

Appendix E

Cost of Growth Analysis

Cost of Growth Analysis

The following appendix provides the detailed Cost of Growth Analysis undertaken for the growth-related ten-year capital program in the Town of Whitby. The objective of the analysis is to examine the impact of development-related infrastructure needs on the property tax base, irrespective of whether the infrastructure was funded by development charges or not. The analysis considers both capital and operating implications.

This section is also intended to satisfy the long-term capital and operating costs and asset management plan requirements as required by subsections 10(1)(c) and 10(3) of the DCA. This analysis is not intended to provide a comprehensive assessment of growth and non-growth related assets as the Town maintains and regularly updates its Long Range Financial Plan (LRFP) model to understand the impacts of growth. Following the completion of the DC Background Study, a comprehensive cost of growth analysis will be completed and the financing mechanisms for DC eligible and non-DC eligible projects will be further evaluated in the context of the Town's existing services and financial policies. Assumptions used in this cost of growth analysis may also be updated through the LRFP.

Long-Term Operating Impact Analysis

Table 1 summarizes the annual estimated increase in net operating costs associated with the planned capital program. These estimates are based on average costs derived from a review of the Town's 2020 budget and indirect operating estimates provided by Town staff.

As shown in Table 1, the Town's cumulative total net direct and indirect operating costs for tax-supported services are estimated to cost \$76.68 million over the 2021-2030 period. This amount includes, operating costs

resulting from the emplacement of infrastructure and Town funded assets. Included in this amount, is the addition of approximately 137 full-time equivalent employees over ten years. As shown in the attached, operating impacts include a one-year lag (beginning in 2022) from the year the project is undertaken.

The Town also incurs operating costs when local assets included in subdivision plans are assumed. In accordance with Town policy, these assets have an eight-year lag from the time they are constructed to the time they are assumed by the Town. Over the ten-year period, the cumulative operating impact of the subdivision assets is anticipated to be \$3.26 million. The Town's cumulative total operating impact for the 2021-2030 period amounts to \$79.94 million.

