial conversion and include estimates of future land needed and identifies specific target areas for industrial location.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 8</p>	Does the plan provide an analysis of the overall demand for industrial users (current)?	1	Projected demand (2009-2031) and beyond 2031 provided Net vacant supply (2009) examined Does not specify which user type demand comes from
	Does the plan provide an analysis of the overall demand for industrial users (future)?	1	Comparison of supply and demand for 2009-2031 and beyond 2031 provided Does not specify if demand is from industrial users or not Not specific- just demand for employment lands is covered
	Does the plan provide an analysis of the overall demand for industrial land from competing, non-industrial, uses?	0	The plan is not specific on where the demand is coming from (industrial or non-industrial)- the analysis is of overall demand more broadly Demand for land provided, but not specific from which type of user Distribution of vacant land by range of permitted uses is provided
	Does the plan provide an analysis of the overall demand for industrial land from competing, industrial, uses?	0	The plan is not specific on where the demand is coming from (industrial or non-industrial)- the analysis is of overall demand more broadly Demand for land provided, but not specific from which type of user Distribution of vacant land by range of permitted uses is provided
TOTAL SCORE		2	
<p style="text-align: center;">Supply and Demand</p> <p><i>A good plan should address the degree to which the supply and demand sections have been matched, synthesized and validated.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Are findings from the industrial land supply and demand for industrial land sections matched?	2	Supply and demand analysis provided in chart form with conclusion that the lands will meet the demand needs into 2031 The supply is consistent with the demand (p. 49)
	Based on the supply and demand analysis, does the plan identify specific areas for industrial protection?	1	Only identifies lands for industrial focus
	Based on the supply and demand analysis, does the plan identify specific areas for industrial conversion?	0	Not discussed
TOTAL SCORE		3	
<p style="text-align: center;">Findings and Recommendations</p> <p><i>A good ILU will conclude by presenting the major findings and provide specific recommendations related to the planning process. A plan may identify a particular area that is in need of a strategy.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 10</p>	Does the study conclude with specific policy recommendations related to the planning process?	2	Specific recommendations are identified within the action plan that could be initiated through the planning process Some of the action items are more detailed and explicit than others
	Does the study conclude with the identification of any next steps or planning options to address the findings of the report?	2	Concludes with an action plan with next step
	Does the study conclude with the identification of implementation policies?	1	No timeline for implementation; just recommendations for implementation are discussed
	Does the plan identify any ways coordination with other planning elements can help or hinder the recommendations/ implementation?	2	Identifies and recommends several improvements needed to enhance success Coordination with transportation and tourism identified Need for secondary planning identified as critical for the success of the plan- weak secondary planning will hinder the process
	Does the plan identify any particular employment areas to be targeted for specifically or planned for strategically (aka target-area strategies)?	2	The plan is specific and targeted to the six employment areas in the economic Gateway; strategies are targeted
TOTAL SCORE		9	
TOTAL SCORE (ALL COMPONENTS)		41	

