

HALIFAX

Quantification Study

An Overview at CDAC

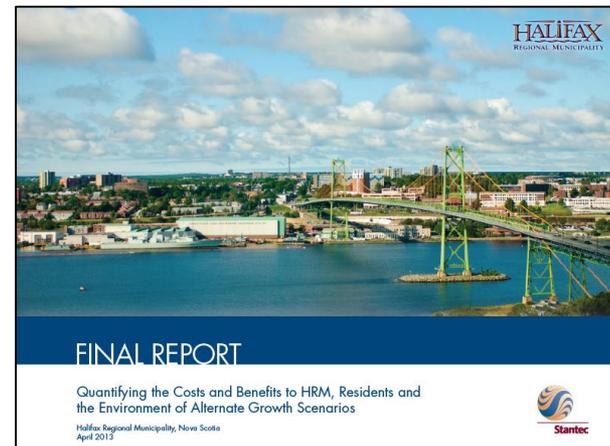
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Presentation Outline

1. Introduction
2. Scenarios
3. Modelling Approach
4. Growth Area Suitability Factors
5. Municipal Service Delivery
6. Conclusions

Introduction

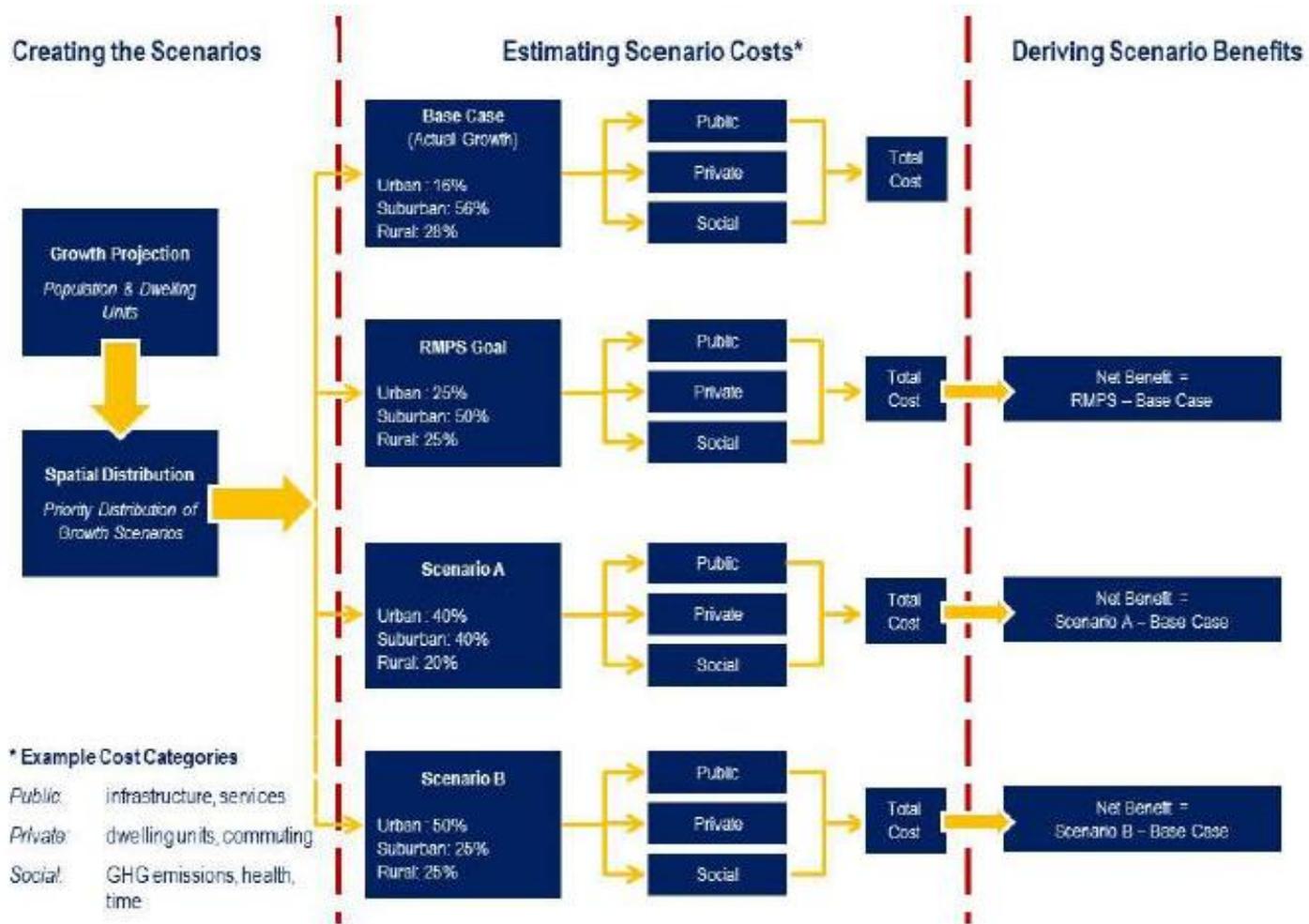
- Study provided invaluable empirical data to provide the solid support required for making decisions on the policy direction of our future growth as guided by the Regional Plan.
- Study provided an assessment of impact on overall quality of life for HRM residents under alternate growth scenarios.



