CITY OF VANCOUVER

CONSUMPTION OF TAX-SUPPORTED MUNICIPAL SERVICES

VOLUME I — MAIN REPORT

Prepared for:

Financial Planning and Treasury
City of Vancouver

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1. Executive Summary

This study estimates the relative consumption of property-tax-supported services by different property classes[1] in the City of Vancouver. This study updates a previous KPMG Consulting study performed for the City in 1995.

1.1 Current City taxation environment

Vancouver City Council uses a "fixed distribution" policy to determine the relative shares of property taxes to be collected from each property class. Once the fixed distribution to property classes has been determined, each individual property is assigned a share of the total property tax burden for its class, based on its share of the total taxable values for the class.

Between 1984 and 1995, residential properties in Vancouver experienced a significant increase in their share of overall taxable values, from 67% to 81%[2]. During that time period, Council adjusted its fixed distribution policy more modestly, increasing the residential share from 40% to 41.5%. Combining these two trends, the non-residential/ residential tax rate ratio increased from 3.0 in 1984 to 5.9 in 1995.

Trends have been more stable between 1995 and 2006. Residential properties have increased their share of taxable values from 81% to 83%, and Council has increased the residential share of the tax burden from 41.5% to 45% (before allowing for utility taxes, payments in lieu of taxes, etc.). Combining these two trends, the 2006 tax rate ratio is 6.1, similar to that in 1995.

Further details are provided in Chapter 3.

1.2 Structure of the City budget

The City's 2006 budget includes $813 million in total expenditures. Excluding self-funding utilities (not included in the study scope), and making a few minor adjustments (detailed in the main report), the City expenditures that are wholly or partly supported by property tax revenues are approximately $680 million. Of this $680 million, the City receives approximately $171 million in non-tax revenues, leaving approximately $509 million to be recovered through property taxes.

Further details are provided in Chapter 4.

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[1] For this analysis, property classes have been grouped as follows:
- Residential – including Residential (Class 1), Recreational/Non-profit (Class 8), and Farm (Class 9).
- Non-residential – including three subgroups:
  - Utilities (Class 2).
  - Major Industry (Class 4).
  - Business/Light Industry (including Light Industry (Class 5), plus Business & Other (Class 6)).

[2] These changes reflect the combined impact of class transfers, new construction, difference in the relative strength of the residential and non-residential markets, and tax rating policies.

1.3 Study Methodology

The study methodology includes a detailed analysis (by line item) of all of the City's $680 million in property tax supported costs, as well as $171 million in offsetting non-tax revenues.

Individual cost and revenue assignments are based on a detailed classification and analysis of each department's line items as contained in the City's 2006 budget:

- Level 1 costs and revenues are those relating to direct services to people and properties. They have been assigned to property classes based on a combination of (1) management assessment and (2) analysis of relevant data (23 different sets of relevant data).
- Level 2 costs are those relating to internal services to other City departments. They have been assigned to property classes based on the Level 1 consumption patterns of the departments being served.
- Level 3 costs are those relating to departmental administration and overheads. They have been assigned to property classes based on the combined Level 1 and 2 results for the department in which they reside.

Further details are contained in Chapter 5.

1.4 Results for 2006

As illustrated in Exhibit 1a, residential properties have been assigned 76% ($388 million) of net tax-supported services. They also account for $217 million (42.6%) in property taxes. On average, residential properties pay approximately $0.56 in property taxes for each dollar of tax-supported services consumed.

Non-residential properties have been assigned 24% ($111 million) in net tax-supported services. They also account for $292 million (54.7%) in property-based taxes. On average, non-residential properties pay approximately $2.42 in property taxes for each dollar of tax-supported services consumed — 4.3 times the residential rate of $0.56. (This calculation is defined as the "consumption payment ratio.")

Details of the 2006 results are contained in Chapter 6 and the study Appendices.

Exhibit 1a — Results for 2006 (plus 1995 comparison)

	1995[1]		2006[2]	
	Residential	Non-residential	Residential	Non-residential
Net consumption:				
• Dollars ($M)	$249	$102	$388[2]	$121[2]
• Share of net consumption	71%	29%	76%	24%
Share of property tax burden	40%	60%	42.6%[3]	57.4%[3]
Payment per dollar of services consumed	$0.56	$2.07	$0.56	$2.42
Consumption payment ratio	1	to 3.7	1	to 4.3

1 Source: 1995 KPMG Report.
2 Source: 2005 MMK Report (this study).
3 After adjusting for utility taxes, payments in lieu of taxes, etc. (See Appendix S.)

1.5 Comparison with 1995 results

As illustrated in Exhibit 1a, the 76% share of net costs assigned to residential properties is 5% higher than in 1995. Approximately 1% of this difference is attributable to a change in the study methodology for assigning certain revenue items (see full report for details).

For comparative purposes, if the 2006 study had been performed without this methodological adjustment, the residential share would have been approximately 75%, and the consumption payment ratio would have been approximately 4.0 (versus the 1995 figure of 3.7).

Further details are provided in Chapter 7.

1.6 Conclusion

Residential properties in Vancouver have increased their net share of consumption of tax-supported municipal services since 1995, and have also increased their share of taxes paid in respect of these services. In terms of “payment per dollar of services,” Vancouver residential properties pay about the same as they did in 1995.

