

PLANNING FOR SUSTAINABLE DEVELOPMENT

An Analysis of the State of Practice in the City of
Kingston through an Official Plan Evaluation

Queen's University School of Urban and Regional
Planning
Master's Report
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Planning for Sustainable Development

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Plan Evaluation

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EXECUTIVE SUMMARY

The City of Kingston has a vision to become Canada's Most Sustainable City (City of Kingston, 2018). The potential of achieving visionary objectives through sustainability planning depends on the planning policies and mandates outlined to the community (Grant et al., 2018). Studies suggest that planning objectives can influence local policies and therefore the quality of the plan is of great importance to implement the sustainable practices.

Sustainable development has become a significant concept in planning frameworks and therefore it is of importance to analyze whether over time official plans have adopted sustainable principles into planning policies, objectives, and visions. Content analysis is an established qualitative technique used to code and interpret secondary data that is presented in a non-numeric formation (Silvermann & Peterson, 2014). Content analysis and scoring is a process that is widely used in planning studies, as it helps to facilitate cross-study comparisons that allow for a more comprehensive understanding on plan quality principles (Guyadeen, 2017).

The purpose of this study was to investigate how both the planning process and the quality of a local plan can impact the growth of a community through the perspective of sustainable development. Evaluating the sustainability of the objectives, goals, and visions of a plan allows for an assessment of the evolution of the policies over time and how well the values of the community are integrated and implemented into planning frameworks. A three-step content analysis developed by Berke and Conroy (2000) has been adopted to evaluate the use of sustainability principles in official plans.

In consideration of the definition of sustainable development, Berke and Conroy (2000) established six sustainable principles that are outlined in the following table. Adapted from Berke and Conroy (2000) and Conroy and Jun (2014), the six categories of techniques and indicators included in the evaluation framework and the specific techniques that they contain.

Consistent with Berke and Conroy (2000), eight plan elements have been identified. The plan elements are as followed:

- Housing
- Transportation
- Environment
- Energy
- Land Use

Public Facilities
 Historic and Cultural Resources
 Economic Development

Additionally, a development management technique that was stipulated by policies in the official plan for promoting a given principle were identified. Any sustainability indicators were then evaluated against the plan components to identify areas of weaknesses or strength in respect to sustainable development principles.

When a policy contained words such as, *encouraged, considered, intended, or should* the policy was regarded as suggested and subsequently scored a 1 (score = 1). Conversely, policies with the words *shall, will, require, or must* were considered as required in the official plan and scored a 2 (score =2) (Conroy & Jun, 2014). Additionally, policy implementation and monitoring was a significant aspect of this research, therefore if the policy indicated implementation and monitoring were suggested, it was scored a 1 (score = 1) compared to if it was required it was scored a 2 (score = 2).

The evaluation determined which plan elements and sustainable principles improved over time between the two plans. An analysis on the official plans explored the evolution of the inclusion of sustainability principles in the City of Kingston’s official plan.

Plan Component	Harmony with Nature	Livable Built Environment	Place-based Economy	Equity	Polluters Pay Principle	Responsible Regionalism	Implementation and Monitoring	Total
2006 City of Kingston Official Plan	10	8	8	2	6	6	9	61
2018 City of Kingston Official Plan	11	9	11	9	7	9	11	67

When evaluating the extent that the City of Kingston has incorporated sustainability principles into their official plan over time, it can be observed there has been an increase in the inclusion of these principles. The official plans have promoted multiple sustainable principles through the integrate of policies from all plan elements to create comprehensive policies and objectives in the community’s official plan. The 2018 official plan most effectively utilizes sustainable development as a concept in an integrative framework for directing the development of the City of Kingston.

The following recommendations emerged from this research:

- Improvement in the Official Plan
- Increase Collaboration with Organizations and the Public
- Sustainable Development Criterial Evaluation Tool
- Separation of Implementation and Monitoring Principle
- Planner Evaluation Tool Training
- Weighting of Sustainable Principles

Given the increasing emphasis that sustainable development is a tool to be used by the planning profession, there is little empirical evidence regarding the extent to which a community's official plan promotes sustainable principles. Future research may expand on the assessment of additional planning documents and reports that informed the development of the official plan and analyzing the association between the policies. Furthermore, a more comprehensive study focusing on the relationship of high-quality plans, implementation, and tangible planning outcomes in a community.

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- Natalie Armstrong

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1.0 INTRODUCTION

1.1 Statement of Research Problem

Sustainable development offers a holistic way of addressing all three areas of sustainability, social, environmental and economic. Campbell (1996) stated “in the battle of big public ideas, sustainability has won: the task of the coming years is simply to work out the details and to narrow the gap between its theory and practice” (Campbell, 1996, p. 304). Planners must go beyond conventional planning policy objectives and establish goals that emphasize the creation of sustainable communities. Following the release of the Brundtland Commission report, *Our Common Future*, Canadian planners began the conversation around sustainable development (WCED, 1987). The Commission defined sustainable development as “development that meets the needs of the present without compromising the ability of future generations to meet their own needs” (WCED 1987, 43). Sustainability and planning ultimately provides a philosophy for managing resources, linking local decision-making processes with broader jurisdictions, consults all members of the community, engaging in long-term thinking, and minimizes environmental externalities (Selman 1995; Wheeler 2000). The potential of achieving visionary objectives through sustainability planning depends on the planning policies and mandates outlined to the community (Grant et al., 2018). Studies suggest that planning objectives can influence local policies and therefore the quality of the plan is of great importance to implement the sustainable practices.

Plan quality research is also appealing because plans are widely used in practice and the methodology for evaluating plan quality is becoming more standardized (Guyadeen, 2017). It has previously been recommended that research shall expand from plan quality evaluation as the primary focus on plans to the evaluation of the associated development management provisions that are in place to implement the plans. This is the content that is lacking (Stevens et al., 2014). There needs to be a type of analysis that is an extension of plan quality and evaluation, an analysis that can provide insight into the actual implementation of plan policies and thus the achievement of planning goals (Stevens et al., 2014). Ultimately, the inability to implement planning policies leads to a ‘planning drift’ which is a gap between the desired outcome that is expressed in the plan and the actual outcome on the ground (Talen, 1996).

Given the increasing weight of responsibility the public has placed on plans in advancing sustainable development, planners should be able to determine if their plans are making progress in this regard (Berke & Conroy, 2000). Sustainable development has become a significant concept in planning frameworks and therefore it is of importance to analyze

whether over time official plans have adopted sustainable principles into planning policies, objectives, and visions.

“If sustainability is to move beyond a vague idealism, the task ahead for planners and activities, especially at the local level where most authority to manage and control development is lodged, is to translate theory into practice” (Berke, 2002, p. 34). The possibility of achieving visionary objectives through sustainability planning relies on the strength of the planning mandates provided to the community (Grant et al., 2018). Evaluating the sustainability of the objectives, goals, and visions of the Official Plan (OP) allows for an assessment of the evolution of the policies over time and how well the values of the community are integrated and implemented.

The City of Kingston has a vision to become Canada’s Most Sustainable City (City of Kingston, 2018). This vision is illustrated through the City of Kingston’s Official Plan and other action plans that are developed and implemented through collaborative partnerships with Sustainable Kingston. Sustainable Kingston was created by the City of Kingston to support the community in achieving its goal of becoming Canada’s most sustainable city (Sustainable Kingston, 2018). Through this collective effort, The Corporation of the City of Kingston aims to apply sustainable thinking to all of its programs, services, and facilities (City of Kingston, 2018). The commitment to making Kingston Canada’s most sustainable city is to be facilitated through initiatives that are categorized as environment, economic, cultural, and social. Sustainable Kingston has charted the progress of Kingston’s growing sustainability movement, creating a Community Sustainability Report (Sustainable Kingston, 2018). This report highlights the progress made in order to make Kingston a

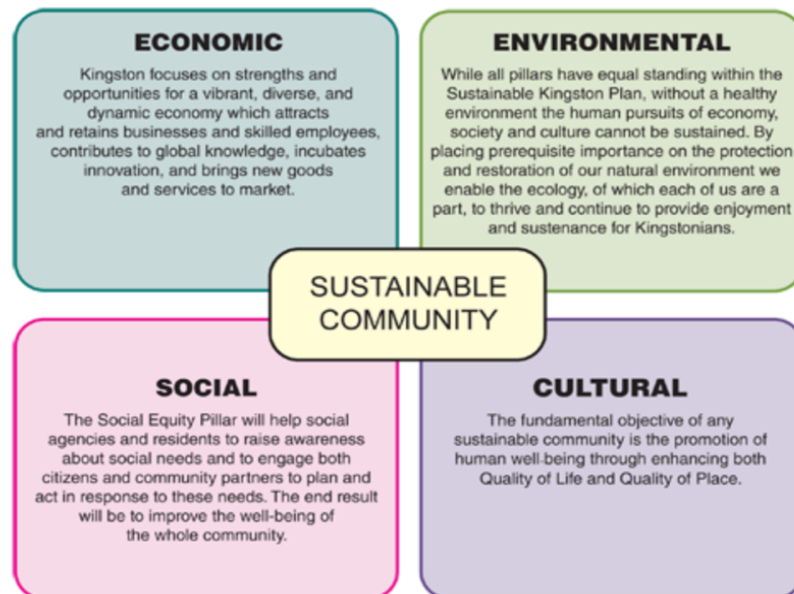


Figure 1: City of Kingston Sustainability Objectives (City of Kingston, 2018).

more sustainable city. The City of Kingston is a community partner to Sustainable Kingston and through Kingston's Strategic Plan the city will aim to apply sustainable principles and thinking to all of its available programs, services, and facilities (City of Kingston, 2018). This relationship between the municipality and local organizations are of great interest in regard to the collaboration and development of the Official Plan in its provision of direction in the development of meaningful resources that will help achieve the City's community goal of becoming Canada's Most Sustainable City.

1.2 Research Objective and Question

The question that this research will answer is:

Has the City of Kingston Official Plan since 1998 promoted sustainability principles?

The objective of this research was to study and analyze the City of Kingston's Official Plan (OP) since the 1998 amalgamation of the City, with the two neighbouring townships. It explored whether sustainable measures have been included in the Official Plan over the 20-year period. By evaluating the sustainable principles of the official plan, the strengths and weaknesses of official plan policies and components are identified and thus recommendations for improvement are provided.

1.3 Scope of Research

The research assessed Official Plans over a 20-year period, therefore any Official Plans put into effect outside of the timeframe of 1998 – 2018 were not considered and consequently not evaluated. The purpose of this 20-year period is to not research planning externalities that are a result of amalgamation within a community but to create a time frame in order to establish a scale in which the Official Plans may be selected from in order to inform this report. The content analysis was conducted on two Official Plans from the years 2006 and the official plan that was consolidated May 2018. This ensured a 12-year period between the Official Plan adoption, which permits an examination if the change in planning policies over time have been reformed in tandem with the evolution of society's sustainable values. Secondary Plans and any additional studies were not included in the scope of this report.

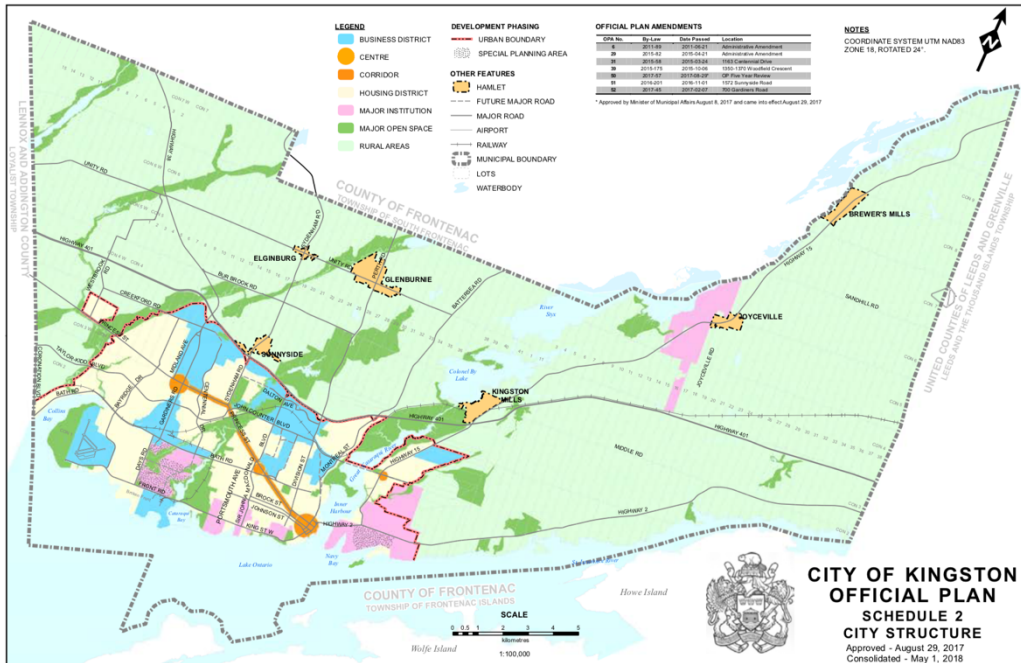


Figure 2: Map of the City of Kingston from the 2018 Official Plan(City of Kingston, 2018)

1.4 Sustainable Development

Ultimately, the central objective of sustainable development is intergenerational equity, which means that there is fairness to coming generations (Berke & Conroy, 2000). Sustainable development has also been conceptualized as a dynamic between societal demand for a preferred development path and the supply of environmental goods, economic goods, and community services available to meet this demand.

