

UPDATE ON CAPITAL INFRASTRUCTURE

for

Eastern Ontario

Presentation for the EOWC

May 26, 2017

Belleville, Ontario Canada

- Objectives
 - Update 2011 Capital Infrastructure data and deficit
 - Generate ‘sound-bites’ for EOWC video update
- Review of Results from 2015 FIRs
(most recent year for which comprehensive data is available)
 - Total capital infrastructure
 - Total transportation infrastructure
 - Total environmental services infrastructure
 - Possible extracted data points for video purposes
- Questions, Feedback and Formal Receipt

Total Capital Infrastructure **EOWC**

Infrastructure	Value of Capital Assets at Cost			
	2009	2010	2011	2015
Rural Eastern Ontario	\$ 7,591,916,695	\$ 8,088,298,898	\$ 8,730,385,133	\$ 9,801,315,085
Separated Cities & Towns	\$ 4,783,329,295	\$ 5,020,008,059	\$ 5,330,174,205	\$ 6,333,731,197
City of Ottawa	\$ 12,768,011,606	\$ 13,462,610,752	\$ 14,002,659,642	\$ 16,715,245,704
Eastern Ontario - Total	\$ 25,143,257,596	\$ 26,570,917,709	\$ 28,063,218,980	\$ 32,850,291,986

- \$32.9 billion in capital infrastructure expenditures in Eastern Ontario, split roughly equally between Ottawa and the rest of Eastern Ontario. Total investment is up 30.6% since 2009. CAGR for the region as a whole = 5.5%. This suggests that total capital infrastructure expenditures by the end of Dec. 2016 are estimated to be \$34.6 billion.
- \$9.8 billion in capital infrastructure expenditures in Rural Eastern Ontario. Total investment up 29.1%. CAGR = 5.2% (slightly lower than for the region as a whole and as compared to separated cities and towns: 5.8%). Total capital infrastructure expenditures by the end of Dec. 2016 are estimated to be \$10.3 billion.



Total Capital Infrastructure **EOWC**

Infrastructure	Net Book Value of Capital Assets			
	2009	2010	2011	2015
Rural Eastern Ontario	\$ 4,325,307,852	\$ 4,617,858,755	\$ 4,920,457,337	\$ 5,246,038,426
Separated Cities & Towns	\$ 2,758,846,126	\$ 2,899,387,454	\$ 3,069,463,753	\$ 3,586,033,914
City of Ottawa	\$ 9,457,668,607	\$ 9,998,063,100	\$ 10,350,390,740	\$ 12,103,327,545
Eastern Ontario - Total	\$16,541,822,585	\$ 17,515,309,309	\$ 18,340,311,830	\$ 20,935,399,885

- \$20.9 billion in residual capital infrastructure in Eastern Ontario, split roughly 60% in Ottawa and 40% in the rest of Eastern Ontario. Total net book value has gone up 26.5% since 2009. CAGR for the region as a whole = 4.8%. This suggests that net book value of capital infrastructure by the end of Dec. 2016 is estimated to be \$21.9 billion.
- \$5.2 billion in residual capital infrastructure in Rural Eastern Ontario. Total investment up 21.3%. CAGR = 3.9% (slightly lower than for the region as a whole and as compared to separated cities and towns: 5.4%). Net book value of capital infrastructure by the end of Dec. 2016 is estimated to be \$5.45 billion.

Total Capital Infrastructure

Infrastructure	Net Value of Capital Assets as Percentage of Cost			
	2009	2010	2011	2015
Rural Eastern Ontario	57.0	57.1	56.4	53.5
Separated Cities & Towns	57.7	57.8	57.6	56.6
City of Ottawa	74.1	74.3	73.9	72.4
Eastern Ontario - Total	65.8	65.9	65.4	63.7

- Overall, 63.7% of the value of the region's capital infrastructure has been preserved
- All parts of the region (City of Ottawa, separated towns and cities, and Rural Eastern Ontario) have seen net value of assets decline since 2010; it appears that 2010 was the peak of the region's ability to invest in and maintain its infrastructure
- The steepest decline in ability to maintain its infrastructure has been in rural municipalities and much less decline in the urban areas and small towns
- Over the past six years, the City of Ottawa has been able to maintain a larger share of its infrastructure than either the rural areas or the separated towns and cities.
- The percentage of municipalities in Eastern Ontario whose net value of assets/total cost ratio has fallen below 50% is now 32.7%, up from 22.1% in 2009.

