

**Report on:**

**Infrastructure Renewal and Municipal  
Accountability within the Region of Niagara**

**Expenditures Studied – 2003 actual and 2004 budget**

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Prepared for:



Prepared by:



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Town of Lincoln, Township of West Lincoln, Town of Pelham and the Township of Wainfleet

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## **HISTORY**

In February of 2000, the Heavy Construction Association of Regional Niagara (HCARN) commissioned a study to examine the state of infrastructure within Niagara Region. The report entitled “The Case for Increase Infrastructure Investment in the Region of Niagara” evaluated the status of road, wastewater and water systems in the Region and the connection between increased investment and resulting economic and user benefits.

## **FINDINGS OF INITIAL STUDY**

The study evaluated data and literature provided by a variety of Canadian associations, municipalities within the Niagara Region and industry. Regional infrastructure expenditures covering a time period of 5 years were analyzed, conclusions were drawn and the final report was presented on January 5, 2001.

The report highlighted the immediate need for investment in road infrastructure and in wastewater and water main construction, and was the topic of conversation at several local council meetings. Some of the key findings at that time included:

### **Road Infrastructure**

- Protecting Investment – there is a contingent liability of \$147.5 million to reconstruct the 590 km of 12-15 year old roads identified by the respondents. This contingent liability will become an actual liability if these roads are not rehabilitated in the next 1-3 years. The cost to rehabilitate these roads is \$47.2 million. In other words rehabilitating the roads saves \$100.3 million. There are a further 2,166 km of regional roads that are older than 15 years. The cost to rebuild these roads is \$541 million.
- Attracting Investment – highway access is the #2 site selection factor (after labour cost). Without superior access Niagara will not be able to realize the full potential of the growing traffic transiting the peninsula.
- User Benefits – such as reduced travel time and operating costs, and increased safety have a net present value (NPV) in the range of \$634,000 per km.

### **WasteWater & Water Infrastructure**

- Protecting Investment – Based on National Research Council sewer/water maintenance and replacement guidelines (conservative estimates based on 3% and 2% of replacement value respectively) there has been a total budget shortfall of \$67.7 million in the respondents’ wastewater/water budgets covering the period 1997 – 2000.

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- Attracting Investment – there is evidence of communities ceasing development due to the inability of the water system to expand. Further, easy, cost efficient provision of water services can be a contributor to investment decisions.
  - User Benefits – no quantification of user benefits was found; however, Canadians, and in particular Hamilton/Niagara residents, rank the provision of clean water as the number one program that should be exempt from spending cuts. Clean water ranks ahead of public health, education and social assistance.

### **Common Conclusions**

- Jobs – a \$1 million infrastructure project generates in the order of 29.3 local person years of employment.
- Spending – a \$1 million infrastructure project generates a total benefit in the order of \$1,230,000 in Direct, Indirect and Induced local income.
- Productivity – research on productivity impact shows there is a positive and strong correlation between investment and productivity in the order of: a 1% increase in public capital stock produces a 0.10% to 0.40% increase in productivity.
- Costs – research on cost impact shows there is a positive and strong correlation between investment and reduction of manufacturing costs in the order of: a 1% increase in public capital stock produces a 0.11% to 0.22% decrease in manufacturing costs.
- Return on investment – research on US investment impact shows that returns on infrastructure investment have dropped in the past 40 years from 40+% to 10%. This is due to diminishing benefits since the substantial completion of the US interstate highway system.
- Returns in general are variable, based on the type of infrastructure investment, with investment in maintenance generating 35% returns and investment in new rural construction generating low (unspecified) returns.

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## **STUDY RELEASE**

The release of the “Case for Increased Infrastructure Investment in the Region of Niagara” generated a lot of interest from various levels of regional government, the media, and the public. The findings of the study were presented to Municipal Council at meetings in St. Catharines, Niagara Falls, Welland, Port Colborne, Lincoln and the Public Works Committee Meeting of Niagara Regional Council. Various newspapers including the Welland Tribune, St. Catharines Standard and Niagara Falls Review took interest and reported the findings of the study. The local radio station (CHSC) interviewed an HCARN representative who spoke about the findings of the study and their relationship to the continuing viability of the Niagara Region. A public awareness campaign followed to increase awareness of infrastructure issues and gather information on a regional basis regarding the importance of infrastructure to ratepayers. The report and results of the public awareness campaign prompted Public Works Directors from each municipality to include HCARN’s executive members bi-annually to discuss current and future infrastructure issues and initiatives. The main concern noted by both the public and council was a need for change regarding investment in infrastructure.

## **MUNICIPAL ACCOUNTABILITY**

During the meetings held with Municipal Councils and the Regional Public Works Committee after the release of the Case Study, it became evident that a commitment to infrastructure must be addressed in upcoming budgets. In order to gauge the level of commitment municipalities are giving to infrastructure issues, a strategy for measuring investment level was devised. A scorecard was developed as a measuring tool. The scorecard measured hard categories including actual v. budget expenditures, rolling averages, investment per capita, and asset replacement index as well as softer categories including co-operation received from each municipality, the budget process, responses to questions, and public awareness/education. The intention of the scorecard exercise is not to measure the quality of infrastructure, but rather is a measure of commitment fulfillment. A high score indicates that the municipality is further along the timeline of investment. A breakdown of measurement criteria is as follows:

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## **Scorecard**

### Actual v. Budget

- Accountability measure to see if expenditures are close to or exceed what was planned or budgeted for the two most recent years studied. A 10% variance in spending to budget is allowed.

### Rolling Averages

- Measures to carry forward expenditures that have been budgeted in one year, but spent in another year due to a variety of variables, more evenly spreads out possible annual fluctuations.
- Compares 3 year to 5 year averages, a higher 3 year average shows a more current commitment to investment

### Per Capita

- Measures the increase in expenditures that the Municipality is spending per population (as per Regional website) for the past two years studied

### Asset Replacement Index

- Benchmark for annual replacement cost of water and wastewater. Compares municipal 3 year averages to see if they meet or exceed industry standards for 70 year lifecycle for water and wastewater replacement. The performance based on a 50 year lifecycle is also examined on an information only basis.

### Infrastructure Expenditure Processes

- Co-operation – ease of obtaining financial data, meeting with municipalities, turnaround time.
- Budget Process – measured detail involved in budgets and whether budgets are linked to funding sources and lifecycle analysis.
- Detailed Explanation – measured response to questions
- Public Awareness & Education –measured whether or not the municipality was involved with campaigns, handouts, websites to inform taxpayers about various infrastructure projects and issues.

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**Summary of Expenditure Findings – 1997 – 2003 Actual, 2001 – 2004 Budget**

(Please note – a re-statement has been made of the 2002 actual and budget for the Region and the 2003 budget for the Region and Niagara Falls for additional information provided after the previous reported Municipal Scorecard)

**Infrastructure General Observations**

- In 1998, spending fell to \$64,096,265 but has been steadily increasing each year to \$106,580,503 in 2003 (2002 – \$92,492,319).
- The 3 year average of Infrastructure spending has increased to \$92,425,073 compared to a 5 year average of \$85,354,837 reflecting the current trend to spend more on infrastructure.
- Region has contributed 65.7% (\$139,833,232) towards Roads over the past 5 years. This is compared to expenditures from 9 municipalities in the Niagara Region that provided financial information.
- Region contributed 57.6% (\$68,066,692) towards Wastewater over the past 5 years. This is compared to expenditures from 9 municipalities in the Niagara Region that provided financial information.
- Region contributed 33.0% (\$31,379,801) towards Water over the past 5 years. This is compared to expenditures from 9 municipalities in the Niagara Region that provided financial information.