APPENDIX E

TABLE 1

**TOWN OF WHITBY
NET LONG-TERM OPERATING IMPACTS
TOWN/DC FUNDED AND ASSUMED ASSETS**

TOWN/DC FUNDED PROJECTS	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	Total
Expenditures											
Salaries, wages & benefits (Broad based)		\$347,632	\$695,982	\$1,044,976	\$1,394,732	\$1,744,863	\$2,455,492	\$3,166,336	\$3,877,445	\$4,588,671	\$19,316,128
Salaries, wages & benefits		\$2,173,237	\$4,833,061	\$5,344,781	\$6,723,846	\$7,898,921	\$8,391,391	\$9,028,457	\$9,593,221	\$10,480,631	\$64,467,544
Employee Related		\$38,122	\$78,205	\$86,004	\$117,665	\$149,510	\$154,020	\$164,712	\$172,499	\$184,836	\$1,145,573
Corporate Training		\$253	\$619	\$688	\$788	\$902	\$968	\$1,034	\$1,088	\$1,201	\$7,541
Services/Contracted work		\$147,860	\$358,240	\$457,450	\$762,727	\$858,828	\$945,903	\$1,430,034	\$1,509,410	\$1,672,698	\$8,143,150
Administrative		\$35,369	\$107,209	\$131,121	\$147,987	\$161,485	\$169,694	\$203,522	\$206,330	\$258,048	\$1,420,765
Operating Supplies		\$370	\$904	\$1,005	\$4,576	\$4,742	\$4,838	\$11,786	\$11,865	\$12,030	\$52,117
Utilities		\$336,655	\$842,040	\$942,820	\$1,044,531	\$1,135,946	\$1,199,411	\$1,357,810	\$1,406,855	\$1,549,236	\$9,815,304
Repairs & Maintenance		\$78,974	\$203,889	\$224,531	\$260,045	\$280,338	\$296,523	\$348,360	\$357,619	\$398,219	\$2,448,499
Vehicle & Equipment		\$219,590	\$426,666	\$474,994	\$734,936	\$958,826	\$977,607	\$1,043,821	\$1,100,991	\$1,216,002	\$7,153,435
Other Building Related		\$50,019	\$119,919	\$129,744	\$159,194	\$177,634	\$197,407	\$215,853	\$230,527	\$252,982	\$1,533,279
Miscellaneous		\$6,741	\$16,428	\$17,112	\$18,055	\$19,133	\$19,764	\$20,360	\$20,837	\$21,790	\$160,218
Subtotal		\$3,434,822	\$7,683,162	\$8,855,227	\$11,369,080	\$13,391,128	\$14,813,018	\$16,992,085	\$18,488,688	\$20,636,342	\$115,663,553
Grants		\$0	\$9,101	\$9,101	\$9,101	\$9,101	\$9,101	\$9,101	\$9,101	\$9,101	\$72,807
Debt Charges		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interfund Transfers		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL		\$3,434,822	\$7,692,263	\$8,864,328	\$11,378,181	\$13,400,229	\$14,822,119	\$17,001,186	\$18,497,789	\$20,645,443	\$115,736,360
Revenues											\$0
General Taxation		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Supplementary		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
PIL		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Licences & Permits		(\$10,970)	(\$21,805)	(\$32,939)	(\$44,387)	(\$55,968)	(\$66,804)	(\$78,385)	(\$89,221)	(\$100,355)	(\$500,834)
Rentals		(\$718,763)	(\$1,758,802)	(\$1,803,478)	(\$1,803,853)	(\$1,861,757)	(\$1,862,009)	(\$1,862,243)	(\$1,862,429)	(\$1,887,477)	(\$15,420,811)
Miscellaneous Fees		(\$154,493)	(\$371,495)	(\$392,340)	(\$415,983)	(\$440,390)	(\$452,980)	(\$466,256)	(\$481,540)	(\$510,169)	(\$3,685,646)
Other Municipal		(\$442,142)	(\$1,080,296)	(\$1,111,333)	(\$1,119,632)	(\$1,160,263)	(\$1,166,551)	(\$1,172,742)	(\$1,178,030)	(\$1,199,658)	(\$9,630,647)
Donations/Sponsorship		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Interest Income		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Programs		(\$446,205)	(\$1,090,473)	(\$1,121,647)	(\$1,137,767)	(\$1,181,219)	(\$1,192,048)	(\$1,202,123)	(\$1,210,125)	(\$1,236,649)	(\$9,818,255)
Subtotal		(\$1,772,573)	(\$4,322,871)	(\$4,461,737)	(\$4,521,622)	(\$4,699,598)	(\$4,740,391)	(\$4,781,749)	(\$4,821,344)	(\$4,934,308)	(\$39,056,193)
Provincial		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Federal		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Contribution from Own Funds		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
TOTAL		(\$1,772,573)	(\$4,322,871)	(\$4,461,737)	(\$4,521,622)	(\$4,699,598)	(\$4,740,391)	(\$4,781,749)	(\$4,821,344)	(\$4,934,308)	(\$39,056,193)
NET EXPENDITURE TOWN/DC FUNDED		\$1,662,249	\$3,369,392	\$4,402,591	\$6,856,560	\$8,700,631	\$10,081,728	\$12,219,436	\$13,676,445	\$15,711,135	\$76,680,167
ASSUMED ASSETS	\$0	\$0	\$0	\$91,033	\$175,997	\$244,111	\$371,749	\$585,566	\$810,366	\$980,556	\$3,259,378
TOTAL OPERATING IMPACTS	\$0	\$1,662,249	\$3,369,392	\$4,493,624	\$7,032,557	\$8,944,742	\$10,453,477	\$12,805,003	\$14,486,810	\$16,691,691	\$79,939,545

Asset Management Plan

The recently enacted changes to the DCA require the completion of an Asset Management Plan before the passing of a development charges by-law. The primary purpose of the Asset Management Plan is to demonstrate that all assets proposed to be funded under the development charges by-law are financially sustainable over their full life cycle.

Asset Types

Summaries of the future municipal-owned assets and estimated useful life assumptions considered under the 2021 Development Charges Study are outlined on Table 2 for general services and Table 3 for engineered services. These assumptions were primarily derived from the Town's 2019 Asset Management Plan (AMP). Some adjustments have been made to these assumptions as per staff direction from Town staff.

