

FINAL REPORT

Greater Saint John Regional Task Force Analysis

Submitted to:

Environment and Local Government, NB

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January 13, 2020

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EXECUTIVE SUMMARY

Introduction

The Saint John Region local governments as well as Local Service Districts have shared goals for economic growth and cost-effective service delivery. The Greater Saint John Regional Task Force is examining opportunities for improvement to shared service delivery and equitable cost-sharing mechanisms. This will enhance the sustainability of Greater Saint John financial performance and community development.

Purpose and scope

This report responds to a key information need set out by the Regional Task Force, specifically:

- **Industry cost-recovery analysis** – comparing industrial property costs for protective services, road maintenance, and adverse effects on municipal revenues, versus the municipal tax revenues generated from the industrial tax base.

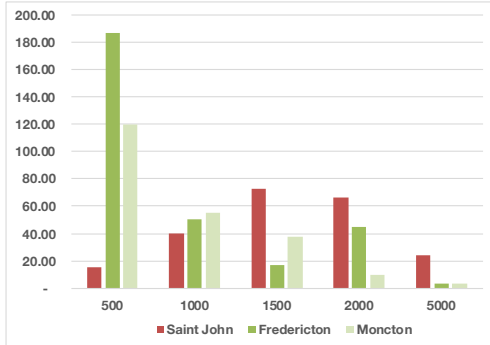
Estimates are required for this analysis therefore sources and methods are provided throughout for transparency. A conservative approach to avoid overstating the industrial cost estimates has been taken throughout.

Cost-recovery analysis results

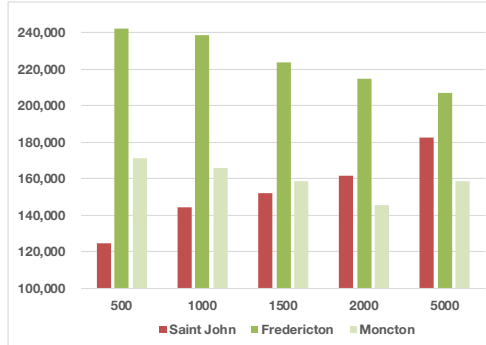
Saint John plays a unique role in hosting a number of heavy industrial properties that, although they are important contributors to the regional and provincial economies, they also contribute to road costs, emergency response costs, and reduced values for nearby residential properties.

- **Heavy trucking** - is recognized for having a disproportional impact on public costs related to roads and traffic management. The costs related to heavy industry is estimated at \$2,480,625 per year.
- **Fire services** - incur some added costs as SJEMO plans and prepares for all emergencies in the city and an estimated \$285,000 (40%) of effort focuses on industrial hazards. About 5.2% of the Fire Department in-service vehicle hours are for responses to industrial incidents (2018), with an associated cost of about \$1.4 million. The combined costs of these fire service items is about \$1.7 million.
- **Properties values** – in most cities values are highest near the centre and values decline moving away from the centre. In Saint John residential property values are lowest near the city centre and rise moving outwards and beyond the city border. The figures below show Saint John property values (red bars rising to the right) versus Moncton and Fredericton property values (green bars declining to the right) indicating opposite patterns moving out from the city centres.

Property values in Saint John, Fredericton, and Moncton by distance from centre
Vacant properties (\$/m²)



Single Unit properties (\$/property)



This results in lost annual property tax revenues for the City of Saint John that are estimated at \$32 million per year. Some downtown residential properties have been converted to vacant land resulting in a near total loss of tax revenue to the City. Note that this does not include all properties affected and represents a lower bound estimate potential missed tax revenues. Heavy industry properties on the other hand contribute about \$12 million in annual tax revenue.

1. INTRODUCTION

1.1 Background

The Saint John Region is a key contributor to the provincial economy by generating 20 to 25% of provincial GDP¹. In the past ten (10) years approximately 28% of the provinces non-residential construction has taken place in Saint John¹.

The Greater Saint John Regional Task Force is examining opportunities for improvement to shared service delivery and equitable cost-sharing mechanisms. This will enhance the sustainability of Greater Saint John financial performance and community development. There is a pressing need for economic analysis to support on-going discussions and engage key audiences in developing long-term strategies.

1.2 Purpose and scope

This report responds to a key information need set out by the Regional Task Force, specifically:

- **Cost-recovery analysis** – of industrial properties and adjacent properties concerning:
 - Benefits – municipal taxes generated directly or indirectly from the industrial tax base; and
 - Costs – municipal costs to service industrial properties (e.g. protective services, road maintenance) and adverse effects on municipal tax revenues.

¹ Government of New Brunswick. 2019. Sustaining Saint John: A Three-Part Plan.

2. RESULTS

2.1 Heavy industry cost-recovery analysis

Saint John plays a unique role in hosting a number of heavy industrial properties that, although they are important contributors to the regional and provincial economies, they also contribute to direct operational costs and lost revenues for the municipality. Appendix B contains maps and a table indicating the main heavy industry properties in Saint John.

- ❑ **Direct costs** - include added demands for emergency preparedness and response as well as heavy trucking on roads. This affects city planning and design, capital spending, and operations.
- ❑ **Lost revenues** – include lost tax revenue from residential properties near industrial sites that would normally have increased assessment values.
- ❑ **Benefits** – are the property tax revenues “recovered” from industrial properties annually.

Direct costs – heavy trucking

Heavy trucking impacts on communities and infrastructure have been researched extensively in North America due to three main developments: 1) truck designs are trending toward larger sizes including double and triple trailer combinations, 2) technologies to charge vehicle fees and tolls (e.g. licence plate cameras) have advanced, and 3) jurisdictions are seeking fair funding models to address aging infrastructure and deferred maintenance.

Heavy trucking is recognized for having a disproportional impact on public costs related to roads and traffic management, and these include but are not limited to: 1) higher cost design and construction elements to support heavy vehicles, 2) increased deterioration of roads and bridges, 3) more severe accidents, and 4) increased emissions and noise affecting population health. The following focuses primarily on the first two considerations as these have direct linkages to municipal road budgets.