APPENDIX C1

<p align="center"><b>EVALUATION OF INDUSTRIAL SITE SELECTION COMPONENTS</b>  <i>Derived from Dempwolf (2012)</i>  <b>SCORING SYSTEM</b>  <i>0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed</i></p>			
<p align="center">Plan Title: Region of Waterloo Industrial and Business Park Vacant Land Inventory and Demand Analysis</p>			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
<p align="center">Land Use Characteristics</p> <p><i>These characteristics deal with the compatibility of the industrial site to allow for non-compatible uses or not. Consideration regarding whether or not the particular land should be zoned exclusively for industrial uses should be given. Additional consideration should be given to the possibility of the land use characteristics of the area to change in the future as a result of outside forces, and the possible impact this may have on the existing land uses in the area.</i></p> <p align="center">TOTAL POSSIBLE SCORE: 12</p>	Does the plan specify whether the land is zoned for industrial uses only?	1	Inventory includes lands within established industrial areas and business parks and designated Greenfield industrial and business park lands at the end of 2005 Parcels are categorized, most seemed to be zoned for industrial use; however, it is not stated whether or not accessory uses are also permitted The document also examines areas under conversion
	Does the plan indicate whether or not parcels adjacent to the selected industrial lands are compatible uses?	0	No discussion of parcels outside of the industrial areas
	Does the plan indicate the separation distance between the selected industrial area and other non-compatible uses?	0	No discussion of separation distances
	Does the plan indicate whether or not the zoning of the selected area would be susceptible to land use/ zoning changes as a result of market forces?	1	Identifies parcels that are in transition and likely to be converted from industrial use to another use
	Does the plan indicate whether or not the zoning of the selected area would be susceptible to land use/ zoning changes through amendments?	1	Plan states that there is not much control over whether lands will be developed for industrial purposes or not- often, industrial park/ business lands are developed with non-industrial uses, thereby limiting their potential to accommodate future growth. This is generally discouraged by the Regional however, the document directs local municipalities to review their zoning bylaws to ensure industrial and business park lands are retained and available to accommodate various types of employment
	Does the plan indicate whether or not the site was selected based on its ability to provide for the expansion of existing or new firms?	2	Discussion of how already utilized lands can be used for infill and intensification is present within the plan Discussion of particular lands to be used for new firms or expansion of existing firms is also present in the document
<b>TOTAL SCORE</b>		<b>5</b>	
<p align="center">Infrastructure Characteristics</p> <p><i>Infrastructure characteristics such as accessibility to customers, suppliers, workers, road networks, and public transit are all critical for making sound decisions regarding industrial land location, preservation and conversion. Additionally, consideration should be given to the adequacy of public facilities in the area to service new workers and additional development.</i></p> <p align="center">TOTAL POSSIBLE SCORE: 6</p>	Does the plan discuss the selection of industrial areas based on proximity to an existing, or planned, transit station?	1	The plan acknowledges that, at present, there is a lack of detailed studies of public transit. One pressing immediate need identified within the plan relates to resolving outstanding transportation-related issues Recommendation 17 of the document gives direction to develop strategies to increase transit ridership within industrial and business park areas through the provision of higher levels of transit services and the development of TDM policies and pedestrian and cycling facilities
	Does the plan discuss the selection of industrial areas based on the adequacy of existing public facilities or services in the area to service the new development	0	Not discussed
	Does the plan discuss the selection of industrial areas based on the adequacy of existing hard infrastructure services (e.g. water, sewer) in the area to service the new development?	1	No discussion of the servicing needs at length Comparison of serviced and unserved land in various categories of land is provided Describes "category F" parcels as those not on the market or currently vacant due to constraints (e.g. contamination, servicing difficulties, grading issues)
<b>TOTAL SCORE</b>		<b>2</b>	