**Infrastructure Budget Comparisons**

- Increase of approximately 60% between 2002 to 2003 budgets (\$93 million to \$127 million)
- Projected increase of approximately 20% between 2003 to 2004 budgets (\$127 million to \$154 million)
- Region makes up 54% of the 2003 budget
- Region makes up 59% of the 2004 budget
- 7 of the 9 municipalities are budgeting to spend more on infrastructure in 2004 than they budgeted to spend in 2001

### Per Capita Infrastructure Spending Comparison

- In 2001, an average of \$107.58 was spent by the 8 Local Municipalities and \$125.31 by the Region on a per capita basis for infrastructure (total of \$232.89).
- In 2002, an average of \$127.00 was spent by the 8 Local Municipalities and \$111.75 by the Region on a per capita basis for infrastructure (total of \$238.75).
- In 2003, an average of \$127.36 was spent by the 8 Local Municipalities and \$139.52 by the Region on a per capita basis for infrastructure (total of \$266.88).

### Infrastructure Asset Replacement Index

- The total of the 3 year average of actual expenditure for the 8 Municipalities and the Region exceeds the annual capital replacement cost benchmark (based on a 70 year Life Cycle) by 58%.
- If a 50 year Life Cycle is substituted the 3 year average still exceeds the benchmark by 12%.

### Final Score

<b>Total Score (out of possible 100 points)</b>		
	<b>2003</b>	<b>2002</b>
St. Catharines	92	65
Region of Niagara	74	66
Niagara-on-the-Lake	70	76
Grimsby	68	n/a
Port Colborne	63	76
Niagara Falls	60	58
Thorold	60	64
Fort Erie	59	58
Welland	55	54
<b>Average Score</b>	<b>66.8</b>	<b>64.6</b>

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## **CONCLUSIONS**

**The findings to date continue to confirm that the municipalities studied are following through with their commitment to increase investment in infrastructure.** The budgeted expenditures for 2004 are planned to reach \$154 million versus the \$64 million expended in 1998, the year before the “Case for Increased Infrastructure Investment” took place. Over the past 5 years \$426 million has been spent on infrastructure between the 9 municipalities.

The municipalities studied account for 86.48% of the population the Niagara Region (based on 2003 population). The population of the study group has grown by 4.4% since 2001 while at the same time the per capita spending has increased by \$33.99 (14.5%) from 2001. The increase in the average municipal scoring of 3.3% is another indication of the “raising of the bar” in the combined approach to infrastructure investment by the Niagara Region municipalities studied.

The City of St. Catharines and the Region of Niagara based on the 2003 actual information reviewed are leading in the measured level of commitment to infrastructure investment. The rapidly declining state of infrastructure is an issue that all municipal bodies globally are facing, the municipalities in the Niagara Region that have been studied are providing proof that they are taking a proactive position and through sound strategic asset management practices are dealing with this issue by increasing their investment in infrastructure.

As noted in the original Case released in 2001, it is not just a matter of throwing dollars at the problem today to make it go away but rather through a combination of covering past neglects and anticipating future needs that will enable the municipalities to provide an efficient and effective infrastructure system for the benefit of the ratepayers

Submitted on behalf of the Heavy Construction Association of Regional Niagara

George Barkwell, CA, CMC  
President, GD Barkwell & Associates Inc.  
February 28, 2006

City of St. Catharines						
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>				<b>Individual Score</b>	<b>Total Possible Score</b>
	<i>Actual Expenditure v. Budget</i>		<b>2002</b>	<b>2003</b>		
	Roads		16.80%	19.96%	10	
	Waste Water		-42.41%	3.90%	5	
	Water		9.26%	20.14%	10	
					<b>Total</b>	<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>					
	Current Increase					
	Roads		8.07%		10	
	Waste Water		28.03%		10	
	Water		15.88%		10	
	Current Decrease but where Expenditure Position was Positive					
	Roads					
	Waste Water					
	Water					
				<b>Total</b>	<b>30</b>	
<i>Per Capita last 2 years</i>		Pop: 133,546	<b>2002</b>	<b>2003</b>		
Roads			\$48.10	\$49.40	4	
Waste Water			\$14.15	\$22.47	4	
Water			\$35.18	\$38.68	4	
				<b>Total</b>	<b>12</b>	
<i>Asset Replacement Index</i>						
<i>Water and Waste Water</i>						
*Estimated Infrastructure Capital Replacement Cost			\$521,000,000			
*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)			\$7,300,000			
3 year Rolling Average			\$7,160,684			
				<b>Total</b>	<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>						
Co-operation				5		
Budget Process				5		
Detailed Explanation				5		
Public Awareness & Education				2		
				<b>Total</b>	<b>20</b>	
				<b>Total Score</b>	<b>100</b>	

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

**CITY OF ST. CATHARINES**

Division	5 Year Average	3 Year Average	1997 Actual	1998 Actual	1999 Actual	2000 Actual	2001 Budgeted	2001 Actual	2002 Budgeted	2002 Actual	2003 Budgeted	2003 Actual	2004 Budgeted
<b>Roads</b>	\$5,354,786	\$5,787,148	\$4,588,193	\$5,320,301	\$4,087,387	\$5,325,098	\$5,393,000	\$4,339,744	\$5,500,000	\$6,424,128	\$5,500,000	6,597,573	5,500,000
<b>Wastewater</b>	\$2,053,499	\$2,629,120	\$2,621,757	\$1,406,315	\$623,347	\$1,756,787	\$2,770,000	\$2,996,484	\$3,282,000	\$1,890,227	\$2,888,000	3,000,648	2,990,000
<b>Water Works</b>	\$3,910,730	\$4,531,565	\$1,899,724	\$2,393,681	\$2,298,573	\$3,660,382	\$4,300,000	\$3,730,592	\$4,300,000	\$4,698,249	\$4,300,000	5,165,853	4,300,000

The Regional Municipality of Niagara								
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>						<b>Individual Score</b>	<b>Total Possible Score</b>
	<i>Actual Expenditure v. Budget</i>			<b>2002</b>	<b>2003</b>			
	Roads	**	26.77%	-7.11%		10		
	Waste Water	**	-36.46%	-37.95%		0		
	Water	**	-73.55%	-4.24%		5		
						<b>Total</b>	<b>15</b>	<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>							
	Current Increase							
	Roads		22.90%			10		
	Waste Water							
Water		23.27%			10			
Current Decrease but where Expenditure Position was Positive								
Roads								
Waste Water		-24.10%			0			
Water								
					<b>Total</b>	<b>20</b>	<b>30</b>	
<i>Per Capita last 2 years</i>		Pop:	429,949	<b>2002</b>	<b>2003</b>			
Roads				\$73.26	\$88.37	4		
Waste Water				\$21.92	\$22.15	4		
Water				\$11.54	\$29.00	4		
					<b>Total</b>	<b>12</b>	<b>12</b>	
<i>Asset Replacement Index</i>								
<i>Water and Waste Water</i>								
*Estimated Infrastructure Capital Replacement Cost					\$367,000,000			
*Annual Expected Capital Replacement Cost					\$5,190,000			
(based on 70 year life span or 1.4% Annual Replacement)								
3 year Rolling Average					\$18,068,617			
					<b>Total</b>	<b>8</b>	<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>								
Co-operation						5		
Budget Process						5		
Detailed Explanation						5		
Public Awareness & Education						4		
					<b>Total</b>	<b>19</b>	<b>20</b>	
					<b>Total Score</b>	<b>74</b>	<b>100</b>	

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

\*\*2002 and 2003 Commitment Figures were subtracted from the respective years budgets.