Before proceeding it is important to recognize that many factors determine the specific impacts of heavy trucking in particular locations including: 1) road design and construction that determines cost and suitability for heavy trucks, 2) volume of heavy truck traffic, 3) axel weights and the distribution of total weight across axels, 4) length of truck and axel spacing, 5) speed of travel, 6) age of the road and state of disrepair (e.g. bumps, rutting and cracking), 7) climatic conditions and seasonal variation, 8) frequency and

type of bridge crossing since costs are higher for bridges than roads, and 9) signage, safety measures, and driver training that help to reduce truck speeds, inappropriate use of vulnerable roads, and accidents².

Some truck traffic estimates are available such as a reported 270 trucks per day on Harding Street or Ready Street³, and data from City of Saint John traffic counters at seven locations⁴. The data provided by the City combines for a total of 5,514 trips per day, but this does not cover the whole city and includes buses and some smaller trucks that are not of interest. There is also a challenge determining which truck traffic originates or terminates in Saint John versus those passing through to/from outside communities or to/from Nova Scotia via the ferry. This is important since the analysis focuses on the potential role and responsibility of industrial property owners of Saint John in supporting a fair share of municipal road costs.

The approach taken here builds estimates of truck activity starting with truck occupation data that is specific to Saint John and available from Statistics Canada (first column in table below). The methodology to build estimates of truck related costs is explained in notes below the table. In essence, the number of truck drivers employed in Saint John is augmented by 50% to account for residents and trucking operations outside Saint John that serve local industry. An estimated number of trips and trip distances are combined across industry sectors to determine the number of daily and annual kilometres travelled on Saint John roads. A cost of \$0.30 per kilometre is based on sources and tables that follow, and this yields an annual cost of \$5.6 million for locally-based trucking in Saint John.

Key conclusion:

- The portion of costs related to heavy industry includes at least: mining, oil and gas, manufacturing, and most (75%) of the transport and warehouse categories, for a total of \$2,480,625 per year.

² Luskin, D., and M. Walton. 2001. Effects of truck size and weights on highway infrastructure and operations: A synthesis report.

³ CBC. 2017. Saint John truck traffic exhausts patience: 'They think this is the Indy 500' (online: <https://www.cbc.ca/news/canada/new-brunswick/saint-john-truck-traffic-1.4038237>).

⁴ 24-hour counts except where noted at seven locations: Bayside Dr. (at Causeway), Chelsey Dr., City Road (at Garden), Fairville and Catherwood (6hr peak), Simms corner (6hr peak), Loch Lomond and Bayside, and Loch Lomond (at MacDonald).

Table 2.1: Saint John road costs attributable to locally-based trucking, 2019

	1	2	3	4	5	6	7	8	9
	Workers	Outside SJ	Trips/truck	Total trips	Distance	Km/day	Km/year	\$/km	Annual \$
Mining, oil and gas	20	50%	2	60	15	900	225,000	0.3	67,500
Utilities	10	50%	2	30	15	450	112,500	0.3	33,750
Construction	85	50%	4	510	15	7,650	1,912,500	0.3	573,750
Manufacturing	55	50%	2	165	15	2,475	618,750	0.3	185,625
Wholesale	50	50%	4	300	15	4,500	1,125,000	0.3	337,500
Retail	50	50%	4	300	15	4,500	1,125,000	0.3	337,500
Transport & warehouse	440	50%	4	2,640	15	39,600	9,900,000	0.3	2,970,000
Waste & remediation	40	50%	2	120	100	12,000	3,000,000	0.3	900,000
Other	65	50%	2	195	15	2,925	731,250	0.3	219,375
Total	815			4,320		75,000	18,750,000		5,625,000

Notes by numbered column:

1. Workers are StatCan Census 2016 employed transport truck drivers (NOC 7511) that reside in Saint John;
2. Outside SJ represents additional workers that commute to the city, and others with a place of work outside the city that provide trucking service to businesses in Saint John;
3. Trips per truck reflect return trips outside the city (2) and twice daily return trips inside or outside the city (4);
4. Add column 2 % to column 1 and multiply the total by column 3 resulting in total trips;
5. The average distance from four main industrial properties to the city border along trucking routes is 15 kms, except waste and remediation activities that tend to remain within the city and complete day-long routes;
6. Multiply total trips (4) by distance (5) to obtain the daily distance (6);
7. Multiply the daily distance by 250 annual work days to obtain annual distance (7);
8. The cost per km of \$0.30 is from multiple sources (see below); and
9. Multiply annual distance (7) by cost per kilometer (8) to obtain annual costs (9).

To determine costs attributable to trucking it is helpful to examine fees currently charged on toll highways in Canada, along with a comprehensive study by the U.S. Department of Transportation Federal Highway Administration (see tables below). As expected, the tolls show that truck costs (\$6.43 per km for 4 axels) are very high on the Confederation Bridge owing to its high construction and operation costs. Tolls on the Cobequid Pass in Nova Scotia are the lowest (\$0.31 per km for 4 axels) on a rural road that is relatively simple in design. The 407 Express Toll Route in Ontario represents an urban highway with intermediate costs (\$1.02 to \$1.53 per km for single- and multi-trucks). The estimate used in this analysis is toward the low end (Cobequid Pass) and is likely conservative with more discussion below.

Table 2.2: Car and truck fees charged on toll roads in Canada, 2019

Tolls (\$)	Base	Per axel 3+	\$/km
PEI Bridge (10km)⁵			
Car	47.75		4.78
Truck	47.75	8.25	6.43
NS Cobequid Pass (39km)⁶			
Car	4		0.10
Truck	6	3	0.31
ON 407 ETR (16km)⁷			
Car	8.15		0.51
Truck heavy single	16.29		1.02
Truck heavy multi	24.44		1.53

A second key source is the 2000 comprehensive study by the U.S. Department of Transportation Federal Highway Administration⁸. The table below starts with the U.S. costs per mile for different vehicle classes, and these values are converted to 2019 Canadian dollars per kilometre. Two sets of costs are shown, namely: 1) operations and maintenance costs for highways, and 2) environment costs that are borne by other road users and people near highways. The environmental costs are termed “externalities” since they are not borne directly by road users. The operations costs are certainly similar to the \$0.30 estimate applied in Saint John, for example single unit trucks under and over 50,000 lbs cost \$0.18 to \$0.61 per km, and combination trucks in the 70,000 to 100,000 lb range cost \$0.18 to \$0.52. The combination trucks have lower costs despite their higher weights since they distribute this over more axels and, although not shown here, these trucks make fewer trips by carrying larger loads (further reducing their impact).

