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Trent-Severn Waterway National Historic Site of Canada

Study of its Sustainable Economic Contributions to Communities Along the Waterway



Final Report
September 2007

TCI Management Consultants
EDP Consulting

A Study of the Sustainable Economic Contributions of the Trent-Severn Waterway

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Executive Summary

The core purpose of this project is to examine the nature and magnitude of the contributions of the Trent-Severn Waterway (TSW) to the economic vitality of the various communities along its route. The second core purpose is to identify potential roles for the government in stimulating economic activity compatible with the Waterway's sustainability.

This information will be used to help inform the Panel on the Future of the Trent-Severn Waterway as to the current economic role and function of the Waterway to adjacent communities, as well as to discuss ways and means that the Waterway can continue to contribute to the sustainability and economic development of these communities.

For the purposes of this Report, we refer periodically to the impacted "Waterway corridor" and communities within the corridor which has been defined to be the area within 2 kilometers of the water.

Findings Relating to Current Economic Role

1. The TSW is a managed system of lakes and rivers. Parks Canada maintains and regulates water levels throughout the system, ensuring that specific levels are met at different points throughout the system, as well as smoothing out fluctuations so that peak highs flooding and lows are avoided. Parks Canada undertakes a number of activities to manage the waterway in a sustainable way including direct expenditures; maintaining the fish and wildlife habitat; maintaining water quality and water levels; provision of water to water utilities; and enabling hydro-electric power generation. The management of water is thus the main contributor to economic value associated with the waterway corridor. As such, there are a large number of specific impact areas that include water and land-based tourism; businesses directly and indirectly related to the waterway; residents who are attracted to the waterway for its unique quality of life.
2. It is estimated that 16,437 single detached homes are located along waterway areas in the TSW corridor urban and rural communities. Additionally, 30,667 seasonal residences are located along waterway; 1,521 seasonal residences are located close (second tier) to the water. It is estimated that 2,808 single detached homes are located along waterways in the Haliburton Highlands, and 16,186 seasonal waterfront residences.
3. An estimated 13,700 businesses make their home in the Corridor. The area has a higher proportion of recreation-related businesses than the province overall (6.0% vs. 4.0%) as well as construction-related (10.6% vs. 6.6%) and agriculture and natural resources (3.1% vs. 1.7%). It has a lower proportion of professional services (11.9% vs. 15.1% for the province overall).

4. The annual economic impact contributed by tourists on the TSW (both boaters as well as land-based visitors) is significant. Updated estimates from the 1997 Economic Impact Study of tourism in the area are as follows:

	Impact from Boating Tourists	Impact from Land-Based Visitors	Total Impact from Tourists
Total Direct Expenditure (\$millions)	\$75.2	\$12.0	\$87.2
Total Economic Activity in Ontario (\$millions)	1.99	1.82	-
Total Economic activity in Trent-Severn Corridor (\$millions)	\$149.6	\$23.4	\$173.0
Total Job Creation in Ontario	\$105.9	\$15.7	\$121.6
Total Job Creation in Trent-Severn Corridor	2,429	360	2,789

5. The value of recreational fishing activity along the entire TSW is reckoned to be on the order of \$300 million. (This figure is not comparable to the previous estimates of tourism impact as it also includes considerable fishing-related expenditure on the part of permanent and seasonal residents of the Corridor.)
6. The value of camping activity along the Corridor (including the Haliburtons) is estimated to be \$32.3 million. (Again, there will be overlap here with estimates of tourism economic impact and total resident expenditure.)
7. One aspect of business development where the Waterway is essential is the marina sector. The total number of marina slips along the TSW as estimated by the Panel secretariat is close to 11,700. The estimated economic impact of spending at these marinas and locally is in the order of \$58.5 million. The overall annual property tax revenue generated from 247 marinas along the TSW is estimated to be in the order of \$5.2 million. This does not include the assessed value associated with marinas that are included as part of larger tourist facilities and assessed as part of those properties. As well, there are many tourism-related businesses (hotels, B&Bs, restaurants, etc.) that are located immediately along the Waterway that benefit from this location.
8. Spending by seasonal residents in the municipalities along the Corridor (including 30,667 seasonal residences located first tier to the water and 1,521 seasonal residences are located second tier to the water) on common household goods and services in corridor municipalities is estimated to be between \$134 million and \$154 million per annum. This more than doubles when major purchases and services are included. Further, we estimate that seasonal residents pay property taxes that could be as high as \$162.5 million annually (at the upper end of the range).
9. It is estimated that local annual spending of the 16,437 permanent households residing along waterfront areas in the TSW corridor municipalities is in the order

of \$365 million to \$421 million, excluding housing costs and taxes. It is likely that a significant portion of this economic impact is related to the presence of the TSW as a lifestyle factor in residential location. It is estimated the permanent waterfront residents pay property taxes in the order of \$78 million annually.

It is estimated that spending on common household goods and services by the 16,534 seasonal households in the Haliburton Highlands is roughly \$69 million to \$79 million, with spending on major purchases being in the order of \$83 million to \$248 million. The estimated property taxes of waterfront residential dwellings in the Haliburton Highlands exceeds \$61 million.

10. The expenditure of Parks Canada itself contributes to significant economic impact. Updated estimates for the economic impact of this expenditure are:

	Updated 2007-08 Estimate
Total Parks Canada Expenditure (\$millions)	\$16.0 ¹
Total Economic Activity in Ontario (\$millions)	\$37.1
Total Economic Activity in Trent-Severn Corridor (\$millions) ²	\$18.2
Total Job Creation in Ontario	686
Total Job Creation in Trent-Severn Corridor	487

11. The impact of hydro-electric power which is enabled by the management of the Waterway is significant. There are 18 waterpower facilities on the Trent-Severn system. In total, these facilities account for 100 MW of installed capacity and annually produce 500,000 MWh or clean, renewable energy. The replacement value of these facilities would be between \$300 to \$400 million. The annual value of this production is \$25 million. Were the facilities constructed today, the value would be more than double based on the province's policy initiatives to encourage distributed, renewable generation. The value of the CO2 offset represents an additional offset of \$6 million.
12. Interviews with representatives of economic development and business organizations confirm that (a) quality of life is an important factor influencing business decisions and (b) that the presence of the TSW is an important factor in contributing to quality of life in corridor communities (acting in concert with many other amenity factors in these communities). Thus while the TSW is not a *dominant* factor in contributing to economic growth and investment in the Corridor, it is acknowledged to have significant contributory influence.

¹ Note that this excludes \$12.3 million in special purpose funds has been allocated to conserve heritage resources in the Trent-Severn Waterway in the 2007-08 fiscal period. Relative to 'normal' years, this is an extraordinary expenditure and thus not counted here.

² (Note that the amount of total economic activity occurring in the Trent-Severn Corridor compared to the Ontario total reflects the relatively high leakage effect out of the Corridor at the second and subsequent rounds of expenditure – reflecting the fact that the Corridor's economy is not as diverse or as well integrated as that within the rest of the province.

13. It was also noted in discussions with economic development and business group representatives that some of the land along the Trent-Severn Waterway is underutilized or undeveloped and that planning and facilitating further environmentally and economically sustainable development could result in additional private sector investment. This is consistent with the findings of our review of experience elsewhere – where quality of life investments have spurred significant further public and private sector investment along canalway corridors. Where investment has occurred, canals and canalway corridors have become a significant part of the recreation and lifestyle amenities of corridor communities. These “quality of life” investments have had the effect of attracting new residents, businesses, and tourists back to waterways and downtowns of canal communities.
14. Public/private/non-profit partnerships and regional approaches have been critical to the success of canals and canalway corridors elsewhere, providing funding and a unified vision for canalway corridors. Partnerships have enhanced sustainability, improved areas for local residents and tourists, and stimulated further private sector investment.
15. At the conclusion of this project, a ‘sustainability framework’ was developed, identifying various ways and means through which the benefits conveyed to the communities along the Waterway could be sustained or even enhanced. Included in this assessment are some potential new roles and areas of activity for the TSW (based upon our review of the operations of waterway authorities elsewhere). These potential new roles include:
 - strategic planning and visioning as an integrated approach to sustainable development
 - recreation facility development
 - economic development
 - encouraging partnerships
 - further education and interpretation activities
 - marketing and tourism promotion

The following table summarizes the impacts identified.

