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Public Interaction with Rockwood Conservation Area

Abstract/Plain-Language Summary

The research titled “Public Interaction with Rockwood Conservation Area” primarily focuses on the public interaction change in the past few decades in the Rockwood Conservation Area in Guelph, Ontario. The study’s research is conducted online with remote cooperation because of the pandemic lockdown and local restriction policy. As a force majeure factor intervention for the study, the research contains a massive collection of valuable information, organization, and analysis with the support of professional geoprocessing tools and mathematical predictions. Furthermore, the topic of the study involves the human behavior factor, which includes the local historical resource as background information. The key result of public interaction is from the contrast experiment research from the tourism and local residency in the Rockwood study area, which is divided into three research objectives corresponding to related methodology. The research methodology primarily uses geoprocessing tools such as Google Earth and Google Timeline as reference resources. The dataset is collected by the federal and local government as primary resources from a few years ago and may require some modification. Based on the research objectives and methodology, the result reflects that public interaction in the Rockwood Conservation Area is affected by the surrounding facilities, urbanization with population expansion, and economic development. The result aims to help Rockwood Conservation Area maintain the advantage and suggest the advice of public interaction in Rockwood Conservation

Area. Furthermore, the study could also provide some accessibility for future local development and further research.

1. Introduction and literature review

The Rockwood Conservation Area, which is well-known for its natural conditions and living species, is located in Guelph, Ontario. In Rockwood, there are massive caves and potholes located in the conservation area, which present unexpected valuable geomorphological phenomena. It's practically unique natural conditions might attract unpredictable attention among the visitors in the Rockwood Conservation Area. For the national park or conservation area, tourism is the majority supply for maintaining the local economy and development. The effectiveness of tourism in the conservation area depends on a variety of periods and natural conditions. In other words, tourism can significantly affect public interaction from a massive perspective. In general, a conservation area with public interaction is reflected as a positive, powerful, and compact interaction with the general public. Therefore, Mark Infield mentioned, "The households that had experienced direct benefits from the Conservation Area were more favorable had not indicated" (Infield, 1988), as the general public reflects an undoubtedly positive attitude toward the conservation area. A major factor in the situation is that the conservation area brings undeniable advantages for the local area, which is the large number of tourist visitors. Tourists, as beneficiaries of the conservation area, encourage a massive opportunity for economic development, increase the employment rate, and improve the urbanization structure. However, it may also reflect a sense of negative interaction with the public at specific points. Because of the pandemic, with its restriction policy and lockdown, tourism expectations for the destination are affected. Outdoor places such as camping and trails including national parks and conservation areas are becoming more popular than before the pandemic. In the current situation, it seems like public interaction in the Rockwood

Conservation Area positively affects tourism. However, as Bates et al. (2021) state, “reductions in human presence and turn to impact wildlife and nature conservation” might provide some unexpected negative interactions among the general public, especially conflicts between local residents and visitors in the surrounding area of Rockwood.

According to previous research on the COVID-19 lockdown and public interaction in the Rockwood Conservation Area, the study will be generated remotely with a new identification hypothesis related to the topic. Furthermore, the research focuses on geographic examination and historical data analysis, such as the primary resource for rigorous progress and result.

2. Research objective

The research area focuses on the northern and eastern part of the Rockwood Conservation Area because it constitutes a massive population and public facilities. The research is focused on the public interaction change in Rockwood Conservation Area, which examines and compares the difference between tourism and local resident behaviors. The component variables corresponding to tourists and local residents are significantly different components. As the logical research proposes further study analysis, the comparison is based on three perspectives. First, the comparison is focused on the differences in residence type between tourists and local residents—the comparison factors selected by analysis the different types of building structures in Rockwood. For example, local facilities may gather the school, church, and other basic living facilities for permanent residents. Second, the research objective focuses on the urban structure change in the past several years. The primarily considered research factors are building infrastructure and facility development. Third, the study examines connections like restaurants or other facilities with tourists in the conservation area. Overall, the research objective studies public interaction change by comparing and analyzing tourists and local residents.