**THE REGIONAL MUNICIPALITY OF NIAGARA**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$27,966,646	\$34,370,266	\$19,429,078	\$20,346,588	\$16,111,134	\$20,611,301	\$16,174,354	\$33,615,846	\$24,848,943	\$31,499,785	\$40,905,237	\$ 37,995,166	30,728,000
<b>Wastewater</b>	\$13,613,338	\$10,332,183	\$18,159,421	\$10,699,880	\$17,636,411	\$19,433,733	\$12,841,540	\$12,051,567	\$14,830,253	\$9,423,044	\$15,345,702	\$ 9,521,937	30,368,000
<b>Water Works</b>	\$6,275,960	\$7,736,434	\$11,229,235	\$5,606,668	\$4,950,693	\$3,219,805	\$11,947,695	\$5,779,807	\$18,754,841	\$4,959,890	\$13,022,305	\$ 12,469,606	30,450,000

Town of Niagara-on-the-Lake							
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>			<b>Individual Score</b>	<b>Total Possible Score</b>		
	<i>Actual Expenditure v. Budget</i>			<b>2002</b>	<b>2003</b>		
	Roads		-27.66%	-28.41%	0		
	Waste Water		17.50%	12.52%	10		
	Water		40.47%	21.38%	10		
				<b>Total</b>	<b>20</b>	<b>30</b>	
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>						
	<i>Current Increase</i>						
	Roads						
	Waste Water	30.78%			10		
Water	1.41%			10			
<i>Current Decrease but Expenditure Position was</i>							
Roads		-18.28%					
Waste Water							
Water							
			<b>Total</b>	<b>20</b>	<b>30</b>		
<i>Per Capita last 2 years</i>			Pop: 14,656	<b>2002</b>	<b>2003</b>		
Roads		\$64.61	\$78.05	4			
Waste Water		\$114.12	\$123.41	4			
Water		\$125.84	\$97.89	0			
			<b>Total</b>	<b>8</b>	<b>12</b>		
<i>Asset Replacement Index</i>							
<i>Water and Waste Water</i>							
*Estimated Infrastructure Capital Replacement Cost			\$93,000,000				
*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)			\$1,300,000				
<i>3 year Rolling Average</i>			\$3,012,087				
			<b>Total</b>	<b>8</b>	<b>8</b>		
<b>Infrastructure Expenditure Processes:</b>							
<i>Co-operation</i>				5			
<i>Budget Process</i>				4			
<i>Detailed Explanation</i>				3			
<i>Public Awareness &amp; Education</i>				2			
			<b>Total</b>	<b>14</b>	<b>20</b>		
<b>Total Score</b>				<b>70</b>	<b>100</b>		

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

**TOWN OF NIAGARA-ON-THE-LAKE**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$1,432,993	\$1,171,012	\$896,578	\$1,343,136	\$974,492	\$2,677,439	\$1,204,000	\$1,422,127	\$1,309,000	\$946,976	\$1,598,000	\$1,143,933	\$1,212,500
<b>Wastewater</b>	\$1,087,920	\$1,422,830	\$783,450	\$536,212	\$164,339	\$1,006,771	\$1,862,500	\$787,164	\$1,423,500	\$1,672,568	\$1,607,500	\$1,808,758	\$1,159,000
<b>Water Works</b>	\$1,567,119	\$1,589,257	\$1,216,956	\$555,337	\$804,205	\$2,263,622	\$1,339,000	\$1,488,644	\$1,313,000	\$1,844,381	\$1,182,000	\$1,434,745	\$1,400,300

		<b>Town of Grimsby</b>			Individual Score	Total Possible Score	
<b>Increased Infrastructure Investment for the Niagara Region</b>	<b>Infrastructure Expenditures:</b>						
	<i>Actual Expenditure v. Budget</i>		<b>2002</b>	<b>2003</b>			
	Roads		7.38%	-10.30%	10		
	Waste Water		663.86%	-31.49%	5		
	Water		15.77%	-33.98%	5		
					<b>Total</b>	<b>20</b>	<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>						
	Current Increase						
	Roads	6.87%			10		
	Waste Water						
	Water	11.68%			10		
	Current Decrease but where Expenditure Position was Positive						
	Roads						
	Waste Water	-34.39%			0		
	Water						
					<b>Total</b>	<b>20</b>	<b>30</b>
	<i>Per Capita last 2 years</i>	Pop: 22,904	<b>2002</b>	<b>2003</b>			
	Roads		\$30.46	\$46.15	4		
	Waste Water		\$32.35	\$9.30	0		
	Water		\$25.15	\$33.12	4		
					<b>Total</b>	<b>8</b>	<b>12</b>
	<i>Asset Replacement Index</i>						
	<i>Water and Waste Water</i>						
	*Estimated Infrastructure Capital Replacement Cost				\$75,000,000		
	*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)				\$1,100,000		
3 year Rolling Average				\$918,146			
				<b>Total</b>	<b>4</b>	<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>							
Co-operation				5			
Budget Process				4			
Detailed Explanation				5			
Public Awareness & Education				2			
				<b>Total</b>	<b>16</b>	<b>20</b>	
				<b>Total Score</b>	<b>68</b>	<b>100</b>	

\*Figures taken from the "Water and Wastewater Servicing Plan Update" (2003)

**TOWN OF GRIMBSY**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$806,044	\$861,427	\$666,832	\$868,086	\$616,354	\$829,584	\$1,280,500	\$829,584	\$649,670	\$697,639	\$1,178,500	\$1,057,058	\$910,000
<b>Wastewater</b>	\$532,341	\$349,248	\$27,363	\$18,730	\$246,197	\$1,367,765	\$50,000	\$93,743	\$97,000	\$740,949	\$311,000	\$213,051	\$70,000
<b>Water Works</b>	\$509,412	\$568,898	\$25,956	\$443,450	\$496,074	\$344,294	\$443,000	\$372,124	\$497,500	\$575,943	\$1,149,000	\$758,627	\$1,050,000