Trent-Severn Waterway – Summary Table of Measuring Impacts of the Waterway Corridor

Area of Economic Impact	Ways in Which the Waterway Sustains or Contributes to Impact	Measure	Method of Calculating Measure and Key Assumptions Made	Estimates of Annual Economic Activity in Waterway Corridor (rounded to nearest \$million)	Caveats
Tourist Expenditures	- the Waterway supports tourism in the area through the maintenance the locks system as well as managing and regulating water levels	direct tourist expenditure in Corridor	- updated estimate of previous (1997) tourism economic impact study	\$61.6 million	- updated estimate from 1997 economic impact study; several additional assumptions and estimates applied to generate direct expenditure figures; same economic multiplier parameters assumed (i.e. assumes economic structure of regions unchanged from 1997)
		total economic impact (with multiplier effect) of tourist expenditure		\$122.1 million	
- <i>Fishing</i>	- as above	direct expenditure of fishermen in Corridor	- updated and extended estimate from Lake Simcoe study and OFHA figures	\$300 million	- overlaps with estimates of tourism impact and seasonal and permanent resident expenditure
- <i>Camping</i>	- as above	direct expenditure of campers in Corridor	- estimate based upon OPCA figures and Parks Canada campground count	\$30.3 million	
- <i>Marinas</i>	- through managing water levels throughout the system, the Waterway supports these particularly tourist-oriented and water-dependent businesses to operate	expenditure	TSW Panel estimates	\$58.5 million	- based upon secondary source estimates
		property taxes paid	TSW Panel estimates	\$5.2 million	

Trent-Severn Waterway – Summary Table of Measuring Impacts of the Waterway Corridor (cont.)

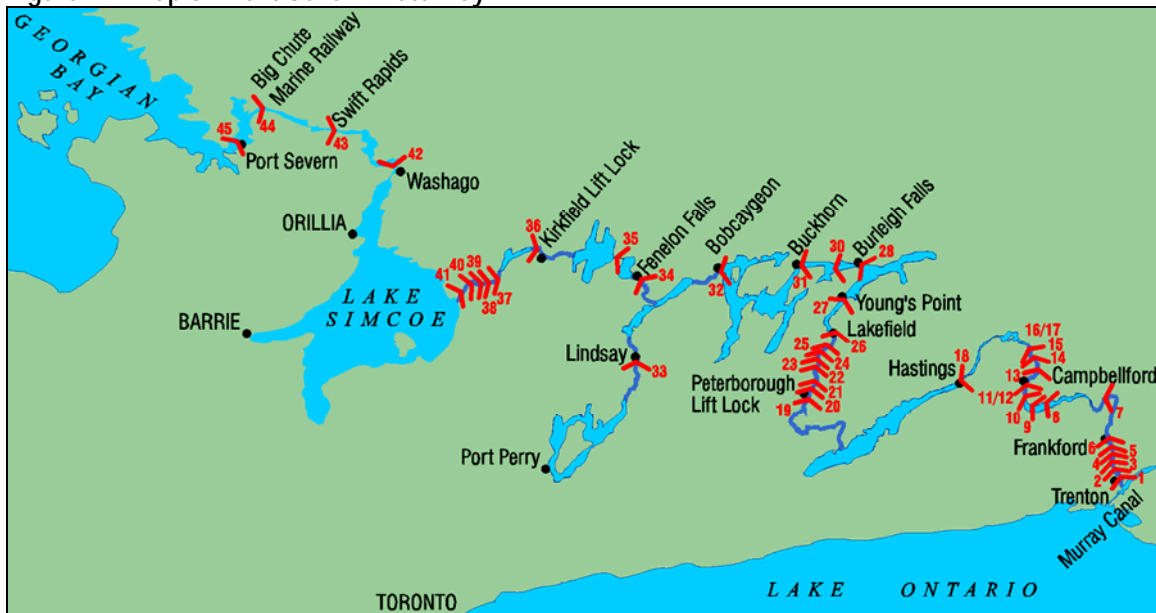
Area of Economic Impact	Ways in Which TSW Sustains or Contributes to Impact	Measure	Method of Calculating Measure and Key Assumptions Made	Estimates of Economic Activity in Waterway Corridor (rounded to nearest \$million)	Caveats
Permanent Residents	- Waterway-based communities provide attractive places to live (especially along Corridor)	expenditure	- Statistics Canada consumer expenditure data for base data	\$365 - \$421 million total (excluding housing costs and taxes), with a large but unspecified portion of this accruing locally	- may be slightly overstated as number of residences may be higher than actual (may include some residences located along waterways elsewhere in study area municipalities outside TSW corridor) - exact proportion of this expenditure that accrues locally (i.e. within municipalities along the Corridor) is unknown, but suspected to be large - estimates of property taxes based upon average assessed values and assumed representative tax rates for the corridor rather than community-specific rates
		property taxes paid	- Municipal Property Assessment Corporation of Ontario (MPAC) has provided data on the property taxes paid by seasonal residents	\$78 million (TSW) \$10 million (Haliburtons)	
Seasonal Residents	- the Waterway provides an attractive location and proximity to a variety of water-based recreational activities, thus making an ideal cottage or seasonal residence location	expenditure in Waterway Corridor	- based upon Muskoka Second Home study	\$134 - \$154 million annually spent on household goods and services \$161 – \$483 million annually for major purchases	- estimates of property taxes based upon average assessed values and assumed representative tax rates for the corridor rather than community-specific rates
		property taxes paid by residences in Corridor	- Municipal Property Assessment Corporation of Ontario (MPAC) has provided data on the property taxes paid by seasonal residents	\$240 million (TSW) \$51 million (Haliburtons)	
Power Generation	- through regulating and managing water levels, the TWC enables the generation of power in several locations along the Corridor - waterpower provides direct revenue to Parks Canada	number of megawatts generated annually and resulting sales generated	- based on Ontario Waterpower Association data and proxy value of \$50/MWh base on Hourly Ontario Energy Price (IESO)	- 18 waterpower facilities in the TSW account for 100 MW of installed capacity and annually produce 500 MWh of clean, renewable energy. - replacement value is \$300-\$400 million - renewable energy produced is \$25 million in production - there is an additional benefit of \$6 million in CO2 offsets	- value of production would more than double if facilities were constructed today based on province's policy initiatives to encourage distributed, renewable generation
Parks Canada Expenditures	- Parks Canada itself makes various expenditures throughout the Corridor	direct expenditure in Corridor	updated estimate of previous (1997) Parks Canada economic impact study	\$16.0 million	- updated estimate from 1997 economic impact study; several additional assumptions and estimates applied to generate direct expenditure figures; same economic multiplier parameters assumed (i.e. assumes economic structure of regions unchanged from 1997)
		total economic impact (with multiplier effect) of Parks Canada expenditure		\$37.1 million	

1.0 Introduction and Background to the Project

1.1 History of the Trent-Severn Waterway and the Role of the Current Panel

The Trent-Severn Waterway (TSW) has had a long and colourful history. Interest in an inland water route from Lake Ontario to Lake Huron dates from as early as 1785. The Waterway itself traces its origins to 1833 when the Imperial Government passed a bill to survey the route and construct locks, dams and canals at chosen sites. The Waterway proceeded in fits and starts and was not fully completed until 1920 when the first vessel, Irene, made the first pass through from Trenton to Port Severn which took 9 days. The Trent-Severn Waterway was designated a National Historic Site as early as 1929 and today is appreciated by more than 130,000 boaters each year and more than a million land visitors that visit its 44 lock stations. Hundreds of thousands of people live along the Waterway's shorelines in cities, towns and villages as well as cottage and rural residential developments. Eighteen generating stations produce green energy and more than 35 species at risk live along its length.