It is the role of the planner to balance this dynamic, to shape the scope and character of the future development, identify existing and future needs, and create plans to assure that the needs of the community have been met. Therefore, the perceptions of the environment, the economy, and social values must be balanced, and plans should have an appropriate balance amongst the competing yet complementary values.

Achieving balance entails coordination and compromise, and when all not values are represented, sustainability is unable to be promoted by a plan (Berke & Conroy, 2000; Kaiser et. al., 1995). Sustainable development may be best implemented through a collaborative planning approach at the local community level (Cuthill, 2002). Local community initiatives in regard to sustainable development should be linked to global concerns. Sustainable development should encourage communities to function in respect to global and regional environmental, economic, and social systems (Berke & Conroy,

2000). As a result of this, the plan created must overcome the barriers to the interdisciplinary view of sustainable development (Giddings et al., 2002). Sustainable development must be integrated into human life and the spaces we live in, in order to have a long-term meaning and impact on the community. Through the decision making, goal and objective setting, and the implementation through planning, sustainable development most definitely can become a reality.

1.5 Policy Framework and Legislation

A policy and document review of Ontario provincial planning legislation was completed to identify relevant planning policies in regard to sustainable development. Provincial planning documents are of interest to this research and the key documents are outlined below. Conformity to provincial documents by the official plan is required. Research has found that a multilevel governance enhances the capacity that local governments have to deal with complex environmental issues and facilitate more effective sustainability policies (Grant et al., 2018). Additionally, local plans, policies, and legislation must conform with the municipalities official plan. Therefore, an emphasis of the official plan and the coordination of this significant document is placed regarding its role in the sustainable development of a community.

Planning Act

The *Planning Act* exist to integrate and collaborate the matters that are of provincial interest into municipal planning objectives and tools. The *Planning Act* states that municipal official plans must be updated every five years with quantifiable goals and policies. The Provincial Policy Statement (PPS) provides policy direction for all decisions affecting land use planning in the province is strengthened by Section 3(5) of the *Planning Act* which outlines that municipalities and approval authorities shall be consistent with the PPS (Ontario 1990). Section 2 of the *Planning Act* provides a comprehensive overview of all planning activities of the scope of the matters of provincial interest and how the council of a municipality shall carry out their responsibilities under the *Act*. This section of the *Planning Act* outlines provincial interest, for example section S.2 (q) speaks to the promotion of development that is designed to be sustainable, to support public transit, and to be oriented to pedestrians.

In the *Planning Act* there are multiple planning tools that can be used to implement sustainable development. These planning tools are available for municipalities to use in order to move towards sustainable planning. They are listed as followed (Ontario 1990):

- Section 17 (24.1) (36.1), 22 (7.1)(7.2) and 34 (19.1) – Protection of Second Suite Policies;
- Section 22 and 34 – Employment Lands Protection.

- Section 28 – Community Improvement Project Area and Community Improvement Plan;
- Section 34 – Zoning By-law/Zoning By-law Amendment;
- Section 34 (3) – Minimum/Maximum Standards in Zoning;
- Section 36 – Holding By-law;
- Section 37 – Height and Density Bonusing;
- Section 41 – Site Plan Control;
- Section 42 (6.2) (6.3) – Reduction in Parkland Dedication Payments;
- Section 51 – Plan of Subdivision; and,
- Section 70.2 – Development Permit System.

As this report examined the City of Kingston’s official plan, it is of significance to review the contents of an Official Plan under the *Planning Act*. Section 16 of the *Planning Act* focuses on official plans and outlines contents that an official plan shall contain. The contents are as stated (Ontario 1990):

- Goals, objectives and policies established primarily to manage and direct physical change and the effects on the social, economic, built and natural environment of the municipality or part of it, or an area that is without municipal organization;
- Such policies and measures as are practicable to ensure the adequate provision of affordable housing;
- A description of the measures and procedures for informing and obtaining the views of the public in respect of,
 - proposed amendments to the official plan or proposed revisions of the plan,
 - proposed zoning by-laws,
 - proposed plans of subdivision, and
 - proposed consents under section 53; and
- Such other matters as may be prescribed. 2015, c. 26, s. 17; 2017, c. 23, Sched. 3, s. 5 (1).

An official plan may also contain other policies including those describing measures and procedures proposed to obtain plan objectives, measures and procedures for informing and obtaining the views of the public in respect to planning matters, second unit policies, and inclusionary zoning policies (Ontario 1990).

Municipal Act

The *Municipal Act* defines and outlines both general and specific powers that municipalities have within Ontario. There are three types of municipalities in existence in Ontario: regional/upper-tier, lower-tier, and single-tier (Ministry of Municipal Affairs and Housing, 2014). The City of Kingston is a single tier municipality, therefore for the purpose of this report only single-tier *Municipal Act* powers will be examined. Single-tier municipalities

have a larger jurisdiction in regard to determining the municipalities land use planning regulations, as long as they adhere to all relevant Provincial legislation.

Provincial Policy Statement

The Provincial Policy Statement (PPS) provides provincial legislation and provisions relating to heritage conservation in Ontario, as well as complements the range of provincial initiatives that support sustainable development. This document identifies the conservation resources that are of interest in provincial and municipal planning decisions. The policies in the PPS are established principles that support sustainable patterns of development, redevelopment, and the use of the provinces resources. In Part Four of the PPS, the Vision for Ontario's Land Use Planning System, it is emphasized that "the long-term prosperity and social well-being of Ontario depends upon planning for strong, sustainable and resilient communities for people of all ages, a clean and healthy environment, and a strong and competitive economy" (Ministry of Municipal Affairs, 2014, p.4).

Section 1.1.4 of the PPS, Rural Areas in Municipalities mentions sustainability in terms of the sustainable management of resources and the economy:

"Rural areas are important to the economic success of the Province and our quality of life. Rural areas are a system of lands that may include rural settlement areas, rural lands, prime agricultural areas, natural heritage features and areas, and other resource areas. Rural areas and urban areas are interdependent in terms of markets, resources and amenities. It is important to leverage rural assets and amenities and protect the environment as a foundation for a sustainable economy" (Ministry of Municipal Affairs, 2014, p.9).

Section 1.1.4.1.f states "Healthy, integrated and viable *rural areas* should be supported by promoting diversification of the economic base and employment opportunities through goods and services, including value-added products and the sustainable management or use of resources" (Ministry of Municipal Affairs, 2014, p.9). Additionally, section 1.1.4.1.g references sustainability in regard to tourism: "providing opportunities for sustainable and diversified tourism, including leveraging historical, cultural, and natural assets" (Ministry of Municipal Affairs, 2014, p.9). Similarly, a sustainable economy is also reiterated in Section 1.7.1.g in regards to tourism "providing opportunities for sustainable tourism development" (Ministry of Municipal Affairs, 2014, p.20).

Environmentally sustainable is referenced in section 2.2 of the PPS: "planning for efficient and sustainable use of water resources, through practices for water conservation and sustaining water quality" because "planning authorities shall protect, improve or restore the *quality and quantity of water*" (Ministry of Municipal Affairs, 2014, p.23).

In 2014 the most current PPS came into effect, with the 2014 PPS upholding the 2005 PPS policies in addition to new policies that emphasize inter-connected and environmentally responsible growth. The PPS is of particular interest to this research because of the document's influence and role in the provincial policy led planning system in Ontario. A comprehensive analysis of the PPS is not within the scope of this research; however, it is of significance to acknowledge the impact the revised PPS would have had on the development of the City of Kingston's 2018 official plan. For instance, the 2014 PPS has new policies under section 1.6 regarding stormwater management and energy supply. Furthermore, section 1.8 has policies concerning energy conservation and climate change. Therefore, the inclusion of these policies that have basis in sustainable development may have impacted the presence of sustainable principles in the 2018 official plan.

1.6 Structure of the Report

The report will have the following structure:

Chapter 2 will outline the methodology that has been utilized to conduct the research in this report. This section will contain the significance of plan evaluation, plan evaluation research steps in regard to sustainable principles and indicators, as well as the methodological limitations of this research.

Chapter 3 of this report will present the evaluation and analysis of the sustainable development principles in the context of both the 2006 and 2018 City of Kingston official plans.

Chapter 4 presents a list of recommendations and provides a conclusion of the research and findings in this report.

2.0 METHODOLOGY

The following chapter outlines the method of content analysis and plan evaluation, the method used in previous studies, and the steps used in the research of this report to evaluate the City of Kingston's 2006 and 2018 Official Plans.

2.1 Overview of Content Analysis and Plan Evaluation

Content analysis is an established qualitative technique used to code and interpret secondary data that is presented in a non-numeric formation (Silvermann & Peterson, 2014). Data used in content analysis is typically text-based, where words and images are the primary way information is presented (Silvermann & Peterson, 2014). The general approach employed for content analysis involves the preparation of an evaluation protocol by defining categories for analysis, then having one or more 'coders' using that protocol to read and 'score' the text (Norton, 2008). Content analysis and scoring is a process that is widely used in planning studies, as it helps to facilitate cross-study comparisons that allow for a more comprehensive understanding on plan quality principles (Guyadeen, 2017). A document review of content analysis revealed that similar topics to sustainable development have been evaluated, including climate change, hazard mitigation, and land use patterns (ex. Berke et al., 2006; Baynham & Stevens, 2014; Horney et al., 2016). Sustainable development has been previously analyzed in research and involved the use of content analysis and coding processes (ex. Conroy & Jun, 2016). Therefore, the methodology is essential to the understanding of the components of content analysis and coding in the context of this report.

The adaption of this method allowed for the utilization of content analysis to evaluate the content of a plan. The most significant aspect of plan quality evaluations is the ability to highlight what is to be improved in the plan and the way that the plan is implemented (Guyadeen 2017). The purpose of completing a plan evaluation is to understand where changes in policy and development planning can be made in order to better serve the community that the plan is for. Plan quality has an inherent link with the community's ability to plan (Burby et al., 1997).

Plan evaluation is important in planning for a variety of reasons. Evaluation may be used to foster a more evidence-based approach to decision making by having plans and policies that are developed from substantive research and reasoning (Krizek et al., 2009). The evidence can help further inform planners on current strategies, examine prior planning strategies and tools, and develop more effective plans and policies for the future of a community. This fosters continuous learning, not just on the assessment of plans and their

valuableness, but overall improvement of the planning profession (Guyadeen, 2017). The evaluation of plans provides a tangible result that planners can measure and can use the assessment to improve on planning difficulties. In summary, plan evaluation ultimately allows planners to identify what constitutes good planning from poor planning (Baer, 1997).

2.2 Research Precedent

There is limited literature examining the temporal evolution of Official Plans in regard to sustainable measures, objectives, and policies. However, there has been an increasing amount of research regarding the measurement of plan quality in general. Baer (1997) emphasizes the importance of evaluation criteria in the planning profession. The research lists several kinds of plan evaluation techniques and review different concepts of plans and subsequently criteria for plan evaluation during plan preparation is then presented, to be used to make the plan better by professionals. He emphasizes that appropriate criteria for a plan are not easy to devise but must be explored in the planning profession. Additionally, Guyadeen (2018) through a Canadian plan quality study utilizing content analysis and a survey found that planners value plan quality as it facilitates better implementation and helps inspire the community while providing legitimacy to the planning process and profession (Guyadeen, 2018). Poveda (2011) researched the growth of sustainable development through an assessment framework, analyzing sustainable criteria, definitions and guidelines, and implementation of best practices. Brandon and Lombardi (2011) illustrate a series of principles that should underlie all sustainability assessments, as assessments should be holistic, harmonious, habit-forming, helpful, hassle-free, hopeful, and humane. Baker et al. 's (2012) evaluation of climate change adaption plans used qualitative measures in addition to a scoring system to evaluate plan quality to conduct multiple criteria and plan components.