<p>Employment and Market Characteristics</p> <p><i>Affordability of industrial land is of critical importance to site selection. Because industrial uses are highly sensitive to rent levels and vulnerable to displacement, when deciding and justifying where to locate, preserve or convert industrial land, consideration should be given to market characteristics such as rent levels, potential to generate additional employment, and potential to generate economic activity within the region. In selecting a particular site for industrial location, preservation or conversion, an analysis of the existing employment characteristics in the area, wage levels, and the potential to create new jobs should be undertaken and used to justify the selection.</i></p> <p>TOTAL POSSIBLE SCORE: 14</p>	Does the plan consider rent levels in the area? In selecting a parcel to be used for industrial land, does the plan consider whether rents are stable and affordable for employment uses?	1	Discusses the context of land prices in relation to the private sector, does not explicitly state whether rents are affordable and does not compare rents to other Regions "The increase in the cost of industrial and business park lands for sale in the region to the point where private sector involvement is beginning to play a role in filling some of the gap left by the effective withdrawal of the cities of Waterloo and Kitchener as major players in the industrial land market"
	Does the plan consider the potential for an area to generate a significant number of local employees when selecting industrial areas?	1	No discussion of where employees will come from, but the plan does discuss the anticipated number of jobs the land will provide
	Does the plan discuss whether or not a site was selected based on its potential to generate additional economic activity for the region?	1	The plan discusses potential for infill and expansion and the generation of new firms Discusses the marketability of lands as well
	Does the plan include variable of current and projected composition of the labour force (i.e. does the industrial land under question currently employ a significant number of residents? What is the projected employment for this land in the future?)	1	No labourforce breakdown is provided Projected employment for the future is given, the amount of employment by sector found on official plan designated industrial land is also provided
	Does the plan provide an analysis of existing employment composition in the area and project employment trends?	0	Not discussed
	Does the plan consider whether or not the selected area would provide a competitive advantage?	0	Not discussed
	Does the plan identify any potential for job-creation in the area?	1	Discusses the number of new jobs the land is to accommodate
TOTAL SCORE		5	
<p>Site Characteristics</p> <p><i>Site characteristics, building characteristics, the site's ability to provide significant linkages for agglomeration economies, and proximity of the site to resources essential to industrial operation are important drivers of industrial location. In deciding and justifying the selection, preservation or conversion of industrial land, consideration should be given to the appropriateness of the configuration of the parcels in question, the surrounding development patterns, and the potential to create positive linkages between other industrial areas and resources critical to industrial operations.</i></p> <p>TOTAL POSSIBLE SCORE: 14</p>	In selecting employment lands, does the plan discuss the consideration given for choosing parcels of an appropriate size for industrial use?	2	Inventory by parcel size is provided (p.22-23) Effective inventory by parcel size is provided (p. 24) Proportion of inventory by size class (p. 26) Brief discussion of importance of various parcel sizes (p.44)
	Does the plan discuss how the configuration of existing surrounding development patterns influences whether or not an area is suitable for additional industrial uses?	1	Discusses how some areas may be better suited to support accessory uses Discusses where only industrial uses would be permitted Discusses how some lands may be better suited to transition out from industrial use No discussion of the configuration of lands outside of the industrial and business park lands
	In selecting a site, does the plan give consideration to strategic locations near vital transportation networks (e.g. freight, shipping) necessary for each activity in the area?	0	Not discussed
	Does the plan discuss whether significant linkages can be made between the selected area and other industrial activities in the area?	1	Discussion of potential for infill, sharing of parking lots, etc. Highlights the importance of partnerships, working with neighbouring and existing users
	Does the plan consider whether a site would be useful for supporting municipal functions of base sector uses?	1	Inventory includes municipally owned parcels
	In locating employment lands, does the plan consider the proximity to other important resources or infrastructure that is essential to the industrial operation?	0	Not discussed
	In the event that a site needs to be remediated prior to development of new industrial uses, does the plan consider whether the cost of remediation would exceed the benefit of choosing the location?	1	No costs of remediation are provided, but some discussion of remediation is included Discussion of proper aggregate resource extraction before redesignation is permitted
TOTAL SCORE		6	

<p style="text-align: center;">Impact Characteristics</p> <p><i>In terms of industrial site location, consideration should be given to potential environmental or health impacts on surrounding uses that may result from the industrial use. Additionally, costs and benefits of remediation of land before introducing industrial uses should be considered. An impact cost/benefit analysis should be undertaken to better understand the appropriateness of the location for industrial use.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of social impacts?	0	Not discussed
	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of environmental impacts?	1	Some discussion of environmental assessments
	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of health impacts?	0	Not discussed
TOTAL SCORE		1	
TOTAL SCORE (ALL COMPONENTS)		19	