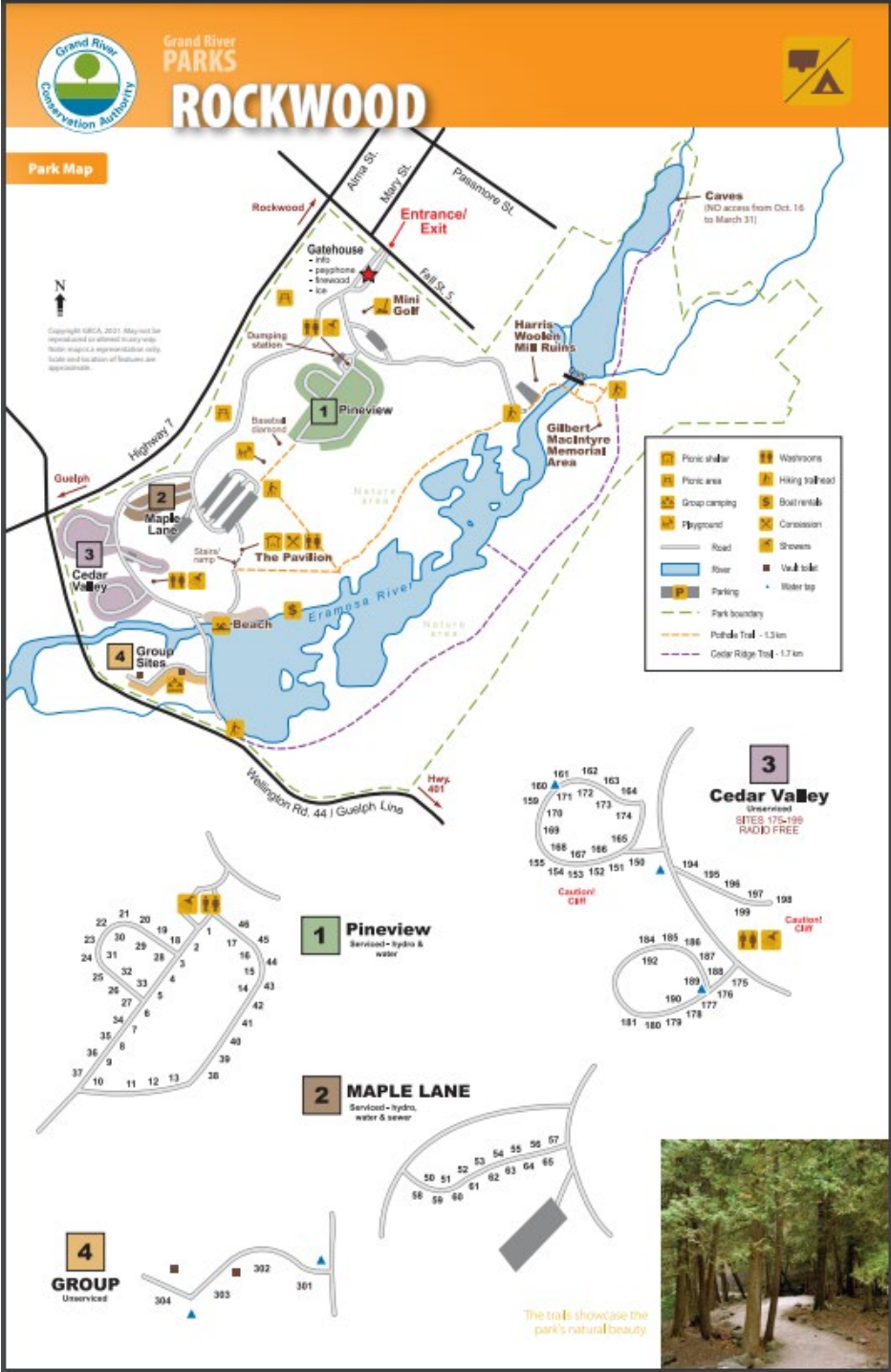
3. Methodology

According to the research objective with the three research questions, the methodology uses both qualitative and quantitative approaches. To better understand the local residents and surrounding area of the Rockwood Conservation Area, the dataset will include statistical information and historical publications. Furthermore, the official government website will provide data and resources to support the studies like open-source information published on the government website and museum.