⁵ Confederation Bridge. 2019. Tolls and fees (online: <https://www.confederationbridge.com/tolls-fees>)

⁶ Highway 104 Cobequid Pass. 2019. Cash payment fare structure by vehicle classification (online: <https://www.cobequidpass.com/COB/About/TollsAndFees.aspx>)

⁷ 407 Express Toll Route. 2019. Toll calculator (online: <https://www.407etr.com/en/tolls/tolls/toll-calculator.html>)

⁸ U.S. Department of Transportation Federal Highway Administration. 2000. Addendum to the 1997 Federal Highway Cost Allocation Study Final Report (online: <https://www.fhwa.dot.gov/policy/hcas/addendum.cfm>)

Table 2.3: Converted¹ U.S. federal cost responsibility by vehicle class under the Transportation Equity Act program

	Operations			Environment ²			Total
	US \$ per mile	CAD \$/km	2019 \$/km	US \$ per mile	CAD \$/km	2019 \$/km	
Passenger vehicles							
Autos	0.01	0.01	0.03	0.03	0.02	0.10	0.12
Light duty trucks	0.01	0.01	0.03	0.03	0.02	0.10	0.12
Buses	0.03	0.03	0.11	0.03	0.02	0.10	0.21
Single unit trucks							
<25,000 lbs	0.02	0.02	0.07	0.34	0.29	1.16	1.23
<50,000 lbs	0.05	0.05	0.18	0.58	0.48	1.94	2.13
>50,000 lbs	0.18	0.15	0.61	0.58	0.48	1.94	2.55
Combination trucks							
<50,000 lbs	0.03	0.03	0.12	0.37	0.31	1.25	1.37
<70,000 lbs	0.05	0.04	0.18	0.37	0.31	1.25	1.43
<75,000 lbs	0.08	0.06	0.26	0.37	0.31	1.25	1.51
<80,000 lbs	0.09	0.07	0.29	0.70	0.58	2.34	2.63
<100,000 lbs	0.15	0.13	0.52	0.70	0.58	2.34	2.86
>100,000 lbs	0.20	0.17	0.68	0.70	0.58	2.34	3.02

1. Conversion of U.S. costs in 2000 to Canadian costs in 2019 is based on: ratio of kilometres to miles, Bank of Canada currency exchange rates, and StatCan consumer price index (Canada all items).
2. Environment costs determined by U.S. Department of Transportation include: congestion, accident, air pollution, and noise-related costs borne by others (externalities).

The value of \$0.30 per truck-km used in this report is certainly at the low end considering higher costs in an urban setting, higher costs on roads not designed to support trucks (some areas of Saint John), and externalities that could be included. Some externalities are addressed in the analysis as they are captured in the effects on residential property values, however this is only a partial treatment of the issues.

Direct costs – fire protection services

The Saint John Fire Department was not originally designed to meet the challenges of today's heavy industry risk profile in the city. A number of joint initiatives with industry and the Province have increased capacity and operational readiness for larger incidents. For instance, Saint John Fire Department provides one of the Provinces' two Regional Hazardous Materials Response Units. The Haz Mat Units involve a specialized truck and trailer supplied by the Province of NB. The acquisition of \$3 million training facility in 2014 has been made possible by a collaboration with Irving Oil. Port Saint John also provided funding to include a marine ship component within the new training structure. Canaport LNG provides subsidizes Command Staff Training for responses to emergencies at industrial facilities.

There are nevertheless some industry-specific costs that Saint John Fire must cover beyond the primarily residential focus of the Department. Saint John Emergency Management Organization (SJEMO) plans and prepares for all emergencies in the city, and an estimated \$285,000 (40%) of effort focuses on industrial hazards. Of the total 65,700 hours of engaged service (in-service hours), 3,400 (5.2%) are dedicated to industrial incidents (not including tankers or command vehicles). The refinery fire at Loch Lomond road and the butane leak at Bayside Drive required detailed accounting of the response costs. These include personnel overtime, personal protective equipment, fire-fighting apparatus costs, detection equipment, ventilation tools and equipment, extinguishing agents, hose and supply lines, and fire investigation supplies. This does not include the regular hours of staff during each response, and City of Saint John temporary special pension costs are not included. The average cost per in-service hour is \$401 and when applied to the 3,400 industrial in-service hours for 2018, the total cost is about \$1.4 million⁹. The combined costs for emergency planning and response is about \$1.7 million.

Lost revenues – lower residential property values

The effects of industrial lands on residential property values have been examined by researchers in Canada and abroad and it is worthwhile to draw some key points from previous work before turning attention to Saint John. Research in Alberta¹⁰ found that oil and gas facilities located within 4 kms of residential properties have significant negative effects on their value. The effects on

⁹ Saint John Fire Department, 2019. Custom tabulations for industrial incident responses in 2018.