Although all capital assets considered in the 2021 Development Charges Study have been identified, not all assets will necessitate future replacement or ongoing maintenance activities. These exceptions include:

- Works identified that represent one-time expenditures or assets such as land that do not depreciate. Such assets are identified as “not a long-term asset” in the table; and
- Projects such as development-related studies or infrastructure needs studies, which do not relate to the emplacement of a tangible capital asset. Such projects are identified as “not infrastructure” in the tables.

It should be noted that the capital cost estimates prepared for each of the identified projects include grouped costs of various individual elements, which, as a stand-alone item, may have their own useful life. For example, new buildings include elements such as HVAC, structural elements, and roofs, among others; new bridges include deck, superstructure, and

substructure components. Accordingly, the average useful life assumptions noted below are applicable to all project components.

Table 2 – Summary of General Services Useful Life Assumptions

Capital Project Description	Estimated Useful Life
Facility Construction, Replacement, or Expansion	40 years
Furniture	15 years
Software Tools	5 years
Computing / Communication Devices	7 years
Land Acquisitions	Not a long-term asset
Building Design Development	Not infrastructure
Fire Training Equipment	10 years
Additional Fire Vehicles	15 years
Parking Lot Construction/Expansion	35 years
Public Works Vehicles (Misc.)	10 years
Public Works Equipment (Misc.)	10 years
Tri-Axle Trailer	15 years
Vehicle Routing Optimization	5 years
Soccer Dome	100 years
Sports Field Design	Not infrastructure
Sports Field Construction	40 years
Park Design	Not infrastructure
Park Development	20 years
Splashpad	10 years
Ball Diamonds Shade Structures	40 years
Tennis Courts	20 years
Playground Redevelopment	15 years
Waterfront Lighting	40 years
Misc. Local and District Parks	20 years
Trails	20 years
Parks Maintenance Front Mount Mower	7 years
Parks Maintenance Wide Cut Mower	8 years
Parks Maintenance Trailer	15 years
Parks Maintenance Front End Loader	10 years
Forestry – Chipper Truck	8 years

Capital Project Description	Estimated Useful Life
Library Collection Expansion	7 years
½ Ton Extended Cab – Solid Waste	10 years
Garbage Packer – Rear Loader	10 years
Garbage Packer – Side Loader	7 years

Table 3 – Summary of Engineered Services Useful Life Assumptions

Capital Project Description	Estimated Useful Life
Bridges	50 years
Culverts	50 years
Pedestrian Bridges	50 years
Multi-Use Pathways	20 years
Road Construction and Reconstruction	60 years
Road Design	Not infrastructure
Intersection Improvements	25 years
Roundabouts	60 years
Roads Environmental Assessment	Not infrastructure
Rural Road Resurfacing	20 years
Urban Road Resurfacing	15 – 35 years
Sidewalk Construction	45 years
Street Lighting	30 years
Traffic Signals	40 years
Stormwater Infrastructure	80 years

Annual Provision

When assets require rehabilitation or are due for replacement, funding sources are generally limited to reserves, debt, grants or contributions from the tax base through the operating budget. Capital expenditures to carry out the rehabilitation and replacement of aging infrastructure are not development-related, and therefore, are not eligible for funding through development charge revenues or other developer contributions.

Using the useful life assumptions obtained from Town staff and the capital cost of acquiring and/or emplacing each asset, a provision for infrastructure replacement has been calculated. Provisions for infrastructure replacement

are initially calculated for each asset based on their useful life and the anticipated cost of replacement. The aggregate of all individual provisions form the required annual capital provision. In calculating the annual provisions, an assumption of a 1.5 per cent real earnings rate was assumed.

Under the requirements of the DCA, only the assets that are proposed to be funded under the development charges by-law are to be included in the AMP.

Table 4 provides an overview of the capital provisions required to replace the capital infrastructure proposed to be funded under the development charges by-law. Table 4 illustrates that, by 2030, the Town will need to contribute an additional \$14.57 million per annum in order to fully fund the full tax-supported life-cycle costs of the new assets included in this development charges study, and does not include any additional assets assumed by the Town through plans of subdivision. As per the Maintenance Reserve Town policy, these assets, once constructed and assumed after a two-year lag period, will be included in the annual maintenance envelope calculation.