Non-residential properties have seen a decrease in their net share of consumption since 1995, as well as in their share of taxes paid. The “payment per dollar of services” for non-residential properties is modestly higher in 2006 than in 1995.

1.7 Interpretation of study results

The study results are based on a detailed research and analysis program. All of the specific cost and revenue assignments involve some level of subjectivity and professional judgement. The study results should not be interpreted as measuring the precise value of the services consumed by a specific property class group, nor of any individual property. Rather, these results constitute a balanced independent estimate of the overall levels of consumption of tax-supported services, by each property class group, relative to the property taxes paid.

2. Introduction

In 1995, a KPMG report for the City of Vancouver estimated the relative consumption, by Vancouver's residential and non-residential property classes, of property-tax-supported municipal services. The study estimated that in 1994 residential properties had consumed approximately 71% of tax-supported services, while non-residential properties (Business, Major and Light Industry, Utilities) had consumed approximately 29%.

The 1995 study also compared these consumption patterns to the property taxes paid in respect of these services by the residential and non-residential property tax groups. The study found that, on average, residential properties paid approximately $0.56 for each dollar of tax-supported services consumed, while non-residential properties paid approximately $2.09 for each tax-supported dollar of services consumed.

The 1995 report is now more than ten years old. During that time, the makeup of Vancouver's property classes has changed, as has the range of tax-supported services provided by the City. Accordingly, the City has commissioned an update of the 1995 study, in preparation for a review of the City's property tax policies to be undertaken during the winter of 2006/07.

This study update has been performed by MMK Consulting, an independent management consulting firm. The lead consultants on this study include the two lead consultants from the 1995 KPMG study.

2.1 Study objectives and scope

The objective of this study is to provide an independent analysis of the relative consumption of property-tax-supported services by the residential and non-residential property classes. The scope of the study includes:

- A review of the City's current tax environment (Chapter 3).
- A review of the structure of the City budget (Chapter 4).
- A description of the methodology used in analyzing service consumption patterns, and in assigning costs and revenues among property classes (Chapter 5 and detailed appendices).
- Results of the consumption analysis (Chapter 6 and detailed appendices).
- Comparison with the findings of the 1995 study (Chapter 7).

The scope of the 2006 study is narrower than the 1995 study in one key aspect, in that the 2006 terms of reference do not include an analysis of possible policy options (as was performed in conjunction with the 1995 study).

2.2 Study conduct

In performing this study we have:

- Reviewed the study approach and methodology used in the 1995 analysis, making adjustments where appropriate.

- Performed a review of each major revenue and expense line item in the City's 2006 budget, meeting with staff from individual City departments to discuss the most appropriate basis for assigning these expenditures and revenues among different property classes.

- Assigned each expense and revenue line item among property classes, using the methodology described in Chapter 5 and detailed in the study appendices.

- Combined the department-by-department results to develop overall results for 2006, and then compare them with the previous 1995 results.

- Developed this report, reviewing it with the City prior to finalizing it.

2.3 Study authorship

In analyzing costs and revenues for the purpose of assigning them among property classes, the consultants have consulted with many City employees and have benefited from their cooperation and assistance. All cost and revenue assignments are ultimately those of MMK Consulting.

3. Current City Taxation Environment

Exhibit 3a describes the various property classes listed on BC Assessment's web-site, organized for this study into two major groups—residential and non-residential. These are the property classes used by all BC municipalities, including the City of Vancouver.

Exhibit 3a
Property class descriptions

Residential (non-commercially oriented)

Class 1 – Residential

Includes single-family residences, duplexes, multi-family residences, duplexes, apartments, condominiums, nursing homes, seasonal dwellings, manufactured homes, recreational property, some vacant land, farm buildings and daycare facilities.

Class 8 – Recreational Property and Non-Profit Organizations

Includes land, but not improvements on that land, used solely as an outdoor recreation facility for activities such as golf, skiing, tennis, public swimming pools, waterslides, amusement parks, marinas and hang gliding. Improvements on the land (such as a clubhouse) fall into Class 6. Also includes property used for at least 150 days per year by a non-profit organization for a meeting hall or place of public worship.

Class 9 – Farm

Farm land must produce primary agricultural products for sale such as a crop of livestock.

Non-Residential (commercially oriented)

Class 2 – Utilities

Includes structures and land of railways, pipelines, telegraph/telephone systems, electrical systems and closed circuit TV systems, but does not include offices or sales outlets. Examples include: Telus, Terasen, BC Rail, CN Rail and Shaw Cable.

Class 4 – Major Industry

Includes land and improvements (buildings) of major industrial properties. Improvements include buildings used for lumber mills, pulp mills, heavy manufacturing, mining, smelting, shipbuilding and loading terminals (including grain elevators and associated storage). Examples include United Grain Growers, Western Pool Terminals, Mainland Sawmills and Centerm.

Class 5 – Light Industry

Property used or held for extracting, manufacturing, or transporting products, including ancillary storage. A scrap metal yard, winery or boat building operation all fall within this category. Exceptions include properties used for the production of food and non-alcoholic beverages, which fall into Class 6.

