

An aerial photograph of Vancouver, British Columbia, Canada. The city's dense urban grid is visible, extending from the waterfront towards the mountains. In the foreground, there are large bodies of water, including the False Creek and the Burrard Inlet, with several bridges crossing them. The background features a range of rugged mountains with patches of snow under a clear blue sky. The text 'City of Vancouver' and 'Solid Waste Utility' is overlaid in a large, bold, yellow font with a blue outline.

City of Vancouver

Solid Waste Utility

Our journey to variable container based user fees.

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Outline

- Context - Vancouver solid waste management background.
- Two funding systems.
- Vancouver's Solid Waste Utility.
- Milestones in User Pay.
- 2006 variable rate system.
- User Pay and waste reduction.

Vancouver Primer

- Largest City in BC, third largest in Canada.
- Population 545,671 (2001 census) over area of 114 sq km (4,787 people per sq km).



An aerial photograph of the Vancouver region in British Columbia, Canada. The image shows a dense urban area with a grid street pattern, surrounded by green hills and a network of rivers and streams. A yellow outline highlights the City of Vancouver, which is situated on the western side of the city, near the coast. The text "City of Vancouver" is written in yellow above the outline, with a yellow arrow pointing to the city's boundary.

City of
Vancouver

- One of 21 municipalities in GVRD.
- Regional population 2 million.

