

THE COMPETITION TRIBUNAL

IN THE MATTER OF an Application by the Director of Investigation and Research under s. 79 of the Competition Act R.S.C. 1985 c. C-34 as amended.

AND IN THE MATTER of certain practices by Laidlaw Waste Systems Ltd. in the communities of Cowichan Valley Regional District, Nanaimo Regional District and the District of Campbell River, British Columbia.

BETWEEN:

The Director of Investigation and Research

COMPETITION TRIBUNAL TRIBUNAL DE LA CONCURRENCE	
FILED	OCT 8 1991 <i>pe</i>
REGISTRAR - REGISTRAIRE	
OTTAWA, ONT.	# 52
Applicant	

AND:

Laidlaw Waste Systems Ltd.

Respondent

A F F I D A V I T

I, PAUL LEVELTON, of 500 - 777 Dunsmuir Street, in the City of Vancouver, Province of British Columbia, MAKE OATH AND SAY AS FOLLOWS:

1. THAT I am a Manager with Peat Marwick Stevenson & Kellogg.

2. THAT I have been asked by Laidlaw Waste Systems Ltd. to provide a reply to the rebuttal of James J. McRae filed with the Competition Tribunal Registry on September 30, 1991.

COMPETITION TRIBUNAL
TRIBUNAL DE LA CONCURRENCE

File No / No du dossier CT-91/2
 Director / of Laidlaw
 Exhibit No / No. de la pièce R-62
 Filed on / Déposée le Nov. 12/91 16:13
 Registrar J.P. Gagnier

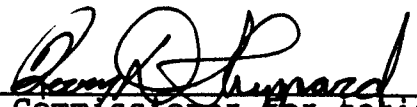
3. THAT Michael Ross and Larry Smith have assisted me in the preparation of my reply to the rebuttal of James J. McRae.

4. THAT Michael Ross is a Partner and the Senior Economist with Peat Marwick Stevenson & Kellogg.

5. THAT Larry Smith is a Manager with Peat Marwick Stevenson & Kellogg.

6. THAT attached hereto as Exhibit "A" is my reply to the rebuttal of James J. McRae.

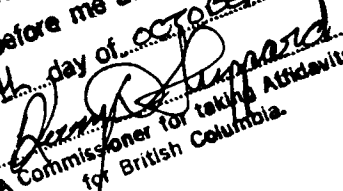
SWORN BEFORE ME at the City)
of Vancouver, in the Province)
of British Columbia, this)
8th day of October, 1991.)


A Commissioner for taking)
Affidavits for British)
Columbia.)



PAUL LEVELTON

**REPLY TO REBUTTAL EVIDENCE
FILED BY MR. JAMES J. MCRAE
WITH THE COMPETITION TRIBUNAL
REGARDING LAIDLAW WASTE SYSTEMS LTD.**

This is Exhibit "A" referred to in
the Affidavit of PAUL LEVELTON
Sworn before me at Vancouver, B.C.
this 8th day of OCTOBER 1991

A Commissioner for taking Affidavits
for British Columbia.



Introduction

On 22 March, 1991, the Director of Investigation and Research (the "Director"), appointed under The Competition Act, filed a Notice of Application against Laidlaw Waste Systems Ltd. ("Laidlaw") pursuant to Section 79 of the Competition Act. In the Application, the Director alleges that Laidlaw has a dominant position in the provision of containerized solid waste haulage and disposal services to commercial customers in the geographic markets of Cowichan Valley Regional District, the Nanaimo Regional District, and the District of Campbell River on Vancouver Island. He further alleges that Laidlaw has used and is using its market power and the practice of anti-competitive acts to maintain such dominance. The Director further requests that the Competition Tribunal order Laidlaw to discontinue those practices that it deems anti-competitive in those communities.

In June, 1991, Peat Marwick Stevenson & Kellogg ("PMS&K") was retained by Laidlaw to assist in defining the product and geographic markets in which Laidlaw provides service, and to provide other advice on the economics and market characteristics of the waste haulage industry on Vancouver Island. The report summarizing our findings in this regard was filed with the Competition Tribunal on September 13, 1991.

The Director also filed evidence on September 13, 1991, prepared by Mr. James J. McRae. This evidence pertained to the economic and industrial organization aspects of issues raised in the Notice of Application.

Both parties subsequently filed rebuttal evidence on September 30, 1991. This document represents our reply to the rebuttal evidence filed by Mr. James J. McRae, and contains our comments and conclusions with respect to the following:

- ▶ Definition of the geographic markets.
- ▶ Estimates of market share.
- ▶ Industry economics.