Class 6 – Business and Other

Includes everything not included in another class. Property used for offices, retail, warehousing, hotels and motels all fall within this category.

3.1 Trends between 1984 and 1995

Up to 1983, the provincial government regulated the relationships between residential property tax rates and the rates for other property classes. These "fixed ratios" were generally 2.6 to 3.5 times residential rates, depending on the property class. In 1983, the provincial government enacted legislation to allow municipalities to set individual tax rates by class of property.

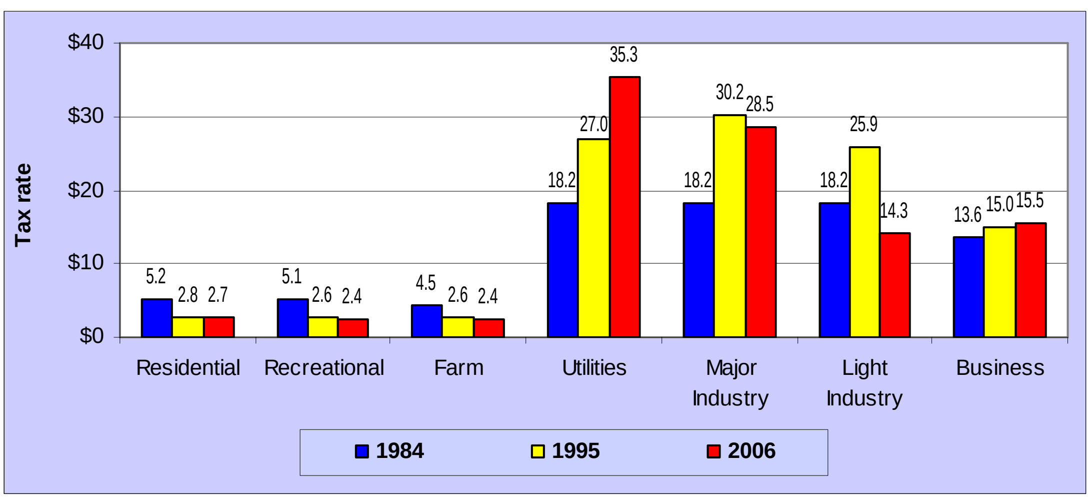
In response, the Vancouver City Council of the day adopted a "fixed distribution" policy, to assign a predetermined share of the property tax burden to different property classes. The initial assignment was 40% to residential properties, 60% to non-residential properties.

Between 1984 and 1995, the taxable value of residential properties grew from 67% to 81% of the City's tax base. This significant trend has been attributed to a combination of rising residential land values and significant residential construction activity.

Under the City's "fixed distribution" policy, the residential share of the overall tax burden increased during the same time, from 40% to 41.6%. This increase was relatively modest in comparison to the increase in the residential share of overall property values.

As a result, residential tax rates declined by nearly 50% (from $5.20 to $2.80) between 1984 and 1995. On the other hand, tax rates for the main non-residential property classes (business, light industry, major industry, utilities) increased significantly. These trends are illustrated in Exhibit 3b.

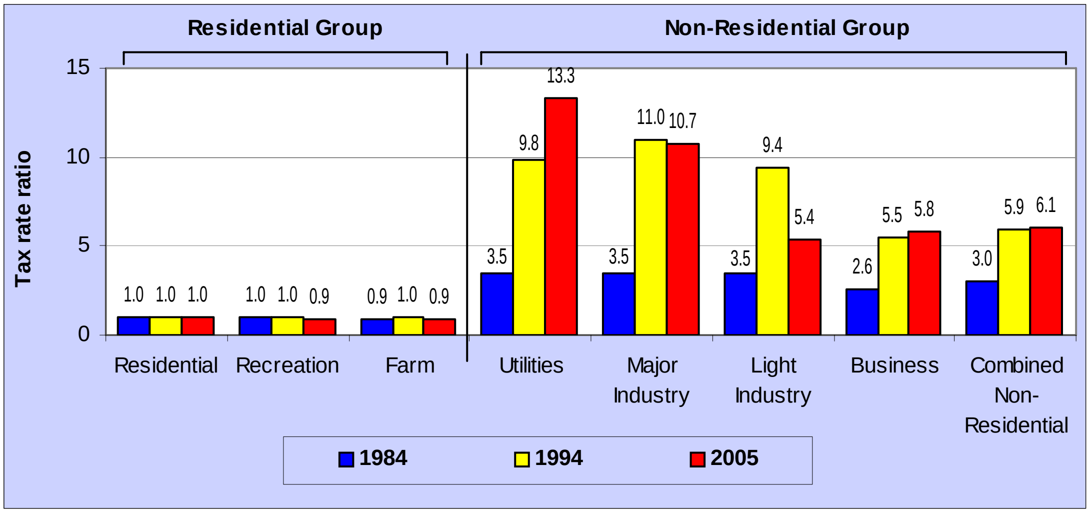
Exhibit 3b
City of Vancouver tax rates[1]



[1] Source: Analysis of BCAA data.