		<b>City of Port Colborne</b>			Individual Score	Total Possible Score
<b>Increased Infrastructure Investment in the Niagara Region</b>	<b>Infrastructure Expenditures:</b>					
	<i>Actual Expenditure v. Budget</i>	<b>2002</b>	<b>2003</b>			
	Roads	2.88%	-96.72%	5		
	Waste Water	46.26%	-75.66%	5		
	Water	2.14%	28.35%	10		
				<b>Total</b>	<b>20</b>	<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>					
	Current Increase					
	Roads	40.81%		10		
	Waste Water					
	Water					
	Current Decrease but where Expenditure Position was Positive					
	Roads					
	Waste Water	-33.60%				
	Water	-10.07%		5		
				<b>Total</b>	<b>15</b>	<b>30</b>
	<i>Per Capita last 2 years</i>	Pop: 19,188	<b>2002</b>	<b>2003</b>		
	Roads		\$45.60	\$0.87	0	
	Waste Water		\$30.87	\$8.27	0	
	Water		\$23.95	\$30.10	4	
				<b>Total</b>	<b>4</b>	
				<b>Total</b>	<b>12</b>	
<i>Asset Replacement Index</i>						
<i>Water and Waste Water</i>						
*Estimated Infrastructure Capital Replacement Cost			\$73,000,000			
*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)			\$1,020,000			
3 year Rolling Average			\$1,239,754			
			<b>Total</b>	<b>8</b>	<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>						
Co-operation				5		
Budget Process				4		
Detailed Explanation				4		
Public Awareness & Education				3		
			<b>Total</b>	<b>16</b>	<b>20</b>	
<b>Total Score</b>				<b>63</b>	<b>100</b>	

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

**CITY OF PORT COLBORNE**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$328,807	\$462,984	\$249,351	\$201,884	\$137,570	\$117,511	\$706,000	\$497,244	\$850,500	\$875,002	\$510,000	\$16,706	\$540,000
<b>Wastewater</b>	\$1,076,196	\$714,546	\$913,955	\$444,716	\$191,142	\$3,046,197	\$1,150,000	\$1,392,599	\$405,000	\$592,357	\$652,000	\$158,683	\$25,000
<b>Water Works</b>	\$584,030	\$525,208	\$700,105	\$806,474	\$138,916	\$755,612	\$625,000	\$538,393	\$450,000	\$459,648	\$450,000	\$577,583	\$181,000

		City of Niagara Falls		Individual Score	Total Possible Score	
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>					
	<i>Actual Expenditure v. Budget</i>		<b>2002</b>	<b>2003</b>		
		Roads	-13.62%	-27.72%	0	
		Waste Water	67.58%	-34.84%	5	
		Water	672.07%	-80.93%	5	
					<b>Total</b>	<b>10</b>
						<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>					
	Current Increase					
		Roads	36.41%		10	
		Waste Water	53.98%		10	
		Water				
	Current Decrease but where Expenditure Position was Positive					
		Roads				
		Waste Water				
		Water	-32.40%			
					<b>Total</b>	<b>20</b>
						<b>30</b>
	<i>Per Capita last 2 years</i>					
		Pop:	82,734			
	Roads	2002 \$13.17	2003 \$103.33	4		
	Waste Water	\$59.42	\$69.36	4		
	Water	\$32.66	\$5.25	0		
				<b>Total</b>	<b>8</b>	
					<b>12</b>	
<i>Asset Replacement Index</i>						
<i>Water and Waste Water</i>						
	*Estimated Infrastructure Capital Replacement Cost		\$315,000,000			
	*Annual Expected Capital Replacement Cost		\$4,500,000			
	(based on 70 year life span or 1.4% Annual Replacement)					
	3 year Rolling Average		\$5,910,193			
				<b>Total</b>	<b>8</b>	
					<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>						
	Co-operation			5		
	Budget Process			3		
	Detailed Explanation			3		
	Public Awareness & Education			3		
				<b>Total</b>	<b>14</b>	
					<b>20</b>	
				<b>Total Score</b>	<b>60</b>	
					<b>100</b>	

\*Figures taken from the "Water and Wastewater Master Service Plan Update" (2003)

**CITY OF NIAGARA FALLS**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$3,016,480	\$4,114,857	\$2,772,472	\$2,632,402	\$1,889,188	\$848,642	\$3,718,500	\$2,706,192	\$1,261,250	\$1,089,419	\$11,827,855	\$ 8,548,959	\$ 16,815,273
<b>Wastewater</b>	\$2,775,026	\$4,272,985	\$329,947	\$216,321	\$225,244	\$830,928	\$3,435,975	\$2,164,118	\$2,933,750	\$4,916,429	\$8,805,970	\$ 5,738,409	\$ 8,889,727
<b>Water Works</b>	\$2,421,758	\$1,637,207	\$741,920	\$1,414,526	\$3,693,585	\$3,503,582	\$3,011,500	\$1,774,747	\$350,000	\$2,702,252	\$2,279,545	\$ 434,623	\$ 2,160,790

City of Thorold							
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>			<b>Individual Score</b>	<b>Total Possible Score</b>		
	<i>Actual Expenditure v. Budget</i>			<b>2002</b>	<b>2003</b>		
	Roads		-18.93%	-13.68%	0		
	Waste Water		-20.28%	-25.90%	0		
	Water		65.19%	-9.25%	5		
				<b>Total</b>	<b>5</b>	<b>30</b>	
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>						
	<i>Current Increase</i>						
	Roads						
	Waste Water	1.90%			10		
Water	14.58%			10			
<i>Current Decrease but where Expenditure Position was Positive</i>							
Roads		-9.53%		5			
Waste Water							
Water							
			<b>Total</b>	<b>25</b>	<b>30</b>		
<i>Per Capita last 2 years</i>			Pop: 18,825	<b>2002</b>	<b>2003</b>		
Roads		\$7.11	\$30.72	4			
Waste Water		\$20.19	\$20.90	4			
Water		\$34.16	\$18.95	0			
			<b>Total</b>	<b>8</b>	<b>12</b>		
<i>Asset Replacement Index</i>							
<i>Water and Waste Water</i>							
*Estimated Infrastructure Capital Replacement Cost			\$61,000,000				
*Annual Expected Capital Replacement Cost			\$860,000				
(based on 70 year life span or 1.4% Annual Replacement)							
3 year Rolling Average			\$838,613				
			<b>Total</b>	<b>8</b>	<b>8</b>		
<b>Infrastructure Expenditure Processes:</b>							
Co-operation				4			
Budget Process				4			
Detailed Explanation				4			
Public Awareness & Education				2			
			<b>Total</b>	<b>14</b>	<b>20</b>		
			<b>Total Score</b>	<b>60</b>	<b>100</b>		

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

**CITY OF THOROLD**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$481,628	\$435,713	\$332,000	\$0	\$500,000	\$601,000	\$370,000	\$595,000	\$165,000	\$133,765	\$670,000	\$578,373	\$572,000
<b>Wastewater</b>	\$398,995	\$406,594	\$3,500,000	\$55,000	\$389,000	\$386,194	\$425,420	\$446,286	\$476,667	\$380,000	\$531,000	\$393,495	\$400,000
<b>Water Works</b>	\$377,042	\$432,019	\$230,000	\$670,000	\$300,000	\$289,155	\$325,000	\$296,410	\$389,245	\$643,000	\$393,000	\$356,647	\$325,000