The first objective, the comparison between residents and tourism, will use the map and statistical data, such as official urban planning documents. The urban planning documents will be collected from the official website of Wellington County, and the updated version is in 2016. On the official website of Wellington County, the zoning map for Rockwood will correspond to the information of facilities for residences and visitors. Furthermore, the research objective is to also use Google Maps and Google Earth. The reason is that geographic information is provided in a timely manner, which is a double confirmation of the resource collected from the Rockwood Conservation Area.

The second objective is focused on the urban structure and development of Rockwood. The research progress requires a massive amount of statistical and historical data for analysis. Therefore, data and resources are collected by the census in Rockwood from Statistical Canada and the urban planning documents from Wellington County. To further generate the data, the study might be required to use statistical analysis tools like Excel to produce the figures and tables for the dataset. The process results corresponding to the table can summarize the change in the urban structure in Rockwood and how it affects public interactions.

The last objective is based on tourists and commercial businesses. The ideal method for data collection is to interview local restaurants in the surrounding area of Rockwood. However, due to the pandemic lockdown and restriction policy, it is difficult to conduct interviews with specific restaurant owners with no urgent requests. Therefore, studies based on public interaction are affected by gastronomic tourism from the local business. The methodology for this perspective is focused on gathering research articles on gastronomic tourism and economic growth. In addition, it might also require some datasets from previous years' economic reports.