APPENDIX C2

EVALUATION OF INDUSTRIAL SITE SELECTION COMPONENTS			
<i>Derived from Dempwolf (2012)</i>			
SCORING SYSTEM			
0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed			
Plan Title: Region of Niagara Gateway Employment Lands Study			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
<p>Land Use Characteristics</p> <p><i>These characteristics deal with the compatibility of the industrial site to allow for non-compatible uses or not. Consideration regarding whether or not the particular land should be zoned exclusively for industrial uses should be given. Additional consideration should be given to the possibility of the land use characteristics of the area to change in the future as a result of outside forces, and the possible impact this may have on the existing land uses in the area.</i></p> <p>TOTAL POSSIBLE SCORE: 12</p>	Does the plan specify whether the land is zoned for industrial uses only?	1	Map showing zoning obtained from local- level data Permitted uses: dry, light and general industrial Permitted uses and zoning map generated based on permissions in local official plans Because the Region does not have access or complete control over local zoning or official plan documents, this section is limited in how specific it can be
	Does the plan indicate whether or not parcels adjacent to the selected industrial lands are compatible uses?	0	No discussion of what parcels outside of the selected lands are zoned as
	Does the plan indicate the separation distance between the selected industrial area and other non-compatible uses?	1	Distances briefly discussed in location requirements section, but no separation distance is stated
	Does the plan indicate whether or not the zoning of the selected area would be susceptible to land use/ zoning changes as a result of market forces?	1	Pressure for conversions on some lands to residential or other uses is identified
	Does the plan indicate whether or not the zoning of the selected area would be susceptible to land use/ zoning changes through amendments?	1	Regional Policy Plan Amendment 2-2009 has emphasis on protecting and preserving employment areas from conversion Discusses PPS context for protection Does not specifically identify any local threats or susceptibility of land to change designation
	Does the plan indicate whether or not the site was selected based on its ability to provide for the expansion of existing or new firms?	2	Existing and emerging clusters by sector are examined Plan indicates sites were selectively chosen based on strategic location and ability to provide niches for varying sectors
TOTAL SCORE		6	
<p>Infrastructure Characteristics</p> <p><i>Infrastructure characteristics such as accessibility to customers, suppliers, workers, road networks, and public transit are all critical for making sound decisions regarding industrial land location, preservation and conversion. Additionally, consideration should be given to the adequacy of public facilities in the area to service new workers and additional development.</i></p> <p>TOTAL POSSIBLE SCORE: 6</p>	Does the plan discuss the selection of industrial areas based on proximity to an existing, or planned, transit station?	1	Discusses selection based on proximity to transportation networks but no thought to public transportation is given Recommendation 4.2.4: "prepare transportation strategy, including public transit and GO rail infrastructure" Transportation plan identified as critical in best practices review section
	Does the plan discuss the selection of industrial areas based on the adequacy of existing public facilities or services in the area to service the new development	0	Not discussed
	Does the plan discuss the selection of industrial areas based on the adequacy of existing hard infrastructure services (e.g. water, sewer) in the area to service the new development?	2	Examination of hard infrastructure available Examination of costs associated with improvements necessary to service development In-text and appendix- examine what exists and what improvements are necessary for the intended target audience to thrive. This is supplemented with cost breakdown analysis
TOTAL SCORE		3	

<p style="text-align: center;">Employment and Market Characteristics</p> <p><i>Affordability of industrial land is of critical importance to site selection. Because industrial uses are highly sensitive to rent levels and vulnerable to displacement, when deciding and justifying where to locate, preserve or convert industrial land, consideration should be given to market characteristics such as rent levels, potential to generate additional employment, and potential to generate economic activity within the region. In selecting a particular site for industrial location, preservation or conversion, an analysis of the existing employment characteristics in the area, wage levels, and the potential to create new jobs should be undertaken and used to justify the selection.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 14</p>	Does the plan consider rent levels in the area? In selecting a parcel to be used for industrial land, does the plan consider whether rents are stable and affordable for employment uses?	1	Discusses land value relative to other Greater Golden Horseshoe municipalities Identifies that the lower land values within the Region could encourage development and confer a competitive advantage