		<b>Town of Fort Erie</b>				
<b>Increased Infrastructure Investment for the Niagara Region</b>	<b>Infrastructure Expenditures:</b>			<b>Individual Score</b>	<b>Total Possible Score</b>	
	<i>Actual Expenditure v. Budget</i>		<b>2002</b>	<b>2003</b>		
	Roads		10.71%	-42.99%	5	
	Waste Water		-10.17%	-64.12%	5	
	Water		3.20%	-21.46%	5	
			<b>Total</b>		<b>15</b>	<b>30</b>
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>					
	<i>Current Increase</i>					
	Roads	15.36%			10	
	Waste Water					
Water						
<i>Current Decrease but where Expenditure Position was Positive</i>						
Roads						
Waste Water	-27.59%			0		
Water	-21.52%			0		
		<b>Total</b>		<b>10</b>	<b>30</b>	
<i>Per Capita last 2 years</i>		Pop: 29,674	<b>2002</b>	<b>2003</b>		
Roads			\$70.77	\$75.26	4	
Waste Water			\$26.49	\$20.04	0	
Water			\$78.25	\$78.90	4	
		<b>Total</b>		<b>8</b>	<b>12</b>	
<i>Asset Replacement Index</i>						
<i>Water and Waste Water</i>						
*Estimated Infrastructure Capital Replacement Cost				\$166,000,000		
*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)				\$2,400,000		
3 year Rolling Average				\$2,528,015		
		<b>Total</b>		<b>8</b>	<b>8</b>	
<b>Infrastructure Expenditure Processes:</b>						
<i>Co-operation</i>				5		
<i>Budget Process</i>				4		
<i>Detailed Explanation</i>				5		
<i>Public Awareness &amp; Education</i>				4		
		<b>Total</b>		<b>18</b>	<b>20</b>	
<b>Total Score</b>				<b>59</b>	<b>100</b>	

\*Figures taken from the "Water and Wastewater Servicing Plan Update" (2003)

**TOWN OF FORT ERIE**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$1,794,356	\$2,070,051	\$553,036	\$532,603	\$911,559	\$1,850,066	\$2,674,000	\$1,876,731	\$1,897,000	\$2,100,128	\$3,917,500	\$2,233,294	\$5,151,000
<b>Wastewater</b>	\$899,052	\$651,019	\$5,042,661	\$545,385	\$1,742,489	\$799,714	\$790,000	\$572,500	\$875,000	\$785,984	\$1,657,000	\$594,573	\$1,067,000
<b>Water Works</b>	\$2,391,628	\$1,876,996	\$1,057,331	\$2,656,665	\$3,482,245	\$2,844,907	\$2,131,000	\$967,921	\$2,250,000	\$2,321,924	\$2,981,000	\$2,341,143	\$488,000

City of Welland							
Increased Infrastructure Investment in the Niagara Region	<b>Infrastructure Expenditures:</b>			<b>Individual Score</b>	<b>Total Possible Score</b>		
	<i>Actual Expenditure v. Budget</i>			<b>2002</b>	<b>2003</b>		
	Roads		122.85%	-34.80%	5		
	Waste Water		-17.24%	6.96%	5		
	Water		-20.78%	-4.88%	5		
				<b>Total</b>	<b>15</b>	<b>30</b>	
	<i>Rolling Average 3 year to 5 year (1999-2003)</i>						
	<i>Current Increase</i>						
	Roads						
	Waste Water	15.16%			10		
Water							
<i>Current Decrease but where Expenditure Position was Positive</i>							
Roads		-27.97%		0			
Waste Water							
Water		-1.17%		5			
			<b>Total</b>	<b>15</b>	<b>30</b>		
<i>Per Capita last 2 years</i>			Pop: 50,307	<b>2002</b>	<b>2003</b>		
Roads		\$30.57	\$11.99	0			
Waste Water		\$29.69	\$35.61	4			
Water		\$23.15	\$20.80	0			
				<b>Total</b>	<b>4</b>	<b>12</b>	
<i>Asset Replacement Index</i>							
<i>Water and Waste Water</i>							
*Estimated Infrastructure Capital Replacement Cost			\$210,000,000				
*Annual Expected Capital Replacement Cost (based on 70 year life span or 1.4% Annual Replacement)			\$2,900,000				
3 year Rolling Average			\$2,460,169				
			<b>Total</b>	<b>4</b>	<b>8</b>		
<b>Infrastructure Expenditure Processes:</b>							
Co-operation				5			
Budget Process				5			
Detailed Explanation				5			
Public Awareness & Education				2			
			<b>Total</b>	<b>17</b>	<b>20</b>		
			<b>Total Score</b>	<b>55</b>	<b>100</b>		

\*Figures taken from the "Water and Wastewater Master Servicing Plan Update" (2003)

**CITY OF WELLAND**

<b>Division</b>	<b>5 Year Average</b>	<b>3 Year Average</b>	<b>1997 Actual</b>	<b>1998 Actual</b>	<b>1999 Actual</b>	<b>2000 Actual</b>	<b>2001 Budgeted</b>	<b>2001 Actual</b>	<b>2002 Budgeted</b>	<b>2002 Actual</b>	<b>2003 Budgeted</b>	<b>2003 Actual</b>	<b>2004 Budgeted</b>
<b>Roads</b>	\$1,409,552	\$1,015,338	\$1,048,190	\$1,803,988	\$2,618,272	\$1,383,475	\$1,275,000	\$905,221	\$690,000	\$1,537,672	\$925,000	\$603,121	\$1,200,000
<b>Wastewater</b>	\$1,209,124	\$1,392,476	\$1,435,486	\$1,800,102	\$734,828	\$1,133,367	\$1,425,000	\$891,938	\$1,805,000	\$1,493,834	\$1,675,000	\$1,791,655	\$4,620,000
<b>Water Works</b>	\$1,080,374	\$1,067,694	\$1,350,947	\$777,815	\$1,024,996	\$1,173,795	\$1,430,000	\$992,328	\$1,470,000	\$1,164,469	\$1,100,000	\$1,046,284	\$1,738,000

**COMPARISON OF MUNICIPALITIES - ACTUALS**

1997 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$19,429,078	\$2,772,472	\$249,351	\$4,588,193	\$332,000	\$1,048,190	\$553,036	\$666,832	\$896,578	\$30,535,730	
Wastewater	\$18,159,421	\$329,947	\$913,955	\$2,621,757	\$3,500,000	\$1,435,486	\$5,042,661	\$27,363	\$783,450	\$32,814,040	
Water Works	\$11,229,235	\$741,920	\$700,105	\$1,899,724	\$230,000	\$1,350,947	\$1,057,331	\$25,956	\$1,216,956	\$18,452,174	
<b>Totals</b>	<b>\$48,817,734</b>	<b>\$3,844,339</b>	<b>\$1,863,411</b>	<b>\$9,109,674</b>	<b>\$4,062,000</b>	<b>\$3,834,623</b>	<b>\$6,653,028</b>	<b>\$720,151</b>	<b>\$2,896,984</b>	<b>\$81,801,944</b>	

1998 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$20,346,588	\$2,632,402	\$201,884	\$5,320,301	\$0	\$1,803,988	\$532,603	\$868,086	\$1,343,136	\$33,048,988	
Wastewater	\$10,699,880	\$216,321	\$444,716	\$1,406,315	\$55,000	\$1,800,102	\$545,385	\$18,730	\$536,212	\$15,722,661	
Water Works	\$5,606,668	\$1,414,526	\$806,474	\$2,393,681	\$670,000	\$777,815	\$2,656,665	\$443,450	\$555,337	\$15,324,616	
<b>Totals</b>	<b>\$36,653,136</b>	<b>\$4,263,249</b>	<b>\$1,453,074</b>	<b>\$9,120,297</b>	<b>\$725,000</b>	<b>\$4,381,905</b>	<b>\$3,734,653</b>	<b>\$1,330,266</b>	<b>\$2,434,685</b>	<b>\$64,096,265</b>	