The results illustrated in Exhibit 3b may also be expressed in terms of the "tax rate ratio", the ratio of tax rates for non-residential property classes to tax rates for residential properties. As illustrated in Exhibit 3c, tax rate ratios in 1984 were in the range of 2.6 to 3.5. By 1995, they had increased to a range of 5.5 to 11.0.

Exhibit 3c
City of Vancouver tax rate ratios[1]



[1] Source: Analysis of BCAA data.

For the four non-residential property classes combined, the non-residential/ residential tax rate ratio increased from 3.0 in 1984 to 5.9 in 1995. These trends are illustrated in Exhibits 3c and 3d.

Exhibit 3d
Summary of Residential/Non-residential tax rate ratios[1]

	1984	1995	2006
Share of taxable values: (Residential/Non-residential)	67.1/32.9	80.7/19.3	83.2/16.8
Share of taxes: (Residential/non-residential) [2]	39.8/60.2	41.5/58.5	45.0/55.0
Tax rate ratio	3.0	5.9	6.1

1 Source: BC Assessment Authority data.
2 Before allowances for payments in lieu of taxes (PILT), utility taxes and taxes on City properties (see Appendix S).

3.2 Trends between 1995 and 2006

Trends have been more modest between 1995 and 2006. The residential share of total property assessed values has grown from 81% to 83%. At the same time, the City has made further adjustments to the "fixed distribution" percentages, increasing the residential tax share to 45% in 2006.

As a result, the 1995-2006 trends in tax rate ratios among the non-residential property classes have been less significant than between 1995 and 2006, as illustrated in Exhibits 3b and 3c. (The decrease in "Light Industry" tax rates between 1995 and 2006 also reflects the City's decision to tax the Business property class and Light Industry property class on a similar basis.)

As illustrated in Exhibits 3c and 3d, the overall non-residential/residential tax rate ratio in 2006 is 6.1, similar to the 5.9 ratio in 1995.

4. Structure of the City Budget

4.1 Total expenditures

The analysis presented in this study is based on the Operating Budget approved by Council in March 2006, as published in "City of Vancouver, Budget 2006" (July 2006). Exhibit 4a illustrates the $813 million in budgeted expenditures, by department.

4.2 Total tax-supported expenditures

The study terms of reference are to exclude any self-funding utilities operated by the City. Thus, the following analysis:

- Completely excludes the Water and Solid Waste Utilities, since these are fully self-funded.

- Excludes the Sanitary Sewer portion of the Sewer and Drainage Utility, since sanitary sewer costs are funded from user fees.

A number of minor adjustments have also been made to the 2006 Budget Book, as noted in the footnotes to Exhibit 4a. These adjustments do not substantively affect the analysis.

As illustrated in Exhibit 4a, $680 million in total expenditures are within the scope of this study, of which $171 million is offset by departmental revenues, leaving $509 million in net tax-supported expenditures.

4.3 Revenues

Exhibit 4a also illustrates the departmental breakout of the $171 million in revenues from sources other than property-taxes. Revenue sources have been assigned to the relevant departments by the consultant, as detailed in the department-specific report appendices.

These revenues have also been analyzed and assigned to property classes, as described in Chapter 5 and the report appendices.

4.4 Analysis of expenditures and revenues

Expenditures and revenues are analyzed in detail by department, in Appendices B through S, as referenced in Exhibit 4a.

Exhibit 4a
2006 Expenditure and Revenue Budget – ($million)

Appendix		City of Vancouver 2006 Budget Book figures	Revenues from self-funding utilities and adjustments to 2006 Budget Book figures	Total expenditures, net of self-funded utilities and adjustments to 2006 Budget Book figures	Total non-tax revenues	Net tax-supported expenditures
B	Mayor and Council	1.887		1.887		1.887
C	City Manager's Office	11.218		11.218		11.218
D	Corporate Services	31.909		31.909	(1.509)	30.400
E	Human Resources	7.429		7.429		7.429
F	City-wide Expenditures	8.415		8.415		8.415
G	Community Services	46.631		46.631	(37.664)	8.967
H	Civic Grants Program	14.178		14.178		14.178
I	Engineering	58.338	0.688 [1]	59.026	(44.485)	14.541
J	Sewer and Drainage	68.457	(34.151) [2]	34.306		34.306
	Water Utility (self-funded)	69.668	(69.668) [3]	-		-
	Solid Waste Utility (self-funded)	31.391	(31.391) [3]	-		-
K	Vancouver Police Department	175.098		175.098		175.098
L	Fire and Rescue Services	78.816		78.816		78.816
M	Board of Parks and Recreation	89.261		89.261	(34.751)	54.510
N	Vancouver Public Library	34.050		34.050		34.050
O	Britannia Community Centre	2.842		2.842		2.842
P	Civic Theatres	6.470	0.138 [4]	6.608	(6.137)	0.471
Q	Debt, Contingency and Transfers	77.272	1.098 [5]	78.369	(10.912)	67.457
R	Sundry Revenue			-	(35.823)	(35.823)
	Total	813.330	(133.287)	680.043	(171.281)	508.762

1 Parking revenues classified as revenues (rather than a negative expenditure).
2 Non-property-tax-supported portion of the utility (sanitary sewer) excluded from analysis.
3 Water and solid waste utility excluded from analysis.
4 Revenue and expenditures are both understated by equal amounts in the 2006 Budget Book.
5 Transfer to Contingency Funds higher than contained in July 2006 Budget Book because of higher-than-expected PILT revenues.