The calculated annual funding provision should be considered within the context of the Town's projected growth. Over the next ten years (to 2030) the Town is projecting an increase of approximately 21,300 total private dwelling units, representing a 46 per cent increase over the existing (2020) base, as well as nearly 17,400 new employees. This growth will have the effect of increasing the overall assessment base and will result in an additional \$208.05 million in cumulative assessment revenue over the ten-year period. In this respect, the additional assessment and user fee revenue can be utilized to offset the Town's total cost of growth.

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TABLE 4

**TOWN OF WHITBY
ANNUAL PROVISION SCHEDULE**

AMP Contributions	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
General Government			\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Fire Services			\$1,738	\$3,496	\$19,458	\$26,404	\$135,274	\$137,105	\$138,965	\$140,853
Operations			\$105,082	\$236,946	\$305,435	\$449,025	\$588,272	\$614,680	\$678,156	\$708,576
Parks and Rec			\$838,824	\$2,067,662	\$2,284,091	\$2,823,510	\$3,147,238	\$3,513,317	\$3,862,580	\$4,127,584
Library			\$48,375	\$99,192	\$134,014	\$168,836	\$203,658	\$252,135	\$300,613	\$349,090
By-law			\$43,205	\$47,410	\$56,790	\$56,790	\$56,790	\$61,724	\$66,097	\$66,097
Waste Management			\$4,672	\$4,672	\$4,672	\$62,788	\$62,788	\$62,788	\$62,788	\$80,821
Roads and Related - Town-Wide			\$896,169	\$1,589,001	\$2,956,726	\$4,375,224	\$6,040,022	\$7,097,368	\$8,189,243	\$8,864,288
Roads and Related - Alt Route			\$7,500	\$7,500	\$24,167	\$58,333	\$100,000	\$100,000	\$141,667	\$141,667
Stormwater			\$1,928	\$23,757	\$33,429	\$40,241	\$71,076	\$76,641	\$88,001	\$93,216
Total	\$0	\$0	\$1,947,494	\$4,079,636	\$5,818,782	\$8,061,151	\$10,405,117	\$11,915,758	\$13,528,109	\$14,572,191

Note: Based on Cumulative 2 Year Lag with Real Interest Rate of 1.5%

Cost of Growth Analysis

Table 5 provides the details of the Cost of Growth analysis and summarizes the components of the development-related capital program that will require funding from property taxes and identifies the annual tax increase requirement. In total, \$156.88 million is related to the net capital funding requirements and \$79.94 million relates to the net operating expenditures over the 2021-2030 period that will be funded from non-development charge sources.

The Town currently maintains a Growth Reserve Fund which is used to pay for the Town's portion of capital growth projects as outlined in the Council approved Development Charges Background Study. As of 2021, the Town had \$27.91 million available in the Growth Reserve Fund that has been applied to off-set the total net capital funding requirements. The model assumes the full utilization of the Growth Reserve Fund balance and existing annual contributions as approved in the Town's annual budget. Over the ten-year period, the Town also anticipates to generate roughly \$208.05 million in additional taxation revenue from new growth. After these adjustments, the cumulative "gap" between tax related expenditures and tax revenue is used to determine the annual tax increase to balance the ten-year plan.

As shown in Table 5, a cost of growth analysis assumes the following:

- No projects are funded through debentures
- All post-period shares are funded through taxes
- Fully utilizes the Growth Reserve Fund balance and annual contributions to Growth Reserve Fund as approved in the Town's annual budget
- Total ten-year funding requirement after reserve adjustments and taxation revenue from new growth equals \$45.26 million

- Annual tax increase calculated to be 0.73 per cent over the ten-year period

Financing Mechanisms to Mitigate Tax Rate Impacts will be examined through the Long-Range Financial Plan

As summarized in Table 5, the calculated funding requirements are considered to be financially sustainable as it is expected that the increased tax funded expenditure requirements, including long-term operating and capital asset management requirements, can be absorbed by the tax base over the long-term with increases.