Figure 1.1: Map of Trent-Severn Waterway



The Trent-Severn Waterway National Historic Site of Canada is managed by Parks Canada. Parks Canada maintains and regulates water levels throughout the system, ensuring that specific levels are met at different points throughout the system, as well as smoothing out fluctuations so that peak highs flooding and lows are avoided. Parks Canada undertakes a number of activities to manage the waterway in a sustainable way including direct expenditures; maintaining the fish and wildlife habitat; maintaining water quality and water levels; provision of water to water utilities; and enabling hydro-electric power generation. The existing Trent-Severn Waterway Management Plan was completed in 2000. Parks Canada must now review the current management plan.

The challenges in implementing the current management plan have led to the realization that the Trent-Severn Waterway is at a crossroads. Infrastructure deterioration, changing visitor patterns, the Waterway's presence within a rapidly-growing Greater Golden Horseshoe, competing demands for water, and the quality of the Waterway's natural environment all offer challenges beyond the capacity of a single agency to manage.

These challenges have been recognized as impeding the potential associated with the Waterway. In the spring 2006, MP Bruce Stanton introduced the following motion (M-161) in the House of Commons which was passed unanimously on October 18, 2006.

That, in the opinion of the House, the government should consider the advisability of evaluating the future of the historic Trent-Severn Waterway, one of Parks Canada's National Historic Sites, and its potential to become: (a) a premier recreational asset; (b) a world-class destination for recreational boaters; (c) a greater source of clean, renewable electrical power; (d) a facilitator of economic opportunity and renewal in the communities along its 386 km length; and (e) a model of environmental sustainability.

The challenges and opportunities associated with maintaining and enhancing the Waterway as a sustainable contributor to Canada and Central Ontario has led the federal Minister of the Environment to appoint an independent panel to report on significant questions and opportunities associated with the Waterway's future. The panel is to report at the end of December 2007.

While originally the Waterway functioned primarily for marine navigation, it now serves a number of important functions including provision of a nationally significant cultural resource. In the future, it must continue to contribute in a sustainable manner to the lifestyle and recreational assets along its length, including provision of recreational opportunities, green power generation, protection of critical ecological, wildlife and water resources, support economically sustainable communities and tell compelling stories related to its history and cultural legacy.

To aid the independent panel in its review, a consulting study was commissioned to help it understand the economic contribution of the Waterway to Ontario and the communities along its route.

The study covers the entire Trent-Severn Waterway system, comprising water bodies affiliated with the main navigation corridor, including lakes Simcoe and Couchiching, as well as subsidiary navigation access/corridors into (and including) Stoney Lake and Lake Scugog. Certain economic contributions of the Haliburton reservoir lake system are also addressed in this study.

1.2 Purpose of this Project

The core purpose of this project is to examine the nature and magnitude of the contributions of the Trent-Severn Waterway (TSW) to the economic vitality of the various communities along its route. The communities affected are diverse and include:

- cities, towns and villages along the waterway and in the Haliburton Lakes
- rural communities and townships (e.g., agriculture)
- waterfront residential areas (permanent and seasonal) and in the Haliburton Lakes

The economic impact of boaters resulting from the expenditures of boaters along the route has been thoroughly documented as recently as 1999. However, the other areas of benefit conveyed by the waterway are less well known. For example, the TSW is a managed system of lakes and rivers which has several implications including attraction of water and land based tourists; attraction of businesses which are directly or indirectly related to the waterway; provision of residential opportunities created by the quality of life along the waterway; as well as activities generated by Parks Canada which has responsibility for water management as well as enabling water and hydro electric utility power generation. These additional benefits, beyond simple tourist expenditures, are less well understood or measured.

1.3 Framework for the Analysis

Note: This section should be read in conjunction with Figure 1.2 which is a conceptual depiction of the framework and is shown on the following page.

Figure 1.2: Proposed Preliminary Analytical Framework

A. Categories of Impact	B. Mechanism of Economic Impact	C. Results of Previous Assessments and Measures Used	D. Measures to be Used in this Study	E. Sources of Data for this Study	F. Measurement Caveats / Considerations	G. Expected Degree of Accuracy	H. Ways to Ensure Sustainability and/or Increase Benefits
1. Tourists coming to the area specifically to use the Waterway	Expenditures of boaters (water based visitors)						
	Expenditures of land-based visitors						
	Expenditures of visitors to lock stations						
	Festivals and events						
	Other						
2. Businesses located on or adjacent to Waterway because of Waterway	Property taxes paid by businesses						
	Employment of local businesses						
	Expenditures of local businesses						
	Other						
3. Residents located in community because of Waterway and related amenities	Property taxes paid by residents						
	Expenditures of local residents						
	Participation in community of local residents attracted by lifestyle						
	Other						
4. Parks Canada's water management activities	Permit safe boating*						
	Lessen flooding*						
	Provide water for recreational activities*						
	Protection of fish and wildlife habitat*						
	Maintenance of water quality*						
	Hydro-electric power generation						
	Provision of water to municipalities*						
	Other						

* supports activities in 1,2,3 above

The framework for analysis assumes four main ‘categories of impact’ (column A in Figure 1.2). These are considered to be the ‘sources’ through which economic benefit in the communities along the Trent-Severn Waterway, and beyond, is created. These categories of impact are listed below, as are the specific mechanisms of impact (column B in Figure 1.2), showing the way(s) in which they create economic benefit:

- 1) **tourists and visitors:** who come to the community to use or view the Waterway, and spend time and money during their stay. They may be boaters along the canal, or ‘land-based’ visitors coming to see the area. They are a category of impact in that their expenditures (on food, accommodation, gas, groceries, etc.) would not likely otherwise have been made in the communities along the TSW, as it is the Waterway itself that is the primary reason for them to come to the area.
- 2) **businesses:** these categories of impact are businesses who are located in the community as a direct or indirect result of the Waterway:
 - a) Businesses **directly relating to the Waterway** will be marinas, restaurants, bed and breakfast operations, etc., that are located on the Waterway to take advantage of the tourists and visitors who are drawn there.
 - b) Businesses that are **indirectly located in the area as a result of the Waterway** would be, for example, those that were established in the Waterway corridor because the owners / investors liked the ambience of the area just as a pleasing environment in which to do their business, or the location lends an ambience and cachet to their operation. Another indirect reason would be a business taking over an existing location that had previously been directly related to the Waterway (for example, a new business established in a converted warehouse that had formerly been part of a marina operation).

Like tourists, the expenditures of businesses on supplies and labour (i.e. the impact they have on job creation) will create economic benefit along the study corridor. Also, the property taxes paid by these businesses will help to provide funds for the operating budgets of those municipalities along the route. These businesses also generate provincial and federal corporation taxes including GST.

- 3) **permanent and seasonal residents:** residents who are attracted to live in the community because they are boaters and thus desire direct access to the Waterway, or they simply enjoy the scenery and/or ambience and/or prestige of being located on the Waterway are another category of impact. Their expenditures (on groceries, services, etc.) will create benefit in the same way as will the expenditures of tourists. As well, the property taxes paid by this group will help support the local municipalities along the route.
- 4) **Parks Canada:** the fourth category of impact is Parks Canada itself, which creates economic benefit in a number of areas. Some of their activities have direct

additional economic benefit (apart from those mentioned above); some of their activities simply support those previously stated.

Results of Previous Assessments and Measures Used

The results of previous assessments and measures used are represented as Column 'C' in Figure 1.2 (page 4). This aspect of the work reviewed any previous studies that were undertaken on the TSW that addressed that particular economic area, including any measures of impact(s) recorded. In the report which follows, the methodology used to estimate or record the impact has been identified, as well as any specific estimates generated. Also whatever caveats or limitations might apply to these previous estimates of economic impact or benefit are also addressed.