5. Methodology for Assigning Costs and Revenues to Property Classes

5.1 City departments included in the study

As discussed in Chapter 4, the study scope includes all municipal expenditures that are partly or wholly supported by property tax revenues.

As in 1995, all self-funding utilities have been excluded from the analysis. Thus, solid waste (converted to a fully self-funded department after 1995) has not been included in this 2006 report, even though it was included in the 1995 study. Similarly, health (responsibility transferred from the City to the Province) is not included in the 2006 study, although it was included in the 1995 study.

5.2 Property class groupings

The 1995 study considered two groups of property classes — residential and non-residential. For 2006, the analysis again keys on these groups, and also breaks non-residential into three sub-groups:

- The **Residential** group includes Residential (Class 1), Recreational/Non-Profit (Class 8), and Farm (Class 9)[1].
- The **Non-Residential** group includes:
  - **Utilities** (Class 2)
  - **Major Industry** (Class 4)
  - **Business/Light Industry** – including Light Industry (Class 5), plus Business & Other (Class 6)[2].

As detailed in the Appendices, in some cases the process has been first to assign costs/revenues between residential and non-residential property classes, and second to assign costs among the non-residential property classes. Given this process, the overall residential/non-residential assignment should be considered more robust than the assignments within the non-residential property class group.

5.3 Direct consumers versus ultimate beneficiaries

One of the methodological issues associated with consumption-of-service studies is the extent to which costs and revenues should be assigned to the "direct" first-round consumers of the services, versus the extent to which they should be assigned to the "ultimate beneficiaries" of the service.

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[1] These classes have been grouped because of their non-commercial nature, their residential orientation, and/or their small size.

[2] Classes 5 and 6 have been combined because of their significant overlap in terms of both (a) property use and (b) equivalent tax treatment by the City.

Ideally, the study assignments would be based on ultimate beneficiaries. Unfortunately, attempts to assign costs on this basis often lead to difficulties in terms of defining defensible rules for assignment. Therefore, as in the 1995 study, most costs and revenues have been assigned to the direct first-round consumers of the service[1].

5.4 Process for assigning costs and revenues

Costs and revenues have been assigned among the property classes based on a detailed review and analysis of specific cost and revenue items within each department.

5.4.1 Group similar areas of cost and revenue

The first step in the process is to identify the service areas and line items within each department that are similar in terms of the consumption of service, and therefore can be grouped and assigned on the same basis.

5.4.2 Classify cost/revenue areas by level

The second step in the process is to classify each cost/revenue area as being provided at one of three levels:

- **Level 1 (direct service)** costs/revenues are those relating to services provided directly to people and properties. The large majority of the City's costs and revenues are Level 1.

- **Level 2 (internal service)** costs/revenues are those relating to services provided to other City departments.

- **Level 3 (administration and overhead)** costs/revenues relate to support services within a particular department.

In the departmental analyses contained in the Appendices, each cost area is identified as Level 1, Level 2, or Level 3.

5.4.3 Assign costs/revenue among property classes

The third step is to assign the costs and revenues for the particular service area among the property class groups. Different approaches are used for each cost level.

For **Level 1** (direct service) costs and revenues (most costs), the basis for assignment may include:

- Assignments based on **logic** or **principle**. An example of a logic-based assignment would be "pre-fire planning" (in Appendix L, Fire & Rescue Services). These costs have been assigned among property classes based on a direct

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[1] One exception to this general rule is Olympics planning expenditures, where most of the benefits are longer-term in nature. In this case, costs have been assigned based on both short-term considerations and longer-term ultimate benefits. Another example of an exception is the fire hall operations, which are assigned on the basis of ultimate benefits (protection of people/property) rather than first-round consumption of services (e.g. residential vs non-residential callouts).

management assessment of the relative time spent serving each property class group.

- Assignments based on relevant **data analysis**. An example of a data-based cost assignment would be "urban search and rescue" (see Appendix L, Fire & Rescue Services). These costs have been assigned based on the relative proportion of people's time spent on residential versus non-residential activities (see Appendix T, item # 21).

- Assignments based on a **combination** of logic and data analysis. An example of a "combination" calculation would be for fire hall operations (see Appendix L, Fire and Rescue Services), where costs are assigned as follows;
    - First, costs are logically split into two components; "protection of life" (70%) and "protection of property" (30%). (This approach is consistent with the 1995 analysis.)
    - For "protection of life", the cost assignment is based on an analysis of the distribution of people's time spent on residential versus non-residential activities (see Appendix T, item #21).
    - For "protection of property", costs are then assigned based on the relative value of property improvements (see Appendix T, item #22).

For **Level 2** (internal service) costs, the basis for assignment is the weighted average of Level 1 (direct service) assignments for all of the departments that are consuming the internal service. The assignment process is as follows:

- First, departments using the internal service are identified, and their share of services consumed is estimated. For example, each department's relative share of PC system support services is estimated according to the number of PCs in use in each department.