1999 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$16,111,134	\$1,889,188	\$137,570	\$4,087,387	\$500,000	\$2,618,272	\$911,559	\$616,354	\$974,492	\$27,845,956	
Wastewater	\$17,636,411	\$225,244	\$191,142	\$623,347	\$389,000	\$734,828	\$1,742,489	\$246,197	\$164,339	\$21,952,997	
Water Works	\$4,950,693	\$3,693,585	\$138,916	\$2,298,573	\$300,000	\$1,024,996	\$3,482,245	\$496,074	\$804,205	\$17,189,287	
<b>Totals</b>	<b>\$38,698,238</b>	<b>\$5,808,017</b>	<b>\$467,628</b>	<b>\$7,009,307</b>	<b>\$1,189,000</b>	<b>\$4,378,096</b>	<b>\$6,136,293</b>	<b>\$1,358,625</b>	<b>\$1,943,036</b>	<b>\$66,988,240</b>	

2000 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$20,611,301	\$848,642	\$117,511	\$5,325,098	\$601,000	\$1,383,475	\$1,850,066	\$829,584	\$2,677,439	\$34,244,116	
Wastewater	\$19,433,733	\$830,928	\$3,046,197	\$1,756,787	\$386,194	\$1,133,367	\$799,714	\$1,367,765	\$1,006,771	\$29,761,456	
Water Works	\$3,219,805	\$3,503,582	\$755,612	\$3,660,382	\$289,155	\$1,173,795	\$2,844,907	\$344,294	\$2,263,622	\$18,055,154	
Totals	\$43,264,839	\$5,183,152	\$3,919,321	\$10,742,267	\$1,276,349	\$3,690,637	\$5,494,687	\$2,541,643	\$5,947,832	\$82,060,727	

2001 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$33,615,846	\$2,706,192	\$497,244	\$4,339,744	\$595,000	\$905,221	\$1,876,731	\$829,584	\$1,422,127	\$46,787,689	
Wastewater	\$12,051,567	\$2,164,118	\$1,392,599	\$2,996,484	\$446,286	\$891,938	\$572,500	\$93,743	\$787,164	\$21,396,399	
Water Works	\$5,779,807	\$1,774,747	\$538,393	\$3,730,592	\$296,410	\$992,328	\$967,921	\$372,124	\$1,488,644	\$15,940,966	
Totals	\$51,447,220	\$6,645,057	\$2,428,236	\$11,066,820	\$1,337,696	\$2,789,487	\$3,417,152	\$1,295,451	\$3,697,935	\$84,125,054	

2002 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$31,499,785	\$1,089,419	\$875,002	\$6,424,128	\$133,765	\$1,537,672	\$2,100,128	\$697,639	\$946,976	\$45,304,514	
Wastewater	\$9,423,044	\$4,916,429	\$592,357	\$1,890,227	\$380,000	\$1,493,834	\$785,984	\$740,949	\$1,672,568	\$21,895,392	
Water Works	\$4,959,890	\$2,702,252	\$459,648	\$4,698,249	\$643,000	\$1,164,469	\$2,321,924	\$575,943	\$1,844,381	\$19,369,756	
Totals	\$45,882,719	\$8,708,100	\$1,927,006	\$13,012,604	\$1,156,765	\$4,195,975	\$5,208,036	\$2,014,531	\$4,463,925	\$86,569,661	

2003 Actual											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$37,995,166	\$8,548,959	\$16,706	\$6,597,573	\$578,373	\$603,121	\$2,233,294	\$1,057,058	\$1,143,933	\$58,774,183	
Wastewater	\$9,521,937	\$5,738,409	\$158,683	\$3,000,648	\$393,495	\$1,791,655	\$594,573	\$213,051	\$1,808,758	\$23,221,209	
Water Works	\$12,469,606	\$434,623	\$577,583	\$5,165,853	\$356,647	\$1,046,284	\$2,341,143	\$758,627	\$1,434,745	\$24,585,111	
Totals	\$59,986,709	\$14,721,991	\$752,972	\$14,764,074	\$1,328,515	\$3,441,060	\$5,169,010	\$2,028,736	\$4,387,436	\$106,580,503	

5 Year Average											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$27,966,646	\$3,016,480	\$328,807	\$5,354,786	\$481,628	\$1,409,552	\$1,794,356	\$806,044	\$1,432,993	\$42,591,292	
Wastewater	\$13,613,338	\$2,775,026	\$1,076,196	\$2,053,499	\$398,995	\$1,209,124	\$899,052	\$532,341	\$1,087,920	\$23,645,491	
Water Works	\$6,275,960	\$2,421,758	\$584,030	\$3,910,730	\$377,042	\$1,080,374	\$2,391,628	\$509,412	\$1,567,119	\$19,118,055	
Totals	\$47,855,945	\$8,213,263	\$1,989,033	\$11,319,014	\$1,257,665	\$3,699,051	\$5,085,036	\$1,847,797	\$4,088,033	\$85,354,837	

3 Year Average											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$34,370,266	\$4,114,857	\$462,984	\$5,787,148	\$435,713	\$1,015,338	\$2,070,051	\$861,427	\$1,171,012	\$50,288,795	
Wastewater	\$10,332,183	\$4,272,985	\$714,546	\$2,629,120	\$406,594	\$1,392,476	\$651,019	\$349,248	\$1,422,830	\$22,171,000	
Water Works	\$7,736,434	\$1,637,207	\$525,208	\$4,531,565	\$432,019	\$1,067,694	\$1,876,996	\$568,898	\$1,589,257	\$19,965,278	
Totals	\$52,438,883	\$10,025,049	\$1,702,738	\$12,947,833	\$1,274,325	\$3,475,507	\$4,598,066	\$1,779,573	\$4,183,099	\$92,425,073	

**COMPARISON OF ACTUAL EXPENDITURES BY YEAR**

ROADS													
Year	Region	% of Total	Municipalities								Total of Municipalities	% of Municipalities	Grand Total
			Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	*Grimsby	NOTL			
1998	20,346,588	61.56%	2,632,402	201,884	5,320,301	0	1,803,988	532,603	868,086	1,343,136	12,702,400	38.44%	33,048,988
1999	16,111,134	57.86%	1,889,188	137,570	4,087,387	500,000	2,618,272	911,559	616,354	974,492	11,734,822	42.14%	27,845,956
2000	20,611,301	60.19%	848,642	117,511	5,325,098	601,000	1,383,475	1,850,066	829,584	2,677,439	13,632,815	39.81%	34,244,116
2001	33,615,846	71.85%	2,706,192	497,244	4,339,744	595,000	905,221	1,876,731	829,584	1,422,127	13,171,843	28.15%	46,787,689
2002	31,499,785	69.53%	1,089,419	875,002	6,424,128	133,765	1,537,672	2,100,128	697,639	946,976	13,804,729	30.47%	45,304,514
2003	37,995,166	64.65%	8,548,959	16,706	6,597,573	578,373	603,121	2,233,294	1,057,058	1,143,933	20,779,017	35.35%	58,774,183
<b>Total Expenditures</b>	<b>139,833,232</b>	<b>65.66%</b>	<b>15,082,400</b>	<b>1,644,033</b>	<b>26,773,930</b>	<b>2,408,138</b>	<b>7,047,761</b>	<b>8,971,778</b>	<b>4,030,219</b>	<b>7,164,967</b>	<b>73,123,226</b>	<b>34.34%</b>	<b>212,956,458</b>
<b>5yr. Expenditure Average</b>	<b>27,966,646</b>	<b>65.66%</b>	<b>3,016,480</b>	<b>328,807</b>	<b>5,354,786</b>	<b>481,628</b>	<b>1,409,552</b>	<b>1,794,356</b>	<b>806,044</b>	<b>1,432,993</b>	<b>14,624,645</b>	<b>34.34%</b>	<b>42,591,292</b>