Measures Used in This Study

The next aspect of the Analytical Framework (column 'D' in Figure 1.2) outlines the specific measures of impact used in the present study. This draws upon the results of the background research and extends the measures used in previous assessments. In some impact areas, there has been no appreciable work done on the TSW, and measures may be suggested from other waterway and canal impact studies. In other cases, no previous work exists at all, and the present effort has had to 'invent' reasonable and meaningful measures. In any event, this section of the Analytical Framework discusses these considerations.

Sources of Data for This Study

The next aspect of the Analytical Framework (column 'E' in Figure 1.2) indicates the specific sources of data and the measurement techniques and methodologies that were employed in developing the estimates.

Measurement Caveats / Considerations

As the various methods and techniques used to estimate the economic benefits have been quite varied as well as based upon varying sources of data, they are not all equally reliable. Accordingly, in this section of the framework (column 'F' on Figure 1.2) we articulate the caveats and cautions that must be kept in mind when interpreting the data. These have been addressed in the detailed sections of the report.

Expected Degree of Accuracy

Wherever possible the study has attempted to quantify the order of magnitude of the impacts under consideration (column 'G' on Figure 1.2). This includes, where appropriate and possible, some indication as to the reliability of the estimate (e.g. +/- 25%) as well as the rationale for the variance.

Ways to Ensure Sustainability and/or Increase Benefits

One of the specific outputs of this study includes conclusions and recommendations on ways and means to ensure what types of economic benefits are most beneficial to the sustainability of Waterway communities and the Waterway itself, and how these benefits can be sustained if not increased. (These are shown conceptually in column H of the Analytical Framework, Figure 1.2).

1.4 Activities Undertaken

The main activities undertaken briefly included the following:

1. **Start-up Meeting** – to review project, understanding of objectives, deliverables, etc.
2. **Background Review** – of secondary sources including statistical data and previous studies undertaken of TSW as well as similar studies of other canal and waterway systems.
3. **Analytical Framework** – developed in order to outline the key factors involved in assessing the economic impact of the Waterway. These are discussed in Section 1.3 above.
4. **Project Design Brief** – developed and presented to the Steering Committee for review.
5. **Approval by Steering Committee** – The document was reviewed and approved by the Steering Committee.
6. **Identify Geographic Region of Activity** – This task involved conducting a high level review and analyses of distinct geographic regions along the Trent-Severn Waterway using secondary data sources.
7. **Consultation with Key Economic Development Organizations** – We contacted fourteen representative economic development and business organizations with jurisdictions along the Waterway by both email and regular mail to request their participation in an interview to solicit input on the importance of the Trent-Severn Waterway from an economic development and investment attraction perspective. Representatives of eight organizations responded to this request and were interviewed.
8. **Examine Experience Elsewhere** – We undertook an internet search and analysis of information for the following canals: New York State Canals; Ohio & Erie Canal; Blackstone Canal; and British Waterways, focusing on their economic

role, with an emphasis on the lifestyle economy, economic impacts, and the lessons learned applicable to TSW.

9. **Identify Range of Economic Impacts by Factor Grouping** – Using the Analytic Framework and economic impact model, the overall economic impact was constructed from each of the separate components. This included the quantification of direct expenditures, indirect economic impacts, and tax revenues. Some discussion of qualitative ‘lifestyle’ issues has also been included.
10. **Interim Report** – This document compiles the results of the research to date and will be reviewed by the Steering Committee.

1.5 Limitations and Caveats of the Analysis

The principal limitations of the analysis are typical for studies of this nature and arise because of the large geographic area involved. Much of the data are based on secondary sources such as Statistics Canada and provincial assessment data. The alternative approach based on primary surveying in all the communities would be an enormous task and, in the end, would not likely yield considerably different results. This type of approach is normal for this type of study. However, some types of data estimates are somewhat more conjectural than others and are duly noted where these arise in the detailed report.

A second caveat, is that we have erred on the side of conservatism throughout, which may in the end underestimate the gross economic impact to some extent. Again, this is consistent with economic impact assessments of this nature.

Some of the data involves best estimates. For example, we have tried to extract data for the corridor municipalities along the TSW. For example, Municipal Property Assessment Corporation (MPAC) which has provided data has included the following caveat with their data, “Any search criteria for 2 km distances within the corridor of the waterfront will be hard to extract as we will need to map the parcel fabric and extrapolate the distance from the corridor”.

Finally, where quantitative data do not exist, we have provided qualitative discussion of some of the economic impact variables, such as the Waterway’s impacts on lifestyle and quality of life. While these have not been quantified, their impacts should not be underestimated, as these qualitative dimensions are clearly important aspects of the Trent-Severn Waterway in terms of its impact on people’s day to day lives.

2.0 Geographic Distribution of Economic Activity

2.1 Corridor Description

The Trent-Severn Waterway extends 386 kilometers along communities in Ontario starting at Trenton in the east and ending at Georgian Bay in the west. The Waterway includes 45 locks and 84 dams. This area is illustrated in Figure 2.4 on the following page. The overall corridor has been organized into four geographic segments to facilitate analysis for this study.

Sector 1 (Trenton to Lakefield) is the most easterly section of the Trent-Severn Waterway corridor. The TSW starts where the Trent River flows into Lake Ontario, at the Bay of Quinte, and extends to the western reaches of Rice Lake. It includes the Trent River and Murray Canal. This segment of the TSW includes 26 locks and 26 dams. Municipalities along the TSW corridor in Sector 1 include Canvan-Millbrook-North Monaghan, Otonabee South Monaghan, Hamilton, Asphodel-Norwood, Alnwick/Haldimand, Trent Hills, and Quinte West.

Sector 2 (Lakefield to Lake Simcoe (east side)) includes numerous lakes and rivers in the Kawartha Region. This geographic sector of the TSW includes 14 locks and 24 dams. Municipalities along the TSW corridor in Sector 2 include Douro-Drummer, Kawartha Lakes, Scugog, Galway-Cavendish and Harvey, Smith-Ennismore-Lakefield, and Peterborough.