The tax increase shown in Table 5 has been calculated on an average annual basis. In order to achieve this, the Town will need to use a number of mitigating measures including but not limited to transfers to/from reserves, timing of projects and use of debt. The Town's financing mechanisms for these projects will be further evaluated in the context of the Town's existing services and financial policies identified through a Long-Range Financial Plan (LRFP) analysis.

APPENDIX E
TABLE 5

TOWN OF WHITBY
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN
TOTAL GROWTH-RELATED CAPITAL PROJECTS
ALL COSTS ARE IN \$2021

Total Growth-Related Capital Projects											Total
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
A Total Project Costs											
Gross Project Costs	\$ 82,112,828	\$ 99,213,867	\$ 75,770,968	\$ 66,566,776	\$ 103,032,151	\$ 51,949,386	\$ 58,575,350	\$ 32,428,328	\$ 59,857,926	\$ 111,702,379	\$741,209,960
Subtotal	\$ 82,112,828	\$ 99,213,867	\$ 75,770,968	\$ 66,566,776	\$ 103,032,151	\$ 51,949,386	\$ 58,575,350	\$ 32,428,328	\$ 59,857,926	\$ 111,702,379	\$741,209,960
Capital Cost Analysis											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
B Grants and Subsidies											
Grants and Subsidies	\$ 289,301	\$ 136,417	\$ 7,275,693	\$ 260,570	\$ 492,830	\$ 137,914	\$ 283,491	\$ 58,648	\$ 251,229	\$ 2,985,894	\$12,171,986
Subtotal	\$ 289,301	\$ 136,417	\$ 7,275,693	\$ 260,570	\$ 492,830	\$ 137,914	\$ 283,491	\$ 58,648	\$ 251,229	\$ 2,985,894	\$12,171,986
C Development Charges											
Available DC Reserves	\$ 14,288,493	\$ 10,692,753	\$ 5,231,715	\$ 6,131,492	\$ 92,219	\$ 93,492	\$ 98,619	\$ 93,492	\$ 1,115,905	\$ 91,698	\$37,929,878
DC Collections 2021-2030 (1)	\$ 39,314,021	\$ 52,452,745	\$ 45,501,211	\$ 49,645,926	\$ 66,453,012	\$ 40,195,752	\$ 41,053,262	\$ 23,073,410	\$ 41,964,184	\$ 83,773,949	\$483,427,472
Subtotal	\$ 53,602,514	\$ 63,145,498	\$ 50,732,926	\$ 55,777,419	\$ 66,545,230	\$ 40,289,244	\$ 41,151,881	\$ 23,166,902	\$ 43,080,089	\$ 83,865,647	\$521,357,350
D DC Deductions (Town Share of Growth)											
Benefit-to-Existing/Replacement (2)	\$ 4,256,870	\$ 12,553,164	\$ 16,423,034	\$ 9,832,803	\$ 34,917,651	\$ 11,150,638	\$ 16,476,827	\$ 8,848,642	\$ 13,302,421	\$ 15,751,662	\$143,513,714
Ineligible Services (2)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$0
Post-Period benefit (3)	\$ 33,333	\$ -	\$ -	\$ 33,333	\$ -	\$ 332,551	\$ 618,752	\$ 247,000	\$ 3,181,189	\$ 8,921,302	\$13,367,460
Subtotal	\$ 4,290,204	\$ 12,553,164	\$ 16,423,034	\$ 9,866,136	\$ 34,917,651	\$ 11,483,190	\$ 17,095,579	\$ 9,095,642	\$ 16,483,610	\$ 24,672,964	\$156,881,175
E DC Exemptions (Town Share of Growth)											
Statutory and Non-Statutory Discounts (4)	\$ 7,721	\$ 26,330	\$ 27,114	\$ 31,506	\$ 32,689	\$ 33,889	\$ 35,152	\$ 36,472	\$ 37,848	\$ 39,253	\$307,973
Subtotal	\$ 7,721	\$ 26,330	\$ 27,114	\$ 31,506	\$ 32,689	\$ 33,889	\$ 35,152	\$ 36,472	\$ 37,848	\$ 39,253	\$307,973
TOTAL CAPITAL COSTS (B + C + D + E) (5)	\$ 58,189,740	\$ 75,861,409	\$ 74,458,767	\$ 65,935,631	\$ 101,988,400	\$ 51,944,236	\$ 58,566,102	\$ 32,357,664	\$ 59,852,776	\$ 111,563,758	\$690,718,483