- Second, these relative shares (weightings) are applied to the Level 1 results for each department using the service, to develop the overall assignment of these Level 2 costs, among property classes.

For **Level 3** (administration/overhead) costs, the basis for assignment is the combined Level 1 and 2 results within the particular department. An example of a Level 3 assignment would be the costs for the Office of the Fire Chief, which are assigned on the same basis as the combined Level 1 and 2 results for the department.

5.4.4 Step 4 – Determine departmental and overall results

The fourth and final step in the process is to roll up the results, by department and overall. Appendix B through Appendix S contains the detailed analysis of costs and revenues for each department. Appendix T contains the detailed data analyses (23 items in total) that underlie many of the cost assignments in Appendices B through S.

Departmental and overall results are rolled up and presented in Chapter 6.

5.5 Sensitivity of Results to Key Assumptions

This analysis is based on hundreds of individual assumptions and analytical approaches, as documented in this report and appendices.

With a number of exceptions, the overall study results are not generally sensitive to most individual assumptions. This limited sensitivity reflects the detailed nature of the analysis, where even relatively small cost and revenues have been analyzed in considerable detail. It also reflects the significant size of the City budget. With approximately $509 million in net tax-supported costs, alternate assumptions would have to shift the assignment of costs by more than $5 million to result in a 1% shift in the relative residential/non-residential shares of consumption.

For some relatively large areas of expenditures, overall results may be sensitive to specific assumptions.[1]

5.6 Impact of Methodology Changes from 1995

The 2006 review has included a review and refinement of the methodology used in the 1995 study. While most of the methodology adjustments do not have a substantive impact on the 2006 results, the notable exception to this general rule is in the treatment of municipal revenues, where the 2006 study has made greater use of "tax shares" in assigning two types of revenues:

- **Municipal and Sundry Revenues** – These revenues (approximately $36 million in 2006) include a variety of revenue sources that are not associated with any particular departmental operation (see Appendix S.) In the 1995 study, these revenues were assigned to property classes according to 1995 consumption of service patterns. For the 2006 study, most of these revenues have been assigned based on tax shares, since these revenues reduce the overall tax burden. This change in methodology from 1995 <u>increases</u> the residential share of net consumption, by approximately 2%.

- **Parking Operations --** Parking operations have become a significant generator of net revenue for the City (approximately $35 million gross, $25 million net). The 1995 study assigned these costs and revenues based on specific assignments of costs and revenues. For the 2006 study, parking operations have been treated as a "profit centre", with the operating surplus assigned to property classes based on tax shares (similar to the treatment of most Municipal and Sundry Revenues). This change in methodology from 1995 <u>decreases</u> the residential net of net consumption, by approximately 1%.

Thus **net impact** of these two methodological adjustments is to <u>increase</u> the residential share of net consumption by approximately 1%. The impact of this methodology adjustment on overall study results is discussed in Chapter 7.

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[1] For example, fire hall costs (approximately $65 million), have been assigned based on two key sets of data – (1) an analysis of people's time spent in residential vs. non-residential activities, as the basis for assigning "protection of people", and (2) an analysis of the relative value of property improvements, as a basis for assigning "protection of property." Both analyses result in similar cost assignments (about two-thirds residential, one-third non-residential). Alternate fire hall cost assignment rules (number of callouts, assignment of "standby" capacity costs, geographic proximity to residential/non-residential areas, etc.) could result in a somewhat different assignment.

6. Results of the Consumption Analysis

Approximately $680 million of the City's budget (excluding self-funding utilities) is in respect of services that are at least partly supported by municipal property taxes.

6.1 Total services consumed

Exhibit 6a illustrates the assignment of the $680 million in **total** tax-supported services among the property class groups, both by department and overall.

Exhibit 6a — Total services consumed

		Property class assignment				
			Non-residential			
Department	Total	Resi-dential	Utilities	Major Ind.	Bus. + LI	Tot. Non-resid.
Mayor & Council	1,887	944	19	94	830	944
City Manager's Office	11,218	7,050	30	105	4,033	4,168
Corporate Services	31,909	19,956	60	113	11,780	11,953
Human Resource Services	7,429	4,817	19	39	2,554	2,612
City-wide Expenditures	8,415	4,816	18	31	3,550	3,599
Community Services	46,631	30,099	48	284	16,200	16,532
Civic Grants Program	14,178	8,975	10	4	5,190	5,203
Engineering Services	59,026	28,750	364	725	29,187	30,276
Sewer	34,306	24,501	-	647	9,158	9,805
Vancouver Police Department	175,098	126,951	379	394	47,373	48,147
Fire & Rescue Services	78,816	52,045	384	281	26,106	26,771
Board of Parks and Recreation	89,261	72,136	-	-	17,125	17,125
Vancouver Public Library	34,050	29,739	-	-	4,311	4,311
Britannia Community Services Centre	2,842	2,842	-	-	-	-
Civic Theatres	6,608	2,908	-	-	3,700	3,700
Debt, Contingency, Transfers	78,369	49,256	350	780	27,983	29,113
	680,043	**465,785**	**1,682**	**3,496**	**209,080**	**214,258**
Percent	-	**68.5%**	**0.2%**	**0.5%**	**30.7%**	**31.5%**

Before allowing for non-property-tax-based revenues, residential properties have been assigned approximately $466 million (69%) of tax-supported City services, while non-residential properties have been assigned approximately $214 million (31%).