II

Definition Of The Geographic Markets

A. Introduction

The rebuttal evidence filed by Mr. James J. McRae contains a conclusion (Paragraph 14) which reads:

"As already discussed, the placement of geographic market boundary lines should be done on the basis of the likely substitution of firms whose operating hubs are located in other regions."

We are in general agreement with this conclusion when considered in the context of the other factors mentioned in the Director's Merger Enforcement Guidelines.

We disagree with Mr. McRae's definition of geographic markets, which are described in his rebuttal evidence as follows (reference paragraphs are noted):

- ▶ "... the Nanaimo Regional District plus the northern portion of the Cowichan Valley Regional District." (Paragraph 9).
- ▶ "The southern portion of the Cowichan Valley Regional District..." (Paragraph 9).
- ▶ "... the relevant area is referenced as "Campbell River" and includes the District of Campbell River and surrounding Electoral Areas D, E and F." (Paragraph 20).

Instead, we restate our previous conclusions, as follows:

"In our opinion, the most reasonable geographic markets for the product, which encompass the three geographic areas advanced by the Director, are as follows:

- ▶ A single geographic market encompassing the entire Nanaimo Regional District (NRD), and the Cowichan Valley Regional District (CVRD), excluding the Municipalities of Duncan and Lake Cowichan.

- ▶ The eastern portion of the Comox-Strathcona Regional District, including:
 - the Municipalities of Courtenay, Comox, Cumberland, and the surrounding unincorporated areas of Subdivision C,
 - the Village of Sayward, the District of Campbell River, and the surrounding unincorporated areas of Subdivision B, and
 - Quadra Island."

B. Basis of market definition

Mr. McRae suggests in his rebuttal evidence that he has reached a similar conclusion with respect to the geographic extent of the market as has Peat Marwick Stevenson & Kellogg. He states in Paragraph 6 of his rebuttal evidence:

"... a solid waste collection and disposal firm operating from a hub outside of the local area (an "outside" firm) can remain competitive with locally domiciled ("inside") competitors as long as the firm's operational hub is 50 km or less from the operational hub of the inside firm."

We do not believe that he has reached a conclusion similar to our own.

Mr. McRae's model suggests that another supplier is competitive if its hub of operations is within 50 km of Laidlaw's hub. Our quantitative analysis, as presented in our evidence of September 13, 1991, suggests that another supplier whose hub is within 50 km of any part of any Laidlaw route is competitive on that route, even if the operating hubs of the respective firms are more than 50 km apart. As a consequence, if the operating hub of another supplier is within 50 km of Laidlaw's operating hub, virtually all of the customers of each firm are potentially subject to competition from the other firm.

Mr. McRae's definitions of the relevant geographic markets are not consistent with the 50 km limit, as evidenced by the following:

- ▶ His definition of the Nanaimo market extends only about 25 to 30 km south of Nanaimo.
- ▶ His definition of the Campbell River market extends only about 25 to 30 km south of Campbell River.
- ▶ His definition of the Cowichan Valley market excludes a large area that is within 50 km of Duncan.

- ▶ About 75% to 80% of the population of the CVRD is within 50 km of Nanaimo.
- ▶ Most of the commercial and industrial development in the CVRD is within 50 km of Nanaimo.
- ▶ Courtenay/Comox is within 50 km of Campbell River.
- ▶ Quadra Island is within 50 km of Campbell River and is accessed by a ferry that takes about 10 minutes to make the crossing.

We have used the results of our analysis in the context of the Director's Merger Enforcement Guidelines, which read, in part:

"Markets are typically defined in terms of the smallest groups of products and geographic area in relation to which a significant and non-transitory price increase can be profitably imposed..."

The Guidelines generally consider a 5% price increase to be significant and note that consideration must be given to:

- ▶ The ability of existing competitors to provide the product/service.
- ▶ The ability of other sellers of the product/services who are located in distant areas to divert their product into the area in question.
- ▶ New entry.

Within this framework, and given the circumstances of Laidlaw's operations and those of its competitors, we conclude that the relevant markets are as we described in our evidence filed on September 13, 1991. Our reasons for arriving at this conclusion are as follows:

- ▶ Current practice at Laidlaw includes serving geographic areas up to 73 km away from operational hubs.
- ▶ Current practice at BFI and West Coast Waste includes serving geographic areas up to 50 km away from operational hubs.
- ▶ Campbell River could be served by Lacey's Disposal or Valley Disposal whose hubs of operations are about 45 km away, in the context of the Guidelines.