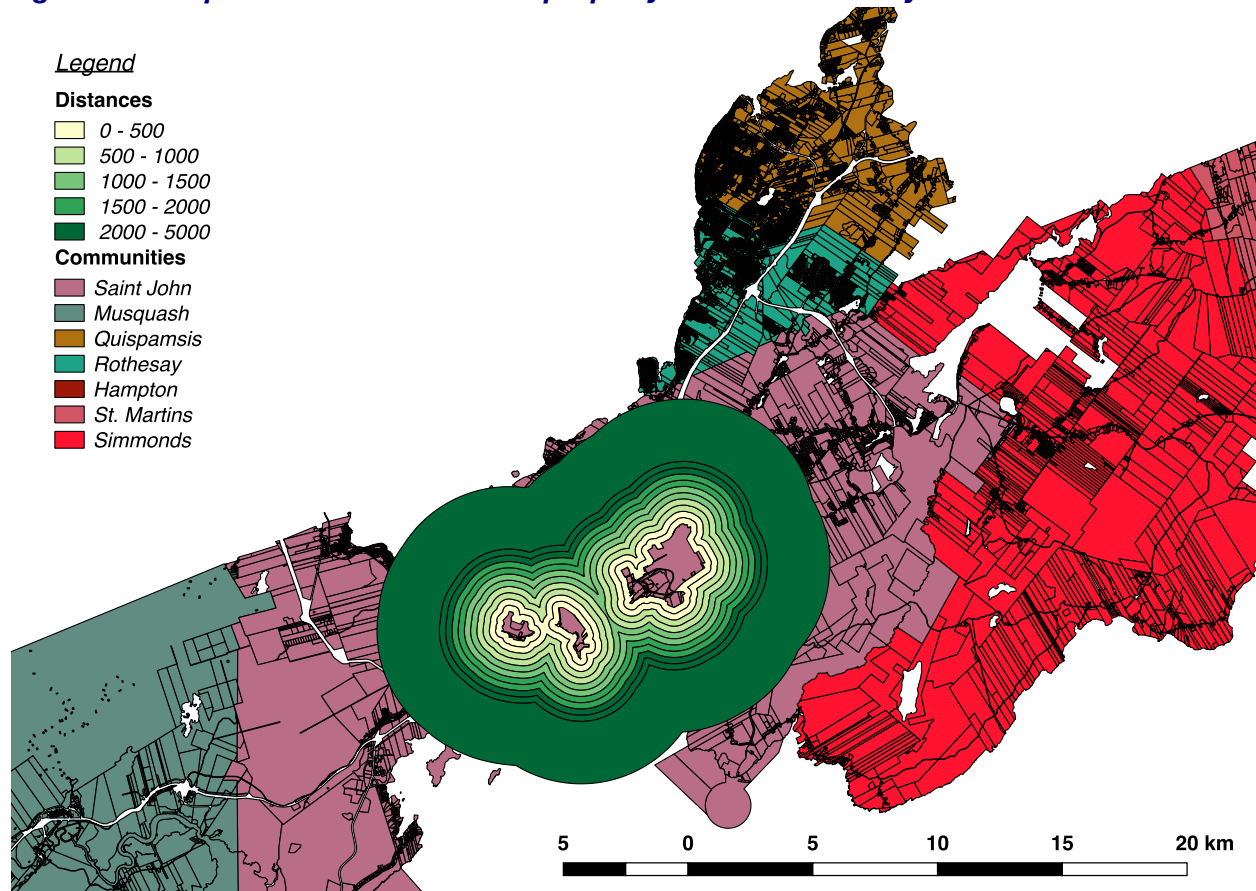
¹⁰ Boxall, P., W. Chang, M. McMillan. 2005. The impact of oil and natural gas facilities on residential property values: a spatial hedonic analysis. *Resource and Energy Economics*, 27: pp.248–269.

property values are expressed in terms health hazards and impacts on amenities, particularly enjoyment of natural landscapes. A study in the Netherlands¹¹ used an extensive property assessment database that allowed researchers to account for many property characteristics that determine market prices (e.g. floor area, property area, year of construction, distances to numerous amenities, neighbourhood density, and other property attributes). After accounting for these factors, the proximity to industrial sites had a statistically significant negative effect on property values. Each 250 metre increment in distance up to 2,250 metres from the industrial sites was statistically significant. These are just two examples of research on the topic and it helps to determine what distances are relevant when examining Saint John for potential effects.

The following map shows the areas around industrial sites on the east and west sides of the port that were examined in 500 metre distance intervals out to 5,000 metres. In order to capture enough properties at each interval for a robust analysis, the properties included are those with: no units (vacant land), single units, two units, and three units. Additional higher unit properties (over 3 units) may also be affected, so the analysis may understate effects. Although the “rings” extend beyond Saint John, only Saint John properties are included, while separate data are compiled for Grand Bay – Westfield, Rothesay, Quispamsis, and Hampton.

¹¹ De Vor, F., H. de Groot. 2011. The impact of industrial sites on residential property values: A hedonic pricing analysis for the Netherlands. Tinbergen Institute Discussion Paper.

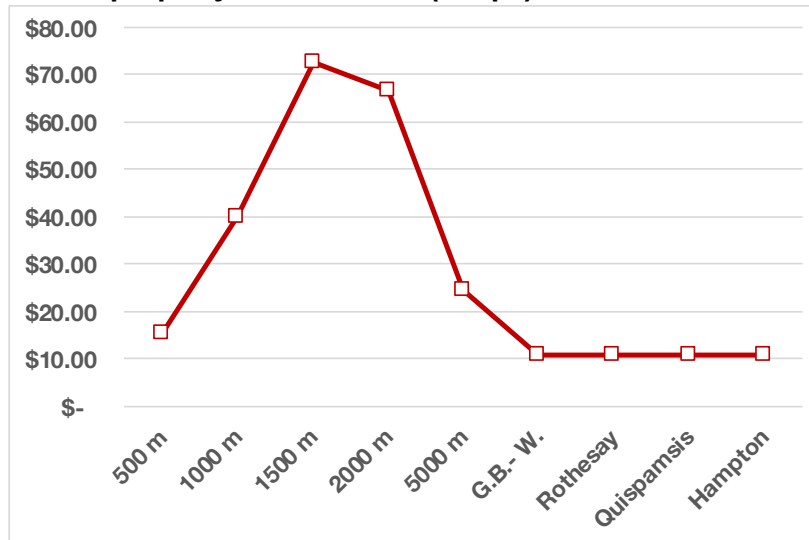
Figure 2.1: Map of areas in Saint John property assessment analysis