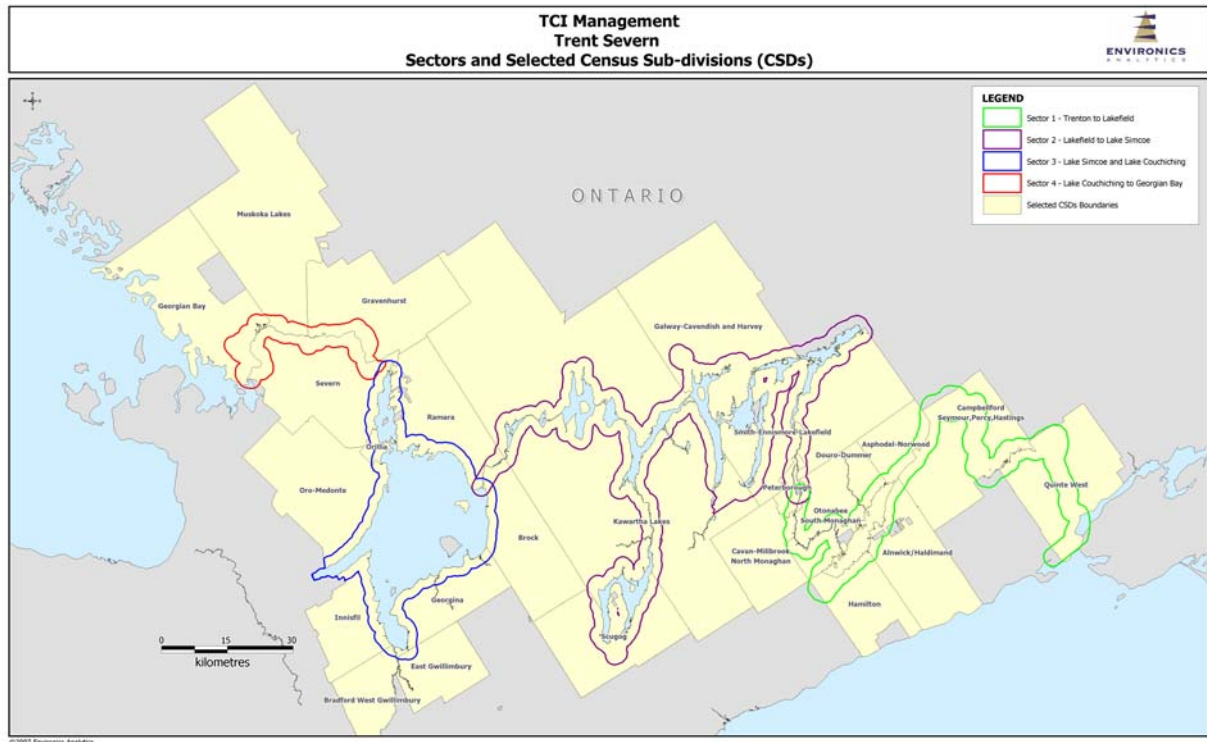
Sector 3 (Lake Simcoe and Lake Couchiching) flows into Lake Simcoe, which is by far the largest body of water along the system. Lake Simcoe connects the Talbot River portion of the system in the east with Lake Couchiching to the north. This segment of the Waterway has no locks but does have 7 dams. Municipalities along the TSW corridor in Sector 3 include Severn, Ramara, Orillia, Oro-Medonte, Innisfil, Bradford West Gwillimbury, East Gwillimbury, Georgia, and Brock.

Sector 4 (Severn River to Georgian Bay) of the Trent-Severn Waterway flows along the waters of Sparrow Lake, Severn River and Gloucester Pool. Municipalities along the TSW corridor in Sector 4 include Georgian Bay, Muskoka Lakes, Gravenhurst and Severn. Sector 4 includes 4 locks and 27 dams.

An impact corridor has been defined as lands generally within 2 kilometers radius of the Trent-Severn Waterway (see Appendix C.1).

While the Haliburton Highlands are not located along the TSW corridor, they are within the watershed area, which includes reservoir lakes and 45 dams. Given the importance of the Haliburton Highlands watershed to the TSW, relevant information is provided where readily available.

Figure 2.1: Trent-Severn Waterway and Four Geographic Segments



2.2 Corridor Economic Characteristics

An overview of the distribution of economic activity along the TSW corridor is provided in this section. Estimates of associated economic impacts are discussed in subsequent chapters of this report.

The city of Barrie has been excluded from the analysis as it was determined that given the size and various factors that influence growth in Barrie, the impact of proximity of the Trent-Severn Waterway to that area could not be determined.

First Nations

First Nations settlements within or in proximity to the TSW corridor include: Curve Lake First Nations and Hiawatha First Nations (both close to Peterborough); Scugog First Nations; Georgia Island First Nations; and Rama First Nations (close to Orillia). A summary of population, housing and density data for these First Nation areas is provided in Table 2.1.

Table 2.1: First Nations Population, Housing and Density Data

Population and dwelling counts	Curve Lake	Hiawatha	Chippewas Georgina Island	Mnjikaning (Rama)	Scugog Island
Population in 2006	1,060	483	353	846	NA
Population in 2001	945	297	273	597	NA
Population Change (%)	12.2	62.6	29.3	41.7	NA
Total private dwellings	559	195	548	331	NA
Land area (square km)	6.6	8.1	14.6	10.7	NA

Source: Statistics Canada, Community Profiles, 2006

Population

The 2007 population level of municipalities crossed by the Corridor is estimated at 539,756, which represents an increase of nearly 11% from 2001. The most populated portion of the corridor communities is within Simcoe County. Much of the growth in that area has been driven by the County's proximity to the Greater Toronto Area and relatively good highway access along Highway 400. Population residing within the impact corridor represents about 54.5% of the population within adjacent communities. A summary of population levels by geographic segment is provided in Table 2.2.

Table 2.2: 2007 Population in Municipalities along the Trent-Severn Waterway

Geographic Segment	Municipalities	Impact Corridor	Impact Corridor/ Population
1. Trenton to Lakefield	96,494	71,441	74.0%
2. Lakefield to Lake Simcoe (east side)	227,500	135,644	59.6%
3. Lake Simcoe and Lake Couchiching	205,711	112,160	54.5%
4. Severn River to Georgian Bay	32,469	871	2.7%
Total *	539,756	293,995	54.5%

* sum of segments is higher than total due to overlap of segments

Source: Socio-economic Profiles for Trent-Severn; Statistics Canada

Single Detached Waterfront Residences

It is estimated that 16,437 single detached homes (not including seasonal dwellings) face onto (i.e. have frontage on) waterway areas in the TSW corridor communities (Source; Municipal Property Assessment Corporation). A large portion of these properties are located in Sector 2 (Lakefield to Lake Simcoe (east side)), accounting for 6,871 properties (42%), with the Kawartha Lakes area accounting for over half of these properties. Sector 3 (Lake Simcoe and Lake Couchiching) also includes a relatively large portion of waterfront homes, accounting for 4,615 (28%).

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It is estimated that 2,808 single detached homes (not including seasonal dwellings) are located along waterways in the Haliburton Highlands, with the largest numbers of waterfront single detached homes (over 700) being located in Milden Hills Township and Dysart et al. Township, followed by Highlands Municipality Township (343).

In the future, it is expected that there will be an increase in the number of year-round waterfront residences in the TSW and Haliburton Highlands as cottages are renovated to year round homes for retirees and to satisfy the lifestyle demand of baby boomers (particularly self-employed professionals who conduct business remotely from their clients).

Seasonal Residences (Cottages)

It is estimated that 30,667 seasonal residences are located along waterway areas in the TSW corridor communities, with an additional 1,521 seasonal residences located close (second tier) to the water, and 38 boathouses with a residence above (Municipal Property Assessment Corporation).

The Haliburton Highlands also include a significant number of seasonal residences, with an estimated 16,186 seasonal residences along the water and 343 seasonal residences located close (second tier) to the water, and 5 boathouses with a residence above (Municipal Property Assessment Corporation).

Key findings on trends for recreational seasonal properties is provided below based on information provided in the *2006 Royal Lepage Recreational Property Report*:

East Kawarthas

- An emerging trend is an increase in the number of retirees interested in purchasing a second home on the waterfront in East Kawarthas.
- The average price of a standard waterfront, land access property in 2006 was \$250,000 to \$350,000; a standard water access cottage ranged from \$200,000 to \$300,000.
- Demand exceeds supply.

West Kawarthas

- The West Kawarthas has become a popular holiday destination which is an affordable alternative to the Muskokas; it is beginning to attract a large number of baby boomers.
- The average price of a standard waterfront, land access property in 2006 ranged from \$250,000 to \$1 million; a standard water access cottage ranged from \$275,000 to \$400,000.
- The supply of available cottages is low and demand is high.

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Muskoka

- The Muskokas are viewed as a major recreation destination, attracting a wide range of demographic segments. Buyers in their 30's are purchasing cottages in the area, while baby boomers are purchasing four season retreats for their retirement.
- The price range for a waterfront land access cottage in 2006 started at around \$240,000 for an 800 to 900 square foot seasonal cottage on a small lake. Prices extended up to \$7 million for a 4,000 to 5,000 square foot home along the region's largest lakes.
- Prices in the Township of Muskoka Lakes and Gravenhurst are more affordable. In 2006, a standard waterfront, land access cottage ranged from \$240,000 to \$475,000 in Muskoka Lakes and from \$215,000 to \$425,000 in Gravenhurst.