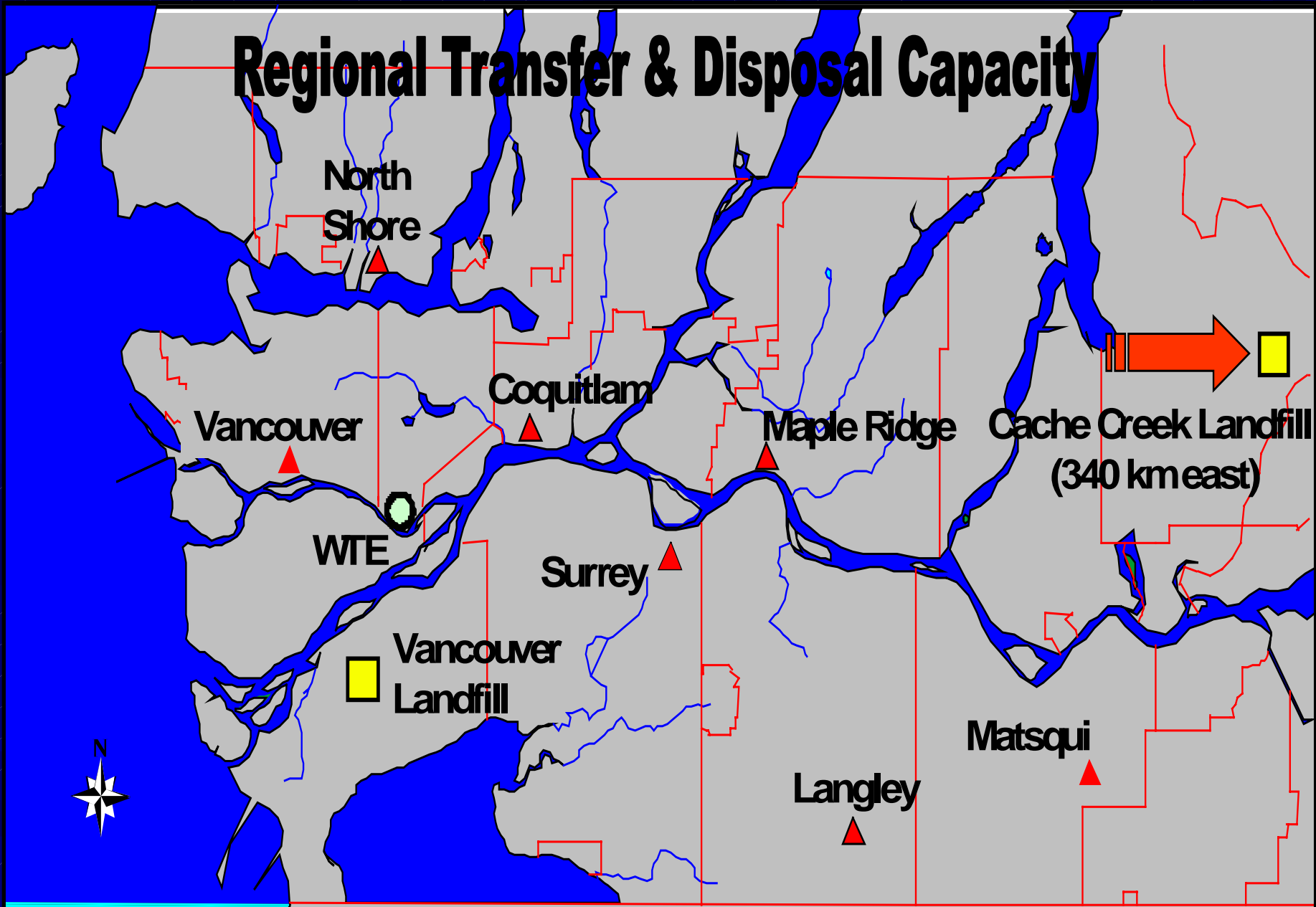
Governance

- Vancouver derives its power to enact by-laws from the Province of BC under the *Vancouver Charter*.
- *Vancouver Charter* is unique. It empowers and regulates the City with how it governs, provides services and holds elections.
- BC municipalities other than Vancouver derive their law-making powers from the *Local Government Act* (formerly called the *Municipal Act*).

Solid Waste Roles

- Province
 - Regulates solid waste management
- Greater Vancouver Regional District (GVRD)
 - Operates disposal facilities (except VSTS and VLF)
 - Responsible for long range Regional planning & coordination (SWM Plan), including waste reduction and recycling education
- City of Vancouver
 - Responsible for collection of refuse and recyclables from residential properties
 - Contributes to Regional disposal capacity (VLF)
 - Street cleaning, litter collection, by-law enforcement

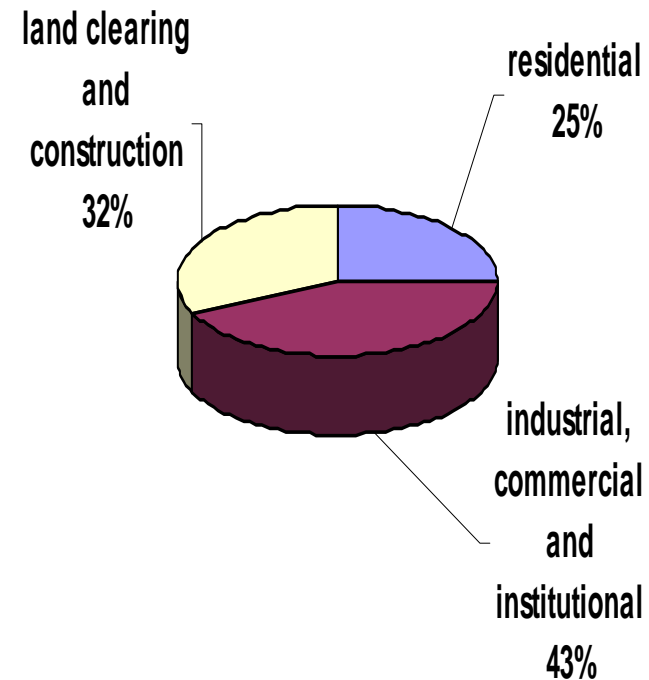
Regional Transfer & Disposal Capacity



■ Landfill ▲ Transfer Station ○ Waste-to-Energy (WTE)

Regional Solid Waste Generation

- 2.7 million tonnes of solid waste per year
- About 50% is recycled
- Typical municipal solid waste disposed 500 kg/cap/year



Vancouver Waste Allocation (2004)

■ 54% Commercial

- Large multi-family, commercial, industrial and institutional
- Private sector/commercial collection

■ 32% Residential

- Single family, duplexes, and townhomes
- City collection (City labour) and direct haul

■ 14% Other

- Street cleaning, parks, public litter cans, etc.
- City collection (City labour)

Vancouver Solid Waste Services: Two Separate Funding Structures

■ Street Cleaning Services

- Sweeping, flushing, litter and abandoned garbage collection, and litter can emptying.
- Funded from property tax revenues.

■ Solid Waste Utility (SWU) Services

- Collection of residential solid waste.
- Funded from user fees, not property taxes.

Solid Waste Utility - Overview

- Implemented in 1998 (took 7 years).
- Not a legal entity, but a financial structure separate from services funded by property tax (such as street cleaning).
- Users pay directly for the service levels subscribed to.
- Those who generate more, pay more.
- City also operates Sewer and Water Utilities.

Solid Waste Utility - Scope

- Captures garbage, recycling & yard trimmings costs and revenues.
- 90,000 properties receive garbage and yard trimmings collection
- 240,000 dwelling units receive recycling collection

Solid Waste Utility - Scope

- Weekly collection of garbage and recycling.
- Bi-weekly collection of yard trimmings.
- 2004 Tonnages
 - Refuse 57,400
 - Recycling 31,200
 - Yard Trimmings 14,300
- 350,000 tonnes total including commercial

Solid Waste Utility - Budget

- Net zero based annual budget with Council approved rates.
- Based on revenues = costs.