Infrastructure	Value of Capital Assets Per Household - At Cost			
	2009	2010	2011	2015
Rural Eastern Ontario	\$ 21,071	\$ 22,555	\$ 23,673	\$ 28,154
Separated Cities & Towns	\$ 28,253	\$ 27,958	\$ 30,381	\$ 35,524
City of Ottawa	\$ 34,325	\$ 35,701	\$ 36,573	\$ 41,383

- In all three areas of Eastern Ontario (rural, separated cities and towns, and the City of Ottawa), the capital investment in infrastructure has risen from 2009 to 2015 *on a per household basis*.
- Capital assets held on behalf of each household in rural Eastern Ontario rose to \$28,154 (per household), including both upper and lower tier expenditures in two-tier systems
- The Compound Annual Growth Rate (CAGR) has been highest in rural Eastern Ontario (6%) with the separated cities and towns investing at 4.7% CAGR. The City of Ottawa's CAGR for infrastructure investment *on a per household basis* was 3.8% in the same timeframe.



Total Capital Infrastructure **EOWC**

Infrastructure	Net Book Value of Capital Assets Per Household			
	2009	2010	2011	2015
Rural Eastern Ontario	\$ 12,051	\$ 12,749	\$ 13,286	\$ 15,069
Separated Cities & Towns	\$ 16,171	\$ 16,955	\$ 17,495	\$ 20,113
City of Ottawa	\$ 25,087	\$ 26,520	\$ 27,033	\$ 29,965

- In all three areas of Eastern Ontario (rural, separated cities and towns, and the City of Ottawa), the net book value of capital assets has risen from 2009 to 2015 *on a per household basis*.
- The Compound Annual Growth Rate (CAGR) has been highest in rural Eastern Ontario (4.6%), with the separated cities and towns at 4.5% CAGR. The City of Ottawa's CAGR for net book value *on a per household basis* was 3.6% in the same timeframe.



Total Capital Infrastructure **EOWC**

Infrastructure	Capital Infrastructure		Capital Infrastructure		Capital Infrastructure	
	Deficit		Deficit		Deficit	
	All Assets - 2015		Transportation 2015		Environmental 2015	
Rural Eastern Ontario	\$	4,555,276,659	\$	3,112,774,134	\$	807,506,489
Separated Cities & Towns	\$	2,747,697,283	\$	1,354,457,160	\$	892,439,276
City of Ottawa	\$	4,611,918,159	\$	2,094,289,921	\$	1,727,629,205
Eastern Ontario - Total	\$	11,914,892,101	\$	6,561,521,215	\$	3,427,574,970

- The capital infrastructure deficit* for Rural Eastern Ontario now stands at \$4.56 billion (2015), up from \$3.83 billion in 2011. The deficit is growing at roughly 6% a year (CAGR).
- The capital infrastructure deficit in Rural Eastern Ontario is very similar in size to that of the City of Ottawa (using the calculation described below). The two areas have very similar population sizes.
- More than two-thirds (68%) of Rural Eastern Ontario’s capital infrastructure deficit is attributable to transportation assets; 49.3% for the separated cities and towns, and 45% for the City of Ottawa.
- Environmental Services assets account for 17.7% of Rural Eastern Ontario’s infrastructure deficit; for the separated cities and towns, it is 32.5% of the infrastructure deficit for the separated cities and towns, and 37.5% of the City of Ottawa’s capital infrastructure deficit.