Four Scenarios

1. 2006 Regional Plan Growth Goals
25% Regional Centre, 50% Suburban, 25% Rural
2. Actual Observed Growth (Post Regional Plan Adoption)
16% Regional Centre, 56% Suburban, and 28% Rural
3. Hypothetical Growth Scenario A
40% Regional Centre, 40% Suburban, 20% Rural
4. Hypothetical Growth Scenario B
50% Regional Centre, 30% Suburban, 20% Rural

Modeling Approach



Suitability Factors

Factor	Weight
Proximity to Established Growing Neighbourhood	3.5
Area has been Specifically Planned for Development	6.7
Affordable Cost of Housing	9.6
Community Stress Index (Composite of Socioeconomic and Crime Data)	5.8
Neighbourhood Stability (Measured by Lack of Turnover in Census Tract)	5.8
Overall Neighbourhood Satisfaction Score (2010 Citizen Survey by Council District)	1.0
Quality Waterfront Access	9.3
Availability of Piped Water and/or Sewer Services	8.0
Closest Arterial or Collector Roadway - but not "Too Close"	3.2
Closest Major Interchange - but not "Too Close"	7.5
Closest Well-Connected Transit Stop	1.1
Closest Well-Connected Transit Terminal	1.1
Nearest Community Facility/Centre (Sportsplex, Arena, Field, Playground)	7.1
Nearest Open Space, Green Space, Trails, Formal and Regional Parks	2.2
Nearest Library / University / Arts / Cultural Facility	2.6
Nearest Elementary, Junior High, and High School	13.5
Nearest Healthcare Facilities	3.2
TOTAL WEIGHTS	100.1

Municipal Services

Service	Agency	Key Features	Other	Funding
Water	Halifax Water	1,307 km of mains	100% metered	\$0.413 per m ³
Wastewater	Halifax Water	~1,000 km sanitary/300 km combined sewers	83% connected, 100% treated	\$1.169 per m ³
Stormwater	Halifax Water	~700 km storm/300 km combined		Wastewater charge
Transportation	HRM	1,778.4 km HRM	4,347.1 km total	General revenue
Transit	Metro Transit			Fares, Gas Tax, Transit Tax
Solid Waste Management	HRM	Otter Lake Landfill, composting and recycling	8 collection areas	Tipping fees, General revenue
Fire and Emergency	HRM	57 stations: 17 professional	40 volunteer	General revenue
Police	HRP/RCMP	3 HPL stations/6 RCMP		General revenue
Community Facilities and Parks	HRM	Extensive and varied	Facilities are community managed	User Fees, General revenue
Libraries	HPL	13 branch libraries	Central library under construction	General revenue

Other Services

Service	Agency	Key Features	Other	Funding
Provincial				
Highways	NSTIR	All 100 series highways	Burnside Connector, Highway 113	General revenue
Harbour Bridges	Halifax Harbour Bridges	100,000 crossings/day	Potential third crossing	Tolls
Schools	HRSB/CSAP	144 schools/52,001 students	83% capacity	General revenue/Municipal contribution
Private				
Electricity	NS Power	Follows development	Regulated pricing	User fees
Communications	Aliant/Eastlink	Follows development		User fees
Natural Gas	Heritage Gas	Market driven	Regulated pricing, environmental benefits	User fees