2.3 Plan Evaluation Research Steps

The purpose of this study was to investigate how both the planning process and the quality of a local plan can impact the growth of a community through the perspective of sustainable development. Plan evaluation studies use a content analysis of plan policies, goals, and recommendations to provide insights into how plan elements support a given focus area (Conroy & Jun, 2016). The content analysis method has been applied to the 2006 and 2018 Official Plans of the City of Kingston.

2.3.1 Plan Evaluation Principles and Indicators

Evaluating the sustainability of the objectives, goals, and visions of a plan allows for an

assessment of the evolution of the policies over time and how well the values of the community are integrated and implemented into planning frameworks. Over the past two decades, comprehensive planning has incorporated the idea and concept of sustainable development as a long-term vision for community building (Berke et al., 2006). Given that the City of Kingston has a vision to become Canada's Most Sustainable City, it is of interest to understand the shift in policies over time to reach the desirable standards of promoting sustainable development within the community.

Plan Components

Consistent with Berke and Conroy (2000), eight plan elements have been identified. The plan elements are as followed:

- Housing
- Transportation
- Environment
- Energy
- Land Use
- Public Facilities
- Historic and Cultural Resources
- Economic Development

Previous research and studies have evaluated seven planning elements, however similarly to Jun and Conroy (2016), an additional plan element has been added to the component list – historic and cultural resources. The City of Kingston has significant built heritage resources and local planning requirements emphasis heritage conservation within the community, therefore it was deemed appropriate to include this element.

Sustainable Development Indicators

The three-step content analysis method developed by Berke and Conroy (2000) has been adopted to evaluate the use of sustainability principles in official plans. This approach has been cited more than approximately 800 times in academic articles and is a foundational methodology for plan evaluation and sustainable development.

In consideration of the definition of sustainable development, Berke and Conroy (2000) established six sustainable principles. Each principle retains an explicit connection to the location, shape, scale and quality of development and are outlined in Table 1 (Berke & Conroy, 2000). The principles balance environmental, economic, social, and cultural elements of policy to determine the extent to which the official plan contained these features.

Table 1: Sustainable Development Principles, Development Techniques and Indicators (Berke & Conroy, 2000).

Principle	Description	Development Technique and Indicators
Harmony with Nature	Land use and development activities should support the essential cycles and life support functions of ecosystems. Whenever possible, these activities should mimic ecosystem processes, rather than modify them to fit urban forms. These activities must respect and preserve biodiversity, as well as protect and restore essential ecosystems	<p><u>Land Use Regulations</u></p> <p>Density, permitted uses, special study zone, sensitive area overlay, subdivision, site review, local environmental impact statement/assessment</p>
Liveable Built Environments	The location, shape, density, mix, proportion, and quality of development should enhance fit between people and urban form by creating physical spaces adapted to desired activities of inhabitants; encourage community cohesion by fostering access among land uses; and support a sense of place to ensure protection of any special physical characteristics of urban forms	<p><u>Property Acquisition</u></p> <p>Transfer of development rights, acquisition of land, land bank, acquisition of development rights, acquisition of development units</p>
Place-based economy	<p>A local economy should strive to operate within natural system limits. It should not cause deterioration of the natural resource base, which serves as a capital asset for future economic development. Essential products and processes of nature should be used up no more quickly than nature can renew them</p> <p>The local economy should also produce built environments that meet locally defined needs and aspirations. It should create diverse housing, and infrastructure that enhances community livability and the efficiency of local economic activities.</p>	<p><u>Capital Facilities</u></p> <p>Phased growth, concurrency, location of capital facilities, urban service boundary, annexation</p>
Equity	Land use patterns should recognize and improve the conditions of low-income populations and not deprive them of basic levels of environmental health and human dignity. Equitable access to social and economic resources is essential	<p><u>Financial Incentives</u></p> <p>Impact Fees, reduced taxation, bonus zoning, exaction, land trust</p>
Polluters Pay	Polluters (or culpable interests) that cause adverse communitywide impacts should be required to bear the cost of pollution and other harms, with due regard to the public interest	<p><u>Building Codes and Standards</u></p> <p>Standards for new buildings, standards for retrofitting existing buildings</p>
Responsible Regionalism	Local jurisdiction has an obligation to minimize the harm it imposes on other jurisdictions in pursuit of its own objectives.	<p><u>Public Education and Awareness</u></p> <p>Builder workshops, public education program (job training), public participation /consultation/engagement</p>

These principles and their indicators balance the four pillars of sustainability that have been identified by the City of Kingston; economic, environmental, cultural, and social (City of Kingston, 2018). The principles will have been used to assess the extent of sustainability to which the Official Plan contains these sustainable features.

Additionally, a development management technique that was stipulated by policies in the official plan for promoting a given principle were identified. In addition, adapted from Berke and Conroy (2000) and Conroy and Jun (2016), Table 1 exemplifies six categories of techniques in the evaluation framework and the indicators that they contain. These techniques were used to search the documents, then those sections were analyzed for context. Any sustainability indicators were then evaluated against the plan components to identify areas of weaknesses or strength in respect to sustainable development principles. There were two terminology modifications to the development technique and indicators. The word ‘assessment’ was added under the Harmony with Nature principle development technique and indicator, as the word assessment is referenced in the *Planning Act* section 16.1:

“The council of a municipality or a planning board may by by-law elect to follow the prescribed processes and develop the materials prescribed for the preparation of an official plan and any processes followed or materials developed in the preparation of the plan may be considered under the *Environmental Assessment Act* with respect to any requirement that it must meet under that Act. 1994, c. 23, s. 9” (Ontario 1990).

In the Responsible Regionalism principle, the terms consultation and engagement were included. Public consultation and engagement in regards to the development of the official plan is referenced in the *Planning Act* under section 15:

- (15) In the course of the preparation of a plan, the council shall ensure that,
- (a) the appropriate approval authority is consulted on the preparation of the plan and given an opportunity to review all supporting information and material and any other prescribed information and material, even if the plan is exempt from approval;
 - (b) the prescribed public bodies are consulted on the preparation of the plan and given an opportunity to review all supporting information and material and any other prescribed information and material;
 - (c) adequate information and material, including a copy of the current proposed plan, is made available to the public, in the prescribed manner, if any; and

(d) at least one public meeting is held for the purpose of giving the public an opportunity to make representations in respect of the current proposed plan. 2006, c. 23, s. 9 (2) (Ontario, 1990).

The addition of these terminologies were to support the indicators established by Berke and Conroy (2000) in the Ontario planning land use framework.

Similarly, to Conroy and Jun (2014) an implementation and monitoring indicator has been created, but was be evaluated separately from the sustainability indicators as demonstrated in Table 2. It has been stated that implementation and monitoring categories must be incorporated in plan evaluation because they are critical in the application of planning policies (Brody and Highfield 2005). Additionally, given the long-term focus of sustainable development, it is of interest to comprehend the way that plans implement these goals and objectives over time. Implementation and monitoring were assessed independently from the other principles because these provisions can enable municipal planners to learn from the benefits that have resulted from the plans that have been created (Guyadeen, 2017). In order for planning to be effective, monitoring and evaluation must be strong components of plans and it is best to comprehensively analyze this principle without characteristics from the other principles influencing examination.

Table 2: Implementation and Monitoring Policy development techniques (Jun & Conroy, 2014)

Principle	Description
Implementation and Monitoring	<p>Plan implementation and monitoring category needs to be incorporated in plan evaluation because it is a critical tie in implementing of plan policies</p> <p>Implementation and Monitoring, Designation of responsibility, Identification of costs or funding, Enforcement, Monitoring for effectiveness/new info</p>

2.3.2. Evaluation and Scoring Framework

The method for evaluating the extent to which a plan’s policies promote sustainable principles in his report has been adapted by Berke and Conroy (2000) and Jun and Conroy (2014). This process is a three-step content analysis method in order to thoroughly gain information from each policy statement in both official plans.

Initially, each policy was analyzed based on the sustainable development principle that was promoted or supported by the policy. The indicator was based on the goal of the given policy, or the rationale to support the policy that was included in the plan (Berke & Conroy, 2000). Next, the type of development technique stipulated by the policy for promoting the principle was identified (Berke & Conroy, 2000).

Thirdly, each policy was evaluated depending on whether the sustainability indicator was suggested or required. When a policy contained words such as, *encouraged, considered, intended, or should* the policy was regarded as suggested and subsequently scored a 1 (score = 1). Conversely, policies with the words *shall, will, require, or must* were considered as required in the official plan and scored a 2 (score = 2) (Jun & Conroy, 2014). Additionally, policy implementation and monitoring was a significant aspect of this research, therefore if the policy indicated implementation and monitoring were suggested, it was scored a 1 (score = 1) compared to if it was required it was scored a 2 (score = 2). If a policy was evaluated as 1, but a combination in the policy was evaluated as 2, 2 was kept as the original score of that policy (Jun & Conroy, 2014). The terminology used in the evaluation framework is of great significance as the language maintains the spirit and the intent of planning legislative documents and conforms to the vocabulary present in provincial planning provisions.

Lastly, the computation of each indicator occurred. The first step summed the scores assigned to the policies under each principle within each plan element. The higher summed scores indicate that there are more policies under each principle within each plan element. The maximum possible score for each principle under each plan element is 2. As noted in Table 2, there are 8 plan elements and 6 sustainability principles. Therefore, the total maximum score of each principle with the plan elements is 16. With 6 sustainability principles, an official plan would have a total combined score out of 96.

The evaluation and scoring framework does not include the weighting of individual sustainability principles. Sustainability is all inclusive, therefore it was of interest for this research to keep all principles weighted equally. Deciding whether to weight principles equally or assign varying weights based on the judgement of the researcher has become a challenge in plan quality literature (Guyadeen, 2017; Lyles et al., 2014). The lack of strong justification and methodology for the assigning weights to each principle resulted in the absence of weight assignment in this research as it was deemed unsuitable to unsystematically weight the principles without empirical evidence.

2.4 Overview of Analysis

The two official plans were read in great detail and upon completion of the plan evaluation and scoring framework, the principles and indicators that are of interest have been highlighted and discussed in the analysis section of this report. The policies and scores of the two official plans were compared to understand the change of policies over time.

2.5 Limitations of Research

The primary limitation of this research is the absence of inter-coder reliability, which works to increase the reliability of the content analysis evaluation framework (Guyadeen, 2017; Krippendorff, 2013; Stevens et al., 2014). It is stated that the most replicable content analysis is best achieved by employing two or more researchers to independently code and evaluate the selected plans (Guyadeen, 2017). The greater the frequency the two or more coders conclude the same result, the greater the possibility of the reliability of the results (Stevens et. al., 2014). Without having multiple researchers cross-checking outcomes and final conclusions, there is a potential for bias and reliability. Ultimately, researchers working at different times, in different environments, and under different circumstances should attain the same results when applying the methodology (Krippendorff, 2013).

In order to improve the reliability for a single-coded study it is important to provide detailed direction in regard the evaluation protocol and coding scheme (Guyadeen, 2017; Neuendorf, 2002; Krippendorff, 2013). The procedure executed has been included in a comprehensive matter in this report and the execution of this methodology has been adapted and imitated to previous studies to increase reliability and replicability.

A second limitation of this research includes the terminology outlined in the development indicators of the sustainable principles. The key words used to establish the presence of a development indicator in a policy were used exclusively, therefore if a policy reflects a sustainability principle but did not include a development indicator then it was not coded. This could lead to variability in coding, as the 'code word' for sustainable development may not be the common acceptor terminology, but the principles are accepted as common sense (Berke & Conroy, 2000). Therefore, some principles are incorporated in the official plan, but the scoring may not include the code words that was used to integrate the concept.