	Does the plan consider the potential for an area to generate a significant number of local employees when selecting industrial areas?	1	No discussion of where employees will come from, but a projected number of jobs the land is expected to provide is discussed
	Does the plan discuss whether or not a site was selected based on its potential to generate additional economic activity for the region?	2	All parcels are vacant and it is expected they will generate new/ additional economic activity for the Region Future analysis directed toward ensuring this economic activity is new and not a result of a location shift
	Does the plan include variable of current and projected composition of the labour force (i.e. does the industrial land under question currently employ a significant number of residents? What is the projected employment for this land in the future?)	1	Lands are currently vacant Includes labour force information for Census Metropolitan Area (CMA) level and labour force growth rate Provides projected number of jobs on employment lands- not divided by sector
	Does the plan provide an analysis of existing employment composition in the area and project employment trends?	2	Existing employment composition included Labour force growth rate identifies sectors of area labour force concentration (high and low) Labour force trends by major sector Identifies target employment sectors "Emphasis should be placed on existing and emerging employment clusters" "The Region should capitalize on attracting potential growth"
	Does the plan consider whether or not the selected area would provide a competitive advantage?	2	The areas were selected based on the notion that each confers an advantage for a particular type of industrial user
	Does the plan identify any potential for job-creation in the area?	1	Discusses the number of new jobs the land is expected to accommodate
<b>TOTAL SCORE</b>		<b>10</b>	
<p style="text-align: center;">Site Characteristics</p> <p><i>Site characteristics, building characteristics, the site's ability to provide significant linkages for agglomeration economies, and proximity of the site to resources essential to industrial operation are important drivers of industrial location. In deciding and justifying the selection, preservation or conversion of industrial land, consideration should be given to the appropriateness of the configuration of the parcels in question, the surrounding development patterns, and the potential to create positive linkages between other industrial areas and resources critical to industrial operations.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 14</p>	In selecting employment lands, does the plan discuss the consideration given for choosing parcels of an appropriate size for industrial use?	2	Examines local site requirements by target sector Map of vacant parcel by size- indicates a variety of sizes are available for a variety of uses Examination of range of lot sizes required for specific types of uses "parcel size is an important consideration for private sector investment" (p. 31)
	Does the plan discuss how the configuration of existing surrounding development patterns influences whether or not an area is suitable for additional industrial uses?	0	Not discussed
	In selecting a site, does the plan give consideration to strategic locations near vital transportation networks (e.g. freight, shipping) necessary for each activity in the area?	2	Access to highways, rail, border crossing, and canal system are all considered and presented in a chart form to show the proximity of each parcel to each one of the transportation networks
	Does the plan discuss whether significant linkages can be made between the selected area and other industrial activities in the area?	2	A portion of the action plan is based on making linkages between current and future industries, especially in the Brock Business Park, Welland Canal Green Manufacturing Zone, and the Niagara Falls/ QEW Business Park areas
	Does the plan consider whether a site would be useful for supporting municipal functions of base sector uses?	0	Not discussed
	In locating employment lands, does the plan consider the proximity to other important resources or infrastructure that is essential to the industrial operation?	2	Section 3.5: Infrastructure Considerations- this section contains the considerations for the proximity to other resources and infrastructure Proximity to types of existing industries is examined and used to justify selection of the six targeted areas
	In the event that a site needs to be remediated prior to development of new industrial uses, does the plan consider whether the cost of remediation would exceed the benefit of choosing the location?	1	The study examines parcels of previously developed or undeveloped land and discusses the possibility of some parcels needing remediation, but does not anticipate or discuss the costs
<b>TOTAL SCORE</b>		<b>9</b>	