■ 2006 Collection Budget

– Refuse	\$9.2M
– Recycling	\$3.5M
– Yard Trimmings	<u>\$3.5M</u>
Total	\$16.2M

Solid Waste Utility - Administration

- Jointly administered by two City departments.
- Engineering Services maintains customer database.
- Corporate Services (Accounting) rolls customer data into property tax billing system each year.

Solid Waste Utility – Billing

- Utility fees billed annually.
- Appear as individual line items on the Property Tax Notice.
- Same document is used for billing both Property Taxes and Utility charges:
 - Administrative efficiency.
 - Cost savings to City.
 - Delinquent fees collected through tax-roll administrative powers instead of small claims court.

Solid Waste Utility – Cash Flow

- Self financing – rates based on cost recovery.
- Commercial waste transfer & disposal costs & revenues also captured in SWU.
- Surpluses generated from commercial tipping fees are transferred to a reserve fund - Solid Waste Capital Reserve.
- $\$65/\text{tonne}$ Regional Tipping Rate minus $\$24/\text{tonne}$ Transfer Cost (if applicable) minus $\$22/\text{tonne}$ Disposal Cost = $\$19/\text{tonne}$ Surplus

Solid Waste Utility – Cash Flow

- SWCR stabilizes SWU rates due to annual deficits or surpluses.
- SWCR funds closure and post-closure and costs of Vancouver Landfill.
- Also used as a lending source.
- Current balance (~ \$60M) under review.

Solid Waste Utility – Benefits

- More equitable.
- Higher valued properties no longer pay more if they are generating less waste.
- Removes bias against commercial properties.
- Recycling program no longer subsidized by commercial tipping revenue.

Solid Waste Utility – Benefits

- Increases diversity in City revenue sources.
- Reduces burden on general tax levy.
- Provides stability.
- Opportunity to capture lifecycle costs of landfilling operations.

Solid Waste Utility – Benefits

- Costs are transparent and obvious.
- Creates awareness and an incentive to reduce waste.
- Meets principles of Regional SWMP.
- In keeping with trend towards user pay.

User Pay Milestones

1984

- City Can limit increased from 2 cans to 5 in response to ban on backyard burning

1985

- First Regional SWMP developed on BC

1989

- Blue box program started in Vancouver



User Pay Milestones

1991

- 70% homes set out 3 cans.
- Can limit reduced from 5 to 3 cans.
- Extra bag tags (stickers) introduced.
- Investigation into SWU creation begins.

1993

- Blue & Yellow bags introduced.



User Pay Milestones

1994

- Provincial Government requested to amend *Vancouver Charter*.

1995

- Council approves creation of SWU for implementation in 1996.
- New Regional SWMP with goal of 50% waste reduction by 2000.

1996

- Angus Reid survey - majority support of user fees.

User Pay Milestones

1997

- *Vancouver Charter* amendments approved by Province.

1998

- SWU implemented.
- Waste collection costs moved out of general levy, residential taxes reduced by 5.7%.
- ~20,000 customers (condos) no longer receive “free” service.

User Pay Milestones

1999

- Yard trimmings collection starts.
- Backyard composter program starts.
- Can limit reduced from 3 cans to 2 for garbage.



User Pay Milestones

2006

- Start of automated refuse & yard waste collection.

Old System



New System



Automated Collection – Why?

Worker Benefits

- Less manual lifting

Service Improvements

- Wheeled cart
- Variable rate system

Environmental Benefits

- Less litter
- Lids stay on

Comparison of Rate Systems

2005 Manual Collection

- Average home owner paid \$149 for garbage, recyclable and yard trimmings collection.
- Garbage fee of \$92 for 2 cans (200 litre)
- Included a \$28 “stop fee” and \$32 per can.
- Recycling fee \$19 (\$9 stop fee + \$19 per dwelling for duplexes & row houses).
- Yard trimmings fee \$38 per stop (4 cans).

Comparison of Rate Systems

2006 Automated Collection Fee Structure

- Fixed “Service Fee” + \$/litre “Cart Fee”
- Service Fee = cost of supplying & maintaining carts, education, promotion & overhead
- Cart Fee = cost of collection (labour, equipment, transfer and disposal)
- Variable rate subscription system
- \$27 per 100 litre Cart Fee + \$50 Service Fee
- Extra bag sticker cost increase from \$1.50 to \$2.00

2006 Variable Garbage Rates

Cart Size (litres)	Number of Carts	Annual Fee
75	6,800	\$70
120	15,900	\$82
180	40,400	\$99
240	20,800	\$115
360	7,200	\$147
Total	91,100	

2006 Rate Impacts

- \$11 average total increase per home owner.
- Includes an \$8 average increase for garbage service (\$2 less than originally forecasted during program planning).
- Customers using 75 or 120 litre carts will pay less than in 2005.

Questions