Additionally, a limitation to this research is the emphasis that content analysis has on secondary data. Content Analysis focuses on the examination of secondary source material and the scope of analysis may be limited by the availability of data in public records and private archives (Silvermann & Peterson, 2014). This limitation is alleviated through the use of publicly accessible municipal official plans; however, future research may be limited based on the availability of the official plans.

3.0 RESULTS AND ANALYSIS

The official plans were evaluated based on the evaluation criteria presented in Chapter 2 and the results are contained within this chapter.

3.1 Sustainable Principles Evaluation Framework Results

The evaluation framework that is outlined in Chapter 2 was applied to assess two City of Kingston official plans, the 2006 official plan and then 2018 consolidated official plan. The evaluation focused on sustainable principles as illustrated in Table 1. The quality and significance of the policy is assessed based on the scoring of the principle in the plan element.

The final scores for each sustainable principle within the official plans have been summarized and can be observed in Table 3.

Table 3: City of Kingston 2006 and 2018 Official Plan Evaluation Results

Plan Component	Harmony with Nature	Livable Built Environment	Place-based Economy	Equity	Polluters Pay Principle	Responsible Regionalism	Implementation and Monitoring	Total
2006 City of Kingston Official Plan	10	8	8	2	6	6	9	61
2018 City of Kingston Official Plan	11	9	11	9	7	9	11	67

3.1.1 City of Kingston 2006 Official Plan

In the policy evaluation, the 2006 City of Kingston most successful sustainable criteria was *Harmony with Nature*, involving land use and development activities and scored a 10 out of a possible 16. Conversely, the lowest scoring criteria was *Equity*, the equitable access to social and economic resources scored a 2 out of a possible 16. *Livable Built Environment* and *Place-based Economy* both scored an 8 out of 16. Additionally, both *Polluters Pay* and *Responsible Regionalism* principles scored a 6 out of a possible 16.

Implementation and Monitoring was present in the official plan, with the City of Kingston dedicating section 8.1 of the plan to a general statement regarding implementation and

section 9.1 providing a general statement of plan monitoring. Throughout the plan policies appeared in regards to monitoring and studies, resulting in a score of 9 out of 16, which is the second highest scoring sustainable principle. Table 4 and Table 5 contain additional data for the City of Kingston's 2006 official plan evaluation.

Table 4: City of Kingston 2006 Official Plan Evaluation Results

Plan Component	Housing	Transportation	Environment	Energy
Sustainable Criteria				
Harmony with Nature	1 <u>Sources:</u> 4.2.4 4.2.5 8.31.09 8.3.9.3.a.iii	1 <u>Sources:</u> 6.2.c 6.4.8.1.d 6.7.1. 4.24.1 4.24.3 4.24.5	2 <u>Sources:</u> 3.12.3.b.	
Livable built Environment	1 <u>Sources:</u> 7.2.2.e 8.3.11.5 8.3.10.8	1 <u>Sources:</u> 6.6.2.a. iv 4.18.5.a	2 <u>Sources:</u> 4.20.3 4.26.2.c 7.7.2.f 7.7.3	
Place-based Economy	2 <u>Sources:</u> 4.6	1 <u>Sources:</u> 6.3.a 6.3. b		1 <u>Sources:</u> 3.13.1 4.21.4
Equity	1 <u>Sources:</u> 2.5.9 7.2.4.a 7.2.5.iii			
Polluters Pay Principle	1 <u>Sources:</u> 7.2.2.j.iii 8.3.9.4. iv. viii			1 <u>Sources:</u> 3.12.2 3.13.3.e 3.13.3.i 3.13.3.j 7.2.2.j.iii 7.3.2.2
Responsible Regionalism		2 <u>Sources:</u> 4.24.4 4.24.5.d 5.5.2.c	2 <u>Sources:</u> 3.12.3.c 7.7.2	1 <u>Sources:</u> 3.13.3.h. 3.10.2 3.10.4. d

Plan Component	Land Use	Historic and Cultural Resources	Public Facilities	Economic Development
Sustainable Criteria				
Harmony with Nature	2 <u>Sources:</u> 4.18.5 4.10.3 4.16.2 4.18.7 4.20.3 4.20.5 4.26.2. ii	2 <u>Sources:</u> 3.12.3. a.	2 <u>Sources:</u> 3.12.3.g 4.22.5.f 5.2.10	1 <u>Sources:</u> 3.13.1 4.10.2.a 4.10.4.g 4.10.8.d.i 4.14.1 4.15.4. i
Livable built Environment	1 <u>Sources:</u> 4.10.3 4.18.5 4.21.7.c 8.3.8 8.3.11.e	1 <u>Sources:</u> 7.4.2.5	1 <u>Sources:</u> 4.18.3.f 4.18.5.a 7.8.3 8.6	1 <u>Sources:</u> 4.6 4.16.4.b.iii
Place-based Economy	1 <u>Sources:</u> 4.9.1 4.16.4 7.32.4 8.8.2. g	1 <u>Sources:</u> 2.5.7 7.4.2.2.k 7.4.3.c.vii	1 <u>Sources:</u> 8.8.2.a 8.8.3	1 <u>Sources:</u> 4.14.4.a.iv 4.9.1 4.25.1 7.32.4
Equity	1 <u>Sources:</u> 4.18.1 8.8.3			
Polluters Pay Principle	2 <u>Sources:</u> 3.12.3.f 3.13.3. k		2 <u>Sources:</u> 3.12.3. g	1 <u>Sources:</u> 4.24.5. g
Responsible Regionalism		1 <u>Sources:</u> 4.15.4.e.viii 7.4.2.1.h 8.1		1 <u>Sources:</u> 4.16.4 7.2.6.d.iii.a

Table 5: City of Kingston 2006 Official Plan Evaluation Results for Implementation and Monitoring

Plan Component	Housing	Transportation	Environment	Energy	Land Use	Historic and Cultural Resources	Public Facilities	Economic Development
Sustainable Criteria								
Implementation and Monitoring	<p>2</p> <p><u>Sources:</u> 7.2.2.vi 7.3.2.5.d 7.2.5.d.ii 8.3.13.1 8.3.9.4</p>	<p>1</p> <p><u>Sources:</u> 4.21.5. 6.3.a.iv 6.5.3. b</p>	<p>1</p> <p><u>Sources:</u> 4.23.6.a 7.2.2.2.j.iii 7.3.2.2.o 8.3.2.19.f 8.4.5.f 9.2.6. f</p>	<p>1</p> <p><u>Sources:</u> 7.2.2 8.3.2.17</p>	<p>1</p> <p><u>Sources:</u> 3.14.6.b 4.9.6.a 4.10.6.c 8.4.5.f 9.2.6</p>	<p>1</p> <p><u>Sources:</u> 7.4.2.1.i 7.5. a</p>	<p>1</p> <p><u>Sources:</u> 4.10.3.b 7.6.2.d.i 8.8.3.d</p>	<p>1</p> <p><u>Sources:</u> 7.6.2.d.iii.a 8.4.5.f</p>

The total score for the City of Kingston’s 2006 official plan was 61 out of 84, as observed in Table 3.

3.1.2. City of Kingston 2018 Official Plan

The City of Kingston’s 2018 consolidated official plan demonstrated marginally higher evaluated scores in sustainable principles, the total score was 67 as observed in Table 3. The highest achieved score was 11 out of 16 and occurred in three sustainable principles, *Harmony with Nature*, *Place-based Economy*, and *Implementation and Monitoring*. These principles all had a higher score in the 2018 official plan compared to the 2006 official plan. Comparatively the principle that scored the lowest was *Polluters Pay* at a score of 7 out of 16. *Livable Built Environment*, *Equity*, and *Responsible Regionalism* all scored a 9 out of 16. Table 6 illustrates the sustainable principles and their associated score.

Table 6: City of Kingston 2018 Official Plan Evaluation Results

Plan Component	Housing	Transportation	Environment	Energy
Sustainable Criteria				
Harmony with Nature	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.2.5 2.6.3 2.7.6 3.3.10.b 9.5.25.a 10.1.c 10F.3.4 10F.3.9</p>	<p style="text-align: center;">2</p> <p><u>Sources:</u> 2.6.3.d 5.22 3.4.d.8 5.23 3.14.8.e 5.24 3.14.8.f 5.25 3.14.8.g 9.5.25.d 3.14.8.k 9.5.25.e 3.7.3.b 10C.9.2.b 10F9.12</p>	<p style="text-align: center;">2</p> <p><u>Sources:</u> 4.7.7. 3.14.8c 10C.9.1 3.12.20 3.16.9 6.1.13 5.8 9.7.3 2.8.4 2.7.5 4.3.2.c 3.6.13.5.b 3.10.11 3.16.c.5 6.1.14 5.8.1 6.1.15 3.6c.6.8 6.1.21 3.11.20 3.10.6 10C.6.1</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.1.3.l 6.2.4.3 9.5.25.h 10C.9.3.c 10D.12.p</p>
Livable Built Environment	<p style="text-align: center;">1</p> <p><u>Sources:</u> 9.6.4 9.9.4</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.1.5.f 2.5.12 4.6.46</p>	<p style="text-align: center;">2</p> <p><u>Sources:</u> 2.1.5.c 2.2.9 2.8.3 6.1.11 6.1.12</p>	
Place-based Economy	<p style="text-align: center;">2</p> <p><u>Sources:</u> 2.4.5 3.3.10.i</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.4.1.c 4.6.37</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.4.1.d 2.4.11.c 4.2 4.2.6</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.4.1.b 2.4.1.e</p>
Equity	<p style="text-align: center;">2</p> <p><u>Sources:</u> 3.3.10.b 9.5.25.a 9.9.4</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 4.6.37</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 6.1.11 6.1.12 6.1.25 9.9.5</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.9.6.c 6.2.17</p>
Polluters Pay Principle	<p style="text-align: center;">1</p> <p><u>Sources:</u> 3.3.14</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.1.5.e</p>		<p style="text-align: center;">2</p> <p><u>Sources:</u> 2.9.6.g 6.2.3 6.2.5 6.2.6</p>
Responsible Regionalism	<p style="text-align: center;">2</p> <p><u>Sources:</u> 3.4.D.8 3.4.E.4</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u></p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 2.5.2 2.8.1 3.9.14 3.13 3.10.4 5.A.2 5.18 5.5 6.1.8 6.1.13.a</p>	<p style="text-align: center;">1</p> <p><u>Sources:</u> 6.2.4 6.1.9</p>

Plan Component	Energy	Land Use	Historic and Cultural Resources	Public Facilities	Economic Development
Sustainable Criteria					
Harmony with Nature	1 <u>Sources:</u> 2.1.3.l 6.2.4.3 9.5.25.h 10C.9.3.c 10D.12.p	2 <u>Sources:</u> 2.2.7 2.4 2.4.4 2.4.6.c 3.3.c.4 10A.2 10D.3.2 10F.3.13	1 <u>Sources:</u> 7.1.10.b 9.5.25.h 9.5.26.b 10F.6.14	1 <u>Sources:</u> 2.6.6 10B.6.1 10B9.3 10C.3.6	1 <u>Sources:</u> 2.1.1 2.2.6 2.2.7 2.4.7.c 2.8.1 2.9.6 3.6.7 3.6.10 3.7.3.b 3.12.19 9.7.2.1 10C.4.17
Livable Built Environment		2 <u>Sources:</u> 3.3.9 3.11.10.b 3.12.7.b 5.4 8.10.b 10D.6.5	1 <u>Sources:</u> 7.6.5	1 <u>Sources:</u> 3.8.8 3.9.25 7.3.A.16 10B.6.2 10E.1.20.d	1 <u>Sources:</u> 2.9.2 2.9.3.e
Place-based Economy	1 <u>Sources:</u> 2.4.1.b 2.4.1.e	1 <u>Sources:</u> 2.2.4 3.8.2 3.6.A.4 3.14.3 9.8.5	2 <u>Sources:</u> 7.1.11.a	1 <u>Sources:</u> 2.4.1.a 2.5	2 <u>Sources:</u> 2.1.1 2.2.3 2.4.7.c 2.4.7.h 3.4 3.4.7 3.12.2 3.14.3 3.15.19 4.6.33 9.8.5 9.8.7 9.11.2
Equity	1 <u>Sources:</u> 2.9.6.c 6.2.17		2 <u>Sources:</u> 2.4.8		2 <u>Sources:</u> 7.1.11. d
Polluters Pay Principle	2 <u>Sources:</u> 2.9.6.g 6.2.3 6.2.5 6.2.6	1 <u>Sources:</u> 2.1.4 2.1.5 2.10.1.c 3.3.4 8.5.e 8.6.c 9.5.25.k	1 <u>Sources:</u> 7.2.4 7.2.6 7.2.7 7.3.C.9.e		1 <u>Sources:</u> 2.9.6.g 6.2.8
Responsible Regionalism	1 <u>Sources:</u> 6.2.4 6.1.9	1 <u>Sources:</u> 2.2.8 3.10.2 6.1.22 9.12.4	1 <u>Sources:</u> 3.17.22 7.1.11.g	1 <u>Sources:</u> 2.3.7 3.7.2	1 <u>Sources:</u> 4.6.54

Implementation and Monitoring was once again analyzed independently to further understand how the incorporation of sustainable principles in official plans have changed and been implemented into the community. Similarly, to the 2006 official plan, implementation and monitoring was an independent section in the plan. There appeared to be a significant increase in the amount of implementation and monitoring principles in the official plan, with the City placing a significance on the application of the official plan policies through multiple secondary plans and community improvement plans. These observations can be examined in Table 7.