We believe that our definitions of the relevant geographic markets are consistent with the Director's Merger Enforcement Guidelines, which we believe to be an appropriate basis of market definition in this case. Mr. McRae's definitions are inconsistent with both his own findings and the provisions of the Merger Enforcement Guidelines.

III

Estimates Of Market Share

A. Introduction

The rebuttal evidence filed by Mr. James J. McRae contains a statement (Paragraph 22) which reads:

"In my view, his (Mr. Ross') Method 2, which is based on actual weighted volumes of waste, is the most reliable and is also used in my calculations. Method 1 is based on a numerical count of bins rather than recorded weight of refuse. Method 3 is based on a combination of arbitrary underlying measures."

The best method of calculating market share is to determine the relevant revenues of each of the suppliers. This information is not readily available however. As a result, proxies for revenue such as weight and number of bins must be used.

The strength of Method 2, the use of weight data from disposal sites, is that it is based on objective, third party data. The weakness of Method 2 is that the data is often either not available at all, or is not available for all disposal sites.

What we call Method 3, is an attempt to make the best use of available information to determine market share, when insufficient information is available to rely on Method 2. Method 1 must be used when neither weight nor revenue data is available.

B. Market share—Comox-Strathcona Regional District

We disagree with Mr. McRae's contention that our definition of the relevant geographic market significantly biases downward Laidlaw's market share in the CVRD. As described previously, our definition of the relevant geographic market reflects the provisions of the Merger Enforcement Guidelines and the economics of waste disposal. Accordingly, we conclude that our estimate of Laidlaw's market share of 46% is the best estimate.

C. Market share—Cowichan Valley Regional District/Regional District of Nanaimo

1. Cowichan Valley Regional District

As indicated in our rebuttal evidence filed on September 30, 1991, we had reason to believe that the market share information for the CVRD prepared by Mr. McRae contained both residential and LOB waste volumes for Laidlaw. We have since reviewed the information with the CVRD and conclude that this was not, in fact, the case.

Table II-1 contains the estimated volume of LOB waste disposed of by each waste hauler at TRP #2 and TRP #3.

**Exhibit III-1
LOB waste volumes at TRP #2 and TRP #3**

Month	LOB Waste Volumes (thousands of lbs.)				Laidlaw %
	Laidlaw	BFI	Pan	Total	
January	1,138.1	-	125.7	1,263.8	90.1
June	1,033.5	17.5	110.8	1,161.8	89.0
July	1,004.6	-	130.7	1,135.2	88.5
August	967.9	-	131.2	1,099.1	88.1
September (1-26)	937.1	-	150.9	1,088.1	86.1

Our estimate of Laidlaw's proportion of the LOB waste disposed of at TRP #2 and TRP #3 during September 1991 is 86.1%.

As indicated by Mr. McRae in his evidence of September 13, 1991, this may understate Laidlaw's proportion of LOB waste volumes because some of Pan Disposal's indicated waste volume pertains to residential waste. An additional uncertainty pertains to the volume of LOB waste disposed of at TRP #1 at Lake Cowichan, which is not weighed.

For these reasons, we have no reliable basis for changing our estimate of Laidlaw's proportion of LOB waste disposed of in the CVRD from that contained in our evidence of September 13, 1991. We thus conclude that our previous estimate of

Laidlaw's proportion of LOB waste disposed of in the CVRD of 85%, is still relevant.

2. Regional District of Nanaimo

As indicated in our rebuttal evidence filed on September 30, 1991, we now have recent, accurate information on Laidlaw's proportion of LOB waste disposed of in the NRD at both the Cedar Road landfill and Parksville transfer station. Based on this information, we calculated Laidlaw's proportion of LOB waste disposed of in the NRD during the first 17 days of September 1991 as being 77.0%.

We stand by this estimate, as it includes the waste that was formerly dumped at the Qualicum landfill and for which weight data was not available. The effects of Qualicum landfill volumes were closely approximated by the use of Method 3 in our evidence filed on September 13, 1991.

3. Market share—CVRD/NRD

Based on the most current information available, as described above, we believe that Laidlaw's market share in the CVRD/NRD is 80%.