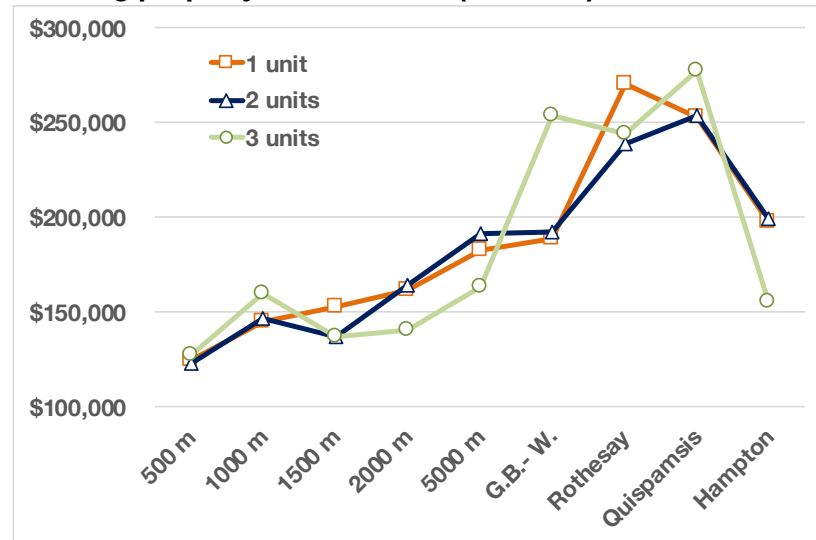
The property values at each distance interval and for each community outside Saint John are presented in the next figure. Separate lines show the values for properties with: one unit (orange), two units (blue), three units (green), and vacant land values per square metre (red line related to right-hand axis). Property values are lowest close to the industrial sites and generally rise as they move farther away, including the more distant communities outside Saint John. Vacant land beyond 1,500 metres is the only exception to the trend, where values decline as you would expect in areas where land is more abundant.

Figure 2.2: Property assessment values by distance and community, and by type of property

Vacant property assessments (\$/sqm)



Dwelling property assessments (1-3 units)



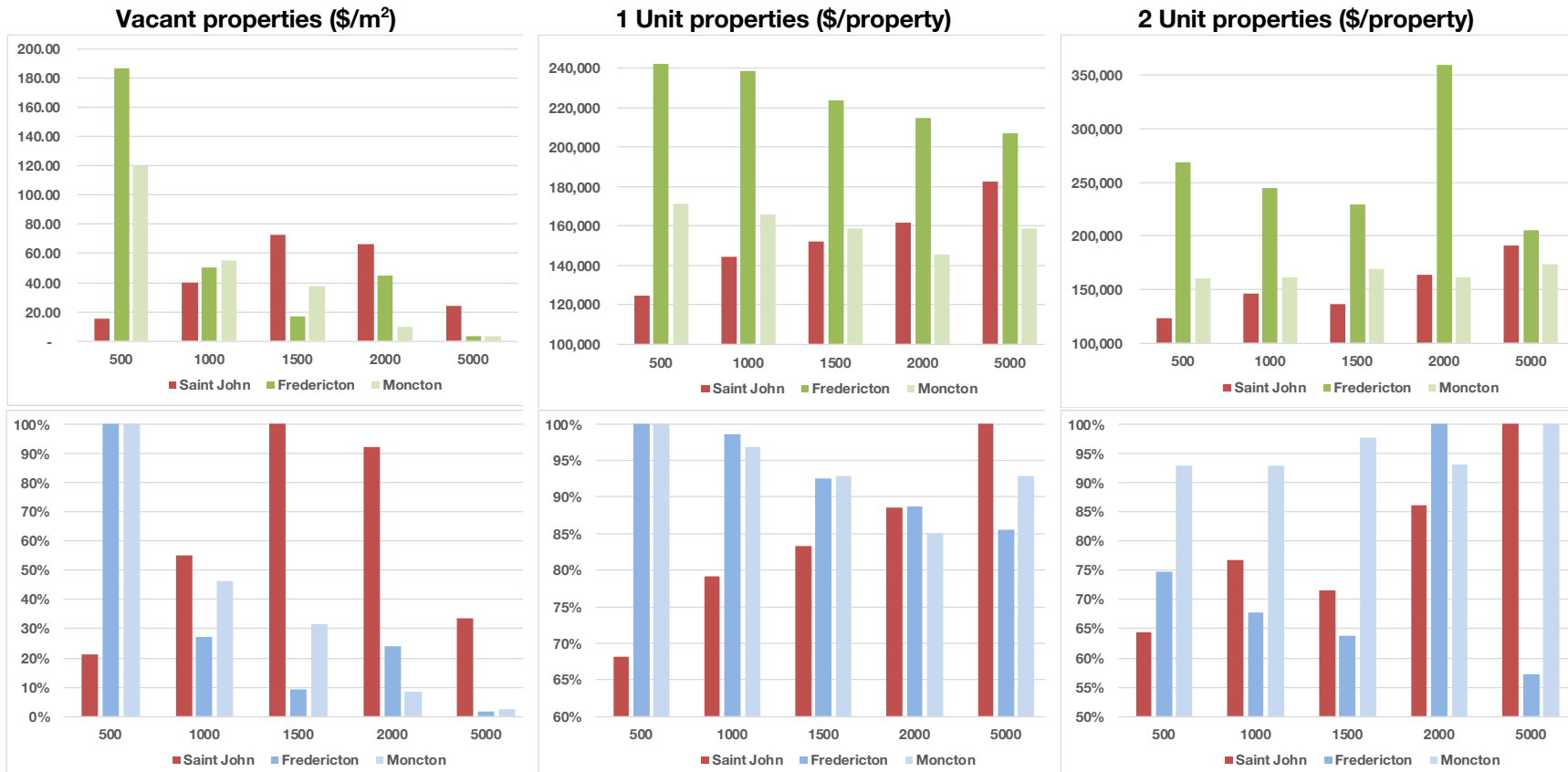
The data in the figures are shown in the next table, along with number of properties included in each element of the analysis. The tax revenues are also included in the table and these are based on the property assessment values multiplied by the respective tax rate in each community.