Table 7: Kingston 2018 Official Plan Evaluation Results for Implementation and Monitoring

Plan Component	Housing	Transportation	Environment	Energy	Land Use	Historic and Cultural Resources	Public Facilities	Economic Development
Sustainable Criteria								
Implementation and Monitoring	1 <u>Sources:</u> 3.3.10.i 9.8.8 10D.10.3	1 <u>Sources:</u> 4.6 10D.9.d	2 <u>Sources:</u> 3.9.11.e 5.29 6.1.14.j 5.29 9.7.3 9.8.8 9.8.9	1 <u>Sources:</u> 9.12.3	1 <u>Sources:</u> 2.3.2 8.12.b 9.5.3.8 9.6.17.j 9.8.8.g	2 <u>Sources:</u> 2.8.9 2.9.4.i 7.1.11 7.1.5.g 9.4.4 9.8.8.f	2 <u>Sources:</u> 3.2.10 4.7.1 9.11.2	1 <u>Sources:</u> 2.4.11.e 2.9.2 2.9.3.b 4.6.54 9.5.31 10D.10.3

3.2 Analysis

The intent of this research was to evaluate sustainable principles of the City of Kingston’s Official Plans, 2006 and 2018 respectively. Through evaluation, strengths and weaknesses of official plan policies and components are identified. Additionally, the inclusion of sustainable principles can be observed over time between the two official plans.

Has the City of Kingston Official Plan since 1998 promoted sustainability principles?

This section of the report will discuss the research question, through an analysis of the key findings of the evaluated 7 sustainable principles and their presence in the 2006 and 2018 consolidated official plans. Additional findings relevant to the research question will also be analyzed, specifically the increase of sustainable policies, observed overarching policies, designated strategic policy sections, and the integration of provincial planning documents and terminology.

3.2.1 Sustainable Principles

While the research findings from the individual official plans are of significance, it is of interest to develop stronger conclusions by drawing comparisons between the results.

Harmony with Nature

The principle of *Harmony with Nature* was analyzed in the context that land use and development should preserve biodiversity and protect and restore ecosystems. Housing policies were reflected in the expression of residential and housing density, with the 2018 official plan emphasizing the importance of balanced dwelling types (s.10F.3.4). Both official plans emphasized the inclusion and protection of natural features in residential design objectives. Additionally, transportation policies were included in the official plans but the terminology and type of transportation differs between the 2006 official plan and the 2018. The 2006 official speaks to policies regarding non-motorized travel:

“The Official Plan recognizes that walking, cycling, and other forms of nonmotorized travel address a significant number of the transportation objectives of this Plan and in addition constitute and provide for recreation and leisure activities and opportunities that enhance the quality of life in the urban place” (City of Kingston, 2006, p.279).

Conversely, while the 2018 also includes nonmotorized travel, the importance is placed on the concept of active transportation as outlined in s. 2.4.1.c.

“The City supports sustainable *development* of a compact, efficient, urban area with a mix of land uses and *residential unit* densities that optimize the efficient use of land in order to: support *active transportation* and viable public transit” (City of Kingston, 2018, p.57).

The similarity in the policies between the official plans represent the idea that non-vehicular methods of transportation is more beneficial to the community’s sustainability. Moreover, the terminology used in the 2018 official plan compared to the 2006 official plan demonstrates the transference of society’s view of transportation methods and their importance in a balanced community.

The plans are dissimilar in regards to the plan element of energy conservation, as the 2006 plan did not include a policy in this element for the *Harmony with Nature* sustainable principle but the 2018 plan had a policy regarding height and density bonusing, s.9.5.25.k as stated:

“The City may approve a by-law authorizing an increase in height or density beyond that allowed in the zoning by-law pursuant to the *Planning Act*, in return for facilities, services or matters benefiting the public, including the following: (k) providing green technology and sustainable architecture and alternative

construction methods such as “green roofs” and LEED certified buildings” (City of Kingston, 2018, 391).

This policy exemplifies that an increase in development, results in an increase in natural resources and therefore it is of the best interest of the community in regards to energy consumption to strive towards the use of sustainable architecture and technology. This policy directly aligns with the intent of the sustainable principle, as urban forms should support ecosystem processes rather than the ecosystem modified to the urban form. The presence of this kind of policy further illustrates the increase in the inclusion of sustainable principles over a period of time being reflected in an official plan.

Livable Built Environment

The Livable Built Environment principle emphasizes that development should enhance the fit between people and urban form by create spaces for the individuals living in the community, and cohesion between the activities and the physical form. This sustainable principle in the 2018 official plan had a higher score than the principle in the 2006 official plan, but was neither the highest scoring or lowest scoring principle. However, the indicators used to code were not explicitly found in the official plan, therefore it is of significance to acknowledge the limitation in the coding of this sustainable principle. Therefore, within the official plans additional policies may speak to the principle more effectively but were not included due to the absence of the indicator codes.

The plans had limited policies in the plan elements, with no policies relating to the energy plan element observed in both official plans. Transportation, environment, land use, and public facilities were the plan elements that contained the greatest number of policies.

The plans were similar in the policies under the transportation plan element, as both plans stated the need to create connectivity between land uses within the community. The 2006 plan section 6.6.2.a policy states “identification, acquisition, and development of a City-wide system of pedestrian and bicycle routes and pathways on the basis of user profiles and activity focus” (City of Kingston, 2006, p.280). Similarly, the 2018 official plan section 4.6.46 policy illustrates the inclusion of active transportation for public use; “The City supports the acquisition of abandoned rail rights-of-way for public uses, including *active transportation* pathways or roads, and encourages the removal of railway tracks from portions of the right-of-way that are not used” (City of Kingston, 2018, p.290). Both these policy objectives illustrate the adaptive reuse of the existing built environment to enhance the space for sustainable movement by those using the space.

Additionally, a significant amount of policies in both official plans were regarding the development and protection of public facilities. Section 4.18.5.a.i of the 2006 plan states that “the acquisition of public Open Space for park or other public recreational purposes

may occur through purchase, donation, bequest, expropriation, or through land dedication pursuant to the *Planning Act*” (City of Kingston, 2006, p.194). Analogously, section 3.8.8 in the 2018 Official Plan policy direction on acquisition and open space asserts:

“Land for open space may be acquired through purchase, donation, bequest, expropriation, and the provisions of the *Planning Act* for parkland dedication, as outlined in Sections 3.8.13 to 3.8.18 inclusive. The need for public parkland is demonstrated in the 2010 Parks and Recreation Master Plan, which will be considered in the evaluation of opportunities for parkland acquisition. Further, the City will seek to acquire waterfront properties or access to the waterfront, whenever such lands become available through land development. Locations for land acquisition will be considered, but not limited to, areas set out in the Waterfront Master Plan” (City of Kingston, 2018, p. 167).

These policies on open space and public facilities support a sense of place that ensures special physical characteristics of urban forms that sustain a livable built environment for a community.

A research finding worth mentioning was a policy in the 2018 official plan in section 2.9.2: “The City supports a strong and diversified economic base and works collaboratively with other levels of government and various agencies, such as the Kingston Economic Development Corporation (KEDCO), in developing and implementing economic strategies that:

- a. promote employment opportunities for residents of all ages and abilities;
- b. support retention and expansion programs for existing and evolving employment sectors;
- c. promote *development* and investment opportunities in conjunction with the City’s:
 - available commercial and employment land base, including the commercial banking sector;
 - role as a regional transportation centre;
 - institutional assets, particularly research and development initiatives in the areas of education, clinical health, national defense, technology and alternative energies;
 - tourism, as addressed in more detail in Sections 2.9.3. and 2.9.4., below;
 - strong creative classes in various artistic, technical and business fields and their impacts on urban form through their social and economic inter-relations within the City;
 - economic development opportunities associated with mineral aggregate operations and mineral mining operations;
 - agricultural industry, particularly:

- raising awareness of the contributions of agriculture to the local economy and environment;
 - coordinating producers and agricultural research and development organizations towards innovative and diversified farm and farm-related market opportunities;
 - promoting the increasing interest in sustainable farming methods and locally grown food; and,
 - strengthening value-added food and non-food distribution and processing networks to local consumers, retailers, restaurants, workplaces, and institutions; and,
- d. recognize and respond to evolving industry and market trends in a timely, innovative and sustainable manner” (City of Kingston, 2018, p.79).

This policy is in regards to economic development, specifically the reference in the policy to the Kingston Economic Development Organization (KEDCO) in the development and implementation of economic strategies. Throughout the conducted research for this report, the plan element of economic development has observed to be deficient in policies in a number of sustainable principles. Supplementary research in regard to KEDCO was conducted and it is understood that this is an incorporated not-for-profit agency composed of a twelve-member Board of Directors with a representative from the business community and municipal council (Mayor and three annually appointed councillors) (Kingston Economic Development, n.d). The KEDCO Strategic Plan 2015-2020 remains committed to the overarching goals of attracting and retaining jobs and investment for the city of Kingston, ultimately to grow the city’s productivity (Kingston Economic Development, n.d). Therefore, the existence of this organization and its policy framework regarding economic development may justify the limited economic development policies in the official plan. The responsibility has been delegated to a peripheral department and is not included in detail in the objectives of the official plan.

Place-based Economy

A Place-based Economy should strive to operate within natural systems while producing a built environment that meets the need for future economic development, creates livable spaces, and efficient local economic activities.

The place-based economy principle had the most significant scores in the land use and economic development elements but had relatively low scores in the other elements. Economic development elements included policies that support infrastructure strategies and entrepreneurship which exemplifies the connection between these two plan elements. Between the 2006 official plan and the 2018 official plan, the 2018 official plan had a higher score and included more policies in the evaluation.

The 2006 official plan had a limited number of policies specifically relating to a place-based economy principle of sustainability. However, it was observed that the official plan included the municipal planning tool of a Community Improvement Plan (CIP), with the CIP being focused on economic growth and development within the community in a sustainable matter. The 2006 official plan contained numerous policies in Section 7.3.2.4: “Within the Community Improvement Area, the City of Kingston shall:

- (a) encourage improvement activities that contribute to a strong economic base including both tourism and industrial development;
- (b) establish and maintain the physical infrastructure required for residential, commercial and industrial development within Community Improvement Area;
- (c) ensure the maintenance of the existing building stock where appropriate and encourage rehabilitation, renovation and repair of older buildings;
- (d) preserve historically and architecturally significant buildings;
- (e) provide a mix of housing types to accommodate all segments of Kingston’s population;
- (f) improve parking and traffic patterns and enhance compatibility with surrounding uses;
- (g) promote the continued development and revitalization of the Central Business System, and strengthen its role as the Urban Area’s service and commercial centre;
- (h) encourage appropriate development and redevelopment along the lakefront and riverfront in accordance with the policies of this Plan;
- (i) provide and maintain adequate social and recreation facilities and services;
- (j) improve energy efficiency where feasible and appropriate; and
- (k) encourage the rehabilitation of environmentally compromised land and/or buildings through appropriate remediation” (City of Kingston, 2006, p. 292).

Policies 7.3.2.4.a., 7.3.2.4.b, and 7.3.2.4.g. specifically refer to the growth of the economy and economic related infrastructure development within the city of Kingston. Therefore, despite the lack of individual policy objectives, the inclusion of the CIP generally epitomizes the sustainable principle as a place-based economy.