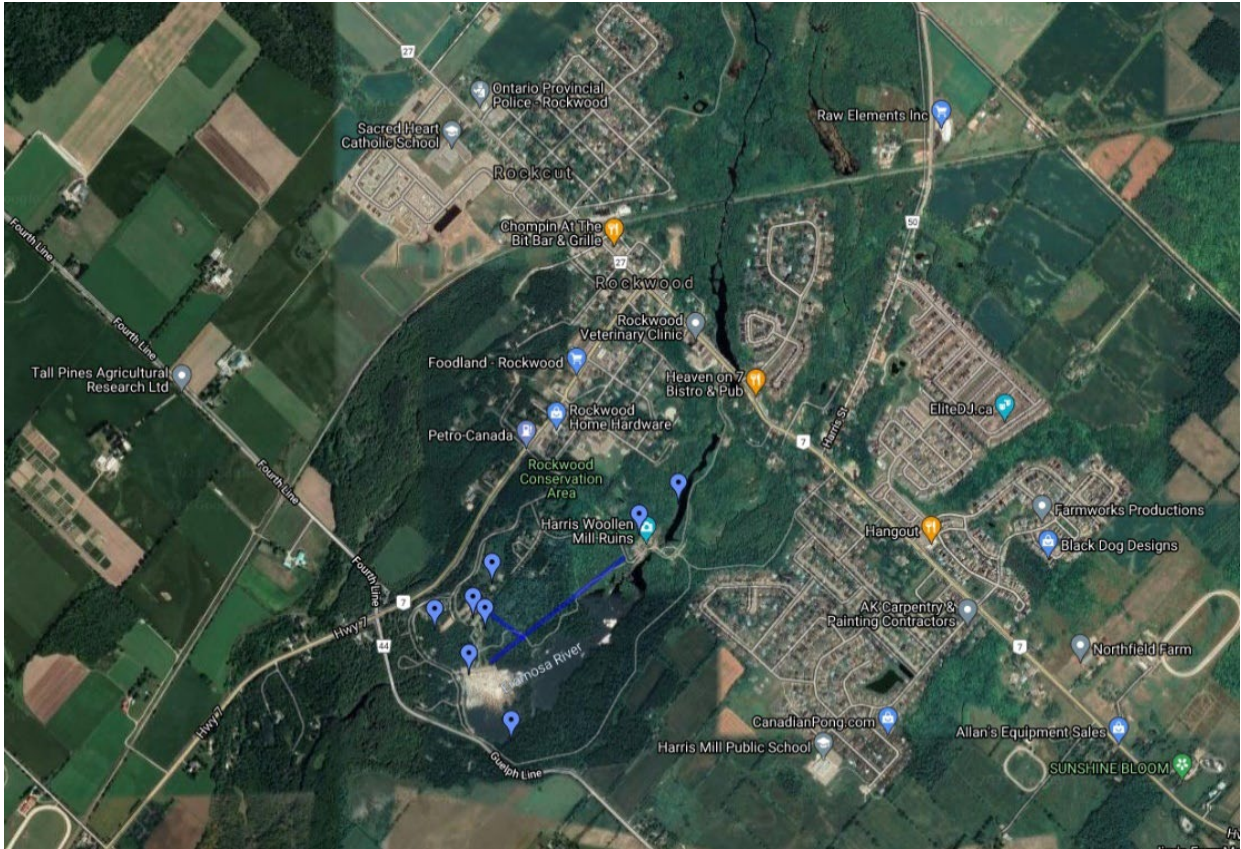


(Figure 1)

4. Result

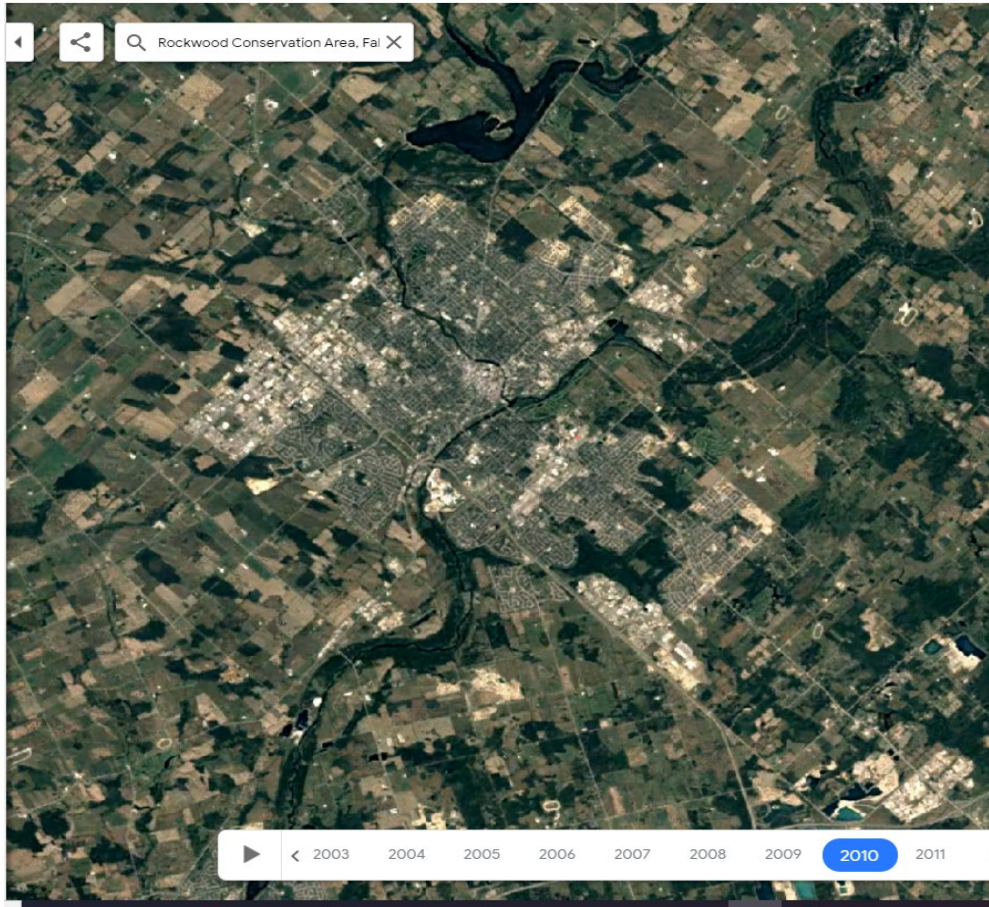
The research results focus on three parts of public interaction change in the Rockwood area: local residence, urban development, and local business.