Table 2.4: Property assessment values and tax revenues by distance from central industrial sites and by number of units

Units	Grand Bay					Westfield	Rothesay	Quispamsis	Hampton
	500	1000	1500	2000	5000				
Values									
Vacant \$/sqm	15.27	39.93	72.44	66.60	24.36	10.77	10.65	10.82	10.78
1	124,529	144,393	152,153	161,593	182,493	188,028	270,047	252,675	197,325
2	122,853	146,259	136,614	164,179	190,841	192,087	238,199	253,758	199,006
3	126,661	159,190	136,482	140,153	163,028	253,233	243,670	277,243	155,250
Properties									
Vacant	646	917	871	426	1,408	654	758	900	484
1	2,113	1,937	2,073	1,792	4,949	1,754	3,947	5,722	1,451
2	485	516	364	200	230	67	102	263	51
3	126	188	221	17	29	3	10	7	4
Tax revenues									
0	1,032,933	1,972,959	2,231,175	1,118,731	8,444,723	433,600	756,823	1,877,158	439,542
1	4,696,876	4,992,467	5,630,143	5,168,919	16,121,327	4,518,274	13,216,835	19,060,053	3,664,886
2	1,063,567	1,347,138	887,636	586,119	783,497	176,316	301,274	879,811	129,911
3	284,874	534,209	538,401	42,529	84,391	10,408	30,215	25,584	7,949
Total tax	7,078,250	8,846,772	9,287,355	6,916,298	25,433,938	5,138,597	14,305,147	21,842,606	4,242,287

Based on the same methods, the set of charts below compares the average property assessment values by distance for Saint John, Fredericton, and Moncton according to property type (vacant, 1 unit, and 2 units). The GIS maps used for the analysis and results are tabulated in the Appendix. The downtown center point for the analysis in Moncton is the corner of Main St. and Lutz St, while the centre point in Fredericton is the corner of Westmorland St. and Queen St. The number of 3-unit properties in Fredericton and Moncton is too low for reliable interpretation, and even the number of 2-unit properties in Fredericton is low so these should be interpreted with caution. The chart indicates that Saint John property values near downtown are much lower than in Fredericton and Moncton and, as distance increases from the centre, Saint John values increase while the others decrease.

Figure 2.3: Comparison of assessment values by distance for Saint John, Fredericton, and Moncton by type of property



Note: The top figures show real values and the bottom figures show percentages of peak values for each municipality.

Summary observations:

- ❑ **Number of properties** – there are fewer 2-unit and 3-unit properties beyond 2,000 metres and in the outer communities so results should be interpreted with caution.
- ❑ **Percentages** – Vacant properties in central Saint John are valued at 21% of peak value lands 1-2 kms away, whereas top values for vacant land in Moncton and Fredericton are at the centre and properties 1-2 kms away are about 70% - 90% less. Single unit properties in central Saint John are 32% less than peak values 5 kms away, whereas top values for single units in Moncton and Fredericton are at the centre and properties 5 kms away are about 7% - 14% less.
- ❑ **Lost revenue** – a more common property value pattern would have the highest values near the city centre and waterfront, and even a level property value out to 2,000 metres would substantially increase tax revenues. If this were the case with the three inner distances at the 2,000 metre average assessment value, the additional tax revenues are estimated at \$32.8 million annually. If this were applied to the inner four distances at the average assessment value of the 5,000 metre properties the annual total is \$36.7 million. See Appendix C for figures illustrating this calculation.
- ❑ **Cumulative loss** – since this has been the case for many years, the total missed revenue and opportunity to invest in Saint John infrastructure and services could be \$328 million (10 years), \$657 million (20 years) in current dollars.
- ❑ **Costs of “sprawl”** - Much attention has been paid to the costs of dispersed settlement patterns versus compact development forms. From a municipal finance perspective, the issue is that extending infrastructure and services over longer distances increases costs without corresponding increases in revenues. Recent research for the Halifax Regional Municipality¹² (HRM) determined that the municipal costs to support growth in suburban and rural parts of the municipality are “subsidized” by the existing tax base. As in HRM, Saint John could serve a higher population close to the city centre at reduced costs compared to more distant developments. This is not accounted for in the analysis as this report simply examines the difference in property values for the existing housing stock as is, and not the potential for more residential units that could be developed near the waterfront and downtown without industrial property deterrents.

¹² Stantec in Association with Gardner Pinfold. 2013. Quantifying the costs and benefits of alternative growth scenarios – Halifax Regional Municipality, Nova Scotia.

Lost revenues – now vacant properties

In some acute cases property values have suddenly reduced and are converted to vacant lots. The 2018 butane pipe leak affected the value of houses on Pleasant City St. and River Ave. in this way and were subsequently purchased by Irving Oil Ltd. so landowners did not suffer a substantial loss. Although this helps address the needs of property owners, there is still a loss to the City as the assessment base and tax revenue is almost entirely eliminated. The online Provincial Property Assessment Database shows 21 properties on these two streets with assessment values that dropped from 2018 to 2019 (map below). The loss in assessment base was \$1.9 million and the annual loss in tax revenue was \$32,562. The tax revenue is lost for a number of years so it is useful to consider this in terms of a one-time value using a net-present value calculation with a 5% discount rate over a twenty-year period, and this amounts to \$406,000 in lost revenue. According to news reports the residents that left those streets did not build new homes elsewhere in Saint John; some moved into rental units, some moved into other existing homes, and some moved out of Saint John^{13 14}. Therefore an offsetting increase in tax revenue from other properties in Saint John does not appear to be a factor. In addition, Saint John Water no longer collects \$1,428 from each of these properties for a total of about \$30,000 annually. Some of this may be captured at other properties where residents have re-established.

¹³ Smith, Connell. July 2, 2018. Appeals show property values tumbled following butane leak. CBC News New Brunswick (online: <https://www.cbc.ca/news/canada/new-brunswick/irving-oil-butane-leak-rupture-emergency-evacuation-saint-john-1.4726948>)

¹⁴ Smith, Connell. April 12, 2018. Irving Oil expands home buying plans in butane neighbourhood. CBC News New Brunswick (online: <https://www.cbc.ca/news/canada/new-brunswick/butane-leak-evacuation-irving-oil-pipeline-break-environment-1.4616630>)

Figure 2.4: Properties on Pleasant City St. and River Ave. demolished following butane pipe leak in 2019



Benefits

In theory, the municipality “recovers” costs associated with heavy industry properties through the collection of property taxes each year. Property taxes are a blunt tool for funding municipalities since they are not easily tailored to align costs and revenues for each property type. The City of Saint John estimates that tax revenues from heavy industry are about \$12 million each year. An additional \$9 million are collected by the Province from industry in Saint John, and some of the \$17.4 million unconditional grant from the Province to the City could be derived from this \$9 million collected. From the City perspective, just over \$12 million in benefits flows from heavy industry properties.