The 2018 official plan also contained more wide-ranging policies, for example, the section of 2.4 Phasing of Growth and 3.14 Rural Industrial. These strategic policies supported the growth of the local economy while preserving the natural heritage and rural activities during development. Additionally, other policies were more specific, for example, Section 2.4.7.h contains a policy regarding the order of development in the community and “the avoidance of expanding into the Urban Boundary on to prime agricultural lands in accordance with the PPS, if an Urban Boundary expansion is being contemplated” (City of Kingston, 2018, p.60). This policy exemplifies the need for the community to balance

economic development within the urban boundary with agricultural economic activities, as they are supported and encouraged in the PPS.

Additionally, the 2018 official plan is comprised of policies that signify the importance that a community needs all types of infrastructure and environments to support and maintain a sustainable economy. Section 2.1.1. discloses that growth will occur within the Urban Boundary, where development will be directed to achieve greater sustainability (City of Kingston, 2018). Specifically, 2.1.1.h states “strategies that will revitalize both neighbourhoods and employment areas, and rehabilitate brownfield sites for re-use” (City of Kingston, 2018, p. 40). This policy additionally validates that through the improvement of the natural environment, the economy of a community can prosper.

Equity

Equitable access to resources is of great importance to the advancement of a sustainable community, as development should improve the conditions of all the individuals, support environmental health, and human dignity.

Both official plans had a relatively low quantity of policies observed in all the plan elements for the Equity Principle. The indicators used to code were often not found in the official plan, therefore it is important to recognize that this research limitation may have impacted the scoring and evaluation of this principle. The indicator word ‘extraction’ did not appear in either official plan, and the term ‘reduced taxation’ had ‘taxation’ materialize only once in both official plans. Therefore, it is important to recognize that equitable policies may be present in the official plan but the coding indicator terminology utilized in this report resulted in a low number of policies. Additional coding words were used to analyze this sustainability principle, including the root words from the indicator, such as ‘incentives’ from ‘financial incentives’ and the word ‘affordable’.

The 2018 official plan contained the equity principle in differing plan elements than the 2006 official plan and had a higher evaluated score as demonstrated in Table 2. The 2018 official plan had policies in the environment and energy plan element. The policy of relevance in the environment element for the 2018 official plan concerns land stewardship, section 6.1.12 states:

“The City encourages a wide variety of land stewardship options, including protecting lands through easements, purchase, tax incentives, and dedication to land trusts to preserve and enhance the *natural heritage system*, and its *adjacent lands*, across the City. The City will encourage efforts with neighbouring municipalities, public agencies and private landowners to manage and improve the ecological *sustainability of the natural heritage system as a whole*” (City of Kingston, 2018, p.317).

This policy is of interest because it speaks to the natural heritage system and environmental equity, as well as the need for collaboration to ensure that this policy is achieved. In regards to energy, section 2.9.6.c references the provision of incentives, such as giving priority to commercial and residential renewable energy projects. This policy is of interest in terms of equity as it demonstrates the city's commitment to energy planning and the facilitation of a green economy. A green economy will result in an economy that improves human well-being and social equity while reducing environmental risks. This policy exemplifies the sustainable approach the 2018 official plan has in regards to the principle of equity, creating an equitable environment for the natural heritage of the community and the individuals living within it.

The equity principle in both official plans had the highest possible score in the housing plan element. In the 2006 official plan, two main policies were associated with housing affordability, section 7.2.3 and 7.2.4. Section 7.2.4 spoke to housing tenure:

“The City's housing stock is held by its occupants through a number of forms of ownership and tenancy. All forms of ownership and tenancy are encouraged in an effort to provide for a variety of ownership and tenancy alternatives, a range of housing rent-bid costs for various affordability alternatives, and a variety of life style alternatives. It is the general intent of Council to encourage a variety of residential tenure forms by way of the following policies” (City of Kingston, 2006, p. 287).

This policy is important because it acknowledges the various types of housing and housing ownership that is present in the City. Therefore, the policy is imperative to individuals of multiple socioeconomic status within the community, illustrating an all-inclusive approach to housing in the City of Kingston.

Housing has a long tradition of promoting programs for individuals of low income. The collaboration with organizations or administrations to support policy objectives have present over time in regards to the City's sustainability of affordable housing. In 2006 the official plan in section 7.2.5 mentions that “Council may continue to support the existence of a Municipal Non-Profit Housing Corporation to develop moderately priced rental accommodation and rent geared-to-income accommodation” (City of Kingston, 2006, p. 288). Additionally, it has been stated that comprehensive plans do not extend beyond this practice in seeking to promote the equity principle (Berke & Conroy, 2000). This is exemplified in the 2018 official plan, section 2.3.17 Affordable Housing states:

“The City supports the City of Kingston and County of Frontenac Municipal Housing Strategy (2011) and the City of Kingston 10-Year Municipal Housing and Homelessness Plan (2013) in order to increase *affordable* housing in the City, and for it to be located primarily within the *Urban Boundary* in accordance with the

directions of the Municipal Housing Strategy Locational Analysis Study (2012)” (City of Kingston, 2018, p.55).

These policies illustrate that while the official plan defines and encourages policies to integrate affordable housing in the community, implementation may be contingent on additional strategies and secondary plans.

In regards to implementation, the 2018 official plan in Section 9 *Administration and Implementation* spoke to the overall equitable implementation of the policies and objectives in the official plan. Once again, this demonstrates a cohesive application of the community, which exemplifies a sustainable approach.

Polluters Pay Principle

The principle of Polluters Pay refers to the organizations or individuals that cause adverse community wide impacts and holding these groups accountable, bearing the cost of the pollution. It can be observed that generally all plan elements have limited policies relevant to the polluters pay sustainability principle in both of the official plans.

Both official plans had the majority of the policies in the plan elements of energy and land use. In the 2006 plan, the development policies relied on the conventional regulatory approach to guiding development. However, a noteworthy policy is section 3.13.3 “(e) energy-conscious building and site design should be encouraged in conjunction with site-specific assessment of micro-climatic conditions” (City of Kingston, 2006, p. 31). This policy references environmentally sustainable architecture and urban design and its application at a site-specific level. In regards to new infrastructure and building, the 2018 official plan had two key findings. The first finding was the frequent use of the term green infrastructure, defined in the official plan as “natural and human-made elements that provide ecological and hydrological functions and processes that may include components such as *natural heritage features and areas*, parklands, stormwater management systems, street trees, urban forests, natural channels, permeable surfaces, and green roofs” (City of Kingston, 2018, p. 18). This term appeared in many policies in the official plan that supported the implementation of green features of development, sustainable architecture, and LEED buildings. The second key finding of this sustainable principle was the City’s Municipal Green Building Policy. Research signifies that this policy came into effect in November 2008. The policy states:

“provides for the design and construction of municipally owned or funded new building and major renovation projects to proceed in a fashion that ensures environmental, economic and social considerations are taken into consideration and that a “green” building compliant with the Leadership in Energy and Environmental Design (LEED) program is achieved so that operational energy costs to the municipality are minimized, indoor air quality is protected, waste is minimized and

corporate and community greenhouse gas emissions are reduced (City of Kingston, 2008, p.1).

This policy is of significance because it exemplifies the steps that the city is taking in order to make their infrastructure more sustainable. The introduction of green infrastructure in the 2018 official plan and its relationship with building standards may be a reason as to the higher score for polluters pay principle in the 2018 official plan compared to the 2006.

Neither official plan had explicit policies regarding pollution taxes, impact fees, or non-point source pollution allowances that have been mentioned in other plans (Berke & Conroy, 2000). However, the 2018 official plan supports the retrofitting of existing buildings and mentions financial incentives to support the redevelopment. As outlined in section 6.2.8 “The City encourages the retrofitting of existing residential and commercial building stock through consideration of incentives, planning and financial instruments that it may choose to implement and the City supports partnerships with utilities and other levels of governments to that end” (City of Kingston, 2018, p. 324).

Despite these policies, the city cannot oblige applicants to meet energy efficiency requirements that are beyond the minimum standards that are required by the *Ontario Building Code*. Therefore, the use of building rating systems and standards that help focus the industry on high-performance, energy efficient, economical and environmentally friendly buildings can be a major component of designing a sustainable building. The inclusion of these policies over time in the official plan will result in the development of new buildings and the redevelopment of existing buildings to be more energy efficient and have high sustainable standards.

Responsible Regionalism

Responsible Regionalism refers to the concept that the municipality has the commitment to not impose any undue hardship on other jurisdictions, administrations, or organizations in pursuit of its own objective. This principle is of great significance, as both the positive and negative externalities of development have a larger scale impact than the scope of the community where it is occurring. In the plans, *Responsible Regionalism* was present in transportation, environmental, energy conservation, land use, historic culture, and economic.

Both official plans, emphasize the importance of public participation and consultation, an indicator of the *Responsible Regionalism* principle. The 2006 official plan in section 8.5.1 states, “Public participation shall be regarded as an essential part of the municipal planning process” (City of Kingston, 2006, p.365). Additionally, the 2018 official plan reiterates this statement in section 9.12.4, “Public participation is regarded as an essential part of the

municipal planning process” (City of Kingston, 2018, p. 422). These policy statements conform to section 17, subsection 15 of the *Planning Act*:

“17(15) In the course of the preparation of a plan, the council shall ensure that,

- (a) the appropriate approval authority is consulted on the preparation of the plan and given an opportunity to review all supporting information and material and any other prescribed information and material, even if the plan is exempt from approval;
- (b) the prescribed public bodies are consulted on the preparation of the plan and given an opportunity to review all supporting information and material and any other prescribed information and material;
- (c) adequate information and material, including a copy of the current proposed plan, is made available to the public, in the prescribed manner, if any; and
- (d) at least one public meeting is held for the purpose of giving the public an opportunity to make representations in respect of the current proposed plan. 2006, c. 23, s. 9 (2)” (*Ontario, 1990*).

Furthermore, both plans make reference to consultation and participation with other provincial bodies, most frequently the Cataraqui Region Conservation Authority in regards to environmental sustainability. Section 8.9 of the 2006 official plan emphasizes the importance of the cooperation with neighbouring municipalities and the Cataraqui Region Conservation Authority.

“the City shall recognize that many planning issues affect not only the City but also the Townships of Kingston, Pittsburgh and Ernestown, and may impact upon the activities of the Cataraqui Region Conservation Authority. It is the City's intention to work closely with the three Townships and the Cataraqui Region Conservation Authority, where appropriate, to ensure a coordinated approach to development and redevelopment, the management of Environmental Protection Areas, the maintenance of air and water quality standards, and the provision of municipal services” (City of Kingston, p. 369, 2006).

The 2018 official plan has many environmental policies that speak to the liaison with other governing agencies, as exemplified in section 6.1.9, “Any decision considered by the City for any *development* application with respect to land within, or immediately adjacent to, the *natural heritage system* will be made in consultation with the appropriate authorities, in accordance with the policies of this Plan, using the best available information at that time” (City of Kingston, 2018, p.316).

It is also of interest to note that in the 2018 plan, there is reference to the inclusion of *Indigenous Peoples of Canada* in the community engagement process, which was not previously found in the 2006 plan. Section 9.12.4.l states “the City will create a Community Engagement Plan to develop strategies to improve public engagement for specific planning

processes. This Plan will be informed through a consultative process with the public which will include specific efforts to engage *Indigenous Peoples of Canada*” (City of Kingston, 2018, p. 423). This is substantial as the policy illustrates the responsibility of planning to include all members in the community during the decision-making process.

Cross jurisdictional issues are addressed in the PPS (2014) in Section 1.2. This section supports the importance of looking beyond municipal borders to assess the large scale impacts of sustainable development approaches. Section 1.2.1 states:

“A coordinated, integrated and comprehensive approach should be used when dealing with planning matters within municipalities, across lower, single and/or upper-tier municipal boundaries, and with other orders of government, agencies and boards including:

- a) managing and/or promoting growth and development;
- b) economic development strategies;
- c) managing natural heritage, water, agricultural, mineral, and cultural heritage and archaeological resources;
- d) *infrastructure*, electricity generation facilities and transmission and distribution systems, *multimodal transportation systems*, *public service facilities* and *waste management systems*;
- e) ecosystem, shoreline, watershed, and Great Lakes related issues;
- f) natural and human-made hazards;
- g) population, housing and employment projections, based on *regional market areas*; and
- h) addressing housing needs in accordance with provincial policy statements such as the Ontario Housing Policy Statement” (Ministry of Municipal Affairs, 2014, p.11).