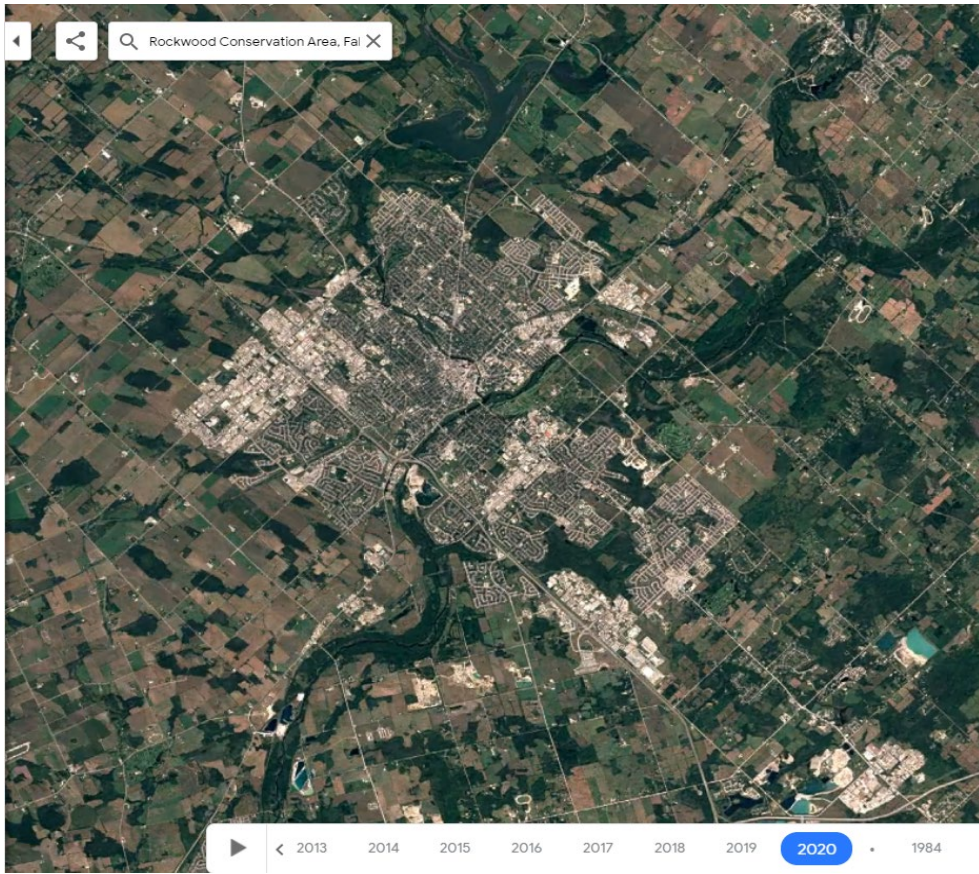
First, the result in from the comparison between local residence and tourism in the Rockwood Conservation Area. The local residence is mostly in the northern part of the Rockwood Conservation Area, which includes basic living facilities like school, health care, and community. According to the 2016 and 2011 Canadian Census for Rockwood Area, housing, population, and community are evenly spread in the studies and are known as the northern part of Rockwood. Furthermore, there are three public schools and healthcare establishments such as one pharmacy and two veterinarian clinics as reflected on Google Earth. Facilities such as schools and health care firms correspond with the long-term resident population in this area. Unlike local residence, tourism is mostly gathered inside or at the entrance of the Rockwood Conservation Area. Based on Google Maps and Google Earth, the Rockwood Conservation Area contains camping and trails as tourism facilities for visiting purposes. Noticeably, the surrounding areas of Rockwood do not contain any hotels or motels for stay. Therefore, visitors only enter and stay for a short time.