<p style="text-align: center;">Impact Characteristics</p> <p><i>In terms of industrial site location, consideration should be given to potential environmental or health impacts on surrounding uses that may result from the industrial use. Additionally, costs and benefits of remediation of land before introducing industrial uses should be considered. An impact cost/benefit analysis should be undertaken to better understand the appropriateness of the location for industrial use.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p>	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of social impacts?	0	Not discussed
	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of environmental impacts?	1	The action plan recommends addressing issues of the environment through the secondary plan process at a later date Mention of a recommendation from a previous report to improve the EA process
	Does the plan consider whether there is a potential for industries located in the area to adversely impact surrounding, non-industrial, uses by way of health impacts?	0	Not discussed
TOTAL SCORE		1	
TOTAL SCORE (ALL COMPONENTS)		29	

APPENDIX D1

EVALUATION OF ECONOMIC DEVELOPMENT AND COMPETITIVENESS COMPONENTS			
Derived from Hackler (2011)			
SCORING SYSTEM			
0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed			
Plan Title: Region of Waterloo Industrial and Business Park Vacant Land Inventory and Demand Analysis			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
<p>Resiliency</p> <p><i>Resilience indicates that, although a set of "resting points" are present in any system, some prescription of changes can tilt the system irreversibly to another resting point. Resiliency is more likely to occur in diversified economies than in one-company towns. An industrial plan should pay attention to resilience because resilience can preserve the region's economic and social integrity.</i></p> <p>TOTAL POSSIBLE SCORE: 8</p>	Does the plan acknowledge the importance of a diversified economy?	2	<p>Businesses that comprise the local economy are diverse</p> <p>The plan highlights the region as a diverse economy overall</p> <p>Focus on ensuring consistent availability of both a variety of lands for purchase and a range of tenure opportunities, as these are the key to ensuring continued prosperity of the community (p.44)</p> <p>Recommendation 6 in the recommendations section of the document speaks to the need for diversity</p>
	Does the plan present options for diversity in industry types?	2	<p>Acknowledges importance of meeting the needs of different industrial types</p> <p>Discusses designation of strategic reserve lands to ensure a diversity of industries in the future</p> <p>Maintenance of a variety of parcel sizes</p>
	Does the plan present criteria to promote industrial land development by many different sectors and owners?	1	<p>"Understanding what this land has to offer and targeting a market interested in such land will be very important in coming years to make the most of what is available (p. 47)"</p> <p>Regional official policies plan suggests designated changes to ensure many sectors can use the lands</p> <p>No specific sectors identified, however</p>
	Does the plan address how to deal with current or future shocks or other threats that impact the local economy?	2	<p>Steps to be taken to ensure continued economic prosperity in a time of uncertainty and transition</p> <p>Ensuring consistent availability of a variety of lands with a range of tenure opportunities is key to ensuring prosperity</p> <p>Section 7.2 discusses anticipated changes within industrial and business park lands</p>
TOTAL SCORE		7	
<p>Competitiveness</p> <p><i>Competitiveness is about productivity relative to other cities; competitiveness is fundamentally grounded in the contribution of place making and branding of an area. An industrial plan should provide an analysis of the competitive advantages offered in the area over areas outside of the municipality of comparable quality.</i></p> <p>TOTAL POSSIBLE SCORE: 10</p>	Does the plan acknowledge their industrial productivity relative to the productivity of comparable cities elsewhere?	1	<p>States that the Region is the second most manufacturing-intensive urban economy in Canada; however, no statistics and numbers are provided otherwise</p>
	Does the plan acknowledge particular areas of strengths it offers to employment development over other nearby areas?	1	<p>Strength identified in technology and innovation</p> <p>No in-depth analysis of strengths offered otherwise</p>
	Does the plan recognize any potential areas for collaboration with other nearby local governments?	2	<p>Collaboration with lower tier municipalities and counties</p> <p>Opportunity to work with the province on some items identified as well</p>
	Does the plan present any marketing strategies to attract development in their industrial lands?	1	<p>Marketing is within the role of the local municipality</p> <p>Canada's Technology Triangle (CTT) is also responsible for marketing</p> <p>Region to provide some money for marketing</p> <p>The document identifies parcels and their marketability over different time frames</p> <p>Section 8.2 identifies the changing municipal and private sector roles in the development and marketing of employment lands</p> <p>While many agencies are identified as responsible for marketing, no marketing strategies are included</p>
	Are there any placemaking attributes present in the plan?	1	<p>Placemaking is established via CTT- the Region is meant to be a technology hub and placemaking in this regard is established</p>
TOTAL SCORE		6	

<p style="text-align: center;">Innovation</p> <p><i>Innovation is recognized as implemented change in products, services, activities of business and their processes. Innovation is a process by which firms create new economic value. An industrial plan should identify areas where there is potential to create new economic value.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p> <p><i>*Strategic initiatives foster competitiveness and productivity; any strategy or initiative that addresses goals of innovation (for example, in the case of Arlington Virginia, their yearly action plan addresses goals of innovation through the "Think Arlington" campaign).</i></p>	Does the plan identify sectors or areas that have the potential to create new economic value?	2	Partnership with CTT to encourage new investment Role of CTT is to look for future growth Section 7.2 discusses the anticipated boost in the manufacturing sector, high technology sector, software sector and IT sectors- these could create new economic value
	Does the plan present a set of goals oriented toward innovation?	2	Several of the recommendations and action items in the document speak to implementing strategic initiatives The plan mentions that the Region's employment base is based on entrepreneurship and innovation
	Are any strategic initiatives* presented in the plan?	1	Strategic reserve lands/ prime industrial lands- to maximize long term economic development opportunities East side structure plan initiative Strategies for intensification via infill
TOTAL SCORE		5	
TOTAL SCORE (ALL COMPONENTS)		18	