South Muskoka

- The South Muskoka area now rivals Northern Muskoka as a popular recreational area, and is attractive to buyers as a result of its easier access to Toronto; the area is attracting Toronto baby boomers interested in properties that have the same level of amenities as their city property.
- The average price of a standard waterfront, land access property in 2006 ranged from \$294,000 to \$375,000; a standard water access cottage ranged from \$223,000 to \$278,000.

Georgian Bay

- Georgian Bay is attractive as a cottaging area given its greater proximity to the GTA and lower prices compared to Muskoka.
- The average price of a standard waterfront, land access property in 2006 ranged from \$400,000 to \$1 million; a standard water access cottage ranged from \$100,000 to \$400,000.

Haliburton Highlands

- Haliburton Highlands is a more affordable location compared to the Muskokas, and is attractive to buyers looking for a 'wholesome and friendly' atmosphere; typical buyers are double income professionals, couples, or retirees looking for a four season property.
- The average price of a standard waterfront, land access property in 2006 ranged from \$175,000 to \$600,000; a standard water access cottage ranged from \$120,000 to \$275,000.

Source: 2006 Royal LePage Recreational Property Report

Tourist Facilities and Attractions

Tourist Accommodations

It is estimated that 238 tourist public and private accommodation facilities are located along the TSW. This includes 56 camping only facility, 61 facilities offering both camping and fixed roof accommodations, and 121 fixed roof accommodations. Many of these are small operations. About 54% of the total campground sites and accommodation units are located in Sector 2 (Lakefield to Lake Simcoe), which includes properties along the Kawartha Lakes. About 21% are situated in Sector 1 (Trenton to Lakefield). Data on tourist accommodations is provided below.

Table 2.3 Tourist Accommodations Along the TSW

Sector	Total Facilities	Campsites	Fixed Roof Accom. Rooms	Total Units	Units by Sector
1. Trenton to Lakefield	53	2,979	992	3,971	21.4%
2. Lakefield to Lake Simcoe (east side)	135	8,366	1,596	9,962	53.6%
3. Lake Simcoe and Lake Couchiching	22	2,540	401	2,491	15.8%
4. Severn River to Georgian Bay	28	1,427	269	1,696	9.1%
Total	238	15,312	3,258	18,570	100%

Source: Parks Canada, 2007

It is estimated that tourist accommodation in the Haliburton Highlands consists of 51 facilities. Collectively these provide several hundred rooms and 1,008 campsites.

Marinas

It is estimated that 342 commercial marinas are located along the TSW with an estimated 11,696 slips. About half of the slips are located Sector 3 (Lake Simcoe and Lake Couchiching). Sector 2 (Lakefield to Lake Simcoe (east side)) also accounts for a relatively large portion at around 33%. Data on marinas along the TSW is provided in Table 2.4.

Table 2.4 Marinas Along the TSW

Sector	# Marinas	# Slips	Percent Slips by Sector
1. Trenton to Lakefield	95	985	8.4%
2. Lakefield to Lake Simcoe (east side)	175	3,876	33.1%
3. Lake Simcoe and Lake Couchiching	45	5,827	49.8%
4. Severn River to Georgian Bay	27	1,008	8.6%
Total	342	11,696	100%

Source: Parks Canada, 2007

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In addition, there are 16 marinas located in Haliburton County.

Recreation Features

Numerous recreational areas and parks are situated along TSW Corridor. Eleven provincial parks are situated along the TSW. In addition, seven conservation areas are located along the TSW, however, it is noted that these are generally not open to public access.

Festivals and Events

Festivals and events along the waterfront have a significant impact on local economies in two ways: (1) they attract tourists, who create positive economic benefit, and (2) they are a key element of the ambience of their host communities, which creates a positive image and thus indirectly attracts business and resident investment.

Some of the festivals and events along the TSW include:

- Campbellford BIA Waterfront Festival (Sector 1)
- Hastings Melodies on The River (Sector 1)
- Frankford Riverfest (Sector 1)
- Walleye World 2007 Live Release Fishing Tournament (Sector 1)
- Fiddlers on the Trent (Sector 1)
- Festival of Lights (Sector 2)
- Greenwing Fishing Derby (Sector 2)
- Peterborough Dragon Boat Festival (Sector 2)
- Juniper Island Art Festival (Sector 2)
- Chemoy Lake Triathlon (Sector 2)
- Centre of Power Boat Show (Sector 3)
- Mariposa Festival (Sector 3)
- Orillia Perch Festival (Sector 3)
- Turf and Surf Waterfront Festival (Sector 3)
- Barrie Dragon Boat Festival (Sector 3)
- Port Of Orillia hosts events, including their popular 'Christmas In June', with more than 200 decorated boats (Sector 3).

Corridor Businesses

The impact corridor does not appear to attract a significantly different concentration of specific types of businesses compared to Ontario as a whole. The only industry sectors where there was a difference of two or more percentage points in 2005 between the portions accounted for in the Corridor compared to Ontario are:

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- Construction, which accounted for 9.2% and 10.6% of businesses in the Impact Corridor and Adjacent Municipalities respectively; this may be compared to 6.6% for Ontario;
- Legal, accounting, consulting and business services which accounted for about 11.9% and 11.0% in the Impact Corridor and Adjacent Municipalities respectively; this may be compared to 15.1% for Ontario; and
- Hotels, theatres, museums, galleries and recreation services accounted for about 6.0% of businesses in Impact Corridor and Adjacent Communities compared to 4.0% at the provincial level.

A slightly higher portion of small businesses were reported in the corridor and adjacent municipalities relative to Ontario overall: around 60% of businesses in the corridor and adjacent municipalities are reported as having 1 to 4 employees. This may be compared to 55% for Ontario overall.

The distribution of businesses by type in all sectors except Sector 4 (Couchiching to Georgian Bay) appears to be quite similar. In this geographic sector, there is a higher portion of businesses associated with tourism and development.

Additional data is available in the *Socio-Economic Profiles of the Trent Severn*, provided to the Panel under separate cover.

3.0 Tourist Economic Impact

3.1 Economic Impact Approach and Model

In 1998, the Canadian Tourism Research Institute (CTRI) in association with the Conference Board of Canada undertook an extensive study of the economic impact of the Trent-Severn Waterway. This was a very comprehensive assessment of the economic impact of tourists drawn to the area by the Trent-Severn Waterway and the benefit of their expenditures to the province of Ontario overall, and the municipalities along the route of the corridor (an area called the ‘Trent-Severn Corridor’). The study was based upon extensive surveys of the expenditure patterns of tourists (both boaters and land-based visitors to lock facilities), boating traffic counts through the locks, and estimates of the numbers of visitors to lock stations. The methodology employed was the Conference Board of Canada’s TEAM economic impact model, which has been used in a wide range of tourism-related economic impact assessments elsewhere in the province.

The budget and level of resources available to the present study were not sufficient to replicate this 1997 analysis. Accordingly, the CTRI study was used as the core methodology (basis), and updates of boater traffic and land-based lock station visitors, as well as updated expenditure estimates, were used to estimate the order of magnitude of current economic impact. As well, a shortcoming of the 1997 study was redressed: the lack of accounting for tourist boating traffic **between** (but not passing through) lock stations and within the large lakes (e.g. Lake Simcoe) that are part of the Trent-Severn Waterway system, but not directly on the lock station route. (The 1997 study looked only at boating traffic passing through lock stations.)

Following the methodology of the aforementioned previous study, the approach estimates economic impact from two types of tourist: **boaters** (i.e., those passing through locks) and **land-based visitors**. Each is dealt with in turn.

3.2 Expenditures of Boaters

Positive economic impacts from boaters result from their direct expenditure and the re-circulation of their expenditures in the local economy. As mentioned, the present study did not envisage undertaking a separate economic impact assessment for the TSW to measure boater expenditure (as this is a very expensive undertaking and the study budget did not allow for this). Rather, the methodology recommended will be to update the previous economic impact estimates using a simplified procedure.