Notes:

- 1 Recovered through the development charge rates before adjustments for statutory and non-statutory exemptions
- 2 Represents ineligible shares of development charge projects that must be funded from taxes
- 3 Assumed to be tax funded but may be considered for recovery in future development charge by-law
- 4 Estimate subject to further review through subsequent Long Range Financial Plan analysis
- 5 Town's share of capital program equals DC deductions plus DC exemptions

**APPENDIX E
TABLE 5**

**TOWN OF WHITBY
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN**

**OPERATING AND ASSET MANAGEMENT REQUIREMENTS ANALYSIS
ALL COSTS ARE IN \$2021**

Operating Cost Analysis (5)											Total
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
F Direct and Indirect (Cumulative)											
DC/Town Funded Projects	\$ -	\$ 1,662,249	\$ 3,369,392	\$ 4,402,591	\$ 6,856,560	\$ 8,700,631	\$ 10,081,728	\$ 12,219,436	\$ 13,676,445	\$ 15,711,135	\$ 76,680,167
Assumed Projects	\$ -	\$ -	\$ -	\$ 91,033	\$ 175,997	\$ 244,111	\$ 371,749	\$ 585,566	\$ 810,366	\$ 980,556	\$ 3,259,378
Total Operating Cost Analysis	\$ -	\$ 1,662,249	\$ 3,369,392	\$ 4,493,624	\$ 7,032,557	\$ 8,944,742	\$ 10,453,477	\$ 12,805,003	\$ 14,486,810	\$ 16,691,691	\$ 79,939,545
Additional Full Time Equivalents (FTEs) (6)											
DC/Town Funded Projects	0.0	21.9	26.1	7.5	15.0	13.2	10.4	11.7	11.1	13.9	130.8
Assumed Projects	0.0	0.0	0.0	0.6	0.5	0.4	0.8	1.4	1.5	1.1	6.3
Total FTEs	0.0	21.9	26.1	8.1	15.6	13.7	11.3	13.1	12.5	15.0	137.1
Asset Management Requirements (7)											
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
G Asset Management (Cumulative)											
DC/Town Funded Projects	\$ -	\$ -	\$ 1,947,494	\$ 4,079,636	\$ 5,818,782	\$ 8,061,151	\$ 10,405,117	\$ 11,915,758	\$ 13,528,109	\$ 14,572,191	\$ 70,328,238
Assumed Projects	\$ -	\$ -	\$ 133,013	\$ 257,158	\$ 356,683	\$ 543,181	\$ 855,600	\$ 1,184,065	\$ 1,432,739	\$ 1,683,761	\$ 6,446,200
Total Capital Maintenance Costs	\$ -	\$ -	\$ 2,080,507	\$ 4,336,794	\$ 6,175,464	\$ 8,604,332	\$ 11,260,717	\$ 13,099,823	\$ 14,960,848	\$ 16,255,952	\$ 76,774,438
TOTAL ALL EXPENDITURES (B + C + D + E + F + G)	\$ 58,189,740	\$ 77,523,659	\$ 79,908,667	\$ 74,766,049	\$ 115,196,421	\$ 69,493,310	\$ 80,280,296	\$ 58,262,490	\$ 89,300,434	\$ 144,511,401	\$ 847,432,467
TAX SUPPORTED EXPENDITURES (D + E + F + G)	\$ 4,297,924	\$ 14,241,744	\$ 21,900,047	\$ 18,728,061	\$ 48,158,361	\$ 29,066,153	\$ 38,844,924	\$ 35,036,940	\$ 45,969,116	\$ 57,659,860	\$ 313,903,131

Notes:

- 5 Direct and indirect operating impacts are net of user fee revenues.
6 Based on an average salary, wages and benefits of approximately \$115,000 per employee. Salaries relating to new FTEs are included in the operating costs.
7 Calculated using straight-line approach with interest. These are calculated contributions are higher than the Town's current contributions to asset replacement.