Conclusions

Service	Cumulative Costs to 2031				Differences from RMP5			
	RMP5 Goals	Post RMP5 Trend	Scenario A	Scenario B	RMP5 Goals	Post RMP5 Trend	Scenario A	Scenario B
Water, Wastewater, and Stormwater								
- Municipal System Capital	\$1,602,853	\$1,549,469	\$1,382,235	\$1,058,255	\$53,384	\$0	-\$167,234	-\$491,214
- Municipal System O&M	\$124,708	\$120,554	\$107,543	\$82,336	\$4,153	\$0	-\$13,011	-\$38,218
- Private Water and Septic O&M	\$57,733	\$80,025	\$47,215	\$47,215	-\$22,292	\$0	-\$32,809	-\$32,809
Transportation Services								
- Local Road Capital	\$1,698,837	\$1,736,524	\$1,382,557	\$1,079,829	-\$37,687	\$0	-\$353,967	-\$656,695
- Local Road O&M	\$514,672	\$531,886	\$418,681	\$334,556	-\$17,214	\$0	-\$113,204	-\$197,330
- Regional Road Capital	\$211,680	\$239,940	\$198,360	\$172,320	-\$28,260	\$0	-\$41,580	-\$67,620
- Regional Road O&M	\$45,651	\$54,813	\$41,333	\$32,872	-\$9,161	\$0	-\$13,479	-\$21,941
- Additional Peak Trip Time	\$1,809,114	\$2,259,602	\$1,500,300	\$1,090,934	-\$450,488	\$0	-\$759,303	-\$1,168,668
- Additional Peak Trip Distance	\$971,176	\$1,196,728	\$932,052	\$757,904	-\$225,552	\$0	-\$264,676	-\$438,823
- Additional Transit Use	\$29,324	\$22,259	\$55,934	\$54,926	\$7,064	\$0	\$33,675	\$32,667
- Active Transportation	-\$19,765	-\$18,469	-\$21,170	-\$21,840	-\$1,297	\$0	-\$2,702	-\$3,371
Solid Waste Management								
- Added Solid Waste O&M	\$184,704	\$185,429	\$183,495	\$183,014	-\$724	\$0	-\$1,934	-\$2,415
- Recycling Depots Travel Distance	\$42,625	\$43,390	\$38,893	\$37,732	-\$765	\$0	-\$4,497	-\$5,658
Fire and Emergency								
- Added Service	\$232,510	\$239,899	\$220,194	\$214,981	-\$7,389	\$0	-\$19,705	-\$24,918
Police								
- Added Service	\$249,169	\$256,819	\$236,418	\$231,785	-\$7,650	\$0	-\$20,401	-\$25,034
Community Facilities and Parks								
- Added Users Travel Time	\$11,359	\$12,231	\$10,893	\$10,506	-\$873	\$0	-\$1,338	-\$1,726
- Added Users Travel Distance	\$3,748	\$4,036	\$3,595	\$3,467	-\$288	\$0	-\$442	-\$570
- Parkland Supply	\$309,400	\$199,900	\$523,700	\$715,900	\$109,500	\$0	\$323,800	\$516,000