There are two types of boater who will contribute to economic impact in the area: (1) seasonal residents who have boats and engage in boating activity, and (2) transient boaters (i.e. tourist using boats who are not resident in the area). The procedure to develop a reasonable order-of-magnitude estimate of the numbers of boats using the Trent-Severn waterway system and related boater direct expenditure can be developed by means of the following procedures:

For Seasonal Boaters:

- first estimate the number of seasonal households on the waterway (call this A)
- next, estimate the average local boat-related expenditure per seasonal household per boat (call this B)
- finally, estimate total boat-related expenditure (multiply A times B) to develop an estimate of total boat-related expenditure by seasonal boaters

For Transient Boaters:

- first estimate the number of transient slips (i.e. catering to tourist boaters) in marinas and related establishments on the Waterway (call this A)
- second, estimate the economic activity per transient slip (call this B)
- third, estimate total transient boat-related expenditure (multiply A times B) to develop an estimate of total boat-related expenditure by transient boaters

These two estimates are then added together and the result is an estimate of total direct boating expenditure in the TSW. It is important to note that this will not result in an exact or precise number, but rather an order-of-magnitude estimate. This calculation of direct boater expenditure is then input into the economic impact model (along with estimates of expenditure of land-based tourists) to derive an estimate of total tourist expenditure.

3.2.1 Estimated Seasonal Boater Expenditure

Following the procedure outlined above, the following estimate of seasonal boater expenditure is developed:

Step in the Calculation	Estimate	Source
A) Estimate the number of seasonal households on the waterway	36,226 residences	see section 5.3 of Report
B) Estimate the average annual boating related expenditure per seasonal household	\$1,800 per year	Muskoka Second Home Study estimated weekly expenditure (in 2004) of \$167 per week on marina services – updated to 2006 (\$180) and assuming a 10-week season, this would approximate \$1,800 per household
c) Estimate boat-related annual expenditure by seasonal residents (A*B)	\$65.2 million	

3.2.2 Estimated Transient Boater Expenditure

Following the procedure outlined above, the following estimate of transient boater expenditure is developed:

Step in the Calculation	Estimate	Source
A) Estimate number of transient slips on Waterway	2,000 transient slips	Information from <i>The Cruising Guides (The Trent-Severn and Lake Simcoe³)</i> indicates that there are 206 marinas or hotel/cottaging operations along the Trent-Severn Waterway offering transient boater accommodation. In total, we estimate that there are just under 2,000 transient boater slips available to tourist boaters (our actual count was 1,996).
B) Estimate average direct expenditure per slip	\$5,000 per slip	Information from the Ontario Marina Operator's Association estimates \$5,000 local expenditure per slip (source to be confirmed)
c) Estimate boat-related annual expenditure by transient boaters (A*B)	\$10.0 million	

Economic Impact Model: The final step was to run the estimates of tourist boater expenditure (for seasonal and transient boaters in all categories) through the Conference Board of Canada's TEAM economic impact model, emulating the results of the 1997 study:

³ Formula Media Group, 2006.

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	1997 Original Study	Updated 2006 Estimate
Expenditure from Seasonal Boaters (\$millions)	n/a	\$65.2
Expenditure from Tourist (Transient) Boaters (\$millions)	n/a	\$10.0
Total Boater Direct Expenditure (\$millions)	\$28.2	\$75.2
Multiplier Effect	1.99	1.99
Total Economic Activity in Ontario (\$millions)	\$56.2	\$149.6
Total Economic activity in Trent-Severn Corridor (\$millions)	\$39.8	\$105.9
Total Job Creation in Ontario	913	2,429
Total Job Creation in Trent-Severn Corridor	786	2,091

There are a number of considerations that must be borne in mind when interpreting the estimates resulting from this methodology. These include:

- the assumption that basic expenditure patterns of boaters has not changed significantly in the last decade
- the assumption that behaviors of boaters when using the TSW system has likewise not changed significantly in the past decade (particularly factors that would alter the average number of locks used per trip such as overall trip length [distance and time])
- the structure of the economy in the Trent-Severn region has not changed significantly (which could be expected to then change the parameters governing the nature and impact shown in the economic impact model)

Furthermore, there are several reasons to suspect that the estimates of boater expenditure and economic impact are generated through this methodology may be conservative. The primary reason for this is that the TEAM economic impact model used in the 1997 study was built using the economic interrelationships extant at the time in the Trent-Severn area – since then, the economies of the communities in this regions have grown and developed – this likely implies that the local economies have become more intertwined, meaning that the multipliers (which measure the extent to which businesses in the area purchase goods and services from one another) have become larger, which would result in a greater overall impact.

In light of the foregoing it is very difficult to ascribe a specific degree of accuracy to the figure calculated here, other than to state that it is indeed likely to be a minimum.

3.3 Expenditures of Land-Based Visitors

In an identical way to the creation of economic impact from boaters' expenditures, the expenditure of land-based tourists will also create economic benefit through the recirculation of money (that otherwise would not be spent in the Corridor) within the region. The *TSW Economic Impact Study Final Report* estimated the impact of the spending of land-based tourists based upon a 1996 survey of lock visitors. Expenditure figures were then updated to 1997, in order to be consistent with the boating expenditure data. Accordingly, the study identified the following dimensions relating to the nature of the economic impact resulting from land-based tourists expenditure in 1997:

- total land-based visitors to lock stations were estimated as 1,442,388 – this was very much a ballpark count, as specific ‘turnstile clicks’ are not recorded at all lock stations, nor are ‘heads counted’ on a comprehensive basis – it is our understanding that in large part the estimate was based upon an average count of cars in the parking lot on typical weekends and weekdays, multiplied by the estimated average number of visitors per carload – this thus generates an estimate that is likely to be the correct order of magnitude, but by no means an exact count
- the average expenditure attributed to the lock station was estimated as a percentage of the time in the day that the average visitor spends at the lock - the procedure worked as follows:
 - it was assumed that the average time in the day that the person spent on recreational activities was 6 hours
 - the survey data showed that on average land-based visitor parties spent 1.85 hours visiting a lock station, or 30.8% of their recreational time in that day
 - average daily expenditure during their day was \$23.86, so 30.8% of this expenditure was assumed to be attributable to the lock station (or, the TSW overall)) (= \$7.35)
- an average expenditure of \$7.35 times the estimated count of 1,442,388 land-based lock visitors is \$10,650,000 (rounded)

As was the case with boater economic impact, the present study did not envisage undertaking a separate economic impact assessment for the TSW to measure land-based visitor expenditure. Rather, as before, the methodology recommended was to update the previous economic impact estimates through the following procedure:

- a) first, the average expenditure per land-based visitor was updated (i.e. adjusted for inflation) by the Consumer Price Index (CPI), which resulted in a more reasonable estimate of current (2006) expenditure per boater – the specific steps in the analysis were:

- the 1997 Trent-Severn Boater survey measured average expenditure per land-based tourist visitor that day during their trip to the lock as \$7.35
- the consumer price index for Ontario in 1997 was 107.9 (using a base where 1992 = 100.0); in 2006 the CPI index for Ontario was 130.7 (again, with 1992 as the base)
- updating the 1997 expenditure per land-based tourist visitor to 2006 using the CPI implies per visitor expenditure of \$8.90

b) next, the updated average expenditure per land-based tourist, was multiplied by the number of land-based tourists using the Waterway (here, the 2005 count – the most recent available – was considered to be representative of the 2006 count) – this resulted in an estimate of the total expenditure from land-based tourists along the Waterway – the process used in the 1997 study, and the comparable and updated data for the 2006 estimate, were as follows:

	1997 Original Study	Updated 2006 Estimate
Land-Based Visits to Lock Stations	1,448,388	1,352,772 (from recent Parks Canada data)
Average expenditure per land-based Visitor attributable to the TSW	\$7.35	\$8.90
Total Implied Expenditure	\$10.650 million (rounded)	\$12.040 million (rounded)

c) as with the calculation of the economic impact of boaters, the final step was to run the estimates of total boater expenditure through the Conference Board of Canada’s TEAM economic impact model, emulating the results of the 1997 study:

	1997 Original Study	Updated 2006 Estimate
Total Land-Based Visitor Expenditure (\$millions)	\$10.650	\$12.040
Multiplier Effect	1.82	1.82 (assumed same as 1997 study)
Total Economic Activity in Ontario (\$millions)	\$19.400	\$23.369
Total Economic activity in Trent-Severn Corridor (\$millions)	\$13.000	\$15.660
Total Job Creation in Ontario	299	360
Total Job Creation in Trent-Severn Corridor	250	301

There are a number of considerations that must be borne in mind when interpreting the estimates resulting from this methodology. As with tourist boater expenditures, these are likely to have the effect of making this estimate a conservative one. These include:

- the assumption that basic expenditure patterns of land-based visitors has not changed significantly in the last decade – in fact, recent trends (based upon anecdotal evidence) have likely acted to increase the 1997 figure at a rate

greater than the CPI (a greater number of larger gatherings (e.g. family reunions, picnics) increasingly coming to the lock facilities; groups staying a longer period of time (thus spending more money); etc.) – these trends are likely to have increased the average per capita land-based visitor expenditure figure somewhat

- the assumption that the structure of the economy in the Trent-Severn region has not changed significantly is likely to be a conservative one – if anything, with increasing population and business growth in the Waterway Corridor (see Appendix C) the interconnection between businesses in the Corridor is likely greater (meaning a larger multiplier and thus greater overall impact)

There are several additional reasons to suspect that the estimates of land-based expenditure and economic impact are generated through this methodology may be conservative. The reasons for this are:

- the process measured only land-based visitors who show up at lock stations, and does not measure those drawn to the Waterway for other recreational activities but who do not visit a lock station
- the methodology for estimating the numbers of land-based tourists is very rough, and inconsistent from lock station to lock station – there is no way of determining whether it is likely to result in an underestimate or overestimate of the actual visitation
- the trends mentioned previously may lead to a conservative estimate based upon this approach

3.4 Economic Impacts Measured

Summing the impacts from boating tourists and land-based visitor tourists, we derive the total estimates of total tourist impact:

	Impact from Boating Tourists	Impact from Land-Based Visitors	Total Impact from Tourists
Total Expenditure (\$millions)	\$75.2	\$12.0	\$87.2
Multiplier Effect	1.99	1.82	-
Total Economic Activity in Ontario (\$millions)	\$149.6	\$23.4	\$173.0
Total Economic activity in Trent-Severn Corridor (\$millions)	\$105.9	\$15.7	\$121.6
Total Job Creation in Ontario	2,429	360	2,789
Total Job Creation in Trent-Severn Corridor	2,091	301	2,392

It must be reiterated that these economic impact estimates from tourism are very much order-of-magnitude in nature, and, if anything, quite likely to be conservative as the assumptions made, throughout the analysis, were geared towards erring on the low side of estimation of the tourism impact.

3.5 Recreational Fishing

Another recreational and tourist-related activity that generates a huge economic impact along the Waterway is recreational fishing. A 1995 Report on the economic benefits of various activities on Lake Simcoe (*Lake Simcoe – Our Waters, Our Heritage*) by the Lake Simcoe Environmental Management Strategy Implementation Program, estimated the expenditure on recreation-related fishing in 1994 to be \$112.3 million. That figure today (updated according to the Consumer Price Index) would be approximately \$139.3 million (the increase in the CPI over the period has been approximately 24%). Another report undertaken by the Ontario Federation of Anglers and Hunters, estimated the expenditure of recreational fishing on Rice Lake at \$50 million⁴. Still another estimate by the OFAH estimates that the amount of fishing activity on the rest of the Trent-Severn system is somewhere between Lakes Simcoe and Rice⁵. Adding these three together thus gives a very rough estimate of total fishing activity:

A) Estimated Expenditure on Recreational Fishing on Lake Simcoe	\$139.3 million
B) Estimated Expenditure on Recreational Fishing on Rice Lake	\$50 million

⁴ Source: Ontario Federation of Hunters and Anglers, xxx

⁵ Actually, according to this estimate, Lake Simcoe was the 6th most heavily-fished lake in the province, and Rice Lake was the 8th. The rest of the Trent-Severn Waterway was judged as 7th.

C) Estimated Expenditure on Recreational Fishing on the rest of the TSW (assume halfway between A and B)	\$90 million
Total Estimated Expenditure	\$280 million (rounded)

A second approach is to use the Lake Simcoe estimate as an indicator for the entire system. Here we take the estimate for Lake Simcoe, and discount by 25% to remove the estimated value of ice fishing⁶. This gives a value of approximately \$104 million for recreational fishing that is not ice fishing. The next step recognizes that the population of communities in the Lake Simcoe / Lake Couchiching segment of the Waterway (segment #3) is 38.1% of the population of the entire corridor⁷. Assuming that the ratio of total non-winter fishing activity (undertaken by permanent and seasonal residents, as well as tourists) to permanent resident population was the same all along the Waterway, then the value of fishing activity on Lake Simcoe would be 38.1% of the value of fishing activity along the entire Corridor. By this logic, non-winter fishing activity along the entire TSW is reckoned to be on the order of \$274 million. Adding back the impact of ice fishing on Lake Simcoe that was removed in the first step (\$35 million) gives a value of \$309 million. This may be a slight underestimate in that it does not account for expenditure associated with ice fishing anywhere along the TSW with the exception of Lake Simcoe, so the actual upper estimate of the value of fishing activity may be somewhat higher even than this.

This procedure thus gives a reasonable range of the value of recreational fishing as being somewhere between \$280 and \$309+ million. As an order of magnitude estimate, \$300 million is thus a reasonable figure to use. Of course, the value of recreational fishing as measured by this procedure overlaps considerably with the estimate of tourism expenditures, as calculated in the preceding section of this analysis. Expenditures on recreational fishing will be made not just by tourists, but by seasonal and permanent residents as well – in fact, most of the expenditure is likely made by permanent residents in the communities along the Corridor, as they are the largest group in this regard. The estimate thus will overlap considerably with our subsequent estimates of resident impact (Section 5 of the Report).

3.6 Camping Expenditures

Still another recreational and tourist-related activity that generates economic benefit along the Waterway is camping. (Like recreational fishing, camping is an activity that permanent residents of the Waterway will engage in as well as tourists – unlike other forms of accommodation such as hotels, which are much more oriented towards tourists [and which are thus captured in the estimates of tourism economic impact, calculated above]).

⁶ Based upon information contained in the aforementioned Lake Simcoe Environmental Management Strategy study.

⁷ See Table 2.2. The estimated 2007 population of the Lake Simcoe / Lake Couchiching segment is 205,711 – 38.1% of the estimated population of 539,756 along the entire Corridor.

Elsewhere in this Report the number of campsites in the Corridor is estimated as 15,312. The expenditure associated with this activity can thus be estimated as follows:

Step in the Estimation Procedure	Number	Comment
A) Number of active campsites in the Waterway Corridor	15,312	from TSW Panel counts
B) Potential number of camper-nights	1,531,200	assume a 100-day camping season (therefore this = A*100)
C) Average campground occupancy	33%	from OPCA figures
D) Total number of camper-nights in the Corridor	505,300	equals B * C
E) Average daily expenditure per camping party	\$60	from OPCA figures
F) Estimated camping-related expenditure	\$30.3 million	equals D * E

Adding the 1,008 Haliburton campsites adds \$2 million to this figure.

As with the estimated value of recreational fishing, there will clearly be overlap here with the estimates of tourism economic impact as well as the expenditures of permanent and seasonal residents.