Details by department and line item are contained in Appendices B through S.

6.2 Non-property-tax revenues

Exhibit 6b illustrates the assignment of $171 million in non-property-tax revenues among property class groups, overall and by department.

Exhibit 6b — Non-property-tax revenues

Department	Total	Resi-dential	Utilities	Major Ind.	Bus. + LI	Tot. Non-resid.
		Property class assignment				
			Non-residential			
Sundry Revenues	(35,823)	(13,008)	(1,206)	(339)	(21,270)	(22,815)
Mayor & Council	-	-	-	-	-	-
City Manager's Office	-	-	-	-	-	-
Corporate Services	(1,509)	(604)	-	-	(905)	(905)
Human Resource Services	-	-	-	-	-	-
City-wide Expenditures	-	-	-	-	-	-
Community Services	(37,664)	(15,704)	-	(4)	(21,956)	(21,960)
Civic Grants Program	-	-	-	-	-	-
Engineering Services	(44,485)	(17,180)	(1,112)	(561)	(25,631)	(27,305)
Sewer	-	-	-	-	-	-
Vancouver Police Department	-	-	-	-	-	-
Fire & Rescue Services	-	-	-	-	-	-
Board of Parks and Recreation	(34,751)	(24,004)	-	-	(10,747)	(10,747)
Vancouver Public Library	-	-	-	-	-	-
Britannia Community Services Centre	-	-	-	-	-	-
Civic Theatres	(6,137)	(2,700)	-	-	(3,437)	(3,437)
Debt, Contingency, Transfers	(10,912)	(4,652)	(345)	(126)	(5,790)	(6,260)
City-wide revenues attributed	**(171,281)**	**(77,852)**	**(2,663)**	**(1,030)**	**(89,735)**	**(93,429)**
Percent	-	45.5%	1.6%	0.6%	52.4%	54.5%

In total, $78 million (46%) of non-property-tax revenues are assigned to residential, while $93 million (54%) are assigned to non-residential.

Details by department and by line item are contained in Appendices B through S.

6.3 Net services consumed

Combining the results of Exhibits 6a and 6b, Exhibit 6c illustrates the assignment of **net** services among property class groups.

Exhibit 6c — Net services consumed

Department	Total	Property class assignment				
			Non-residential			
		Resi-dential	Utilities	Major Ind.	Bus. + LI	Tot. Non-resid.
Sundry Revenues	(35,823)	(13,008)	(1,206)	(339)	(21,270)	(22,815)
Mayor & Council	1,887	944	19	94	830	944
City Manager's Office	11,218	7,050	30	105	4,033	4,168
Corporate Services	30,400	19,352	60	113	10,875	11,048
Human Resource Services	7,429	4,817	19	39	2,554	2,612
City-wide Expenditures	8,415	4,816	18	31	3,550	3,599
Community Services	8,967	14,395	48	279	(5,756)	(5,428)
Civic Grants Program	14,178	8,975	10	4	5,190	5,203
Engineering Services	14,541	11,570	(748)	163	3,556	2,971
Sewer	34,306	24,501	-	647	9,158	9,805
Vancouver Police Department	175,098	126,951	379	394	47,373	48,147
Fire & Rescue Services	78,816	52,045	384	281	26,106	26,771
Board of Parks and Recreation	54,510	48,132	-	-	6,378	6,378
Vancouver Public Library	34,050	29,739	-	-	4,311	4,311
Brtitannia Community Services Centre	2,842	2,842	-	-	-	-
Civic Theatres	471	207	-	-	264	264
Debt, Contingency, Transfers	67,457	44,605	5	654	22,193	22,852
Net Consumption of Services	**508,762**	**387,933**	**(981)**	**2,466**	**119,345**	**120,830**
Percent	-	76.3%	-0.2%	0.5%	23.5%	23.7%

On a net consumption basis, residential property classes consume approximately $388 million (76%) of net tax-supported City services, while non-residential property classes consume approximately $121 million (24%).

Details by department and by line item are contained in Appendices B through S.

6.4 Comparing net service consumption to property taxes

Exhibit 6d compares, for each property class group, the net consumption of property-tax-supported services in relation to its property-based taxes.

Exhibit 6d
Comparison of net service consumption to property taxes

	Total - all property classes	Resi-dential	Non-residential: Utilities	Non-residential: Major Industry	Non-residential: Bus./Light Industry	Non-residential: Total Non-residential
Consumption of Services						
• Gross services consumed ($'000)	$680,043	$465,785	$1,682	$3,496	$209,080	$214,258
• Less: Non-tax revenues ($'000)	($171,281)	($77,852)	($2,663)	($1,030)	($89,735)	($93,429)
• Net tax-supported services ($'000)	$508,762	$387,933	($981)	$2,466	$119,345	$120,830
- Percentage	100%	76.3%	(0.2%)	0.5%	23.5%	23.7%
Comparison of Taxes Paid to Services Consumed						
• Property taxes & PILTs[1] ($'000)	$508,762	$216,875	$16,071	$5,870	$269,945	$291,887
- Percentage	100.0%	42.6%	3.2%	1.2%	53.1%	57.4%
• Excess (shortfall) of services consumed over taxes paid ($'000)	$0	$171,057	($17,052)	($3,404)	($150,601)	($171,057)
• Taxes paid per dollar of services consumed	$1.00	$0.56	n/a[2]	$2.38	$2.26	$2.42
• Consumption payment ratio[3]		1.0	n/a[2]	4.3	4.0	4.3