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Conclusions

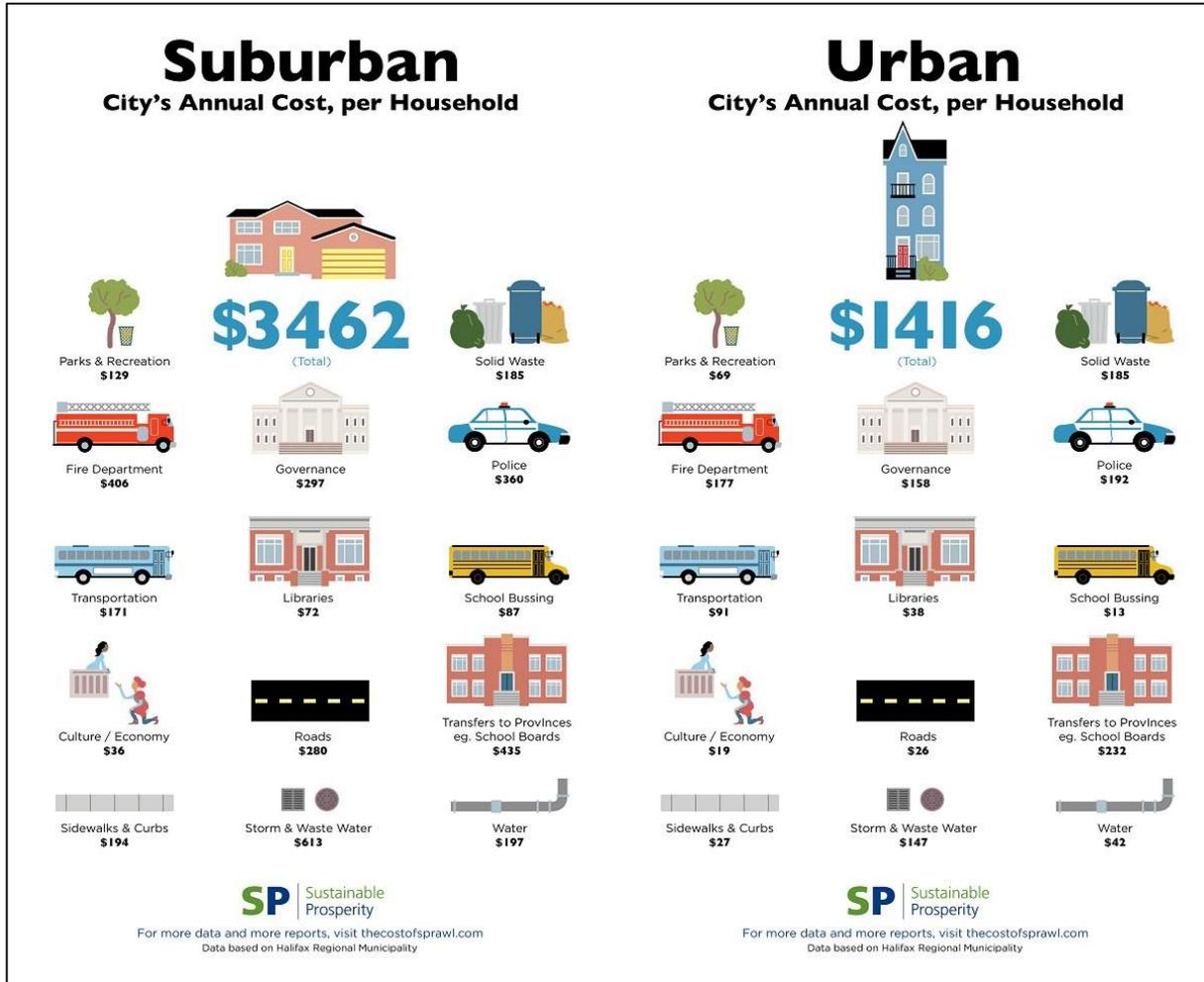
Service	Cumulative Costs to 2031				Differences from RMPs			
	RMPs Goals	Post RMPs Trend	Scenario A	Scenario B	RMPs Goals	Post RMPs Trend	Scenario A	Scenario B
Libraries								
- Added Users Travel Time	\$29,616	\$32,089	\$25,976	\$24,597	-\$2,473	\$0	-\$6,113	-\$7,492
- Added Users Travel Distance	\$9,773	\$10,590	\$8,572	\$8,117	-\$816	\$0	-\$2,017	-\$2,472
Schools								
- User Travel Distance	\$262,365	\$275,654	\$231,179	\$223,785	-\$13,289	\$0	-\$44,475	-\$51,869
Health and Environment								
- Added User Distance	\$249,194	\$307,068	\$239,155	\$194,470	-\$57,874	\$0	-\$67,913	-\$112,598
- GHG Emissions	\$2,655,633	\$2,738,363	\$2,597,721	\$2,548,083	-\$82,730	\$0	-\$140,642	-\$190,280
- Other Health & Environment	\$135,924	\$167,492	\$130,448	\$106,075	-\$31,568	\$0	-\$37,043	-\$61,417
Private Utilities								
- Electric/Communication Capital	\$21,275	\$23,451	\$16,533	\$15,412	-\$2,176	\$0	-\$6,918	-\$8,039
- Electric/Communication O&M	\$13,068	\$14,405	\$10,155	\$9,467	-\$1,337	\$0	-\$4,249	-\$4,938
- Natural Gas Capital	\$14,831	\$10,231	\$14,972	\$17,182	\$4,600	\$0	\$4,741	\$6,952
- Natural Gas O&M	\$3,037	\$2,095	\$3,065	\$3,518	\$942	\$0	\$971	\$1,423
- Natural Gas vs. Alternatives	-\$15,254	-\$13,971	-\$17,570	-\$19,347	-\$1,283	\$0	-\$3,599	-\$5,376
Residential Construction								
- Singles and Semis	\$14,992,187	\$14,912,586	\$14,270,092	\$13,593,575	\$79,601	\$0	-\$642,495	-\$1,319,011
- Multiple unit	\$3,953,867	\$3,879,691	\$4,552,707	\$5,197,157	\$74,176	\$0	\$673,016	\$1,317,466
TOTAL COSTS	\$30,405,014	\$31,074,778	\$29,345,232	\$28,008,785	-\$809,784	\$0	-\$1,729,548	-\$3,085,993

Conclusions

Table 9.5 Summary of Net Municipal Impacts (\$000s) by Scenario, HRM, 2009-2031				
	RMPS Goals	Post RMPS Trend	Scenario A	Scenario B
Costs	\$3,243,263	\$3,294,595	\$2,844,354	\$2,375,832
Revenues	\$1,381,347	\$1,367,065	\$1,253,970	\$1,163,791
Revenues - Costs	-\$1,861,916	-\$1,927,530	-\$1,590,384	-\$1,212,041
<i>Difference from trend</i>	\$65,614	\$0	\$337,146	\$715,489

The net savings for each scenario relative to the trend over the 2009 to 2031 period is \$66 million for the RMPS Scenario, \$337 million for Scenario A, and \$715 million for Scenario B.

Afterward



Questions

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