Cost-recovery summary

Bringing together the cost and benefit findings we have the following summary observations:

- ❑ Direct costs - \$2.5 million for roads, \$1.2 million for fire, and not quantified for police
- ❑ Opportunity costs – up to \$32 million for lost residential property tax revenues and lost residential properties
- ❑ Benefits – About \$12 million in municipal tax revenue from heavy industrial properties

Other types of business such as banks, retail, accommodations and others that do not incur costs like heavy industry are still obliged to pay property taxes as basic support for general municipal operations. The above cost analysis does not include any of this basic level of support expected from heavy industry, it only focuses on some of the exceptional costs. Current revenues certainly fall short of providing for a full cost-recovery balance, and this indicates an unsustainable funding model regarding heavy industry costs to the City of Saint John.

3. APPENDIX A

Figure A.1: Moncton property analysis (center at Main and Lutz)

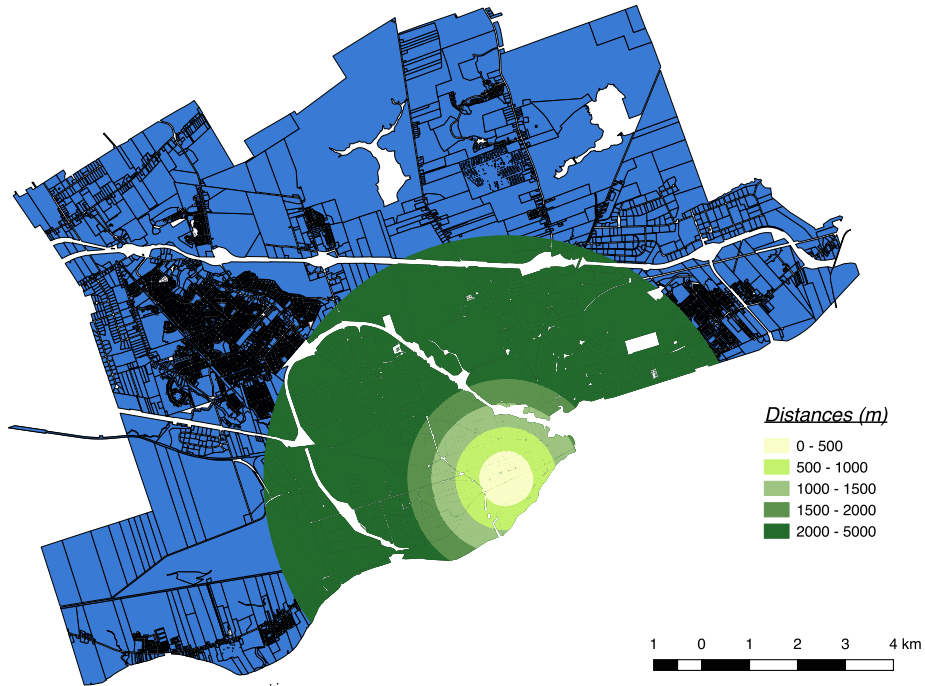


Figure A.2: Fredericton property analysis (center at Westmorland and Queen)

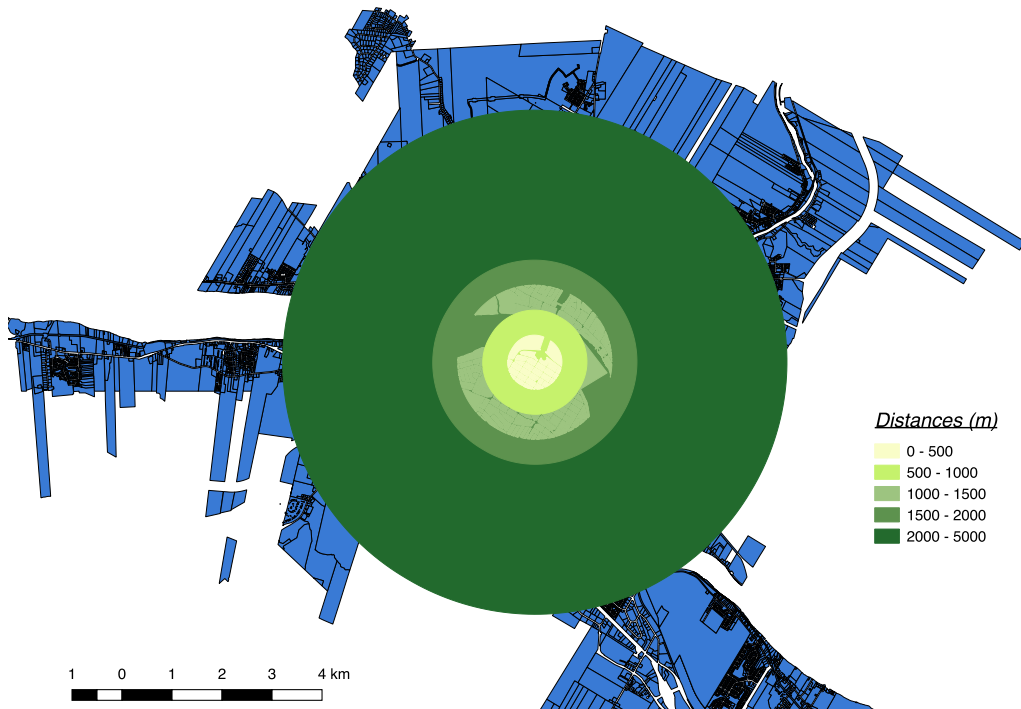


Table A.1: Average assessment values by distance from the center of Fredericton

	F500	F1000	F1500	F2000	F5000
Values					
Vacant	186.70	50.64	17.16	44.95	3.00
1	242,030	238,808	223,858	214,696	207,026
2	269,150	244,329	229,871	360,092	205,836
3	310,700	287,588	310,120	301,400	678,657
Properties					
Vacant	14	14	59	57	577
1	174	567	1,238	1,844	9,922
2	8	14	17	12	59
3	12	24	10	3	7

Table A.2: Average assessment values by distance from the center of Moncton

	M500	M1000	M1500	M2000	M5000
Values					
Vacant	119.95	55.38	37.69	10.00	3.03
1	171,061	165,681	158,817	145,621	158,758
2	161,001	161,162	169,446	161,287	173,494
3	214,693	180,795	187,513	189,300	241,789
Properties					
Vacant	49	85	40	37	351
1	167	609	998	1,315	8,310
2	69	232	145	38	312
3	14	75	48	25	75

4. APPENDIX B

In addition to properties associated with the port, the figure below illustrates heavy industrial properties in Saint John, and the table that follows lists the property owners along with current assessment values for their properties and the number of land parcels included.