WASTEWATER													
Year	Region	% of Total	Municipalities								Total of Municipalities	% of Municipalities	Grand Total
			Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	*Grimsby	NOTL			
1998	10,699,880	68.05%	216,321	444,716	1,406,315	55,000	1,800,102	545,385	18,730	536,212	5,022,781	31.95%	15,722,661
1999	17,636,411	80.34%	225,244	191,142	623,347	389,000	734,828	1,742,489	246,197	164,339	4,316,586	19.66%	21,952,997
2000	19,433,733	65.30%	830,928	3,046,197	1,756,787	386,194	1,133,367	799,714	1,367,765	1,006,771	10,327,723	34.70%	29,761,456
2001	12,051,567	56.33%	2,164,118	1,392,599	2,996,484	446,286	891,938	572,500	93,743	787,164	9,344,832	43.67%	21,396,399
2002	9,423,044	43.04%	4,916,429	592,357	1,890,227	380,000	1,493,834	785,984	740,949	1,672,568	12,472,348	56.96%	21,895,392
2003	9,521,937	41.01%	5,738,409	158,683	3,000,648	393,495	1,791,655	594,573	213,051	1,808,758	13,699,272	58.99%	23,221,209
<b>Total Expenditures</b>	<b>68,066,692</b>	<b>57.57%</b>	<b>13,875,128</b>	<b>5,380,978</b>	<b>10,267,493</b>	<b>1,994,975</b>	<b>6,045,622</b>	<b>4,495,260</b>	<b>2,661,705</b>	<b>5,439,600</b>	<b>50,160,761</b>	<b>42.43%</b>	<b>118,227,453</b>
<b>5yr. Expenditure Average</b>	<b>13,613,338</b>	<b>57.57%</b>	<b>2,775,026</b>	<b>1,076,196</b>	<b>2,053,499</b>	<b>398,995</b>	<b>1,209,124</b>	<b>899,052</b>	<b>532,341</b>	<b>1,087,920</b>	<b>10,032,152</b>	<b>42.43%</b>	<b>23,645,491</b>

WATER													
Year	Region	% of Total	Municipalities								Total of Municipalities	% of Municipalities	Grand Total
			Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	*Grimsby	NOTL			
1998	5,606,668	36.59%	1,414,526	806,474	2,393,681	670,000	777,815	2,656,665	443,450	555,337	9,717,948	63.41%	15,324,616
1999	4,950,693	29.07%	3,693,585	138,916	2,298,573	138,916	1,024,996	3,482,245	496,074	804,205	12,077,510	70.93%	17,028,203
2000	3,219,805	17.83%	3,503,582	755,612	3,660,382	289,155	1,173,795	2,844,907	344,294	2,263,622	14,835,349	82.17%	18,055,154
2001	5,779,807	36.26%	1,774,747	538,393	3,730,592	296,410	992,328	967,921	372,124	1,488,644	10,161,159	63.74%	15,940,966
2002	4,959,890	25.85%	2,702,252	459,648	4,698,249	459,648	1,164,469	2,321,924	575,943	1,844,381	14,226,513	74.15%	19,186,403
2003	12,469,606	50.27%	434,623	577,583	5,165,853	577,583	1,046,284	2,341,143	758,627	1,434,745	12,336,441	49.73%	24,806,047
<b>Total Expenditures</b>	<b>31,379,801</b>	<b>33.03%</b>	<b>12,108,789</b>	<b>2,470,152</b>	<b>19,553,649</b>	<b>1,761,712</b>	<b>5,401,872</b>	<b>11,958,140</b>	<b>2,547,062</b>	<b>7,835,597</b>	<b>63,636,973</b>	<b>66.97%</b>	<b>95,016,774</b>
<b>5yr. Expenditure Average</b>	<b>6,275,960</b>	<b>33.03%</b>	<b>2,421,758</b>	<b>494,030</b>	<b>3,910,730</b>	<b>352,342</b>	<b>1,080,374</b>	<b>2,391,628</b>	<b>509,412</b>	<b>1,567,119</b>	<b>12,727,395</b>	<b>66.97%</b>	<b>19,003,355</b>

**COMPARISON OF MUNICIPALITIES - BUDGETS**

2001 Budgeted											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$16,174,354	\$3,718,500	\$706,000	\$5,393,000	\$370,000	\$1,275,000	\$2,674,000	\$1,280,500	\$1,204,000	\$32,795,354	
Wastewater	\$12,841,540	\$3,435,975	\$1,150,000	\$2,770,000	\$425,420	\$1,425,000	\$790,000	\$50,000	\$1,862,500	\$24,750,435	
Water Works	\$11,947,695	\$3,011,500	\$625,000	\$4,300,000	\$325,000	\$1,430,000	\$2,131,000	\$443,000	\$1,339,000	\$25,552,195	
<b>Total</b>	<b>\$40,963,589</b>	<b>\$10,165,975</b>	<b>\$2,481,000</b>	<b>\$12,463,000</b>	<b>\$1,120,420</b>	<b>\$4,130,000</b>	<b>\$5,595,000</b>	<b>\$1,773,500</b>	<b>\$4,405,500</b>	<b>\$83,097,984</b>	

2002 Budgeted											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$24,848,943	\$1,261,250	\$850,500	\$5,500,000	\$165,000	\$690,000	\$1,897,000	\$649,670	\$1,309,000	\$37,171,363	
Wastewater	\$14,830,253	\$2,933,750	\$405,000	\$3,282,000	\$476,667	\$1,805,000	\$875,000	\$97,000	\$1,423,500	\$26,128,170	
Water Works	\$18,754,841	\$350,000	\$450,000	\$4,300,000	\$389,245	\$1,470,000	\$2,250,000	\$497,500	\$1,313,000	\$29,774,586	
<b>Total</b>	<b>\$58,434,037</b>	<b>\$4,545,000</b>	<b>\$1,705,500</b>	<b>\$13,082,000</b>	<b>\$1,030,912</b>	<b>\$3,965,000</b>	<b>\$5,022,000</b>	<b>\$1,244,170</b>	<b>\$4,045,500</b>	<b>\$93,074,119</b>	

2003 Budgeted											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$40,905,237	\$11,827,855	\$510,000	\$5,500,000	\$670,000	\$925,000	\$3,917,500	\$1,178,500	\$1,598,000	\$67,032,092	
Wastewater	\$15,345,702	\$8,805,970	\$652,000	\$2,888,000	\$531,000	\$1,675,000	\$1,657,000	\$311,000	\$1,607,500	\$33,473,172	
Water Works	\$13,022,305	\$2,279,545	\$450,000	\$4,300,000	\$393,000	\$1,100,000	\$2,981,000	\$1,149,000	\$1,182,000	\$26,856,850	
<b>Total</b>	<b>\$69,273,244</b>	<b>\$22,913,370</b>	<b>\$1,612,000</b>	<b>\$12,688,000</b>	<b>\$1,594,000</b>	<b>\$3,700,000</b>	<b>\$8,555,500</b>	<b>\$2,638,500</b>	<b>\$4,387,500</b>	<b>\$127,362,114</b>	