The role of the province in Ontario land use planning decisions illustrates how it is essential to account for external impacts that are felt outside the community that result from the local planning decision making process.

Implementation and Monitoring

As outlined in the methodology, the evaluation of implementation and monitoring of sustainable principles was conducted separately. Implementation and monitoring are critical as it is of significance to understand the way plans aim to meet the outlined goals and objectives over time. Generally, the Implementation and Monitoring principle was performed well in the analyzed documents. Both official plans contain chapters that are specifically written to acknowledge the importance of the facilitation of implementation in planning frameworks and reference planning legislation as tools to implementation, including the *Planning Act*, *Municipal Act*, and other Provincial statutes.

There is reference to implementation and monitoring present in all plan elements in both the 2006 and 2018 official plans. A significant amount of policies observed in this sustainable principle involves the discretion and decision-making power of the council or an appointed committee, and the public engagement process. An example of this type of policy is found in s. 9.7.1 of the 2018 official plan:

“The City will engage in the ongoing research and study of issues related to land use, or to individual areas of the City, as part of its implementation of this Plan that will assist in keeping this Plan current and responsive to change. Most studies will not form part of the Official Plan but their recommendations may serve as the foundation of changes to this Plan made by amendment, subsequent to a public consultation process and endorsement by Council” (City of Kingston, 2018, p.407).

The capacity of the plans ability to respond to change and be effectively monitored depends on the community in which the plan is implemented. Therefore, it should be the intent of the City to engage in meaningful consultation with the public, as engagement plays a critical role in the planning-decision making process. This aspect is stressed in both official plans, section 8.1 of the 2006 official plan emphasizes ongoing public consultation. It may be put forward that the reason both plans had a successful Implementation and Monitoring category is because of its interconnectivity with other planning legislative frameworks and the involvement with the public.

It was found through the evaluation of Implementation and Monitoring that the 2018 plan directly refers to sustainability in varying sections of the official plan. The goal of section 9, which is Administration and Implement of the plan clearly states:

“To maintain an Official Plan that is current, promotes *sustainability*, and is responsive to potential change in the City; to assist the public in understanding and interpreting this Plan; to seek public input in decisions related to this Plan; and, to implement the policies of this Plan in a consistent and equitable manner using a wide variety of implementation tools and measures as appropriate, in consultation with agencies, higher levels of government, and as supported through public consultation” (City of Kingston, 2018, p. 375).

The emphasis on sustainability in this area of the official plan exemplified that the policies encompassed in this section adhere to sustainable principles. Monitoring, implementation, and evaluation must be incorporated into the plan in order to have effective policies that indicate plan progress. This integration of sustainability may justify the 2018 official plan’s increase in scores when compared to the 2006 official plan. This sustainable principle indicates that the quality of implementation and monitoring improved between the two official plans, making this aspect of sustainability enhanced.

A challenge that arose in the analysis of this sustainable principle was the intersectionality of the principle with other sustainable principles and its presence in all of the plan

elements. The sustainable principle was evaluated based on the presence of the indicators in planning policies outlined in Table 2. This evaluation proved to be difficult, as the distinction between the concepts of implementation and monitoring were at times challenging and the separation of this principle between plan elements was intricate. A recommendation to be expanded upon in the following chapter is regarding future evaluations, as researchers should consider the separation of implementation and monitoring as a sustainable principle.

3.2.3. Increase of Sustainable Policies

Quantitative and qualitative aspects of this research exemplified an increase in the inclusion of sustainable principles in the City of Kingston's official plan over time. The increase in the number of policies is observed in the number of policies in Table 4 and Table 5 for the 2006 official plan and Table 6 and Table 7 for the 2018 official plan.

The 2006 official plan scored 61 compared to the 2018 official plan score of 67, as observed in Table 3. An official plan is informed through a consultative process and public participation to engage all members of the community. The increase in sustainable principles between the two plans may be caused by public engagement, resulting in the city applying additional and new policies in the official plan that accurately reflected the community's support for sustainable priorities.

3.2.4 Overarching Policies

As a result of the overarching nature of certain policies, it was a challenge to effectively and appropriately code policies into one specific element or principle. At times, the general intent of the policy was all-encompassing of multiple sustainable principles and was discovered in various plan elements. Sections within the 2006 official plan and the 2018 official plan that contained general overarching sustainability principles have been listed below. A policy was not coded if observed in one of the general intent policy sections. However, coding occurred if the policy was more explicitly stated in the section.

It is of importance to recognize that these policies encourage sustainable development principles. Sustainability as a concept can be understood as the intersectionality of environmental, economic, social and cultural pillars. It is this connectivity that is supportive of overarching principles. Therefore, regardless of the complexity of code evaluation of these all-encompassing principles, they are of magnitude in their relationship with the sustainability of an official plan.

Notably, the 2018 Official Plan for the City of Kingston has an all-inclusive vision of sustainable development that is outlined in section 2.1. This section contains strategies that emphasize a primary objective of the plan, to transform the City of Kingston into one of the most sustainable cities on the continent. There are subsections that outline sustainable principles through secondary plans and evaluation reports (s. 2.1.3.), development applications (2.1.4), and city initiatives (s. 2.1.5.).

2006 Official Plan Overarching Policies

Section 2 – Purpose of the Plan

“The purpose of the Official Plan is to establish a comprehensive policy and map framework for the Planning Area that will guide the City of Kingston's future decisions regarding the maintenance, development and redevelopment of its land use system, the conservation and use of its wetland and water resources and the direction and potential for the City's long- term growth and change. The policy and map framework are presented in a comprehensive Plan for the purpose of consolidating all of the systems that are required to ensure that the City will function for its citizens as a safe, convenient, efficient and healthy urban environment” (City of Kingston, 2006, p.5).

Section 8.4 – Planning Studies

“The carrying out of a comprehensive and ongoing land use planning study and research program shall be regarded as an essential element of Official Plan implementation. Planning Studies may be used to assist in the implementation, refinement, monitoring and updating of this Plan. They may consist of area studies (secondary plans), studies of area- wide and city-wide planning issues, guideline documents and information research and analysis. These studies shall not form part of this Plan. However, the Plan may be amended to reflect the studies' findings, as warranted by context” (City of Kingston, 2006, p.363).

Section 8.5 - Public Participation

“Public participation shall be regarded as an essential part of the municipal planning process” (City of Kingston, 2006, p.365, s.8.5.1).

Section 9.5 – Monitoring of the Plan

“In order to keep the Plan up-to-date and its policies relevant and appropriate given changing conditions, a systematic, on-going monitoring program shall be established in accordance with Section 8.4.2.4 of this Plan. The Planning Department shall endeavour to report to Council from time to time on the results of the monitoring program and suggest amendments to the Official Plan, where warranted” (City of Kingston, 2006, p. 375).

2018 Official Plan Overarching Policies

Section 2.1 – Sustainable Development

“The Official Plan sets out a vision for the City to the horizon year 2036. As Kingston grows and evolves over the course of this Plan, strategies to attain the *sustainability of development* will be emphasized. These include: conserving natural and built resources; reducing pollution and rehabilitating polluted areas; applying conservation practices; reducing energy consumption; promoting *green infrastructure*; enhancing the *green economy* and *low carbon economy*; supporting vulnerable populations; encouraging innovative and high-quality design; and, arranging and phasing land uses in a manner that reduces the consumption of land and energy and prevents premature public spending. The primary objective of this Plan is to help citizens and business owners learn about and implement the critical elements of sustainable living, thereby transforming the City of Kingston into one of the foremost sustainable cities on the continent. This, it is hoped, will “do our part” to address climate change. One of the tools to address sustainable *development* in Kingston will be the Integrated Community Sustainability Plan (Sustainable Kingston Plan), which is based on the cultural, economic, environmental and social pillars of sustainability” (City of Kingston, 2018, p. 39).

“To protect, *conserve*, and strategically deploy the natural, cultural and built resources of the City in a manner that promotes *compatibility* between different functions; that reduces energy, land or resource consumption in order to reduce greenhouse gas emissions with the objective of reducing emissions by 15% by 2020 and 30% by 2030 over the 2011 baseline; that ensures that the City’s strategy to mitigate greenhouse gas emissions is consistent with the long term goals identified in the *Paris Agreement*; that encourages sustainable forms of energy production and the use of *cultural heritage resources* to benefit the public good; that limits the need for undue extension of *infrastructure*, use of single occupancy vehicles or reliance on the private automobile; that fosters local sources of food which are sustainable; and promotes programs and practices that will produce increasingly sustainable *development* in the City” (City of Kingston, 2018, p. 40).

Section 9 – Administration and Implementation

“This Section describes the general administration and implementation of the Official Plan. It is the City’s intent to implement the policies of the Official Plan in a consistent and equitable manner. It is the intent of the City to engage in frequent and meaningful consultation with the public as a part of the decision-making processes associated with implementing this Plan. There are specific implementation tools available under the *Planning Act*, as well as other statutes

such as the *Municipal Act*, the *Development Charges Act*, the *Ontario Heritage Act*, the *Environmental Protection Act* and the *Accessibility for Ontarians with Disabilities Act* that all have a bearing on land use planning and contribute to the implementation of this Plan. Implementation of this Plan may also be supported through consultation and co-ordination with other public agencies, *Indigenous Peoples of Canada*, through co-operative ventures, public works, land acquisition, financial incentives, and the establishment of municipal agencies. The City may implement this Plan by preparing additional studies, by preparing urban design guidelines, and by monitoring change. Authority to implement certain matters may be delegated by Council in accordance with the provisions of the *Planning Act*” (City of Kingston, 2018, p.375).

“Goal: To maintain an Official Plan that is current, promotes *sustainability*, and is responsive to potential change in the City; to assist the public in understanding and interpreting this Plan; to seek public input in decisions related to this Plan; and, to implement the policies of this Plan in a consistent and equitable manner using a wide variety of implementation tools and measures as appropriate, in consultation with agencies, higher levels of government, and as supported through public consultation” (City of Kingston, 2018, p.375).

Official Plans are comprised of a broad range of policies that affect all types of land use and development of land. The intent of an official plan is to incorporate and implement a number of objectives that guide the city’s long-term management, with the objectives being broadly outlined to encompass all matters. These overarching policies additionally illustrate the weaving together of strategies to create a comprehensive plan, as sustainable development has been used as an integrative framework for the development of this legislation.

3.2.5 Designated Strategic Policy

In addition to the overarching policies that support holistic sustainable planning concepts, the main observation that highlights the 2018 official plan’s inclusion of sustainability is the designated strategic policy section in the official plan in regards sustainable development. Section 2.1 of the 2018 OP encompasses goals, policies, and emphasize tools that can be used to address sustainable development in Kingston. For example, the section references the Sustainable Kingston Plan which is based on cultural, economic, environmental and social pillars of sustainability. As well, the 2018 official plan contains section 6 titled The Environment and Energy, a section that specifically looks at policy’s and their relationship with the natural environment and heritage systems:

“This Section of the Official Plan provides policy guidance with respect to the protection of environmental quality within the City’s *natural heritage system*, a vital network of diverse features which connects the urban and rural portions of the

municipality across air, land and water. The protection of the *natural heritage system* across the *watersheds* is a fundamental requirement of ensuring how this City addresses climate change and still ensures its resilience and *sustainability*. This Section of the Plan also addresses climate change, energy production and *energy conservation*, and source water protection. These policies are intended to assist the City in evaluating the rapidly evolving technologies for *renewable energy systems*” (City of Kingston, 2018 p. 313).

A secondary example of these focused official plan policy areas would be section 7 of the 2018 official plan, Cultural Heritage and Archeology. A key aspect of the City of Kingston’s identity is the culture heritage resources, such as intangible cultural heritage resources, built heritage resources, heritage landscapes, and archeological resources. This section of the official plan states:

“the City’s *cultural heritage resources* will be protected and managed in accordance with the recommendations and policies of this Plan together with the Kingston Culture Plan, the Integrated Cultural Heritage and Cultural Tourism Strategy, the Kingston Commemorations Strategy, the Consolidated Civic Collection & Municipal Museums Policies, and the Public Art Master Plan, as amended from time to time” (City of Kingston, 2018, p.331).