Figure B1: Main industrial property areas in Saint John

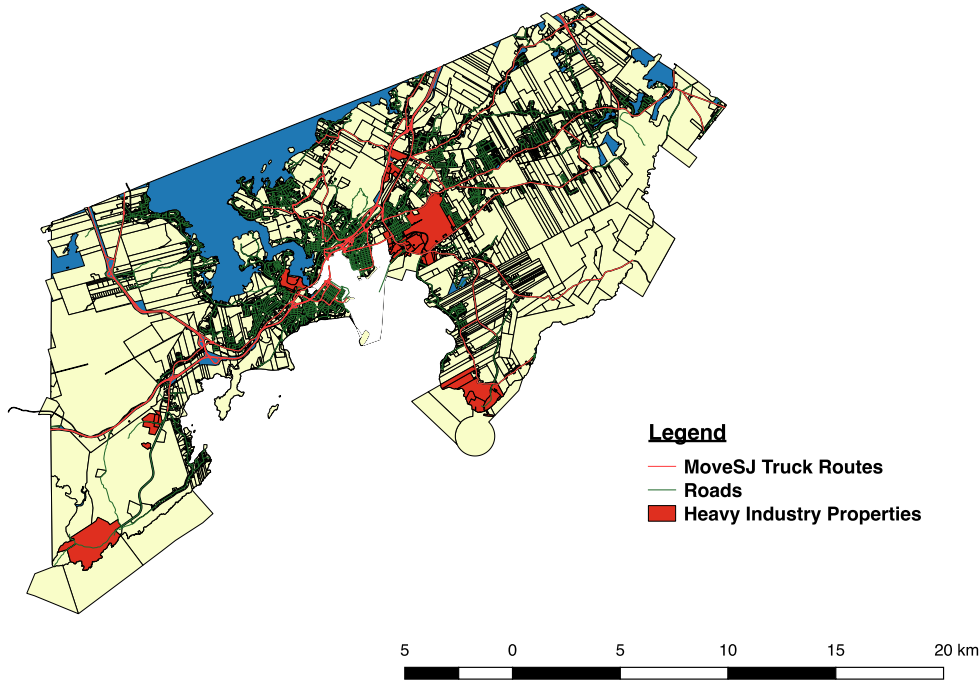


Figure B2: Examples of heavy industry sites in Saint John



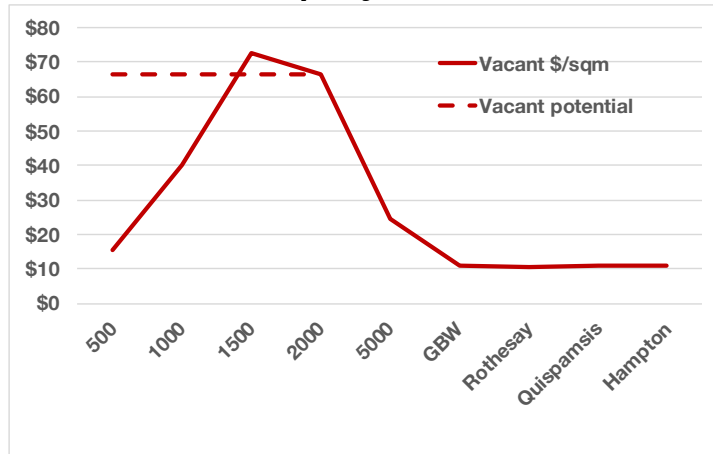
Table B1: Key industrial properties in Saint John

Item #	Entity	Assessment \$	Properties
1	Cobalt Properties	462,900	4
2	Atlantic Wallboard Limited	11,533,200	2
3	Bayside Realities Limited	14,165,500	16
4	City Of Saint John	80,800	5
5	Classic Asphalt Ltd	173,200	2
6	Debly Resources Inc	779,200	2
7	Galbraith Equipment Co Ltd	32,400	1
8	Highland Operations Ltd	2,391,300	2
9	Irving Consumer Products Limited	17,443,200	1
10	Irving Oil Company Limited	227,221,700	16
11	Irving Oil Limited	12,318,800	5
12	Irving Pulp And Paper Ltd	68,881,400	16
13	J. D. Irving Ltd	3,563,300	4
14	Moosehead Breweries Limited	12,156,600	2
15	NB Power Corporation	110,272,200	4
16	New Leaf Environmental Inc	729,300	2
17	NRB Construction Company Ltd	604,500	3
18	Osco Properties Ltd.	2,632,500	2
19	Power Commission Of The City Of Saint John	46,200	1
20	Praxair Canada	687,100	1
21	NB Dept Transportation And Infrastructure	4,000	1
22	Saint John And Maine Railway Co.	1,200	1
23	Saint John Shelter Ltd	539,400	1
24	Simpson's Truck & Tractor Parts Ltd	905,500	1
25	Smith, Gerald F & Patricia A	128,300	1
26	Strescon Ltd	9,445,100	3
27	The NB Southern Railway Co Ltd	66,500	2
28	Voyageur Properties Ltd	2,814,600	1
Total		500,079,900	102

5. APPENDIX C

The following figures illustrate the potential property values and corresponding revenues totalling \$32.8 million. This underscores the conservative approach since these still do not reflect property value patterns in other cities.

Property values



Tax revenues