2004 Budgeted											
Division	Region	Niagara Falls	Port Colborne	St. Catharines	Thorold	Welland	Fort Erie	Grimsby	NOTL	Total	
Roads	\$30,728,000	\$16,815,273	\$540,000	\$5,500,000	\$572,000	\$1,200,000	\$5,151,000	\$910,000	\$1,212,500	\$62,628,773	
Wastewater	\$30,368,000	\$8,889,727	\$25,000	\$2,990,000	\$400,000	\$4,620,000	\$1,067,000	\$70,000	\$1,159,000	\$49,588,727	
Water Works	\$30,450,000	\$2,160,790	\$181,000	\$4,300,000	\$325,000	\$1,738,000	\$488,000	\$1,050,000	\$1,400,300	\$42,093,090	
<b>Total</b>	<b>\$91,546,000</b>	<b>\$27,865,790</b>	<b>\$746,000</b>	<b>\$12,790,000</b>	<b>\$1,297,000</b>	<b>\$7,558,000</b>	<b>\$6,706,000</b>	<b>\$2,030,000</b>	<b>\$3,771,800</b>	<b>\$154,310,590</b>	

**Per Capita Spending Comparison**

**2001**

	<b>Region</b>	<b>Niagara Falls</b>	<b>Port Colborne</b>	<b>St. Catharines</b>	<b>Thorold</b>	<b>Welland</b>	<b>Fort Erie</b>	<b>Grimsby</b>	<b>NOTL</b>	<b>Total</b>	<b>Average</b>
<b>Roads</b>	\$81.88	\$34.34	\$26.96	\$21.87	\$32.97	\$18.70	\$66.69	\$38.95	\$102.76	\$425.12	\$47.24
<b>Wasterwater</b>	\$29.35	\$27.46	\$75.48	\$22.08	\$24.73	\$18.43	\$20.34	\$4.40	\$56.88	\$279.15	\$31.02
<b>Water</b>	\$14.08	\$22.52	\$29.18	\$19.54	\$16.42	\$20.50	\$34.39	\$17.47	\$107.57	\$281.67	\$31.30
<b>Total</b>	\$125.31	\$84.32	\$131.62	\$63.49	\$74.12	\$57.63	\$121.42	\$60.82	\$267.21	\$985.94	\$109.55
<b>Average</b>	\$41.77	\$28.11	\$43.87	\$21.16	\$24.71	\$19.21	\$40.47	\$20.27	\$89.07	\$328.65	

**2002**

	<b>Region</b>	<b>Niagara Falls</b>	<b>Port Colborne</b>	<b>St. Catharines</b>	<b>Thorold</b>	<b>Welland</b>	<b>Fort Erie</b>	<b>Grimsby</b>	<b>NOTL</b>	<b>Total</b>	<b>Average</b>
<b>Roads</b>	\$76.72	\$13.17	\$45.60	\$48.10	\$7.11	\$30.57	\$70.77	\$ 30.46	\$64.61	\$387.11	\$43.01
<b>Wasterwater</b>	\$22.95	\$59.42	\$30.87	\$14.15	\$20.19	\$29.69	\$26.49	\$ 32.35	\$114.12	\$350.24	\$38.92
<b>Water</b>	\$12.08	\$32.66	\$23.95	\$35.18	\$34.16	\$23.15	\$78.25	\$ 25.15	\$125.84	\$390.42	\$43.38
<b>Total</b>	\$111.75	\$105.25	\$100.43	\$97.44	\$61.45	\$83.41	\$175.51	\$87.96	\$304.58	\$1,127.77	\$125.31
<b>Average</b>	\$37.25	\$35.08	\$33.48	\$32.48	\$20.48	\$27.80	\$58.50	\$29.32	\$101.53	\$375.92	

**2003**

	<b>Region</b>	<b>Niagara Falls</b>	<b>Port Colborne</b>	<b>St. Catharines</b>	<b>Thorold</b>	<b>Welland</b>	<b>Fort Erie</b>	<b>Grimsby</b>	<b>NOTL</b>	<b>Total</b>	<b>Average</b>
<b>Roads</b>	\$88.37	\$103.33	\$0.87	\$49.40	\$30.72	\$11.99	\$75.26	\$46.15	\$78.05	\$484.15	\$53.79
<b>Wasterwater</b>	\$22.15	\$59.42	\$8.27	\$22.47	\$20.90	\$35.61	\$20.04	\$9.30	\$123.41	\$321.58	\$35.73
<b>Water</b>	\$29.00	\$5.25	\$30.10	\$38.68	\$18.95	\$20.80	\$78.90	\$33.12	\$97.89	\$352.69	\$39.19
<b>Total</b>	\$139.52	\$168.01	\$39.24	\$110.55	\$70.57	\$68.40	\$174.19	\$88.58	\$299.36	\$1,158.43	\$128.71
<b>Average</b>	\$46.51	\$56.00	\$13.08	\$36.85	\$23.52	\$22.80	\$58.06	\$29.53	\$99.79	\$386.14	

<b>Asset Replacement Index - 70 year Life Cycle</b>			
<b>Municipality</b>	<b>*Capital Replacement Cost</b>	<b>*Annual Capital Replacement Cost</b>	<b>3yr. Rolling Average</b>
Region	\$367,000,000	\$5,190,000	\$18,068,617
St. Catharines	\$521,000,000	\$7,300,000	\$7,160,684
Niagara Falls	\$315,000,000	\$4,500,000	\$5,910,193
Port Colborne	\$73,000,000	\$1,020,000	\$1,239,754
Welland	\$210,000,000	\$2,900,000	\$2,460,169
Thorold	\$61,000,000	\$860,000	\$838,613
Fort Erie	\$166,000,000	\$2,400,000	\$2,528,015
Grimsby	\$75,000,000	\$1,100,000	\$918,146
Niagara-on-the-Lake	\$93,000,000	\$1,300,000	\$3,012,087
<b>Total</b>	<b>\$1,881,000,000</b>	<b>\$26,570,000</b>	<b>\$42,136,278</b>

<b>Asset Replacement Index - 50 year Life Cycle</b>			
<b>Municipality</b>	<b>*Capital Replacement Cost</b>	<b>**Annual Capital Replacement Cost</b>	<b>3yr. Rolling Average</b>
Region	\$367,000,000	\$7,340,000	\$18,068,617
St. Catharines	\$521,000,000	\$10,420,000	\$7,160,684
Niagara Falls	\$315,000,000	\$6,300,000	\$5,910,193
Port Colborne	\$73,000,000	\$1,460,000	\$1,239,754
Welland	\$210,000,000	\$4,200,000	\$2,460,169
Thorold	\$61,000,000	\$1,220,000	\$838,613
Fort Erie	\$166,000,000	\$3,320,000	\$2,528,015
Grimsby	\$75,000,000	\$1,500,000	\$918,146
Niagara-on-the-Lake	\$93,000,000	\$1,860,000	\$3,012,087
<b>Total</b>	<b>\$1,881,000,000</b>	<b>\$37,620,000</b>	<b>\$42,136,278</b>

\*Figures taken from the "Water and Wasterwater Master Servicing Plan Update" (2003)

\*\*Based on a 50 year life span or 2% annual replacement