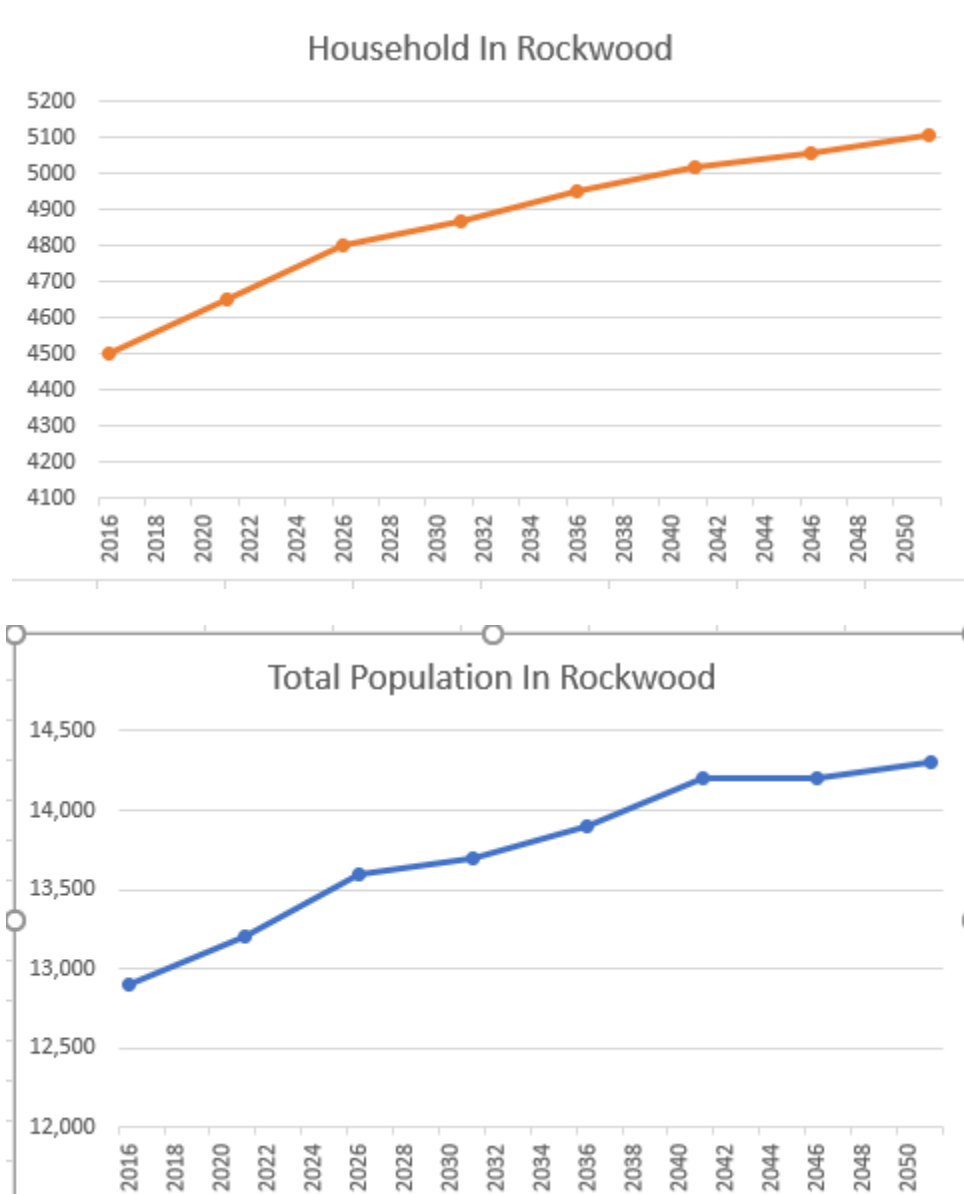
(Figure 2)

Second, according to satellite data (1) reflected from the Google timeline, the urban structure in Rockwood has gradually expanded in past decades. It is not only reflected from the direct visualization but is also supported by the “Urban Structure and Growth Allocation” from the Wellington County official plan. Data (2) predicts the total population and household data from 2016 to 2041. Population and housing are gradually increasing every decade. In other words, the high tendency of urbanization expansion reflects local residence with high public interactions around the Rockwood Conservation Area. Noticeably, the dataset reflects a phenomenon corresponding with the Google timeline aerial image.





(Dataset 1)



(Dataset 2)

Third is tourism and local businesses in the Rockwood Conservation Area (Bertan). The surrounding area's restaurants are chosen as the study's examples for the public interaction factor. These restaurants surrounding the conservation area provide the fundamental demand for tourism, which includes energy supplies such as food and drinks. While developing gastronomic tourism for public interaction, these restaurants can also be the representative signboard for local culture

and environment. Based on the studies from Serkan Bertan, gastronomic tourism is one of the significant advantages for local economic growth. Although the pandemic affects the global economy in traumatic conditions, it can still be remedied by gastronomic tourism and increase the sense of natural resource attraction.