Taxation Revenue from New Growth											Total
	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	
Taxation Revenue (Cumulative)											
Residential Revenue	\$ 3,368,377	\$ 5,915,348	\$ 8,508,430	\$ 11,149,314	\$ 13,838,506	\$ 16,581,778	\$ 24,244,450	\$ 32,329,822	\$ 40,859,832	\$ 49,860,280	\$ 206,656,137
Non-Residential Revenue	\$ 7,451	\$ 34,504	\$ 62,533	\$ 90,931	\$ 120,343	\$ 150,813	\$ 182,360	\$ 215,043	\$ 248,902	\$ 283,974	\$ 1,396,854
Subtotal	\$ 3,375,828	\$ 5,949,852	\$ 8,570,963	\$ 11,240,245	\$ 13,958,849	\$ 16,732,591	\$ 24,426,810	\$ 32,544,865	\$ 41,108,734	\$ 50,144,254	\$ 208,052,991
TOTAL TAX REVENUE	\$ 3,375,828	\$ 5,949,852	\$ 8,570,963	\$ 11,240,245	\$ 13,958,849	\$ 16,732,591	\$ 24,426,810	\$ 32,544,865	\$ 41,108,734	\$ 50,144,254	\$ 208,052,991

APPENDIX E

TABLE 5

TOWN OF WHITBY
COST OF GROWTH ANALYSIS - 10-YEAR CAPITAL PLAN

ALL COSTS ARE IN \$2021

COST OF GROWTH ANALYSIS												Total
Cost of Growth Analysis	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030		
Capital Funding Required (1)	\$ 4,297,924	\$ 12,579,494	\$ 18,530,655	\$ 14,234,437	\$ 41,125,804	\$ 20,121,411	\$ 28,391,448	\$ 22,231,937	\$ 31,482,306	\$ 40,968,169	\$	233,963,586
Less Growth Reserve Fund Balance	\$ 35,162	\$ (9,429,494)	\$ (18,513,736)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$	(27,908,068)
Less Growth Reserve Fund Contribution	\$ (4,333,086)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$ (3,150,000)	\$	(32,683,086)
Operating Funding Required (2)	\$ -	\$ 1,662,249	\$ 3,369,392	\$ 4,493,624	\$ 7,032,557	\$ 8,944,742	\$ 10,453,477	\$ 12,805,003	\$ 14,486,810	\$ 16,691,691	\$	79,939,545
Revised Capital + Operating Funding Required	\$ -	\$ 1,662,249	\$ 236,312	\$ 15,578,061	\$ 45,008,361	\$ 25,916,153	\$ 35,694,924	\$ 31,886,940	\$ 42,819,116	\$ 54,509,860	\$	253,311,977
Existing Tax Levy	\$ (104,279,000)	\$ (105,044,118)	\$ (105,814,849)	\$ (106,591,235)	\$ (107,373,318)	\$ (108,161,140)	\$ (108,954,741)	\$ (109,754,166)	\$ (110,559,456)	\$ (111,370,655)	\$	
Tax Revenue from Existing Levy	\$ -	\$ (765,118)	\$ (1,535,849)	\$ (2,312,235)	\$ (3,094,318)	\$ (3,882,140)	\$ (4,675,741)	\$ (5,475,166)	\$ (6,280,456)	\$ (7,091,655)	\$	(35,112,678)
Tax Revenue from New Growth	\$ (3,375,828)	\$ (5,993,507)	\$ (8,697,198)	\$ (11,489,481)	\$ (14,373,056)	\$ (17,355,518)	\$ (25,522,078)	\$ (34,253,632)	\$ (43,584,607)	\$ (53,554,392)	\$	(218,199,299)
Annual Tax Increase to Balance 10-Year Plan	0.73%	\$ (3,375,828)	\$ (5,096,376)	\$ (9,996,736)	\$ 1,776,344	\$ 27,540,986	\$ 4,678,495	\$ 5,497,105	\$ (7,841,858)	\$ (7,045,947)	\$	(0)