APPENDIX D2

EVALUATION OF ECONOMIC DEVELOPMENT AND COMPETITIVENESS COMPONENTS			
Derived from Hackler (2011)			
SCORING SYSTEM			
0- Not Discussed, 1- Somewhat Discussed, 2- Sufficiently Discussed			
Plan Title: Region of Niagara Gateway Employment Lands Study			
EVALUATION COMPONENT	QUESTION	SCORE	JUSTIFICATION
<p>Resiliency</p> <p><i>Resilience indicates that, although a set of "resting points" are present in any system, some prescription of changes can tilt the system irreversibly to another resting point. Resiliency is more likely to occur in diversified economies than in one-company towns. An industrial plan should pay attention to resilience because resilience can preserve the region's economic and social integrity.</i></p> <p>TOTAL POSSIBLE SCORE: 8</p>	Does the plan acknowledge the importance of a diversified economy?	2	The plan, by default, supports a diversified economy in that it provides a strategy for developing employment lands to support and promote a diverse range of industrial uses from heavy manufacturing to storage. By strategically selecting target areas for particular industries, they are not putting all of their eggs in one basket so to speak
	Does the plan present options for diversity in industry types?	2	The plan discusses "unique opportunities" offered by the six selected areas to provide diversity in industry types (p. 49) "the designated lands offer a mixture of potential development opportunities and allow for all types of employment, including light, heavy and dry industrial uses. The range of permitted uses generally corresponds to the market opportunities identified for the Gateway and would be capable of accommodating all industry types" (p. 49)
	Does the plan present criteria to promote industrial land development by many different sectors and owners?	2	The plan promotes land development by different sectors by targeting each area to a different sector (e.g. Welland- canal, shipping, port activities; St. Catharines- Business park, innovation, incubators; Fort Erie- industrial park, etc.) The plan discusses how the Region is suited to accommodate many sectors as a result of its connection to varying modes of transportation such as shipping, rail, and proximity to major highways (national and international)
	Does the plan address how to deal with current or future shocks or other threats that impact the local economy?	1	The strategy is multi-faceted in its approach due to the diverse nature and location of the selected lands. There is, however, no specific detail on how to deal with threats and impacts The plan recommends that a strategy be prepared to support existing employment areas to ensure that employment growth in the new areas is not a result of transfers from old areas. This, if developed, could deal with some shocks
TOTAL SCORE		7	
<p>Competitiveness</p> <p><i>Competitiveness is about productivity relative to other cities; competitiveness is fundamentally grounded in the contribution of place making and branding of an area. An industrial plan should provide an analysis of the competitive advantages offered in the area over areas outside of the municipality of comparable quality.</i></p> <p>TOTAL POSSIBLE SCORE: 10</p>	Does the plan acknowledge their industrial productivity relative to the productivity of comparable cities elsewhere?	1	Mentions that the Great Lakes Region is globally competitive A comparison of industrial land values in the Gateway vs. other Greater Golden Horseshoe municipalities is provided in the document
	Does the plan acknowledge particular areas of strengths it offers to employment development over other nearby areas?	2	Strengths/ competitive advantages identified (proximity to rail, trains, border, shipping, major highways, price of land, etc) The plan also acknowledges weaknesses and disadvantages
	Does the plan recognize any potential areas for collaboration with other nearby local governments?	2	Recognizes the partnership between the Region and lower- tier municipalities in realizing the Gateway concept Mentions the need for cross-border collaboration with the United States (particularly Upstate New York- Buffalo, Niagara Falls, etc.) Recognizes the partnership between the Region and the Province in realizing the Gateway concept
	Does the plan present any marketing strategies to attract development in their industrial lands?	1	Plan mentions the preparation of a CIP incentive package to lure developers Plan mentions that a marketing study may be a necessary next step
	Are there any placemaking attributes present in the plan?	2	"Gateway" concept itself can be considered placemaking The areas are to be marketed with specific names and characteristics so as to provide a sense of place/ meaning for each of the six areas
TOTAL SCORE		8	

<p style="text-align: center;">Innovation</p> <p><i>Innovation is recognized as implemented change in products, services, activities of business and their processes. Innovation is a process by which firms create new economic value. An industrial plan should identify areas where there is potential to create new economic value.</i></p> <p style="text-align: center;">TOTAL POSSIBLE SCORE: 6</p> <p><i>*Strategic initiatives foster competitiveness and productivity; any strategy or initiative that addresses goals of innovation (for example, in the case of Arlington Virginia, their yearly action plan addresses goals of innovation through the "Think Arlington" campaign).</i></p>	Does the plan identify sectors or areas that have the potential to create new economic value?	2	<p>Cross-border collaboration</p> <p>Potential new economic value to be created through partnerships (cross-border and between local municipalities)</p> <p>Brock Business Park- research and development, incubator facilities; clustering for "innovation"- could create new economic value</p> <p>Gateway concept, if realized, would lead to the creation of new economic value within the Region</p>
	Does the plan present a set of goals oriented toward innovation?	1	<p>Action items would initiate Gateway concept</p> <p>Not detailed or descriptive</p>
	Are any strategic initiatives* presented in the plan?	1	<p>Preparation of secondary plans</p> <p>Preparation of transportation strategy- would increase productivity</p> <p>Prepare environmental sustainability strategy for the innovative design of industrial buildings</p>
TOTAL SCORE		4	
TOTAL SCORE (ALL COMPONENTS)		19	