It is this dedication of specific policies and sections in the official plan that not only increase the frequency of sustainability principles but also demonstrate a more comprehensive integration or sustainability into the 2018 official plan.

3.2.6. Policy Integration and Terminology

The evaluation of the two official plans also highlighted issues in the 2006 official plan which include a lack of clarity and confusing terms surrounding sustainable principles. These issues were addressed in the 2018 official plan, as the designation of specific sections in the official plan to address cultural, economic, environmental and social pillars of sustainability aided in the organization of information. Additionally, section 1.4 of the 2018 official plan contains definitions of terminology used in the planning document. The inclusion of definitions of key terms removes any ambiguity and misinterpretations of the intent of certain sustainable planning policies and their relationship to larger planning legislative frameworks. For example, the definition of a *Cultural Heritage Landscape* and its connectivity with *Ontario Heritage Act* illustrates the collaboration between various provincial and municipal documents. This association further enhances the sustainability of the planning frameworks, as the policies and strategies are coordinated with one another, viewing conceptions from an all-inclusive perspective which facilitates good planning.

3.2.7. The Role of Secondary Plans

Secondary Plans may be considered a second layer of the City-wide Official Plan, a specific planning tool that is used to address opportunities and issues related to land use in defined areas. Once the need for a secondary plan has been identified, urban planners will introduce a study to the community to gain an understanding of how the residents and members see their neighbourhood changing and growing. In preparing the Official Plan for the City of Kingston any updates from amalgamation, the Provincial Policy Statement and the Planning Act have resulted in many individual background studies. Table 9 in the Appendix is a sample list including some of the background studies implemented within the City of Kingston.

It was observed in this research that a significant amount of policies in varying sections within the official plan were supportive of the City's secondary plans. Although numerous policies were present in both plans, at times sustainable policies were absent in the official plan and only referred to a secondary plan. For example, in the 2018 official plan section 3.3.10 addressed affordable housing but in regards to addressing homelessness in the community, the plan only referenced the Municipal Housing Strategy & 10-year Municipal Housing and Homelessness Plan.

The scope of the report was an analysis of the official plan documents, as the official plan is the final document of a municipality to guide the development and growth of the community. Therefore, the exclusion of policies relevant to sustainable principles in this research is a result of the delegation of the policies to additional planning legislative frameworks and the policies not being located in the official plan.

4.0 CONCLUSION AND RECOMMENDATIONS

This chapter offers strategies to enhance the quality of sustainable initiatives in plans, discusses the implications of this research in planning practices, and identifies areas of future research.

4.1 Conclusion

Planners have the ability to shape the scope and characteristics of future development, identify the needs of a community and create plans to ensure that these needs will be met so a community can be livable. Given the increasing emphasis that sustainable development is a tool to be used by the planning profession, there is little empirical evidence regarding the extent to which a community's official plan promotes sustainable principles.

This research attempted to gain a more comprehensive understanding of how well a municipalities official plan have adopted sustainable principles and the extent to which these principles have been implemented and monitored.

When evaluating the extent that the City of Kingston has incorporated sustainability principles into their official plan over time, it can be observed there has been an increase in the inclusion of these principles. The principles of *Harmony with Nature* and *Implementation and Monitoring* have consistently remained present from the evolution of the 2006 official plan to the 2018 official plan. Other principles have demonstrated an increase in presence, such as *Polluters Pay Principle* and *Responsible Regionalism*. Overall, it was exemplified that the plans have promoted multiple sustainable principles through the integrate of policies from all plan elements to create comprehensive policies and objectives in the community's official plan.

The results from the evaluation are an outcome of features and characteristics within the official plan. In addition to the inclusion of sustainable principles, the increase in the number of principles between the 2006 official plan and 2018 official plan demonstrates the changing of the community's attitudes towards the advocacy of sustainable development.

The results from the evaluation are a consequence of the features and characteristics of the official plan. In addition to the inclusion of sustainable principles, the increase in the number of principles between the 2006 official plan and 2018 official plan demonstrates a shift of the community's perception of sustainable development.

The presence of overarching policies that contain sustainable principles illustrates the holistic application that the official plan has in regards to development. Furthermore, the designation of a section in the 2018 official plan for exclusively sustainability objectives allows the municipality to be explicit and direct specific policies that support the community's sustainable initiatives. The combination of all-encompassing general policies with a dedicated section in the OP facilitates the incorporation of sustainable development in a multi-faceted approach.

The terminology and definition of key terms in the 2018 official plan reduce ambiguity and misinterpretations of the intent of certain sustainable planning policies and their relationship to larger planning legislative frameworks. The policy and terminology collaboration between documents simplify the application of sustainable principles, allowing for these principles to be implemented effectively. Although the analysis of planning documents including the PPS and secondary plans was not within the scope of this research, these documents may have had an impact on sustainable principles within the official plan. The updated PPS in 2014 accentuated inter-connected and environmentally responsible growth. Therefore, the revised PPS would have had an impact on the development of the City of Kingston's 2018 official plan. Additionally, the use of secondary plans containing detailed sustainable development principles would have resulted in an absence of these principles from the official plans.

The 2018 official plan most effectively utilizes sustainable development as a concept in an integrative framework for directing the development of the City of Kingston. This ultimately answers the research question for this report, as the development of the official plans effectively capture and integrate the concept of sustainable development into policies.

Additionally, recommendations have been outlined in this report as a result of the thorough official plan evaluations. These recommendations are proposals on how to enhance the quality of the official plan in regards to sustainable development principles and implementation.

This report and associated research findings are significant because it can contribute to the limited Canadian-based research regarding plan quality evaluation, specifically through the perspective of sustainable development. The research utilizes commonly referenced principles and methods; therefore, the research strengthens the approach to evaluating plan quality. The application of previously developed protocols and documents with clear protocols allow for the development of a greater meta-analysis and universal application.

Future studies may expand on the assessment of additional planning documents and reports that informed the development of the official plan and analyzing the association between the policies. Furthermore, a more comprehensive study focusing on the relationship of high-quality plans, implementation, and tangible planning outcomes in a community would be of interest to supplement research in plan quality evaluation. For example, reviewing the City of Kingston's built-form and how it has changed from 2006 to 2018 would be of interest to examine the connection between land-use policies and physical development.

4.2 Recommendations

Based on the results and analysis of this report, a series of recommendations has been created in this section.

1. Improvement in the Official Plan

The City of Kingston should address the low scoring criteria in their review of the next official plan. The low scoring criteria in both the 2006 and 2018 official plan are to be solved through the use of best practices from other single tier municipalities. Additionally, as observed in this research, there are secondary plans or community improvement plans and studies recommend to be utilized to supplement the vision of the official plan. While this information may be beneficial, planners may find themselves with more plans to coordinate and manage. This may result in these secondary plans being inefficiently applied to the community. Additionally, the *Planning Act* provides the opportunity for a City to amend the OP at any time. Therefore, the OP can be reviewed within the context of the achievement of sustainable development goals and amend the OP to address deficient sustainable development or implement emerging innovative practices. Ultimately, it is recommended that the sustainable principles continued to be integrated into the official plan.

2. Increase Collaboration with Organizations and the Public

The City of Kingston has increased coordination within the community and with organizations such as Sustainable Kingston and The Kingston Economic Development Corporation, in order to reach sustainable development goals and objectives. These various collaborations have resulted in the increase of sustainable principles in the city's official plan over time. However, too many separate agencies working towards the goal of Canada's Most Sustainable City may result in competing priorities, resulting in ineffective implementation and sustainable development. In order for the city to sustain these principles, a continuous process of evaluating current and emerging trends is needed. Therefore, there must be an ongoing encouragement of citizen and organization participation, focusing on the updating of plans.

3. Sustainable Development Criteria Evaluation Tool

Sustainable Kingston has developed a Baseline Indicator Report, where sustainable indicators have been benchmarked against past performance and to observe strengths and weaknesses within the Municipality. The most recent report obtained is from 2012, therefore a collaborative evaluation protocol to efficiently and continuously ensure that sustainable development policies are implemented as well as monitored for effectiveness would be beneficial to the City. The evaluation tool can help practicing planners in the city identify current gaps in plan making that would undermine the value of the official plan. Additionally, the inclusion of appropriate monitoring and indicator frameworks within this tool will help to promote the importance of implementation. Tool guidelines and details regarding evaluation, such as the identification of departments responsible for implementation and monitoring would allow for indicators to be analyzed to assess plan progress over time and the outcomes of planning policies and frameworks.

4. Separation of Implementation and Monitoring Principle

In future evaluations, research should consider the separation of implementation and monitoring in the evaluation technique. Implementation in a plan should ensure that policies are carried out and have resulted in the desired impact. These provisions reflect a commitment to using the plan and following through on the actions in the plan (Stevens, 2013). Monitoring and evaluation should help the community evaluate the extent that the policies are being implemented and the goals achieved (Stevens, 2013). Monitoring examines the implementation, therefore, to have these two as separate principles would guarantee a thorough evaluation as they have distinct purposes.

5. Planner Evaluation Tool Training

The planning profession must strive to educate and support the development of planners to create high quality plans (Guyadeen, 2017). There must be an acknowledgement and integration of plan evaluation of sustainable development principles as they are integral components of policy development and the decision-making process in planning. The evaluation of the development of official plans has the ability to improve planners and stakeholders understanding of the plan and the impacts of the plan as a result of plan implementation. This evaluation process supports continuous learning in the planning profession, as evaluation allows planners to assess what is good planning compared to what is poor planning. Therefore, it is recommended that planners experience and participate in a plan evaluation framework.

6. Weighting of Sustainable Principles

Although the environmental, social, economic, and cultural features of sustainability are thought to be considered equally in order to have a holistic assessment of sustainable

principles, there is a lack of acknowledgement in the research regarding the weighting of principles. The weight assigned to the sustainable criteria may not always be treated equally, but depend on the function of the plan and the local context in which the plan operates. There is a lack of literature on the justification for the assignment of weights to principles (Lyles and Stevens, 2014). Therefore, it would be of interest for the evaluation method to have a standardized weighting procedure that can be universally applied to allow for meta-data comparisons.

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APPENDIX A

Table 8: Official Plan Characteristics Comparison

Official Plan	Pages	Number of Schedules	Number of Sections	Frequency of the term 'sustainable'	Frequency of the term 'sustainability'
2006 City of Kingston Official Plan	418	10	9	1	0
2018 City of Kingston Official Plan	569	31	10	60	39

Table 9: City of Kingston Background Study Sample List

Plan/Study
Focus Kingston, 2000
Population and Growth Trends Model
Downtown Action Plan, 2003
Cycling and Pathways Study, 2003
Kingston Transportation Master Plan, 2004
City Owned Industrial Land Development Strategy, 2005
Natural Heritage Strategy, 2006
Regional Commercial Study Update, 2006
Waterfront Strategy (Background Report), 2006
Agricultural Study, 2007
Downtown and Harbour Architectural Guidelines Study, 2007
Kingston Model for Affordable Housing Development, 2004
Urban Growth Strategy
Asset Management Plan

APPENDIX B

This Appendix contains the Table of Contents for the 2006 official Plan and the 2018 official Plan.

**OFFICIAL PLAN
FOR THE CITY OF KINGSTON
PLANNING AREA**

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7-B Natural Heritage Area 'A' (NW)

7-C Natural Heritage Area 'A' (NE)

8-A Natural Heritage Area 'B' (Central)

8-B Natural Heritage Area 'B' (NW)

8-C	Natural Heritage Area 'B' (NE)
9	Heritage Areas, Features and Protected Views
10	Community Improvement Area
11-A	Constraint Mapping
11-B	Constraint Mapping – Source Water Protection
11-C	Servicing Constraints
12	Mineral and Aggregate Reserve Areas
13	Detailed Planning Areas
DH-1	Specific Policy Area – Component Areas and Sub-Areas
DH-2	Specific Policy Area - Major Development Sites
DH-3	Specific Policy Area – Areas of Pedestrian Focus
DH-4	Specific Policy Area – Views to City Hall Cupola
RC-1	Rideau Community
CN-1	Cataraqui North
CW-1	Cataraqui West
PS-1	Princess Street Corridor Specific Policy Area: Williamsville Main Street
KPC-1	Kingston Provincial Campus

Appendix Maps

Appendix A: Wildland Fire Hazard Areas

Appendix B: Unstable Bedrock (Potential Karst Topography)