IV

Industry Economics

A. Economies of contiguity

The rebuttal evidence filed by Mr. James J. McRae contains two statements which read as follows:

- ▶ Paragraph 29 (part)—"Inclusion of these costs will reduce the cost responsiveness estimate of 0.25% toward zero."
- ▶ Paragraph 30 (part)—"The potential cost efficiencies which may accrue to an exclusive commercial containerized firm due to economies of density are insufficient in magnitude for exclusivity to be an efficient market outcome."

We disagree with both of these statements.

Mr. McRae relies on information from Exhibit VI-5 on page 37 of our evidence filed on September 13, 1991 to determine the responsiveness of costs to density of pick-ups. This information was presented in a different context however, a comparison of costs and revenues at the margin, and needs to be supplemented in order to undertake the analysis suggested by Mr. McRae.

We have undertaken the analysis suggested by Mr. McRae, the results of which are shown in Exhibit IV-1. This hypothetical illustration of the impacts of density of pick-ups on operating costs (as defined on page 32 of our evidence filed on September 13, 1991) is based on the operating assumptions described on page 36 and the cost assumptions described on pages 41 and 43 of our evidence filed on September 13, 1991.

The results of this analysis do not bear out Mr. McRae's conclusion that cost responsiveness to increases in density is insignificant. The analysis shows that a 28% increase in density results in a increase in operating costs per pick-up of 8%. This results in an estimate of cost elasticity of 0.29.

The implication of this analysis can be seen in the following example:

- ▶ Competitor A operates 2 trucks in a defined region.
- ▶ Competitor B operates 1 truck in the same region.

- ▶ Both firms cover the same territory.
- ▶ The route density of Competitor A will be about twice that of Competitor B.
- ▶ Competitor A will experience operating costs per pick-up that are about 28% lower than those of Competitor B.

We believe that a 28% advantage in terms of operating costs per pick-up is substantial. On this basis, we conclude that cost responsiveness to increases in density is significant and that exclusivity is an efficient response to the market.

Exhibit IV-1
Impact of economies of contiguity

	Case A	Case B
<u>Parameter</u>		
Number of pick-ups per day	64 pick-ups	50 pick-ups
Miles driven per day	100 miles	100 miles
Labour cost per hour	\$20.00/hour	\$20.00/hour
Landfill costs per cubic yard	\$2.00/cu. yd.	\$2.00/cu. yd.
Cubic yards per pick-up	3.8 cu. yds.	3.8 cu. yds.
Non-productive hours	3 hours	3 hours
Driving time	4.9 hours	4.9 hours
Pick-up time	2.13 hours	1.67 hours
<u>Costs</u>		
Landfill costs	\$486.40	\$380.00
Labour	200.60	191.40
Maintenance	12.00	11.45
Tires	15.20	14.50
Fuel	52.69	50.27
Depreciation	61.90	59.06
Total	<u>\$828.79</u>	<u>\$706.68</u>
Cost per pick-up	\$12.95	\$14.12

B. Economies of scale

The rebuttal evidence filed by Mr. James J. McRae contains a conclusion (Paragraph 36) which reads, in part:

"I therefore conclude that the asserted economies of scale are not sufficiently strong ..."

McRae also takes exception to a 1977 study¹ that is referenced in our evidence filed on September 13, 1991. Mr. McRae states, in Paragraph 32 of his rebuttal evidence,

"... the author estimates (pp 132-134) that economies of scale are exhausted in cities served by more than two residential collection vehicles."

The data shown on page 132 and discussed on page 143 indicate that economies of scale are exhausted once the fleet of collection vehicles reaches seven.

While the results are dated and are based on an examination of residential waste haulers, they do provide an indication of the potential for economies of scale of operations and indicate the organizational responses that are indicative of the presence of economies of scale. This is reinforced by the evidence of spreading of overhead costs, volume purchasing, labour specialization, etc... for Laidlaw's operations on Vancouver Island.

The indicated economies of scale provide a barrier to entry, but only to smaller firms. Larger firms or firms with vehicles operating in adjoining market areas and/or other waste disposal product markets (e.g., residential and roll-off) can achieve similar economies of scale. The implication of this situation is that entry is more likely to occur by larger firms or by firms located in other product markets or adjacent geographic markets. Evidence that this is the situation includes the relatively recent entry by both BFI and West Coast Waste into the waste disposal markets in the CVRD/NRD.

We therefore conclude that economies of scale do exist, but they are primarily a barrier to entry by smaller firms.

¹Savas, E.S., *The Organization and Efficiency of Solid Waste Collection*, Lexington Books, Lexington, Massachusetts, 1977.