*The capital infrastructure deficit is calculated as the difference between the total investment and the net value of assets, as measured in a specific year.

Total Transportation Infrastructure

Infrastructure	Transportation Assets	
	FIR 2015	
	Total Cost	Net Book Value
Rural Eastern Ontario	\$ 5,566,629,297	\$ 2,453,855,163
Separated Cities & Towns	\$ 2,262,950,576	\$ 908,493,416
City of Ottawa	\$ 5,689,619,317	\$ 3,595,329,396
Eastern Ontario - Total	\$ 13,519,199,190	\$ 6,957,677,975

- The investments in transportation infrastructure in Eastern Ontario total \$13.5 billion (as at December 31 2017) with Rural Eastern Ontario and the City of Ottawa having invested very similar amounts (\$5.6 and \$5.7 billion respectively).
- These investments represent 56.8% of Rural Eastern Ontario's infrastructure investments, and 34.0% of the City of Ottawa's capital infrastructure investments. Transportation infrastructure accounts for 35.7% of the separated cities and towns' investments.
- Rural Eastern Ontario has significantly lower net book value for its assets on a percentage of cost basis than the City of Ottawa (44.1% of total investment as compared to 63.2% for the City of Ottawa).

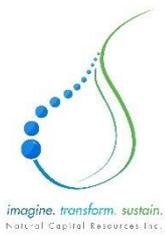
Total Environmental Services Infrastructure

Infrastructure FIR 2015	Environmental Services Assets	
	Total Cost	Net Book Value
Rural Eastern Ontario	\$ 2,325,066,355	\$ 1,517,559,866
Separated Cities & Towns	\$ 2,483,542,503	\$ 1,591,103,227
City of Ottawa	\$ 6,841,897,197	\$ 5,114,267,992
Eastern Ontario - Total	\$11,650,506,055	\$ 8,222,931,085

- The investments in environmental services infrastructure in Eastern Ontario total \$2.3 billion (as at December 31 2017) with Rural Eastern Ontario and the separated cities and towns having invested very similar amounts (\$2.3 and \$2.5 billion respectively).
- These investments represent 23.7% of Rural Eastern Ontario's infrastructure investments, and 39.2% of the Separated Cities and Towns' capital infrastructure investments. Transportation infrastructure accounts for 40.9% of the City of Ottawa's investments.
- Particularly compared to transportation infrastructure, Rural Eastern Ontario (and the separated cities and towns) has higher net book value for its environmental assets on a percentage of cost basis than the City of Ottawa (65.3% of total investment as compared to 64.1% for separated cities and towns, and 74.3% for the City of Ottawa).

Possible Extracted Data Points

- *Hidden assets*: \$9.8 billion (2015) or \$10.3 billion (2016 est.) in capital infrastructure assets in rural Eastern Ontario
- *The struggle continues*: rural municipalities (and small towns/cities) continue to struggle to maintain infrastructure): NBV = 53%: half of infrastructure value is being preserved
- *Rural municipalities continuing to invest*, at a higher rate than other parts of Eastern Ontario (6% CAGR); could link to median incomes in three areas; still falling behind by about 1.4% a year (6%-4.6%); \$137 million *more* a year just to keep pace
- *Deficit continues to rise*: Despite the efforts in Rural Eastern Ontario, the capital infrastructure deficit has risen to \$4.56 billion, and is growing at 6% a year.
- *Must deal with transportation*: 68% of capital infrastructure deficit in Rural Eastern Ontario is attributable to transportation services; another 17.7% is due to environmental services: together these two areas account for 85.7% of rural municipalities' capital infrastructure deficit (unless these two areas are addressed, the infrastructure investment gap will never close)
- *More municipalities falling behind*: A third of municipalities (32.7%) in the region have seen their net value/total cost ratio fall below 50%; this is up from 22.1% in 2009; all but one of them are in Rural Eastern Ontario



Questions, Feedback and Formal Receipt



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