5. Discussion and Conclusion

Some new perspective knowledge is gained from the research perspective. First, most of the local residents live in the northern part of Rockwood. The area is far from the tourist location, which is inside the Rockwood Conservation Area. As the result shows, the local residents and visitors do not have many opportunities to communicate. Public interaction between these two groups is completely separate. Second, the new infrastructure and population increase reflected the urban expansion that started at least 10 years ago. There are more households and people residing around the Rockwood Conservation Area. Therefore, it might have more basic facilities built around the surrounding area, which will significantly improve the quality of living. Third, gastronomic economics facilitate economic development. According to the result, restaurants address the demand of tourists. They support the local economic income. Also, local businesses such as restaurants provide massive changes in employee sources for local residents. With the income from tourist visits and a sustainable employee maintenance rate, urban expansion and development will improve.

In conclusion, the research is focused on public interaction in the Rockwood Conservation Area with three objectives. The research objectives are based on tourism involving local residence, urban structure, and economic development. Based on the research objectives, various methodologies are used, including geoprocessing tools, statistical methods, and historical data.

Based on the result, residents and facilities affect urbanization development, which depends on the income from tourist visits. Therefore, public interaction in Rockwood is generally affected by tourism. For this reason, Rockwood can provide better public interaction by improving facilities and environmental conditions for tourists. This improvement indirectly benefits economic growth and local residents.

6. Border impact

According to the research studies on public interaction in the Rockwood Conservation Area, it has gained massive social, historical, and statistical information. The result provides a particular perspective and is a fundamental inspiration for future work. First, the research contains many different categories of information. The result is focused on increasing public interest in the Rockwood Conservation Area.

There are two datasets created in the study. First is the prediction of the urban structure development in the next few decades. Second, the dataset consists of articles analyzing gastronomic tourism in the conservation area. The two datasets provide an accessible secondary resource for further research about Rockwood and other national parks. It also provides a valuation report for the government site because of the prediction regarding local area expansion.

7. Appendix: Figure



Appendix E-2, Table 3
Township of Guelph-Eramosa
Population and Housing Forecast, 2016 to 2051

| Guelph/Eramosa | | | | | | | | |
|----------------|-------------------------------------|-------------------------------------|-----------------------------|--------------------------------|------------------------------|-------|-------|------------------------------|
| Year | Population (Excluding Census) | Population (Including Census) | Households | | | | | Persons Per Unit (PPU) |
| | | | Low Density ² | Medium Density ³ | High Density ⁴ | Other | Total | |
| 2016 | 12,900 | 13,200 | 4,100 | 240 | 130 | 30 | 4,500 | 2.933 |
| 2021 | 13,200 | 13,600 | 4,240 | 250 | 130 | 30 | 4,650 | 2.925 |
| 2026 | 13,600 | 14,000 | 4,380 | 250 | 140 | 30 | 4,800 | 2.917 |
| 2031 | 13,700 | 14,100 | 4,440 | 260 | 140 | 30 | 4,870 | 2.895 |
| 2036 | 13,900 | 14,300 | 4,500 | 270 | 150 | 30 | 4,950 | 2.889 |
| 2041 | 14,200 | 14,600 | 4,570 | 270 | 150 | 30 | 5,020 | 2.908 |
| 2046 | 14,200 | 14,600 | 4,570 | 280 | 180 | 30 | 5,060 | 2.885 |
| 2051 | 14,300 | 14,700 | 4,600 | 280 | 200 | 30 | 5,110 | 2.877 |
| 2016 - 2041 | 1,300 | 1,400 | 470 | 30 | 20 | | 520 | |
| 2016 - 2051 | 1,400 | 1,500 | 500 | 40 | 70 | | 610 | |

| | 2016 | 2036 | 2041 |
|-------------------------------------|-------|-------|-------|
| ROCKWOOD | | | |
| <i>Total Population¹</i> | 5,000 | 6,125 | 6,075 |
| <i>Households</i> | 1,745 | 2,155 | 2,155 |
| OUTSIDE URBAN CENTRES | | | |
| <i>Total Population¹</i> | 8,400 | 8,500 | 8,500 |
| <i>Households</i> | 2,650 | 2,760 | 2,785 |

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