1 Payments In Lieu of Taxes (PILTs) are paid by some government agencies (e.g. Vancouver Port Authority) and by utilities. PILTs for some utilities are paid as a percentage of revenue.
2 Calculation is not meaningful for Utilities Class (non-tax revenues greater than gross consumption).
3 The consumption payment ratio is the ratio of (1) non-residential taxes per dollar of services consumed, to (2) residential taxes per dollar of services consumed.

Residential properties have net consumption of approximately $388 million in tax-supported services, while accounting for $217 million in property-based taxes. On average, residential properties pay approximately $0.56 in property taxes for each dollar of property-tax-supported services consumed.

Non-residential properties have net consumption of approximately $121 million in tax-supported services, while accounting for $292 million in property-based taxes. On average, non-residential properties pay approximately $2.42 in property taxes for each dollar of tax-supported services consumed — 4.3 times the residential rate.

Results within the non-residential property class group are also illustrated in Exhibit 6d. As discussed earlier, there results are less precise than those for the residential/non-residential comparison.

7. Comparison between 1995 and 2006 Results

7.1 Caution — Comparing 1995 and 2006 results

As discussed in Chapter 5, the 2006 results incorporate certain methodological adjustments to the 1995 study. Comparisons of results should be interpreted only in the context of the discussion in the rest of this chapter.

7.2 Comparison with 1995 results

Comparative results for 1995 and 2006 are illustrated in Exhibit 7a.

Exhibit 7a
Comparison of 2006 results with 1995

	1995[1]		2006[2]	
	Residential	Non-residential	Residential	Non-residential
Net consumption:				
• Dollars ($M)	$249	$102	$388[2]	$121[2]
• Share of net consumption	71%	29%	76%	24%
Share of property tax burden	40%	60%	42.6%[3]	57.4%[3]
Payment per dollar of services consumed	$0.56	$2.07	$0.56	$2.42
Consumption payment ratio	1	to 3.7	1	to 4.3

Between the 1995 and 2006 reports:

- The residential share of consumption in 2006 is 76%, versus the 71% share reported in 1995. This 5% difference reflects both methodological adjustments and real shifts in consumption patterns since 1995 (see following section).
- The residential share of the taxes paid in 2006 is 42.6% (after allowing for utility taxes, payments in lieu of taxes, etc.), versus 40% in 1995.
- Combining these two trends, the residential "payment per dollar of services" in 2006 is $0.56, similar to the 1995 results.
- The non-residential "payment per dollar of services" in 2006 is $2.41, versus $2.07 in 1995.
- The "consumption payment ratio" is 4.3, versus 3.7 in 1997.

7.3 Impact of methodology adjustments

Study results are sensitive to the assumptions underlying the assignment of specific cost and revenue items. For most departments, costs and revenues have been analyzed in relatively small groups, and, the study results are not particularly sensitive to individual assumptions in any one area. However, there are some exceptions to this general rule, where a particular basis for assignment has been applied to a relatively large group of costs or revenues. (See also Chapter 5).

The most significant methodological difference between the 1995 and 2006 studies is in the increased use of "tax shares" as the basis for assigning certain revenue items (municipal & sundry revenues, surplus from parking operations). As discussed in Chapter 5, these adjustments have the net impact of increasing the share of costs assigned to residential properties by approximately 1%.

Removing the 1% impact of this methodological change, for the purpose of comparing 1995 and 2006 results:

- The 2006 residential share of consumption would have been approximately 75% (versus 71% in 1995).
- The residential "payment per dollar of services" in 2006 would have been approximately $0.57 (versus $0.56 in 1995).
- The non-residential "payment per dollar of services" in 2006 would have been approximately $2.30 (versus $2.07 in 1995).
- The "consumption payment ratio" would have been approximately 4.0 (versus 3.7 in 1995).

7.4 Conclusion

Residential properties in Vancouver have increased their share of the net consumption of tax-supported municipal services since 1995, and have also increased their share of taxes paid in respect of these services. In terms of "payment per dollar of services," Vancouver residential properties pay about the same as they did in 1995.

Non-residential properties have seen a decrease in their net share of consumption since 1995, as well as in their share of taxes paid. The "payment per dollar of services" for non-residential properties is modestly higher in 2006 than in 1995.

7.5 Interpretation of study results

The study results are based on a detailed research and analysis program. All of the specific cost and revenue assignments involve some level of subjectivity and professional judgement. The study results should not be interpreted as measuring the precise value of the services consumed by a specific property class group, nor of any individual property. Rather, these results constitute a balanced independent estimate of the overall levels of consumption of tax-supported services, by each property class group, relative to the property taxes paid.

APPENDICES

(SEE SEPARATE VOLUME II)